The Final Project

Of

Pakistan Tourism

Developed By:

Ishtiaq Ahmed

(PGD-IT)

Quaid-e-Azam University (Islamabad)

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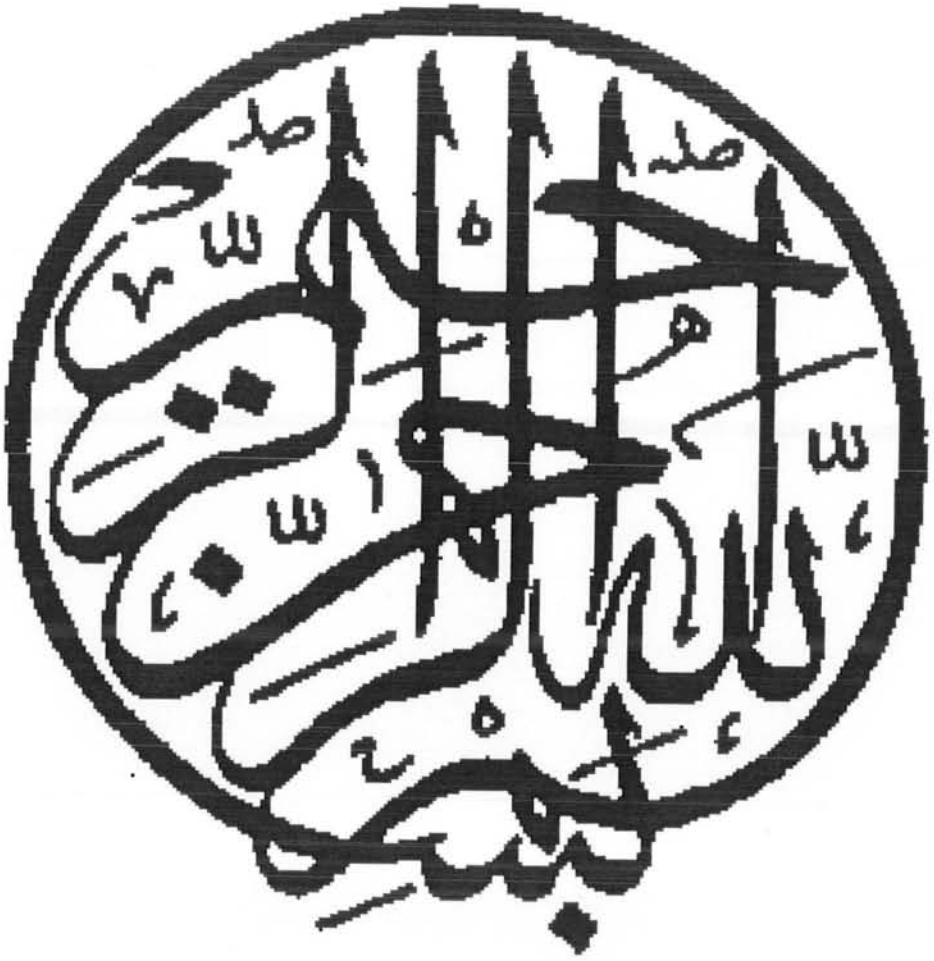

﴿شروع اللہ کے نام سے جو بڑا مہربان نہایت رحم والا ہے﴾

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CERTIFICATE

Report Title: Pakistan Tourism

This dissertation Ishtiaq Ahmed is accepted in its present form by the Computer Center, as fulfilling the requirement for the PGD-IT by the Quaid-e-Azam University after approved by Mr. Anees-ur-Rahman (project supervisor) of session 2005 – 2006.

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Supervisor Signature:

Submitted On: 2-06-2006

DEDICATED

To

My Parents who gave me their full support for the completion of the Project. My dedication is also to those who have given me their support during the development of this project and for giving good ideas to prove me as intellectuals in front of my respected teachers. So my dedication is to all those who really played a vital role in order to complete my Project.

PROJECT BRIEF

PROJECT TITLE:	**Pakistan Tourism**
ORGANIZATION:	Quaid –e- Azam University (Islamabad)
UNDERTAKEN BY:	Ishtiaq Ahmed
SUPERVISED BY:	Mr. Anees-ur-Rahman
SESSION:	2005 -2006
SOFTWARE TOOLS	HTML, DHTML
& TECHNOLOGIES:	ASP, JAVA SCRIP
	Dream weaver-MX
	MICROSOFT ACCESS
OPERATING SYSTEM:	WINDOWS 98, 2000, XP

Introduction

Project Overview

Pakistan Tourism is an online information developed especially for the personal who are keen of tourism .This site is specially designed for the people who do want to know about Pakistan .This site is specially designed for the people who really want to know about the places and the hotels where they want to go.This site completely guides tourists .This site covers all the cities ,mountains ,valleys ,deserts etc.This site also brings the latest development in the regard of tourists.
The site may work as:

The Users will be registered first, then they will be authorized to have access to the different features of the site e.g. Registration for subscription of News Letters (Monthly, Weekly, Occasional), preparing News Letters for the user of the site.The News for this purpose will be gathered from the different resources .Then the news can be displayed to the Users. Users can submit their comments at different news for Administrator to make the site more interesting and useful for the users. After user login to the site, some special options related to the user concerns are offered by us, these are: Help forum, Edit profile, Site Search etc.Site that will provide each feature they require in a single Web Site.

The application will perform following functionalities.

- ✓ Member Registration
- ✓ Member Login

- ✓ News Section
- ✓ Latest Development
- ✓ Reports / Hotels
- ✓ City Information
- ✓ Provinces
- ✓ News Letters
- ✓ E-Mail Feedback
- ✓ Searching Facility

ACKNOWLEDGMENT

Praise to **Allah**, Lord of the worlds, who enabled me to complete the project and fulfill the required functionalities. I am thankful to Head of Computer Center for providing me adequate facilities as needed for the project. He provided me every opportunity to work in a healthy atmosphere. And this was all not possible without the guidance and moral support by Sir Anees-ur-Rahman. He was always there whenever I needed his help and ideas. I am really thankful to him and the Director Mr. Rahat Bukhari. In the end I would also like to thank the laboratory staff for being cooperative throughout the semester.

OBJECTIVES

This chapter sum up the introduction, purpose of the project along with the description of the features provided by our web site.,

This chapter includes:

- Executive Summary
- Detailed Requirement Analysis
- Project Structure of Pakistan Tourism
- Features of Pakistan Tourism

CHAPTER 1

INTRODUCTION

Pakistan Tourism

Executive Summary

Pakistan Tourism is online information developed especially for the personal who are keen of tourism .This site is specially designed for the people who do want to know about Pakistan .This site is specially designed for the people who really want to know about the places and the hotels where they want to go. This site completely guides tourists .This site covers all the cities, mountains, valleys, deserts etc of the country. This site also brings the latest development in regard of tourists.

The site may work as:

The Users will be registered first, then they will be authorized to have access to the different features of the site e.g. Registration for subscription of News Letters (Monthly, Weekly, Occasional), preparing News Letters for the user/members of the site. The News for this purpose will be gathered from the different resources and from the Pakistan Tourism Corporation. Then the news can be displayed to the Users. Users can submit their comments at different news for Administrator to make the site more interesting and useful for the users. After user login to the site, some special options related to the user concerns are offered by me, these are: Edit profile, Site Search etc.
As far as Administrative tasks are concerned these are:

- Member Registration
- Member Login
- News Section
- Latest Development
- Resorts / Hotels

- City Information/Tourists Guide
- Provinces
- News Letters
- E-Mail Feedback
- Searching Facility

Detailed Requirement Analysis:

Pakistan Tourism is an online information system, which will be accessible through Internet with a user-friendly interface. This site is going to be developed specially to fulfill the requirements of the people with a single platform.

The Purpose of this project is to create an Informative site, by which people would have an unlimited access to information and services. I term the project as "Pakistan Tourism". In the fierce competitive services industry there is need for an integrated access point to information, services, ideas and business deal. In the new millennium we are going to launch exclusive information and unique program to facilitate our clients with the need of the hour.

There are many applications some of them covers only magazines some are based on News Letters and articles and some are about Jobs in IT field and Seminars/Software Exhibitions but I combined all these categories .My application covers all the information of the above mentioned fields such as Monthly/Weekly News Letters, Hot news from different areas of the country and from the Pakistan Tourism Corporation, and Email feedback through Email for subscribed users, Banner Adds for different organizations plus an easy access to get Free News Letters at their home and can Download in both HTML and PDF Formats. Along with the information the website provides.

Project Structure:

The General Project Structure is divided into four tasks or project phases: **Online News Letters, Online News Letter Subscription, Interactive Online User Services** (Such as: Hot News From Different areas of the country and from Pakistan Tourism Corporation, News Letters Section, Email Feedback, **Banner Advertisements** and **Related Effective Administration & Site Search**.

After the General Proposal Overview (Phase I through IV) is the actual Project Timeline and summary that the Budgetary Estimate I have arrived at is based upon.

All the tasks, which will be addressed by the Web Site, are briefly described as below.

1: Registration/User Subscription:

The Application provides the facility for the users to register with my site in order to avail all the services provided by me (i.e. membership for newsletters, articles, some interesting upcoming events e.g.Basant, Shandour Maila etc.)

I will ask following things for giving the membership of the site:

a. First Name
b. Father's Name
c. Occupation
d. What ID he / she would like to use.
e. Passwords
f. Any secret question

2:Member Login:

This feature will guide the member to login for use. For getting into the site members will be asked to enter the correct ID along with Passwords. If the visitor will not be able to give the correct ID or Passwords the he / she would not be allowed to enter the site i.e the section for the members. In case if the member unfortunately forgets the password the he / she would have the option to enter the answer of the secret question. So in this why user / member will get into the site.

2: News Letters:

The Application provides the facility for the register users to subscribe for the newsletters of following main Categories via email address:

☑ Weekly News Letters

- Main Destination of the week
- Upcoming in next week

☑ Monthly News Letters

- The Development in the field of Tourism .Also the new facilities provided by the Govt. Of Pakistan.
- Hot Tourism News About new destinations, Hotels and Resorts and new Updates in the world of Tourism.

☑ Occasionally News Letters

- Culture Events.
- Exhibitions related to Tourism by the Pakistan Tourism Corporation.
- Etc.

All These Newsletters Contains not on the description but will contain the links to more details.

3.News Section:

This section is all about the news of the Pakistan Tourism .In this section I will provide all kinds of news that are quite related to the Pakistan Tourism. These can be about the following things of the Pakistan Tourism.

- What is the best place for this summer.
- What is the best place for this winter.
- Main valleys of Pakistan.
- Natural beauty of Pakistan.
- Historical Places of the country.
- Main cities of Pakistan.
- Season of the Tradition Sports.
- The new places/destinations for the tourists.
- Etc.

4. Latest Development:

This section will guide the visitors to the latest development in the site .As time passes there comes different things that replace the older one .So keeping the site up to the standard this feature is very important .In this section members / visitors will be able to see all the information that is latest and up to the mark.

5. Resorts / Hotels:

This is very important feature for the tourists because while they are going to visit some place they will be interested to get the information about the Hotels / Resorts for the specific destination.

So in this section of the site I will provide the list of the Hotels / Resorts for the specific destination of the tourists.

6. City Information:

This feature will guide the tourist to get the information of the specific city. This information can be of many kinds .e.g.

- Historical Information of the city.
- General Information of the city.
- Business Information of the city.
- Information about the population.
- Where the city stands i.e. its importance in the country.
- And many other information related to the city.

7. Provinces:

This will cover the Provinces of the country i.e. Pakistan. The main Provinces and the Tribal Areas of Pakistan.

The main Provinces of Pakistan are:

- Punjab
- Northern West Frontier Province (NWFP).
- Sindh
- Balochistan
- Tribal Areas

I will provide following things related to the Provinces and Tribal Areas of Pakistan:

a. History.
b. Main cities.
c. Beautiful Places.
d. People.
e. Traditions.
f. Culture.
g. Maps
h. Etc.

9: Email Feedback

The Users Can Contact the Developers and Administrators Using the website Mailing Utility and can submit their feedback and suggestions or can even ask for some special facility (e.g. for an article or information…). This is also a very important feature for Admin.It guides you to make your site more interesting and up to mark for the world E-Mail Feedback not only

appreciate your work but also guides you how you can improve your site and include many other things that are informative and useful for the tourists.

So E-Mail Feedback will always be encouraged.

10.Searching Facility:

There is also searching facility for the users .Using this facility user not only search for the site related things e.g. city search, place search etc.but also can search about different sites.

Administrative Tasks:

The Website will be Component based System and each component will be Effectively Customizable by the administrative options that are mentioned in the administrative menu for each component. Each and every component will be a separate Entity but the administrative options will be used to merge these entities into a single system. The administrators on the web will be needed to post the news, add banners on the request of clients via email with the required information, and generate the newsletters manually. The Database and site maintenance will be done by administration.
So there would be following things related to the Admin. Section:

1: Admin Login:

For edit the website Admin would login .This section is Password Protected. After Login Admin would be able to edit different features of the site.

2: Hotels / Resorts Management:

In this section Admin would edit the different possibilities.Admin can perform following changes related to the Hotel and Resort Management.

- Add new Resort/Hotel
- Edit the Existing Resort/Hotel
- Delete a Resort /Hotel

3: News Letters Administration:

Admin can perform following changes related to the News Letters Management.

- Cancel News Letters Subscription
- Design and send News Letters

4: Membership Administration:

Admin can perform following changes related to the Membership Management.

- Cancel Membership
- Delete Membership

5: News Administration:

Admin can perform following changes related to the News Management:

- Add latest news
- Delete the old news

Gather the news from Pakistan Tourism Corporation and other resources.

Database

The data about Users, News, Banner Advertisements, and News Letters will be stored in the database for persistence.

Interface

Interface is related to user's interaction with the application, which I am going to develop now. These are the main interfaces with which the user can interact when he/she is visiting my site.

Site map will tell about the whole site in a glance from where the user can judge what this site is about and what are the main features of site.

The **Main page** will give brief introduction of the site and can have links to related features.

User registration page will be used for registering users who are interested to avail the services or features provided by my site.

Any Users to access the features defined for a registered user will use login page. The user will be validated first then he will be authorized to avail the services if he/she is a member and if he/she is an administrator, he can manage/maintain or update all the Administrative tasks related to the features provided by the site.

User Services page for selecting/availing the service. From this page the user selects the service e.g. News Letters subscription, News and updates etc.

News Page will be displayed for any user not necessary to register. This page will contain News (i.e. News Headings) in a number that has been specified by the Administrator. This page will also be displaying the link to

full story of all the News which not only contain the full story news but if that particular News is specified such that user can submit comments at it, then user can submit the comments using a form.

News Letters Subscription will be displayed for only to registered users. This component is displayed at the User Services Page that hold the field of Email address that shows the email address of the user that has been logged into the site. Users either directly subscribe his Email address by just clicking the Subscribe button or can change his/her Email address and then subscribe. Confirmation will be displayed in the Pop up window.
Other pages will be discussed in the next chapters Etc.

Pakistan Tourism

OBJECTIVES

This chapter sums up the activities Of the project management plan of the Pakistan Tourism,

This chapter includes:

- **Version Statistics**
- **Introduction of SMP Pakistan Tourism**
- **Project Organization of Pakistan Tourism**
- **Gantt Chart of Pakistan Tourism**
- **Work Products of Pakistan Tourism**
- **Project Responsibilities**
- **Work packages, Schedule & Budget**

CHAPTER 2

SOFTWARE MANAGEMENT PLAN

Version	Primary Author(s)	Description of Version	Date Completed
Draft	Ishtiaq Ahmed	Initial Draft was created for distribution and Review comments.	18-04-2006
Preliminary	Same as above	Second draft incorporating initial review comments, distributed for final review.	25-04-2006
Final	Same as above	First complete draft, which is placed under change control.	30-04-2006
Revision 1	Same as above	Revised draft, according to the change control process and maintained under change control.	08-05-2006
Revision 2	Same as above	Revised draft, according to the change control process and maintained under change control.	15-05-2006

1. Introduction

1.1. Project Overview

There are many sites, which provide limited features. The basic purpose of developing this Web Site is to provide customized and updated Information that is not only Informative site but at the mean time it provides a place for the subscribed users where they can get guidelines and suggestions about their problems related to Pakistan Tourism plus an easy access to get Free News Letters at their home and can Download in both HTML and PDF Formats.

In every field information plays an important role; even some analyst thinks that up to date information play a role of backbone for Users or Computer Users. Secondly some users are very conscious about new places or destinations, new updates either about hotels, places, mountains or valleys. For those purpose users of all these categories switch to Internet in order to gain some information, but there are few sites in our country that gives or covers all these information for the tourists. So for these users I am going to develop Web Site that will provide each feature they require in a single Web Site.

The application will perform following functionalities.

- Member registration/Subscription
- Member Login
- News Section
- Latest Development

- Resorts/Hotels
- City Information
- Provinces
- News Letters
- Email Feedback
- Searching Facility

Project Deliverables

Project deliverables are:

Deliverables	Delivery Location	Delivery Method	Quantity	Expected Date
PAK-TOUR	Computer Centre	Installing Disk	1	June, 04, 2006
User Manual	Computer Centre	Book let	1	June, 04, 2006

Evaluation of Software project Management Plan

Version	Primary Author(s)	Description of Version	Date Completed
Draft	Ishtiaq Ahmed	Initial Draft created for distribution and review documents	18-04-2006
Preliminary	Same as above	Second draft incorporating initial review comments, distributed for final review.	25-04-2006
Final	Same as above	First complete draft, which is placed under change control	30-04-2006
Revision 1	Same as above	Revised draft, according to the change control process and maintained under change control	08-05-2006
Revision 2	Same as above	Revised draft, according to the change control process and maintained under change control	15-05-2006

Reference Materials

1. IEEE Standard 1058.1-1987 for Software Management Plans.
2. Software Engineering by Roger.S.PressMan (4th Edition).

Definition, Acronyms, or abbreviations

SDK	Software Development Kit
SRS	System Requirement Specification
RSD	Requirement Specification Document
I/O	Input Output
SDS	Software Design Specification

Project Organization

Process Model

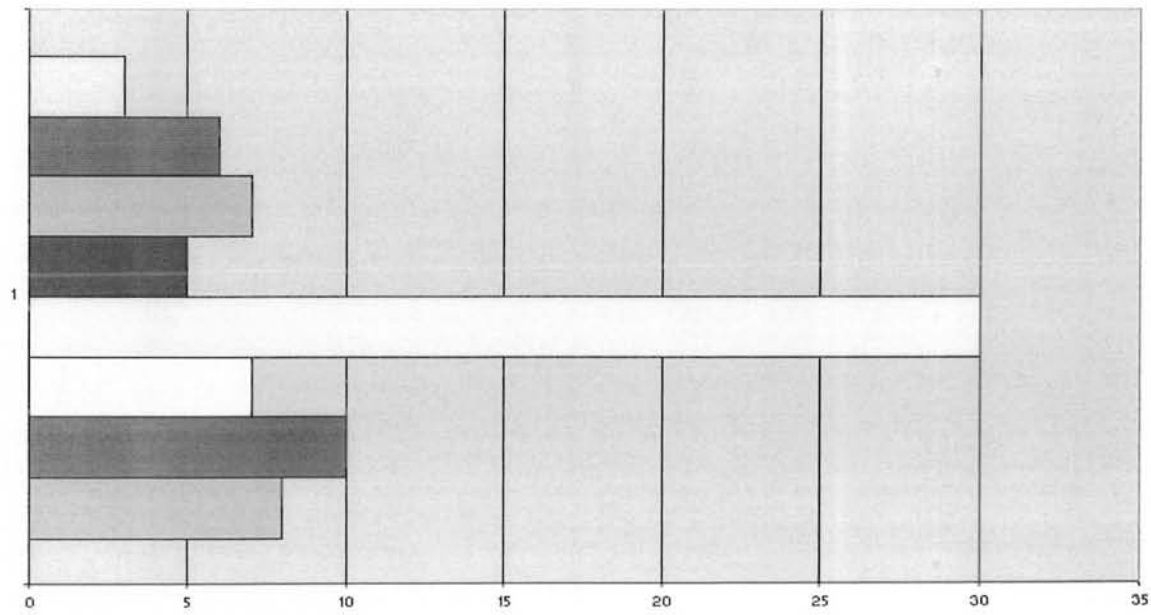
Milestones	Description	Content	Expected Date
Problem Analysis	The problems described by the user for software.	Scope Product Perspective Product functions Constraints Assumptions and Dependencies External Interface Requirements Design constraints Functional	**April 01, 2006**
Detailed Requirement Analysis	Getting Requirements from the customer in detail		**April 18, 2006**

Software Requirement Specification	This document will contain the basic requirements of the customer in detail for providing basis for the software development.	Scope Product Perspective Product functions Constraints Assumptions and Dependencies External Interface Requirements Design constraints Functional Requirements Logical Database Requirements	**April 12, 2006**
Software Design Specification	This document contains the design suitable for development.	Actors Use cases Main Components Functionality of each component Component	**April 17, 2006**

		interaction Component Interaction Model	
Coding Plan	Tool selection for development of modules		**April 21, 2006**
Development	Implementation of the design	Different Modules	**April 26, 2006**
Integration	Integration of different components.	Software components	**April 30,2006**
Interface	Development of user interfaces	Interface components	**May 03,2006**
Testing	Black box testing Focuses on the functional requirements of the software. Is a test case design method that uses the control structure of the procedural design to derive test cases?	White Box testing Back Box Testing	**May 10, 2006**
Final Presentation	Final presentation of the software	Software Document	**May 15,2006**

Gantt chart:

Activity	Description	Duration	Dependencies
A1	Problem Analysis	3 days	None
A2	Detailed Requirement Analysis	5 days	No of requirements
A3	System Requirement Specification	5 days	Same as above
A4	Software Design Specifications	8 days	No. Of modules
A5	Coding Plan	5 days	Modules interactivity with each other
A6	Development	15 days	
A7	Interface	5 days	
A8	Testing	3 days	No. of users
A9	Integration	3 days	
A10	Final Presentation	3 days	Type of technology, team members

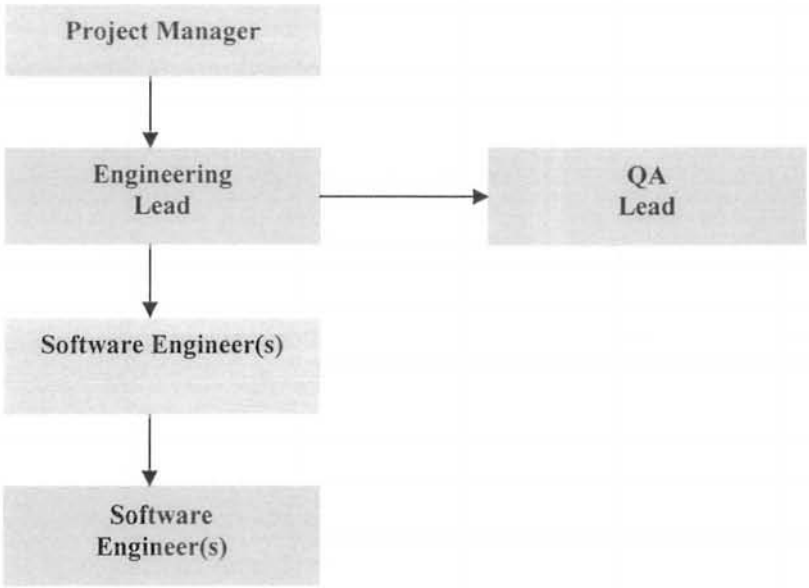


1: Work Products:

Work Product Name	Planned Completion Date	Placed under change control?	Deliverable to customer?	People who must sign off on the Work Product
Software Project Management Plan	18-04-2006	YES	NO	Project Manager, Engineering Lead, QA Lead, Documentation Lead
Change control Plan	27-04-2006	YES	YES	Project Manager, Engineering Lead, QA Lead, Documentation Lead
Top 10 Risk List	26-04-2006	YES	NO	Same as above
Change Proposals	29-04-2006	YES	YES	Same as above
Vision Statement	29-04-2006	YES	NO	Same as above
Software Development Plan, including project cost and schedule estimates	02-05-2006	YES	YES	Same as above
User Interface Style Guide	20-05-2006	YES	YES	Same as above
User Manual / requirements specification	29-05-2006	YES	YES	Same as above

Quality Assurance Plan	21-04-2006	YES	NO	Same as above
Software Architecture	23-04-2006	YES	NO	Same as above
Software Integration Procedure	24-04-2006	YES	NO	Same as above
Staged Delivery Plan	24-04-2006	YES	YES	Same as above
Individual stage plans, including miniature milestone schedules	25-04-2006	YES	YES	Same as above
Coding Standard	25-04-2006	YES	YES	Same as above
Detailed design documents	01-05-2006	YES	YES	Same as above
Software construction plans	06-05-2006	YES	YES	Same as above
Deployment document	11-05-2006	YES	NO	Same as previous
				Same as previous
Release Checklist	15-05-2006	YES	NO	Same as previous
Release Sign-off Form	20-05-2006			
Document	25-05-2006	YES	NO	Same as previous

2: Organizational Structure:



Organizational Boundaries and Interfaces

- Parent Organization: COMPUTER CENTRE (Visionaries)
- Customer Organization: PAK TOURISM
- Subcontracting Organization(s): Not Specified (Any Interested customer)
- QA Organization: Quality Control Department of Visionaries
- Documentation Organization: Visionaries
- End User Support Organization: Computer Department Visionaries

Project Responsibilities:

Responsibility	Persons Responsible
Overall Project Manager	Anees-ur-Rehman
Engineering Manager	Ishtiaq Ahmed
Quality Assurance	Anees-ur-Rehman
End-user Documentation	Ishtiaq Ahmed
Requirements Development	Ishtiaq Ahmed
Software Architecture	Ishtiaq Ahmed
Technical Self-Reviews	Ishtiaq Ahmed

3: Managerial Process

Management Objectives and Priorities

- Risk Management procedure used is proactive risk strategy.
- Relative priorities are functionality, schedule and resources (budget, time, and technical people).
- PERT charts will be available for quick management assessment.
- MS Project will be used for management purposes.

4:Assumptions, Dependencies and Constrains

Assumptions

- This product will be used only by this enterprise internationally for their Testing Department and by the management staff to track the activities of the product.

Dependencies

- The database depends upon MS-Access, with maximum size (10 MB approx)
- The number of concurrent users can be limited by MS-Access.

Hardware Constraints

- **Monitors**: 800*600 minimum resolutions at 256 colors minimum.
- **Memory**: Approximately 64 megabytes.
- **I/O**: One or two button mouse and standard 101-key keyboard.
- **CPU:** At least 600 MHz should be on the computer.

5: Risk Management

- Technology being used is new to the organization.
- Specialized user interface is required for the project.

6: Monitoring and Controlling Mechanics

- Must work on network because it is a web base application.
- Must be Browser independent
- Must have clear help/error messages.
- Text should be kept minimum to facilitate the user.
- Color choices should be appropriate to accommodate users of all kinds.

7: Staff Plan

Staffing Factor	Required
Number of Personnel	3
Software Engineer	1 full time, 1 part time
Senior Software Engineer	1
Engineering Lead	1
Quality Assurance Lead	1
Duration of the Project	49 days for the first release
Training Days	1 week

8: Technical process

Methods, Tool and Techniques

Hardware Environment

- Monitors: 800x600 minimum resolutions at 256 colors minimum.
- Memory: Approximately 64 mega bytes.
- I/O: One or two button mouse standard 101-key keyboard.

Operating System

Microsoft Windows (95, 98, 2000, XP, NT Workstation, NT Server) platform preferred.

Software Tools Methods and Techniques

- Microsoft Word
- ASP
- Java Script
- Rational Rose
- Object Oriented methodology for analysis, design and testing
- Unit Testing
- Integration testing

Software Documentation

Software Development plans, including project cost and schedule estimates.

Project Support Functions

- System Requirement Specification
- Software Design Document

9: Work Packages, Schedule and Budget

9.1 Work Packages

Work Products:

Work Package Identification	Work Packages
W1	Software Project Plan
W2	Change Control Pan
W3	Change Proposals
W4	Vision Statement
W5	Top 10 Risks List
W6	Software Development Plan, including project cost and schedule estimates
W7	User Interface Style Guide
W8	User Manual / Requirement Specification
W9	Quality Assurance Plan
W10	Software Architecture
W11	Software Integration Procedure
W13	Individual stage plans, including milestones.
W14	Coding Standard
W15	Detailed design documents
W16	Software construction plans
W17	Deployment Document
W18	Release Checklist
W19	Release Sign-off log
W20	Software Project Log
W21	Software Project History Document

Resource Requirements

Resources Required	Duration
Personnel	7 Weeks
Software Engineers	7 Weeks
Senior Software Engineer	7Weeks
Engineering Leader	7 Weeks
Quality Assurance Lead	4 Weeks
Training Leader	1 Week
Computers	2
Software used	8

Schedule

Already described in Gantt chart

Pakistan Tourism

OBJECTIVES

is chapter sums up the activities

the Risk Management plan, Roles and

sponsibilities, tools and Risk Budget,

is chapter includes:

- **Introduction (Risk Management System)**
- **Purpose of Risk Management System**
- **Roles and Responsibilities**
- **Risk Documentation**
- **Activities**
- **Risk Management Budget**
- **Risk Management Tools**

CHAPTER 3

RISK MANAGEMENT PLAN

1. Introduction (Risk Management System):

Despite much research and progress in the area of **Software Project Management**, software development projects still are not achieving the target of delivering desired systems on time, within the available financial resources and desired quality. Much of the failure in achieving those targets could be avoided by managers proactive planning for dealing with risk factors rather than waiting for problems to occur and then trying to react on the time of occurrence. Usually this reaction is too little and too late, because by the time the problem is fully recognized, the schedule has already been disturbed, a considerable amount of resources has been utilized, and the product quality has suffered due to introduction of errors. Risk management has been proposed as a solution to for overcoming errors appeared insight into potential problem areas and to identify these problems, address and eliminate them before they can create any problems in the project.

In order to implement a successful risk management program, project managers need tools to help them reduce risks. Risk Management helps project managers in identifying risks in earlier phases of the project cycle, defining risks in earlier phases of the project cycle and defining risk containment actions. The system should support Risk Assessment during the initial phase of the development as well as during project delivery phase.

A good measurement program helps managers:

- Communicate unambiguously throughout the organization.
- Identify and correct technical and management problems by focusing on early discovery of errors.
- Make key tradeoffs by assessing the impact of decision.

- Defend and justify decisions by providing data to explain how issues are prioritized and managed.

Using these as the evaluation criteria a detailed search and evaluation of the Risk Management System available in the industry was made.

2. Purpose

The purpose of this document is to describe how we can perform the job of managing risks for online testing. It identifies risks which may occur in the project, defines roles and responsibilities for participants in the risk management process, the risk management activities that will be carried out, the schedule and budget for risk management activities and tools and techniques that will be used during this process.

3. Roles and Responsibilities

3.1 Project manager

The project manager will assign a Risk Officer to the project, and identify this individual on the project's organization chart. The Project Manager and other members of the Project Management team will meet every week to review the status of all risk resolving efforts, review the exposure assessments for any new risk items, and redefine the project's Top Ten Risk List.

3.2 Software Quality Assurance involvement

The Project Manager and other members of the project will check about the quality of the project and will assign role for each member of the team for making quality assured software

3.3 Risk Officer

The Risk officer has the following responsibilities and authorities:

- Coordinating between risk identification and analysis activities
- Maintaining the project's risk list
- Notifying project management of the new risk items discovered
- Reporting risk resolution status to management
- The Risk Officer should normally not be the project Manager.

3.4 Project Member Assigned a Risk

The Risk Officer will assign each newly identified risk to any member of the project, who will assess the exposure and probability for the risk factor and report the results of that analysis back to the Risk Officer. Project members who have assigned the responsibilities for performing the steps of the mitigation will report progress about the risk mitigation to the Risk Officer biweekly.

4. Risk Documentation

4.1 Risk List

The risk factors identified and managed for this project will be accumulated in a risk list. The Risk list contains the following items:

1. Personal Risk
2. Unrealistic schedules and budgets.
3. Developing wrong software solution.
4. Developing wrong user interface.
5. Continuing streams of requirement changes.
6. Shortfall in extremely furnished components.
7. Shortfall in externally performed tasks.
8. Real time performance shortfall.
9. Wrong assessment of requirements.
10.

The ten risk items that currently have the highest estimated risk exposure are referred to as the project's Top Ten Risk List.

4.2 Risk Data Items

The following information will be stored for each project risk:

- **Risk ID**
- **Classification**
- **Description**
- **Probability**

- **Impact**
- **Risk Exposure**
- **First Indicator**
- **That risk is becoming a problem**
- **Mitigation approaches**
- **Owner**
- **Date due**
- **Contingency plan**
- **Contingency plan trigger**

4.3 Closing Risk

A risk item can be considered closed when it meets the following criteria:

The planned lessening actions have been completed and the estimated risk exposure of probability time's impact is less than 2.

5. Activities

	Task	Participants
Risk Identification	State the techniques that will be used to identify risk factors at the beginning of the project and on an on-going basis. This may involve a formal risk assessment workshop, a brainstorming session, and interviews at the beginning of each life cycle phase. Describe any consolidated lists of risk items that will be used to identify candidate risks for this project.	**Risk Officer**

	analyzed as were the items on the original risk list and added to the risk list.	
	The Top Ten Risk List is regenerated based on the updated probability and impact for each remaining risk.	**Risk Officer**
	Any risk factors for which mitigation actions are not being effectively carried out, or whose risk exposure is rising, may be escalated to an appropriate level of management for visibility and action.	**Risk Officer**
	If the project will be storing lessons learned about mitigation of specific risks in a database, describe that database and process here and indicate the timing of entering risk-related lessons into the database.	**Risk Officer**

5.1 Schedules for Risk Management Activities

Risk Identification	A risk workshop will be held on approximately 10Jan 2006.
Risk List	The prioritized risk list will be completed and made available to **the project team** by approximately 15 Jan 2006.
Risk Managemer Plan	The risk management plan, with mitigation, avoidance, or prevention strategies for the top ten risk items, will be completed by Approximately 10Feb 2006.
Risk Review	The Risk Management Plan and initial Top Ten Risk List will be reviewed and approved by the Project Manager on approximately 01Jan 2006
Risk Tracking	The status of risk management activities and mitigation success will be revisited as part of the gate exit criteria for each life cycle phase. The risk management plan will be updated at that time

6. Risk Management Budget

Will be on the basis of user input

7. Risk Management Tools

Risk Track Version 5.0

7.1.1 Introduction

Risk Track is a Risk management tool from Risk Services and Technology. It allows the identification of different kinds of risks that may occur during the different phases of software project development. It also allows the specification of the probability of these risks. The interface is more attractive and easy to use. It does not use the rather outdated spreadsheet like interface which the other risk management and management software use. To start a new project, first it provides a screen for project definition where we can specify the project title, creation date, project description, project manager, project leader, risk, mitigation parent and mitigation. Project ID is generated automatically.

We can also add, modify and delete all possible users, phases, risk class, risk cause, attributes, objectives, risk status, and risk types that can occur during the development of the project. After specifying all these, we can add a new risk through the **Add Risk function**.

In the add new risk screen you can give the Risk name, risk ID, and select the risk status, class, cause, type and phase. You can also provide a risk statement and its consequences, the risk probability, At Risk Cost, Risk exposure, mitigation exposure,

mitigation exposure, cost allocation, assigned to, date assigned on, assigned by, and action date. You can also add a mitigation using the add mitigation title screen. Here you can give the mitigation title, the effectiveness, risk exposure, cost of mitigation, mitigated exposure, cost allocation, assignee, assigned by and action date while the mitigation ID, creation date, created by, modification date and date assigned on are automatically generated. There is also a mitigation screen where we can see the cost, slip and effect on performance.

7.1.2 Usability

Risk Track is very easy to use software. It does not use the spreadsheet like interface rather it uses a simple interface where you provide input through input boxes and dropdown lists. It generates easily comprehendible reports, which are also a plus point of the software.

7.1. 2 Strength

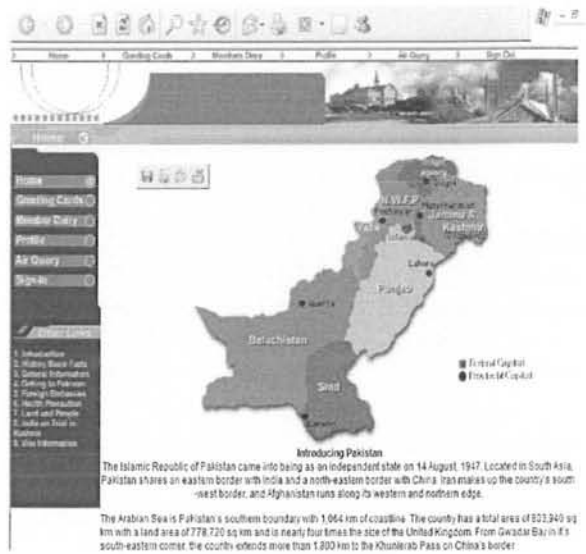
Its strength lies in its ease of use and straight forwardness. It also covers all the phases of Risk Management Process.

OBJECTIVES

This chapter sums up the information Of the tools and technologies used to develop Pakistan Tourism Web Site.

This chapter includes:

- Dynamic Web Pages
- Dynamic VS Static Web Pages
- Active Server Pages (ASP)
- Server Side Scripting
- Client Side Scripting
- ASP Object Model
- ADO's



CHAPTER 4

TOOLS & TECHNOLOGY

What Is A Dynamic Webpage?

If you surf around the Internet today, you will see that there are a lot of static web pages out there. A static web page is essentially a page whose content consist of some HTML pages that was typed directly into a text editor and saved as an HTM or HTML file. Thus the author of the page has already completely determined the exact content of the page.

Static web pages are quite easy to spot, some time you can pick them out by just looking at the content of the page. The contents (e.g. text, images hyperlink etc) and appearance of the static web page is always the same regardless of who visit the page, or when they visit, or how they arrive at the page, or any other factors.

Static Pages Vs Dynamic Pages

- Lets think for a moment how a static, pure HTML page finds its way into a client Browser
- A web author writer pages composed of pure HTML, and save it within an HTML file.
- Some time later a user type a page request into a Browser, and the request is passed from the Browser in to the web server.
- The web server locates the .html page.
- The web server sends the HTML stream back across the network to the Browser.
- The Browser processes the HTML and displays the page.

The Limitations Of Static Web Pages

If we want to enhance our page so that it displays the current time or a special message that is personalize for each user. It will not be possible using HTML alone.

Active Server Pages (ASP)

So far we have analyzed the difference between static and dynamic web pages , but we have barely mentioned the active server pages (ASP) , here is a simple definition of ASP.

Active Server Pages is a technology that allows for the programmatic construction of HTML pages just before they are delivered to the Browser.

In other words ASP we can write a set of instructions that can be used to generate HTML, just after the web page has been requested by a client, and just before it delivered .It is a perfect tool for any HYML write to add to the toolkit, because it gives us the power and flexibility to generate fresher HTML and ultimately to reduce more spectacular, interactive, personalized, up-to-date web pages.

How can we describe ASP? It is not a language like other high level languages like (Pascal & C++) although it does make use of existing scripting languages such as VB Script and Java script, more ever it is not really an application like Front page and MS Word, Instead we describe ASP using rather a more ambiguous term technology.

ASP Code Is Browser Independent

ASP code is always executed on the web server, and generates pure HTML. The client machine does not need to provide any kind of ASP support at all. Infact the web Browser handles .html pages an ASP page in exactly the same way because from

the Browser point of view, the process involves the sending the page request to a web server and receiving a stream of pure HTML.

The Browser is blissfully ignorant of any ASP processing that might be happening on the server, it only ever get to see pure HTML, so dynamic ASP pages are just view able in internet explorer, Netscape Navigator and other Browsers as their static .html counter parts.

Advantages of Using A Server Side Technology

We have stressed that ASP is processed on the web server to generate HTML. While HTML is processed solely on the Browser, so what see what are the main advantages of performing actions on the web server first? Here are some main advantages of that:

- Allow you to run programs in programming language that are not supported by your Browser.
- Enable you to program dynamic web applications Browser independently, without recourse to client side programming features such as Java applet, Dynamic HTML, Active X control, all of which are Browser specific.
- Can provide the client (Browser) with data that does not reside at the client.
- Often makes for quicker loading time than with client side dynamic web technologies such as Java applet or Active X controls, because at the en you are actually downloading a page of HTML.
- Provides improper security measures, since you can write code, which can never be viewed, from the Browser.

That is not to say that the ASP pages are perfect e.g. they increase the workload on the server so if your web site becomes popular you may need to invest more hardware, but this is true, server-side functionality outweigh any disadvantages.

Virtual Directories

How does this relationship works? In fact it can work by creating a second directory structure on the web server machine, which reflects of our web site.

The first directory structure is what we see when we open windows explorer on the web server these are known as physical directories (e .g c:\My document)

The second directory structure is the one that reflects the structure of the web site. This consists of hierarchy of virtual directories. We use the web server to create virtual directories, and to set the relationship between the virtual directories and the real directories.

Virtual directory is in fact a nickname or alias for a physical directory that exist on the web server machine. The idea is that when the user Browser to the web page that is contained in the physical directory on the server. They don't use the name of the physical directory to get there instead; they use the physical directory nickname.

To see how this might be useful, consider a web site that publishes news about many sporting events. In order to organize this web site carefully the web master has to build a physical directory structure on the hard disk, which looks like this.

Now to visit this web site in order to get the latest news on the javelin event in the Olympics: If the URL of this web site were based on the physical directory structure, then it would be something like this:

http://www.oursportsite.com/sportsnews/atletics/field/javelin/default.asp

It's the webmaster who can understand this directory structure, but its fairly unmemorable web address! So to make it easier for the user, they web master can assign a virtual directory name or alias to this directory its act just like a nick name of this directory

Let's assign the virtual name javelin news to the c:\inetpub\...\javelin\directory. Then the URL of the latest javelin news would be as:

http://www.oursportsite.com/javelinnews/default.asp

Not only thus this saves the user from long and wide URLs but it also serves as a good security measures, because it hides the physical directory structures from all the web site visitors.

Microsoft FrontPage

It comes as a part of MS office 2000 suite. It is one of the tools for creating and designing web pages but it does not offer all functionality of visual Interdev. It is ultimately a weaker but easier application to use.

It offers three views of the web page. The normal vie gives a WYS? WYG page creation view, which allows you to write pages without having to code to HTML explicitly. The HTML view allows you to write your code explicitly and the preview tabs gives a quick view of what a page should look like in a Browser.

Again a normal and a preview tabs are unable to process any ASP. In order to view the results of ASP script in Front page select file view in the Browser to see what your processed Asp will look like.

Notepad

Certainly helps in sustaining its popularity it does not highlight the ASP in any way and also it doesn't generate any extra code even having less additional functionality. It is still very popular in use due to its simplicity and less complexity in Windows 2000. Notepad offers a "Go to" feature, which helps in quickly moving around the document using the line number.

It does not really matter which editor is to be used. We will avoid any attempt to provide a tutorial on additional tools at its beyond the scope of this book.

Identifying a Script

How do we identify the script when it is embedded in a small or large amount of pure HTML? Because the ASP which will be enclosed in a special tag < %.....%> e.g. if we want to print a time on a web page we will use the following piece of code:

The current time is <%=time %>

Every thing within<% and %> this tag is assumed to be the ASP and a sent to the ASP script host for processing.

But there are other kinds of scripts , what are not ASP code , but which still need to o be distinguish from the HTML and the text in which they are embedded . For this reason HTML provides a special tag called <script> tag e.g.

<SCR IPT LANGUAGE =VB SCRIPT RUNAT=SERVER>

Response.Write time

</ SCRIPT>

Any thing that lies between the opening and the closing tags <SCRIPT> and closing tag </SCRIPT>is dispatched for processing to the appropriate script engine, according to the instructions given by the SCRIPT tags attributes.

Server-Side Scripting

A script that is interpreted by the web server is called a server side script . A server side script is an instruction set that is processed by the server and which generates the HTML is sent as a part of the HTTP response to the browser.

As we have gathered by now ASP is server side scripting, however it is not true to say that all server side scripting as not ASP as we will elaborate in the following section.

If we are going to place any kind of server side script so that the server can identify them as a server side scripts and hence arrange for them to be interpreted correctly. There are two ways to label server side scripts

- Use the < %...%> server script delimiters, which donate ASP code.
- Use the HTML< script> tag specifying the RUNAT= SERVER attribute within the tag. If a tag look this is found within an ASP file, then it is treated as an ASP. If such a tag is found within an

.html file, then it is treated as a non-Asp client side script.

We must highlight an important difference here namely that the choice of HTML or ASP for the suffix of the web page file is not trivial. It really does have a bearing on how your code is processed. If you have any ASP at all, you can label it, using either of the techniques used above. How ever in order to ensure that it is processed as an ASP then it must be included as a part of the ASP file.

Within an HTML file, it is only possible to use the <SCRIPT>…</ SCRIPT> tags. Script contained within these tags will be interpreted as non-ASP script. If you try to include any ASP script within these tags or if you write <%...%>into an HTML file, then the script will not be executed and your web page would not look the way you intended .

Client-Side Scripting

The script that is interpreted by the browser is called a client side script. A client side script is also an instruction set but is not processed by the web server. Instead it is sent to the Browser (as part of the HTTP response) and is processed by the Browser, the Browser on the monitor then displays the result.

Client side scripting is not directly related to ASP at all, it involves scripting that will be processed by the Browser. When a web page source contains a client side script, it does not attempt to process the script; instead, it simply downloads the script to the Browser as part of the HTTP response, and assumes that the Browser will know how to deal with it.

When the Browser receives the HTTP response, it needs to process the HTML contained within, which describe how it is to display the page. The Browser must also take care of the client side script that when downloaded as part of the page.

Advantages of Client-Side Scripting

- The main advantage of client-side scripting over pure HTML is that it allows the developer to create the more functional, interactive web pages.
- Response time is often quicker because the script is interpreted on the Browser machine, there is no network involves and there is no round – trip to ask the server to calculate things.
- Executing script on the Browser reduces the web server's workload as less script will be executed on the server, and it can be more advantageous when lots of people use web site.

Disadvantages of Client-Side Scripting

The main disadvantage of client side scripting is teat we can't depend on the functionality of the Browser to support the script we write. If you have two different client machines hosting two different Browsers, and you view a page containing client side scripting on each independently then you can reasonably expect the results to be quite different. This means that the client side scripting is Browser specific because some browser does not support certain scripting language e.g.

- Recent version of Internet explorer comes with script engines for both VBScript and Jscript, where as the older version of the Browser by default come with the older version of the scripting engines.
- Netscape navigator comes with Java script engine only so there is no support for VBScript.

Another potential disadvantage of client-side scripting is that the code in your client-side scripts is completely visible to the user. By selecting view source option in the Internet explorer will show how the HTML source code plus client – side scripting used in that page. If you want to keep your client – side script to be hidden then you will have to use complex encryption techniques.

Alternatives to ASP

What other technologies could do the same job as ASP? Or if Microsoft provides ASP then what are the non-Microsoft alternatives?

ASP is only one of several technologies that can be used to create more dynamic and interactive web pages. Microsoft is not the only organization pulling in the direction of interactive web sites many of its competitors are also chipping away at the boundaries of interactive web capability.

Interactive web sites can be build with a combination of languages and technologies you can use any one of these alone, or any number of them together and they are all independent (in the sense that you do not have to learn one technology before you can learn another). Some exist on the client side while other on server side.

What Is Active Server Pages Object Model?

In the Active Server Pages programming model, there is a wide range of functionality that is access able to the programmer. ASP helps us to track the site of a user dynamic generate HTML output and take data from forms to be inserted into a data base. All of the functionality makes ASP a rather complex beast. Microsoft was task with finding the best compromise between offering a simple programming model and

providing access to all of the power that ASP provides. These objects were then related together into what is known as an object model.

An object model is a representation of a set of objects and there relationships to one another. These relationships can take to form of containment, where one object is embedded inside of another or they can take the form of a parent child relationship, where one object has a set of child objects associated with it.

Object Model Structure

Seven objects make up the core of Active Server Pages. These are known as the built-in objects. These objects are:

- Server Object
- Application Object
- Session Object
- Request Object
- Response Object
- Object Context Object
- ASP Error Object

Each of these objects interacts with the different parts of the ASP system. This chart shows how they are related to each of them, and how they are related to the client and the server.

The Server Object

The server object is an object that provides a home to a miscellaneous ragbag of properties and methods that can be send in almost every Active Server Page. While

seemingly unrelated, these methods and properties are in fact abstractions of the properties and methods provided by the web server itself. This object will allow you to do things such as:

- Set the amount of time a script can run before an error occurs.
- Take a user supplied string and encode it into an HTML format.
- Convert a Virtual path to a physical path on the server.
- Take a user supplied string and encode it into the proper format for a Uniform Resource Locator (URL) string.
- Create an instance of an Active X component. Change the course of execution by jumping to another page using the transfer and execute properties.

These method and properties are provided as utility functions for you to use in your pages. They are not directly used to affect the display of the page, but they still provide value able support in creating Active Server Pages

Application Object

As the web is moving from just serving up pages to providing access to dynamic information from a wide range of systems, the site that a user must access are beginning to look more like a traditional desktop application.

Since these pages are functioning together as an application, naturally the developer would want some control over the application as a whole; this is the responsibility of an application object. Let's just introduce the few things that it does. With this object one can:

- Be notified when an application is first started, so that you can perform some startup processing.
- Be notified when an application is ending, so that you have an opportunity to perform functions to enable the application to close down clearly.
- Store information that can be accessed by all clients accessing the application.

There is the one instance of an application object for each web application running on the web server. There may be many clients accessing the same application. They each can get a reference to the same application object. Next we will look at an object that is unique to each client of an application.

Session object

There is one application object for each application on the web server. Every client accessing that application can get a reference to it. Each of these clients opens a session therefore each of them has a reference to a unique session object. The session on object will allow you to:

- Be notified when a user session begins, so that you can take an appropriate action for a new client.
- Be notified when a client has ended their session, this can either be caused by a time out or an explicit method called Abandon.
- Store information that can only be accessed by the particular client through out the session.

The session object is the most powerful object for continuity when using an application in Active Server Pages. One of the problem s that has existed in creating

web-based applications is that the connection between the client and the server is stateless. The web server itself has no mechanism for tying a request for a page by a client back to a previous request of the page by the same client. This means that each request that one-client makes of a web server is treated independently from the rest. While this allows for a very efficient and fast web server, it makes writing application nearly impossible.

Think of it this way if you are writing an application using a standard web server, then every request to the server must carry along with it every thing that you have done related to the application up to this point. Since the web server has no way of sending and retrieving that information, it is up to you provide it every time you make a request to the server. Sounds pretty cumbersome? Well with the session object Active Server pages allow you to store and retrieve information about the client accessing your application.

Request Object

When a web Browser or other client application asks for a page from a web server, this is called making a request. Along with the actual page the client wants, it can send a great deal of information to the server as well. The request object is responsible for packaging up that information to make it easily accessible to the ASP application.

The client asks the server to create an HTML page by requesting an ASP script. When the server sees this request, it interprets this type of page as an active Server page. All of the information that the client is sending along with the request is then packaged into the request object. This information is then accessible to the actual ASP script that is used to construct the page.

The information is cauterized into five sets of information. Since each set of information can include multiple individual pieces of information, each set is stored as a collection. In a collection each piece of information is sent as a name-value pair. The collection holds information about:

- The values that are provided in the URL that are send by the client. In the URL the client can include name value pairs of information after the file name. This information is stored in the collection called query string.
- If the client is sending request, then the values of the form elements are stored in anothe4 collection the form collection.
- If the web server itself has a greater deal of information about the request, response and the general information about the server itself. These are called the HTTP server variables. This information is made available as a collection as well.
- If the client is sending any cookies along with the request, these are included in their own collection.
- In addition, if the client is sending any security certificates to the server, then these are included in there own collection.

By using the information that is included with the request, along with the script code in the active server pages script file, the server can dynamically generate a page for the client to display. In order for the client to display the information, the server needs a mechanism to replay the data back to the client. This is the job of the response object.

Response Object

The primary features of the Active Server Pages are the ability to dynamically create web pages. The basic task needed to execute this feature is the ability to tell the client

what information to displays. There are a number of different ways to shape what the client will display. The response object exists to provide an efficient interface to control the output to the client.

The response object provides the ASP script with a set of interface that allows the script to control what information is being sent back to the client. For now we will just touch the some of the functions that the response object provides.
With the response object the ASP script can:

- Insert information into the page being sent back to the client.
- Select instruction to the Browser to create cookies on the client.
- Send the client to another page via a redirection.
- Control whether the page is sent as it is created, or it is completely build and then sent at one time.
- Control the various properties of the page such as the HTML header or the type of content.

These interfaces give the designer of the script the ultimately flexibility to decode how the information is presented back to the client.

Object Context Object

The object context object helps you to develop application out of components. It does this by allowing you to handles transaction from within an ASP page. A transaction is a single unit of work that must either succeed in its entirely or if its fail, must be undone completely – returning the system to the state it was before the transaction was started.

When using applications made of out of components, its common to use transitions. If for example an action handled by a particular component fails then you'd want details of the failure and be able to take an alternative course of action. If he user tried to change the details of their bank accounts and then bombed out mid – track it would be logical to want track back to what the bank to what the bank account details were previously, before trying to change the details again or continuing on alternative course.

The second type of application that uses transactions would be one that features data processing. If some one makes an other alternative to a data base via a web page and somebody else make another alternative at the same time, you need to be able to accept one alternation, while canceling or postponing, the other. The management of these types of transactions was handled in HS 4.0 and PWS 4.0 by a piece of software known as Microsoft Transaction Server (MTS). How ever with HSS and Windows 2000, the functionality of MTS is now integrated directly into part of the windows 2000 operating system known as COM+.

The object context object allows access to MTS in order to start or terminate a transaction. We don't want to go into how it does now, this hope fully gives you an over view of this useful object.

ASP Error Object

The ASP Error object contains the detail of any error generated by an ASP script or by an ASP-DLL itself. Previously there was no facility in ASP for storing details of errors that occurred. ASP Error object with help from the server. Get last error method; allow more complex customized handling of error messages. It directs

the user to a standard error page or to user created page depending on the option selected in MMC.

Active Server Components

Active Server components are components or DLL that come freely with ASP (as opposed to components that are wended by third parties). There are ten common components provided by Microsoft with IIS 9.0 90(although different versions of the installation can add or remove components), and many more are available from third parties. Here is a brief summary of the components and what they do:

- The AD rotator component do exactly what you might expect, it is a rotator for the Ad's that appear on your page. More specifically we use this component by supplying with a list of images, it will arrange for one of the image to be displayed on the page each time the age is requested.
- The Browser capability components references a file called browscap.ini which details the every version of every Microsoft and Netscape Browser every created it uses this information to determine whether or not the browser currently used supported frame, tables and so.
- The content linking component uses a text file to manage (and provide) links for a sequential set of web pages. It allows the administrator to provide extra information about each page in the sequence, and keeps the link in an orderly list so that they can be easily mentioned. For example, it can be predetermined order used to guide a visitor through a sequence of pages in a
- The Content Rotator component is a slimmed –down version of the Ad rotator component, which just displays text.

- The content component creates an object that persists for the lifetime of n application and can be used to store, increment or retrieve a value. Counters are manually set, unlike page counter e.g. which are set automatically, and persist until deleted.
- The logging utility component allow your application to be able to read from your LLS log file which monitor who has been connecting to your site
- The My info component is used to store personal information about the server administration.
- The page counter components provide a page counter, which increments by one each time a page is accessed. This is an automatic process, rather than a user defined one.
- The permission checker component can be used to monitor whether a certain user has been given permission to read or execute a file.

The tools component provides a set of properties that are loosely grouped under the catchall heading of miscellaneous utilities, include checks to see if a certain file exist exists or if a certain user is the owner of the site.

Universal Data Access

Any persisted collection of information is a data store. We might want to access the data contained within and use it in our web pages and other applications we are particularly interested in how we can access data stores from our ASP pages, and use there data to influence the appearance and content of our dynamic web pages.

So the question is one of how to access the data contained within these data stores. There is a problem with using ODBC here generally, the information contained

within each of the other media does not fit neatly into a data base type format and more often than not, ODBC can't help us to get at that kind of data.

In other words the notation of database access is not enough to fill the dreams of universal data access; we need a way of getting at the other forms of the data too, so how can we get at the contents of your data stores quickly and easily?

Microsoft UDA strategy has yielded a technology that has the potential to access the data contained in any kind of data stores. This technology is known as OLEE-DB

What Is ADO's?

You might like to think of the Active X Data Objects (ADO) as being the interface of OLE-DB. ADO is a set of objects that allow programmers to program their data access login from languages and scripting languages. ADO is a high level model than OLE-DB, which means that it simplifies some of the complexities of programming which OLE-DB thus, ADO is much easier to use than OLE-DB.

How thus ADO fit into over all structure? The ADO layer sit neatly between the application itself and the OLE-DB layer.
In this sense we can think of ADO as being as application-programming interface. ADO is a superset of DAO and ADO is much easier to understand.

ADO Features

- Access to all type of data. Various data sources including Email, text files ISAM/VSAM databases and all ODBC data sources.

- Support Free threading-ADO supports multiple client connections through multiple threads in such away that these threads don't interfere with each other.
- Support asynchronous queries. This basically means that after an SQL query is submitted to the data base server, the control then immediately returns to the calling application, allowing the user to complete the query, the results are then sent to the client.
- Support client side and server side cursors –Cursor is a mechanism that allows access a navigation of the data in a record set. They are implemented as a client side or a server side. Traditionally, frequently updated record set is implemented as a server side while read only record set is implemented as a client side.
- Support disconnected record set – After a record set is returned on a execution of a query, it is stored as a client side cursor and the active connection is closed. After changes have been committed to the record set the connection is re established and all up dates arte sent in a batch to the data store. . This helps in reducing network traffic in a great extent.
- Support commands as a common method – The unique feature of ADO is that when a command is executed, a connection is first established internally before that commands get submitted for execution. Compare this to a traditional object model like DAO/RAO where a connection has to establish explicitly before a command can be submitted.

ADO Architecture

In the ADO model there are five objects

- Connection
- Command
- Record set

- Record
- Stream

The connection object sets up the connection to the data source. First the data source name, its location, user id, password is stored in a connection string object, which is passed to the connection object to establish z connection to the data source.

The command button is used to execute the SQL commands, queries and stored procedures.
When a query is executed it returns results that are stored in the Record set object. Data in a record set is manipulated and then updated to the database.

Records allow you to handle data kept in semi structured storage (such as files in a directory structure) as through they were record in a database.

The stream object is used to access the contents of the node, such as an Email message, or a web page.

ADO and ASP Are Different Technologies

Don't fall into the trap of assuming that ADO is a par5 of ASP or that it is designed specifically for use with ASP. It is true to say that ADO is the ideal tool to use for achieving data access from ASP pages and that Ado is shipped as part of the HS 9.0/ASP 3.0 package. But ADO is more generic than that .If you are planning to write other data – dependent applications such as Visual Basic, Java, VC++, there is nothing to stop you from using ADO is those application too.

Infact you can use ADO with any COM complaint programming language, so where does ADO come from? Infact ADO is one of a suite of components, which are known collectively as the Microsoft Data Access Components (MDAC). This sort of components has enjoyed a release schedule that a separate to that of HS/ASP.

Pakistan Tourism

OBJECTIVES

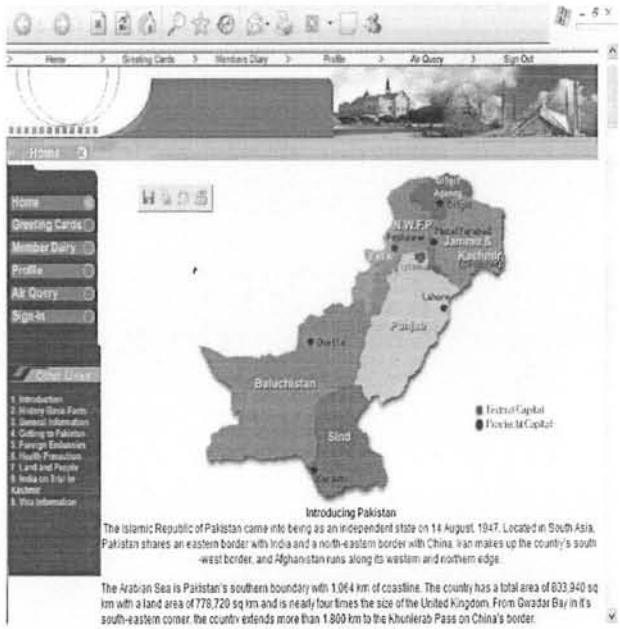
his chapter sums up the description

f the database, its tables along with

: Data fields and description.

his chapter includes:

- Database Description
- Platform (OS)
- Database Connectivity Type
- Short Description of Tables
- Data Dictionary



CHAPTER 5

DATABASE

DESCRIPTION

Data Base	
Name	Pak Tour
Introduction	It contains all the information regarding ITVision. It maintains the records of Users, Administrator, Weekly Polls, News and Jobs, News Letters, Online support forum, and Banners Ads.
Platform	Windows XP
Connectivity	OLEDB
References	

No	Table Name	Description
1.	Administrator	This table stores the information of Administrator.
2.	Tbl Author	This table is used to store all the information related to User.
3.	Tbl Active User	This table is used to store all the information related to User (Clients Software's) IP add, OS, Login Time Browser etc.
4.	Banner	This table is used to store all the information related to Banners.
5.	News	This table is used to store all the Educational News.
6.	News Comments	This table is used to store all the Comments against the News that are allowed to accept comments.
7.	News Configuration	This table contains all the configuration record of the News Section.
8.	News Letters Configuration	This table contains all the configuration record of the News Letters Section.
9.	News Letters Mailing List	This table is used to store all the subscribed email addresses.

Data dictionary

Administrator			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
Login ID	Text	15	Id of the Administrator
Password	Text	15	Password of the Administrator
Banner Refresh Rate	Text	15	Bannef's Refresh Rate for their Rotation

Table Author			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
Author_ID	AutoNumber	Long	Id of the User
Username	Text	20	User nick/name
User _code	Text	70	User name code
Password	Text	20	Password of the User
Author _email	Text	50	Email address of User
Show _email	Yes/No	T/F	Show Email in Profile
Homepage	Text	50	Home Page of the User
Location	Text	50	User's Country
Signature	Memo		Signature of User
Join_ date	Date/Time	Current	Joining date of the User with our site
Active	Yes/No	T/F	Active User
Status	Number	Integer	Status of the User
Avatar	Text	100	Zodiac Sign of the User

Table Active User			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
IP	Text	30	IP Address of Logged IN User
Author_ID	Number	Long	Id of the User
Login	Date/Time	Current	Last Login Date
Active	Date/Time	Current	Current Login Date
OS	Text	15	OS of the User
Browser	Text	15	Browser used by the User
Hide	Yes/No	T/F	Hide User Information

Banner			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
ID	AutoNumber	Long	ID of the Banner
name	Text	250	Name of the Banner
banner_ url	Text	250	URL of the Banner
banner_ reurl	Text	250	REURL of the Banner
shows	Text	250	Total shows of the Banner
clicks	Number	Long	Total number of clicks by the Users
active	Text	250	Active Banner or not
page	Text	4	Page category of the Banner

News			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
News_ID	AutoNumber	Long	ID of the News
News _title	Text	80	Title of the News
Short_ news	Memo		Short Description of the News
News _item	Memo		Full News Story
news _Date	Date/Time	Current	Date of News Submission
Comments	Yes/No	T/F	Allowed Comments or not

News Comments			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
Comment_ID	AutoNumber	Long	Id of the Cómments Posted by the User
news _ID	Number	Long	Id of the News
Name	Text	50	Name of the Sender (User)
Country	Text	50	Country of the Sender (User)
Email	Text	50	Email of the Sender (User)
Comments Date	Date/Time	Current	Date of Comments Submission
Comments	Memo		Comments
IP	Text	35	IP Add of the Sender (User)

NewsConfiguration			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
No_records_per_page	Number	Integer	Number of News Displayed per page
Message_char_no	Number	Long	Max number of Character in Comments Box
Email_address	Text	50	Email of News Provider
Email_notify	Yes/No	T/F	Admin Email Notification
mail_component	Text	10	Type of Mailing Component
mail_ server	Text	60	Outgoing SMTP Mailing Server
Title_image	Text	70	Site News Title Image Location
Cookie	Yes/No	T/F	Anti-Spam Cookies
IP_ blocking	Yes/No	T/F	Anti-Spam IP Blocking
No_ of_ preview _items	Number	Long	No of Preview News Items

News Letters Configuration			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
Website _name	Text	35	Web site name to be Shown on News Letters
website_ address	Text	70	Web site add to send with each News Letters
website_ email_ address	Text	60	Web site Email to be send with News Letters
Test _email _address	Text	60	Testing Email add to send News Letter on it
mail_component	Text	10	Type of Mailing Component
mail_ server	Text	50	Outgoing SMTP Mailing Server
bg_ colour	Text	12	BG color for Mailing List Module
Text _colour	Text	12	Txt color for Mailing List Module
Text_ type	Text	50	Txt type for Mailing List Module
Text_ size	Number	Integer	Txt size for Mailing List Module
links_ colour	Text	12	Links color for Mailing List Module
Visited _links_ colour	Text	12	Visited Links color for Mailing List Module
active_ links_ colour	Text	12	Active Links color for Mailing List Module
Welcome_ message	Memo		Welcome Message to New Subscribed User
Welcome_ format	Text	10	Format of the Welcome Message

NewsLettersMailingList			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
Mail_ID	AutoNumber	Long	Id of the subscribed Email Add
Email	Text	40	Subscriber's Email Add
ID_Code	Text	30	Subscriber's Email Add Code

tblSmut			
FIELD NAME	**DATA TYPE**	**SIZE**	**DESCRIPTION**
Smut	Text	50	Banned Word
Word_replace	Text	50	Replacement of Smut