# PATIENTS DIAGNOSIS SYSTEM



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A Project report is submitted to the Quaid-I-Azam University Islamabad in the partial fulfillment of the recruitment of the postgraduate Diploma in Computer Science.

#### **Computer Center**

#### **Quaid-e-Azam University**

Islamabad.



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#### **Final Approval**

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## Preface to Project

This project titled with Patient Diagnosis System has been developed with Oracle & Developer 2000. This System provides efficient means of data storage & retrieved through Variety of fields. During the storage of information various validation-checks are provided on the data, which improves the reliability and accuracy of the system.

Advantage of computerized system is it provides great amenity for retrieved of information in the form of report. At the key point in a project the user is given the opportunity to achieve required objectives by carrying out short tests. It is hoped by using this software error-free report regarding the patient's can be obtained.



### **Project Brief**

Project Title:

Patient Diagnosis System

Objective:

Patient Diagnosis system and Treatment of

Patient.

Under taken By:

Sher-ur-Rehman & Najeeb ullah Khan

Supervised By:

Dr.Ghulam Muhammad

Starting Date:

10th July 2003

Date of Completion:

20<sup>th</sup> September 2003

Source Language:

Oracle 7.3 & Developer 2000

Operating System used:

Windows 2000

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## INTRODUCTION

#### Unit-1

#### INTRODUCTION:

In the Present Days the computer has become a part of life. Every activity of life through computer has become more active and quick. Now Computers are used in hospitals to overcome the problems of the doctors due to the increasing number of patients. Therefore, there is need to develop such software through which doctor can have direct and easy access to the data Released to the patient The database of patient diagnosis system of Pakistan Institute of Medical Sciences, has developed according to the need of the hospital. One can access the data thoroughly about each and every information of the patients related hospital staff and all others hospital related information can be accessed easily.

#### 1.1 Objectives of the study: -

This software provides diagnosis, evolution, and treatment. Have new and follows up patients suffering from different diseases. It's activates in the Past few years have encompassed all areas of clinical work which comes under its Fields. Statistical data indicate and increasing work load on the hospital. Keeping in View this increasing workload can wastage of precious time utilizing the costly Equipment due to the slow manual file work? So it is needed to computerize the medical Treatment system. Therefore, the present system study was carried out to design a database Which will provide relevant information about any patient visiting to the hospital.

#### 1.2Existing system: -

Presently there is a conventional card based system in the hospital. Therefore through every patient is registered. The patient diagnosis system provides us all information about the patient and their treatment as well as the relevant hospital database.

#### 1.3 History of Patient: -

In this software first of all patient's registration will be done, after registration it will be decided whether the patient is serious or not if it is got serious trouble then be admitted in the hospital the computer will Save his history and then take further decision according to the patient's history. Computer will record his data and will decide whether the patient is serious to be admitted in the hospital or only provide him little treatment and consider as outdoor patient.

#### 1.4Diagnosis of Diseases: -

When a history and all relevant record of the patient is entered to the computer then it will be decided by the computer that which disease a patient has and according to his symptoms the related doctor is to taken his treatment. If the case is very serious and the doctor at the spot does not able to treat the patient properly so they may be suggested to refer any other hospital or doctor. If symptoms are not properly entered then computer will not give any reasonable response. This software has facility to decide the indoor and outdoor patient and allot him a related ward no and bed no. As well as the charges of different things will also be considered.

#### 1.5Treatment of Patient: -

After the diagnosis of disease the computer will suggest. The proper treatment corresponding to the disease. We can also add any medicine. According to the condition of patient. The patient diagnosis system has a facility to provide us information about the patient related to his disease and well as the hospital account system.

#### 1.6Record Of Patient: -

All the patients will be registered according to the patient. Login name and password. The system has facility that every record of patient that is record of blood pressure record of lab test record of food, fees, checkup, and record of medicine. We can easily search of record of any patient within no time through ID No.

#### Functionality Of System: -

#### a) Patient Entry Discharge System:

This Section deals with the registration, admission and discharge of patient. This section consists of the following three forms.

#### i. Patient Registration Form:

In this form the bio-data of a patient that arrives the hospital is recorded. All the fields of the form are filled from information provided by the patient. Only one field is filled by the operator which is 'Dept\_Id' which refers the patient to the relevant department. In this form one or more fields may or may not contain nil entries. Pat ID is primary key.

#### ii. Patient Admission Form: -

In this form the record of those patient is maintained which are treated as indoor patients.

#### b) Patient Diagnosis Activities: -

This section is the core of the "patient Diagnosis System". This section maintains the record of those activities, which are involved in the diagnosis of disease of the patient.

#### i. Patient Temperature Form:

This form is specially used for recording of the patient's temperature.

#### ii. Patient Blood Pressure Form: -

This form is used for recording blood pressure of the patients.

#### iii. Lab Test Form: -

This form is used to maintain the record of patient's those tests which are done in the hospital's laboratory.

#### iv. Patient Check Up Form: -

This form is used for recording patient's check up like ECG, X-Ray etc, and related information.

#### v. Disease Form: -

In this form all the known diseases and their symptoms are recorded. It is to consult by the doctor during course of diagnosing the disease of a patient.

#### vi. Disease Diagnosis Form: -

This form is used by the doctor which diagnosing the disease of the patient.

#### vii. Death Form: -

This form is used to update if a patient dies during diagnosis or treatment.

#### c) Patient Daig- Exp System: -

This section deals the expenditures incurred by the diagnosis of the disease. It consists of the following forms.

#### a) Lab Test Form: -

#### b) Check Up Form: -

#### c) Patient Used Medicine Form: -

This form is used to maintain record of the medicines used by the patient during the disease diagnosing activities.

#### d) Patient Ward Form: -

This form is used to record information of the patient related to ward, if the patient is admitted.

#### e) Patient Food Form: -

This form is used to record food expenditure and related information of the indoor patient.

#### f) Patient fee Form: -

This form is used to receive fees from the patient. Fees amounts and related information are entered in this form.

#### 5) Hospital Record updating system: -

This section is the database of the hospital when all the information related to the hospital is stored. This section consisting of many form which need updating during the course of time and could be easily updated.

#### General Reports: -

This section is meant for reports, which need to print in different times and in different circumstances. Some reports that will be printed often are prepared.

#### Discharge Form: -

When a patient is discharged then this form is used. It is bill form more than discharge form.

#### Patient general Information System: -

This System is specially meant for different quarries about the patients, Doctors diseases etc. This section consisting of many master detail forms. Each form is discussed in detail as under:

#### I. Patient Temp Form: -

This form is used to view the temperature of a patient recorded at different times.

#### II. Patient Bp Form: -

In this form the blood pressure of a patient checked at different times is viewed.

#### III. Patient Check Up: -

In this form the different checkups of a patient and their result are observed.

#### IV. Patient Ward: -

In this form it is observed that which patient is in which ward.

#### V. Patient Tests: -

In this form patient's different laboratory tests, their results and other related information are enquired.

#### VI. Patient Used Medicine: -

In this form the different medicines used by a patient during the diagnosis of disease is observed.

#### VII. Doc Adm: -

In this form different patients admitted by doctor are observed.

#### VIII. Doc Daig: -

In this form different patients diseases diagnosed by a doctor are observed.



## **Proposed system**

#### Unit 2

#### PROPOSED SYSTEM

#### 2.1 Study Phase: -

We achieved the following from study phase.

- > The problem is clearly defined and identified.
- > The objectives of the proposed are defined.
- > The recruitment of the system are analyzed and noted.
- Performed the feasibility study and selection of most feasible solution.
- > Study of various other solutions and possibilities.

Following are the main requirements of the system.

#### 2.1.1 Requirements of the proposed system: -

System must be capable of doing things in order to fulfill the Requirements of the proposed system. How it is possible to implement the system. It is designed on the bases

Of the user's requirements and problems faced by him. How the system can be functional in itself and it is environment and should behave under certain conditions.

Another requirement indicates about the physical environment of human. Behavior and interface. According to the suggestion and requirements, development of software and selection of hardware discuss below. There are main functions of data and detail information. Inputting the data and detail information. Outputting of this information. The main program should manage all the processing and storage of this Information. Beyond the major functions the most important thing is that the program must keep control on input and output activities as well as storage along With the processing of information inside the memory. So, keeping in view. All these factors and problems, the selection of programming language or database package is. Therefore database tool should Selected as database system because it provides more features and control our huge data.

#### 2.1.2 Objective of the proposed system: -

Having detailed study of the main objectives of the proposed system is following;

#### Easy input of data: -

In the present fast moving world where time is very important so the System should be designed in such a way that inputting of data and storage facilities must Be simple and easy to use.

Easy access and availability of information: -

System should have been designed in such a way that it could provide facilities for each and quick access for stored information.

#### Efficient update system: -

The new system provides efficient update facilities. Editing and changing in data should be possible.

#### Important checks and confirmations: -

In order to maintain correctness of data during the input process, the proposed system uses the no. Of validation and variety of warnings is given before processing of data.

#### Flexibility of the system: -

The proposed system has been made so easy that even those people who have limited knowledge of computer can use it. Simple letters and keys should have to be used wherever it is possible. It provides facilities the users for entering the data and saves the time and memory. Its also helps the user to identify the problems which may occur during the data entry process and information which was not return properly can be corrected.

#### 2.2 Design Phase: -

The objectives of this phase are given below;

Design of the input and output data.

Development of the logic for the implementation of the objective identified by the

Proposed system.

Designing of input and output files to the logic.

Documentation of logic.

#### 2.3 Development Phase: -

The major considerations in this phase are as follows: Development of computer program. We can test of complete system software.

#### 2.4 Proposed System: -

After the detailed study of the objectives and requirements of project, a model is developed which can satisfied all the requirements and outputs. The outputs were finalized according to the objectives and necessary requirements.





## System design phase

#### Unit 3

#### System Design Phase

This unit gives the detail of the system specification, flow of Information, processing and design of output files. In system designing phase there are no of steps involved. First of all involves of designing of impacts in form of screen displays, which the system required to produced. After that second step covers the out data and information which will be used by the screen, decided already according to the requirement. Finally, the program logic is designed which can hold all the inputs. In this phase while designing the program inputs available and output required are considered. So, all over this unit briefly described all the above steps.

When the form c:\orawin 95\Form45\Shayan-1\Main\_System is opened And run, then one will enter into the main switchboard having 7 labeled buttons. The Last button labeled "Exit" is to close the system. The other six buttons represent six Subsections pressing a button open the relevant sections switchboard, in which one may select a button of one's choice, which on pressing opens the required form. In which one can enter data into the form or retrieve the already stored data.

The system design has the following the major parts.

- Input Design.
- Output Design.
- Program Logic.

#### 3.1 Input Designing: -

The first step of the system design is to describe the input designing Required producing the proposed outputs. The computerized database system handles manually Prepared information (Patient Diagnosis) provides to the data entry operator who is responsible to the enter the correct data to the system.

If the operator does not give the correct data he should not expect the Reasonable output. An excellent data entry system must be designed to give a reasonable performance while designing the inputs following parameters would be helpful.

#### 3.1.1 Code Designing: -

The code is a brief title, which is composed of combination of numeric number, which is used to identify data item of data. Code must be unique for each patient that is why in proposed computerized system there is an arrangement to allot a code number in automatic ways just to avoid the duplication of data, in code designing codes needed to be design carefully.

#### For example,

Description of patient ID

ID

INT

Size= 13

ID is an access key and all the processing takes place regarding this primary key.

#### 3.1.2 Designing of input Screen: -

Input plays a very important role to provide relevant

data.

For processing and producing required results. Perfect design inputs increase level of accuracy, the designing. Must carefully planned. Inputs help in providing necessary information for the accomplishment of objectives of the system. Therefore, inputs must be easy to understand and convenient to use.

While designing the inputs, the objectives are given below.

Screen is used for the purpose of data entry. The data is entered from the patient's registration slip.

Most common information that any person may require is entered.

- Only important information must be input and all the redundant fields Should be removed.
- Length and size of each field is designed according to its importance.
- Expected space for each entry is provided.

#### 3.2 Output Designing: -

The output requirement plays a vital role in the system designing therefore before designing the system all inputs must be clearly defined. The major

function of any system is to produce relevant and timely information when needed. The outputs of any system determine the efficiency and reliability. Outputs must be design in such a way that it must contain all types of Information, which are needed for the system.

These outputs can be placed into the following categories.

#### 3.2.1 Reports: -

This software generates the different types of reports, which are given.

#### Patient description: -

The patient description describe the detail report about the patient's history through which computer can easily diagnose the disease.

#### Diagnosis of patient disease: -

Based on the patient's history the computer wills diagnosis the disease and its type in detail.

#### Medicine Description: -

Based on the diagnosis the computer will suggest the list of medicines along with its dose side effect and cautions.

## Unit 4

## Software Development and Implementation

#### Unit 4

#### Software Development and Implementation

#### Language Selection: -

Selection of a programming language is an important task while developing a system. But selection of a suitable programming language or package is very difficult because certain facilities provided by the different languages and packages. Selection of language also depends upon the problem nature. Keeping in mind the objectives of the proposed system. Oracle is preferred for developing patient diagnostic system. Oracle carries following advantages.

#### 4.2 Software Development: -

The develop software is named as Patient Diagnosis System and provides the following five Main Modules.

- 1 Security Module
- 2 Insertion Module
- 3 Retrieval Module
- 4 Modification Module
- 5 Reports

#### 4.2.1 Security Module: -

This Module is for security purpose. First of all the user will provide the user name & password. If any one of these two does not match with the actual user name and password the message will display at the top of the screen that is invalid user name or password.

#### 4.2.2 Insertion Module: -

Data entry in data tables means writing records at the end of Files due to special design code no, it is possible to insert record all regards at any time Position in the data table. Whenever it is necessary to insert new record into the file it is possible that the current data should automatically be located at its place.

#### 4.2.3 Retrieval Module: -

In this module by using the main menu any person may get any information about the patient, staff, medicines & related hospital inquiry within no time.

#### 4.2.4 Modification Module: -

In this module we can modify any existing record in the patient's record or treatment record by specifying the patient's revised history, as well as all the records of doctors, patients may be modified accordingly.

#### 4.2.5 Reports: -

When we modify the records all the reports will automatically be modified. If we want to take the printed shape of patient's diagnosis reports, we can get it within no time. The system has facility that all patient's diagnosis system reports may be provided in required shape.

Technologies and Software Used: -

- Oracle 7.3
- Developer 2000



## **Physical Database Design**

#### Unit 5

#### Physical Database Design

#### Database Structure: -

The data base files that were designed mainly consist of the forms and applications, which are being used in the hospital. These files were designed by recommendation of the computer. These requirements were given main priority.

Here is the structure description of some database files.

#### DOCTORS: -

Field	Field Name	Type	Width	Description
1	Doc_id	Number	30	Doctor's identification
2	Name	Char	30	Name of concern doctor
3	Sex	Char	255	Male or female
4	BPS	Number	3	Grade of doctor
5	Dept_id	Number	255	Identification of department
6	SP_id	Char	30	Specialization categories
7	Design	Char	30	Designation of doctor's

#### SPECIALIZATION: -

Field	Field Name	Type	Width	Description
1	SP_ID	Number	255	Specialization, Identification
2	Name	Character	50	Specialized Doctor Name

#### **DEATHS:** -

Field	Field Name	Type	Width	Description
1	Pat_ID	Number	255	Patient Identification
2	Resp Doc_ID	Char	50	Doctor's Receipt
3	Death Causes	Char	50	Cause Of Death
4	Death Date	Date	10	Date of Death
5	Death Time	Time	10	Time Of Death

#### ADMISSION: -

Field	Field Name	Type	Width	Description
1	SNO	Number	255	Serial number
2	Pat_ID	Number	255	Patient's Identification
3	Doc_ID	Number	255	Doctor's Identification
4	Adm Date	Char	Date	Admission Date
5	Ward_ID	Number	255	Ward Identification
6	Bed No	Char	255	No. Of Bed
7	Adm_Time	Time	255	Time Of Admission

#### DIAGNOSIS: -

Field	Field Name	Type	Width	Description
1	S.No	Char	255	
2	Pat_ID	Number	255	Patient's Identification
3	Doc_ID	Number	255	Doctor's Identification
4	Type-ID	Number	255	Identification Type
5	Diagnosed Diseased_ID	Number	255	Identification of Diseased Diagnosis
6	Remarks	Char	50	Remarks of Doctor
7	Receipt	Char	50	Receipt Of Medicine
8	Next Visit Date	Date	Date	Next Visit Date
9	Date	Date	Date	Date
10	Referred To	Char	30	Doctor's Reference

#### PATIENT: -

Field	Field Name	Type	Width	Description
1	Pat_ID	Number	255	Patient's Identification
2	Name	Char	30	Patient's Name
3	F_Name	Char	30	Name Of
4	Sex	Char	255	Patient's Sex
5	Dob	Number	10	
6	Arrival Date	Date	Date	Date of Arrival
7	Age	Number	3	Age Of Patient
8	Arrival Time	Time	Time	Time of arrival
9	Problem	Char	50	Problem to Patient
10	Dept_Id	Number	255	Identification Of Department
11	Address	Char	50	Address Of Patient

#### HOSPITAL DEPT'S: -

Field	Field Name	Type	Width	Description
1	Dept_Id	Number	255	Identification OF Department
2	Description	Char	50	Detail of Hospital Departments

#### DOOR TYPE: -

Field	Field Name	Type	Width	Description
1	Type_Id	Number	255	Identification OF Type
2	Description	Char	50	Indoor or Outdoor Patient

#### DISEASE: -

Field	Field Name	Type	Width	Description
1	Diseased_ID	Number	255	Identification OF Disease
2	Description	Char	50	Related Disease
3	Symptoms	Char	100	Symptoms of Patient Disease

#### TEMPERATURE: -

Field	Field Name	Type	Width	Description
1	S.No	Number	255	
2	Pat_ID	Number	255	Identification Of Patient
3	Type_Id	Number	255	Identification Of Type
4	Temperature	Char	3	Temperature Of Patient
5	Date	Date	Date	Date of temperature Recorded
6	Time	Time	Time	Time of temperature recorded

#### BLOOD PRESSURE: -

Field	Field Name	Type	Width	Description
1	S.No	Number	255	Serial No.
2	Pat_ID	Number	255	Identification Of Patient
3	Type_Id	Number	255	Identification Of Type
4	Temperature	Char	3	Temperature Recorded
5	Date	Date	Date	Date of Blood Pressure recorded
6	Time	Time	Time	Time of Blood Pressure recorded

#### BILL: -

Field	Field Name	Type	Width	Description
1	S.No	Number	255	Serial No.
2	Pat_ID	Number	255	Identification Of Patient
3	Type_Id	Number	255	Identification Of Type
4	Test Charges	Char	255	Charges Of Test
5	Check Up Charges	Char	255	Check Up Charges
6	Fee	Char	255	Hospital Fee
7	Medical Charges	Char	255	Medical Charges
8	Ward Charges	Char	255	Ward Charges
9	Food Charges	Char	255	Food Charges
10	Total Admission	Char	255	Total Admission

#### PATIENT TEST: -

Field	Field Name	Type	Width	Description
1	S.No	Number	255	Serial Number
2	Pat_ID	Number	255	Identification Of Patient
3	Type_Id	Number	255	Identification Of Type
4	Test_Id	Number	255	Identification Of Test
5	Test Result	Char	255	Test Result
6	Test Charges	Char	255	Test Charges
7	Test Staff_Id	Number	255	Identification Of Test Staff
8	Test Date	Date	Date	Test Date

## LAB STAFF: -

Field	Field Name	Type	Width	Description
1	Staff_Id	Number	255	Identification OF Staff
2	Name	Char	Name	Name
3	Sex	Char	50	Sex
4	BPS	Char		Basic Pay Scale
5	Designation	Char		Designation Of Lab Staff

## LAB TEST HEADS: -

Field	Field Name	Type	Width	Description
1	Test_Id	Number	255	Identification OF Test
2	Name	Char	50	Name
3	Charges	Number	255	Number

## PATIENT CHECK UP: -

Field	Field Name	Type	Width	Description
1	S.No	Number	255	
2	Pat_ID	Number	255	Identification Of Patient
3	Type_Id	Number	255	Number
4	Check Up_ID	Number	255	Identification Of Check Up
5	Check Up Result	Character	250	Check Up Result
6	Check Up Charges	Number	255	Check Up Charges
7	Check Up Staff_Id	Number	255	Identification Of Check UP Staff
8	Check Up Date	Date	Date	Check Up Date

## CHECK UP HEADS: -

Field	Field Name	Type	Width	Description
1	Check Up_ID	Number	255	Identification Of Check Up
2	Name	Char	50	Name
3	Charges	Number	255	Charges

## CHECK UP STAFF: -

Field Name	Type	Width	Description
Staff_Id	Number	255	Identification Of Staff
Name	Number	255	Name
Dept_Id	Number	255	Identification Of Department
Name	Char	255	Name
Sex	Char	255	Sex
BPS	Number	2	Basic Pay Scale
Design	Char	30	Designation
	Staff_Id  Name  Dept_Id  Name  Sex  BPS	Staff_Id Number  Name Number  Dept_Id Number  Name Char  Sex Char  BPS Number	Staff_Id         Number         255           Name         Number         255           Dept_Id         Number         255           Name         Char         255           Sex         Char         255           BPS         Number         2

## MEDICINES: -

Field	Field Name	Type	Width	Description
1	Med-ID	Number	255	Medicines
2	Name	Char	30	Name Of Medicine
3	Company	Char	30	Manufacturer company
. 4	U_price	Number	255	Price of Medicines

## PATIENT USED MEDICINE: -

Field	Field Name	Type	Width	Description
1	SNo	Number	255	Serial number
2	Pat_ID	Number	255	Patient identification
3	Type_Id	Number	255	Type of medicine
4	Med_ID	Number	255	Medicine identification
5	U_price	Number	255	Price of medicine
6	Qty	Number	255	Quantity
7	Tot price	Number	255	Total price of medicine
8	Date	Date	Date	Date of medicine used
9	Staff_Id	Number	255	Identification of staff

### Wards: -

Field	Field Name	Type	Width	Description
1	Ward_ID	Number	255	Ward identification
2	Name	Char	30	Patient name
3	No. Of Bed	Number	255	Bed number
4	Charges Per Day	Number	255	Charge of wards

## PATIENT BED: -

Field	Field Name	Type	Width	Description
1	Pat _ID	Number	255	Patient identification
2	Ward_ID	Number	30	Ward identification
3	Bed no	Number	255	Bed number

## PATIENT WARD: -

Field	Field Name	Type	Width	Description
1	SND	Number	255	Patient identification
2	Pat_ID	Number	255	Identification Of Patient
3	Ward_ID	Number	255	Identification Of Ward
4	Bed_No	Number	255	No. Of Bed
5	Adm_Date	Number	255	Date Of Admission
6	No. Of Days	Number	255	No. Of Days
7	Che_Paid	Number	255	Check Paid
8	Ward_Charges	Number	255	Ward Charges
9	Date	Char	Date	Date Of Admission
10	BPS	Number	2	Basic Pay Scale
11	Staff_Id	Number	255	Identification Of Staff

## PATIENT FOOD: -

Field	Field Name	Type	Width	Description
1	S.No	Number	255	Serial No.
2	Pat_ID	Number	255	Identification Of Patient
3	Adm_Date	Date	Date	Date Of Admission
4	No. Of Days	Number	255	Number Of Days
5	Char_PD	Number	255	Charges Per Day
6	TOT_Char	Number	255	Total Charges
7	Date	Date	Date	Date Of Food given
8	Staff_Id	Number	255	Identification Of Staff

## DAYS: -

Field	Field Name	Type	Width	Description
1	Day_Id	Number	255	Identification Of Day
2	Desc	Char	50	Description

## PATIENT FEE: -

Field	Field Name	Type	Width	Description	
1	S.No	Number	255	Serial No.	
2	Pat_ID	Number	255	Identification Of Patient	
3	Type_Id	Number	255	Identification Of Type	
4	Fee_Id	Number	255	Identification Of Fee Paid	
5	Fee_Amt	Number	255	Amount Of Fe	
6	Date	Date	Date	Date of fee deposited	
7	Staff_Id	Number	255	Identification Of Staff	

## FEE HEADS: -

Field	Field Name	Type	Width	Description
1	Fee_Id	Number	255	Identification Of Fee Paid
2	Name	Char	50	Name
3	Amt	Number	255	Amount Of Fee

## MEDICINE STAFF: -

Field	Field Name	Type	Width	Description
1	Staff_Id	Number	255	Identification Of Staff
2	Name	Char	30	Name Of Staff
3	Sex	Char	255	Sex of Medicine Staff
4	BPS	Number	2	Basic Pay Scale
5	Design	Char	30	Designation

## ACCOUNT STAFF: -

Field	Field Name	Type	Width	Description
1	Staff_Id	Number	255	Identification Of Staff
2	Name	Char	30	Name
3	Sex	Char	255	Sex
4	BPS	Number	2	Basic Pay Scale
5	Design	Char	30	Designation

# Unit 6

## Conclusion

#### Unit 6

#### Conclusion

A computerized data system has been developed. The system provides efficient way of data storage and several retrieval methods, through specific field description.

#### 6.1 Feeding: -

During the storage of information different validation checks and signals Against these checks are provided on the data before a final entry.

#### 6.2 System Evaluation: -

An evaluation of a newly developed computerized system is necessary to judge weathers the objectives setout for the system have been achieved or Ont. system is reviewed and evaluated with respect to completion, correctness and consistency. The new computerized system has a number of advantages over the old one. Some are given below.

#### Efficiency: -

The new system is efficient and suitable for easy for retrieval within a short Time. This database responds the quickly and accurately. The reason for this quick approach directly to their required record is due to the usage of a standard query language. While in old system data remains in register and files whereas retrieval of information takes a long period of time. While the new system has been designed in such a manner that even a layman does not face any problem during the data information, retrieval and modification and formation of reports.

#### Correctness: -

The result produced by the new system is accurate which is made possible by providing validation checks all the data entry fields. Thus the system assures the results that are outputs are correct.

#### Reliability: -

The proposed system is more reliable and efficient then the old one's. In this system the data can be copied for backup and kept are another place and thus the risk of loosing and damaging of data is reduced.

#### Consistency: -

Duplicate information and details create many problems as is done in the manual system. But in the proposed system different validation, routines are provided which update the files different times. So, consistency is achieved to some extent, by providing automatic generation of code numbers.

#### Minimum Redundancy: -

There is a minimum redundancy in the new developed system. The data files are designed in such a way that minimum data is duplicated. This process is very important that helps the system to work in better way and saves storage space and time of processing.

#### Easy Modification: -

Operation of a new computerized system becomes simple and it's modification becomes easy. This is because of the flexibility provided by the system which makes it convenient in daily use. The system is designed in such way that it could provide the user with the facility of modification or change of data. When ever required but change in record number (ID No.) can't be done.

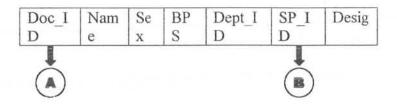
#### Screen Designing and Operation: -

The input screen and operation of the system are so easy and simple that even a person with no background of computers can also understand these operations without any difficulty.

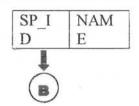
Unit 7

## **Batch man tables**

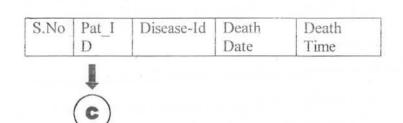
### DOCTOR: -



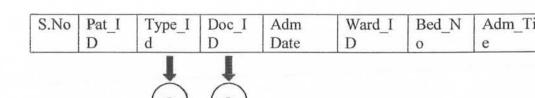
### **SPECIALIZATION: -**



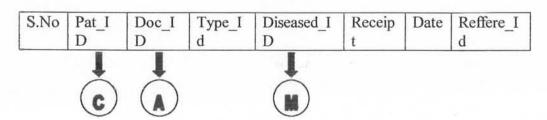
#### DEATHS: -



### ADMISSION: -



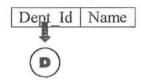
## **DIAGNOSIS:** -



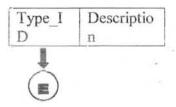
### PATIENT: -

Pat_I D	Nam e	F_Nam e	Se x	DOB	Arr_Date	Age	Arrival Time	Proble m	Dept_I d	Ac
1	е	е	X				Time	Į m	a	SS

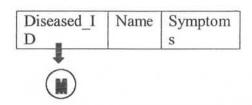
### HOSPITAL DEPT'S: -



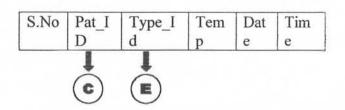
### DOOR TYPE: -



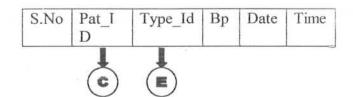
#### DISEASE: -



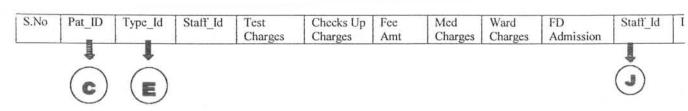
## **TEMPERATURE: -**



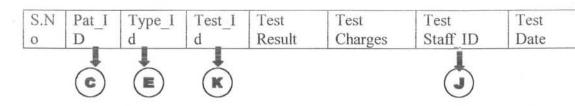
#### **BLOOD PRESSURE: -**



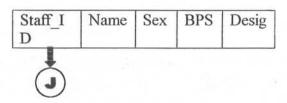
#### **DISCHARGE BILL: -**



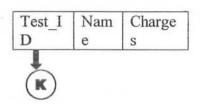
#### PATIENT TEST: -



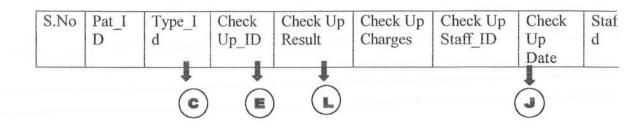
#### LAB STAFF: -



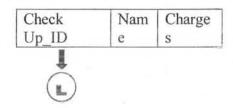
#### LAB TEST HEADS: -



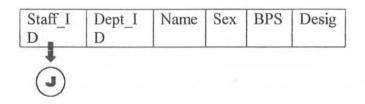
#### PATIENT CHECK UP: -



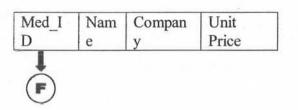
### **CHECK UP HEADS: -**



### CHECK UP STAFF: -



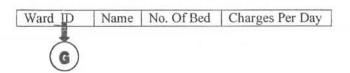
### **MEDICINES: -**



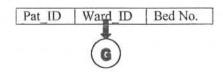
### PATIENT USED MEDICINES: -

1 1

### WARDS: -



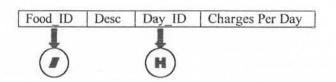
### PATIENT BED: -



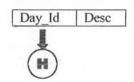
### PATIENT WARD: -

SNO	Pat_ID	Ward_ID	Bed No	Adm_date	No. Of Day	Cha_p d	Ward Charges	Date	BS	S
			•							

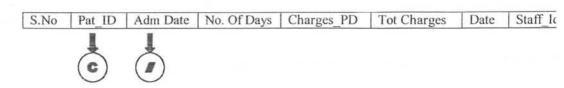
### PATIENT FOOD: -



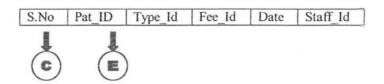
### DAYS: -



#### PATIENT FOOD: -



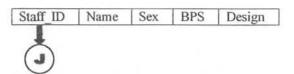
### PATIENT FEE: -



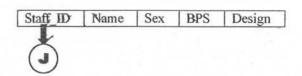
#### FEE HEADS: -



### MEDICINE STAFF: -

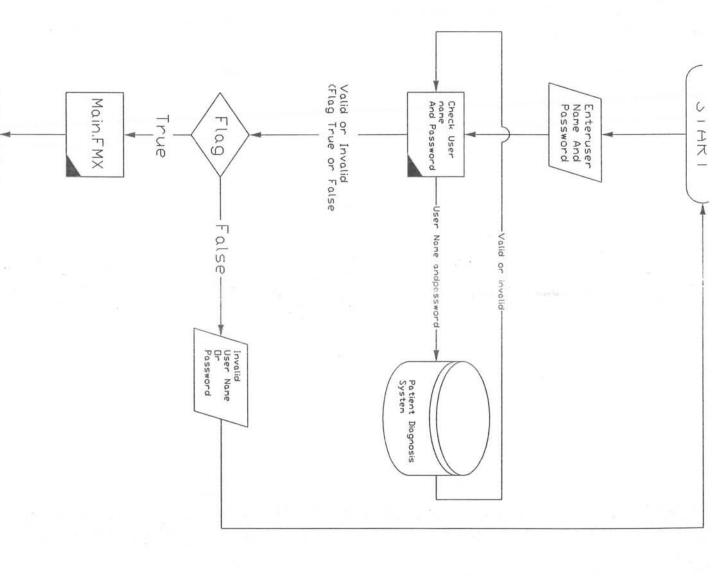


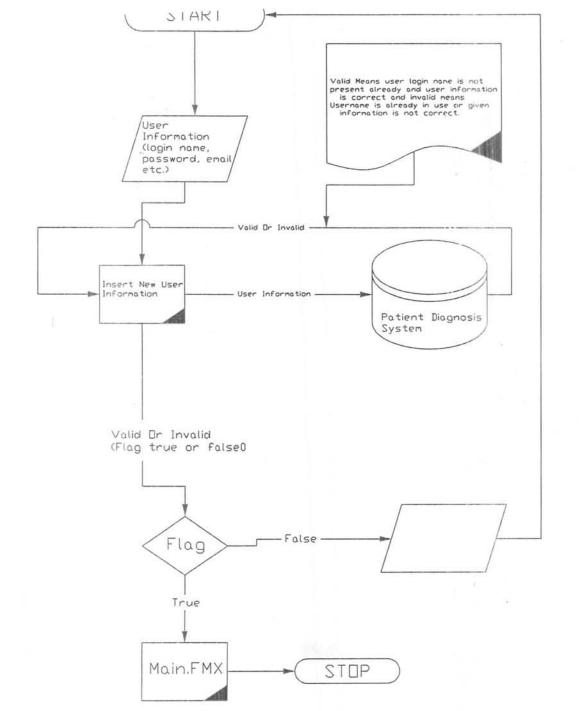
### ACCOUNT STAFF: -



# Unit 8

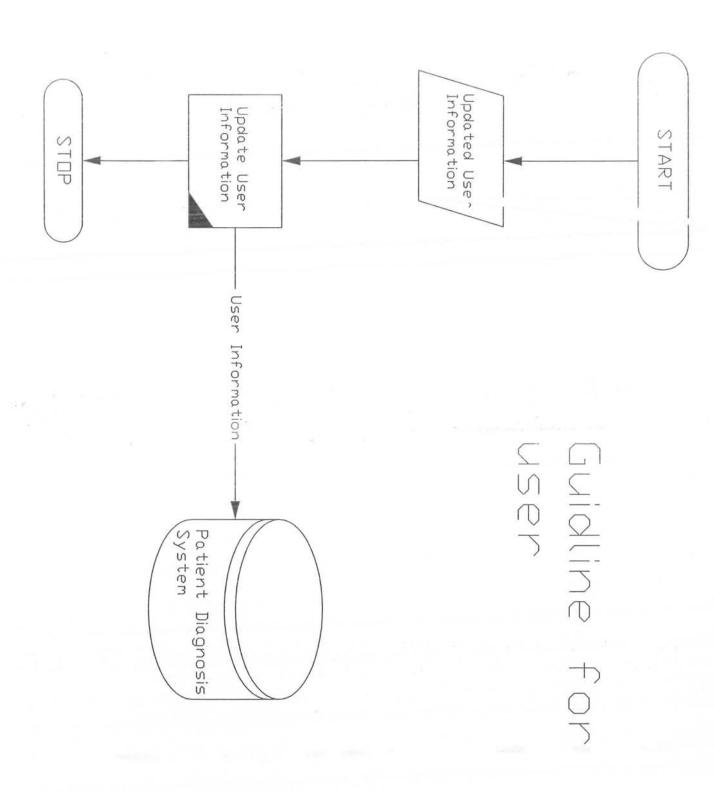
## System flowcharts







## User Information



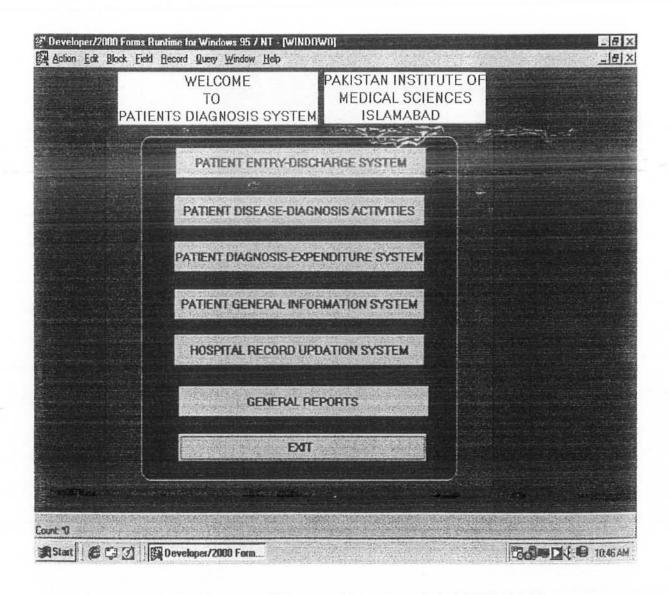
## disease diagnostic

# Unit 9

# Forms



This form is used as a main switchboard for patients entry and discharge system all the others sub switchboard are attached with this switchboard.



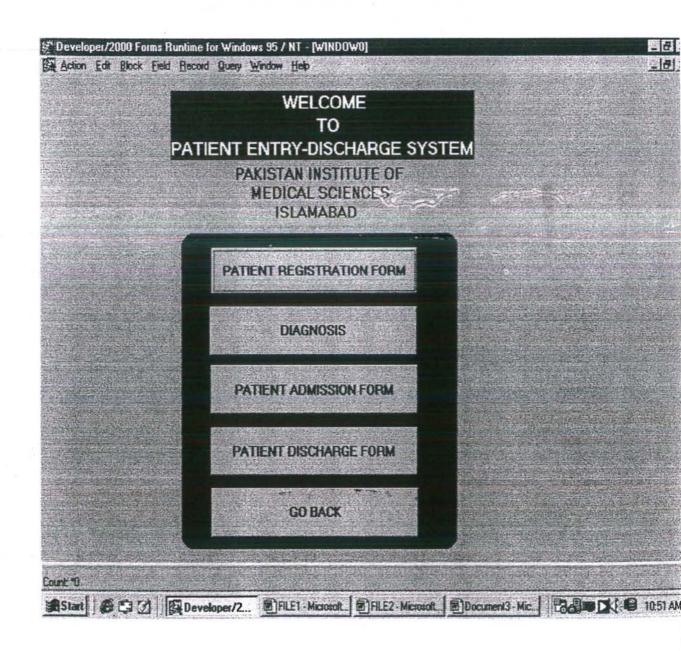


This form is used for inputting the initial record of the patients all the information related to patients is being present here.

	MED	AN INSTITUTE O ICAL SCIENCES SLAMABAD			
Pat Id	10	PATIENTS Hame Magni	JILA SHAH	7	
F Name	AHMAD SHAH	Sex			
Arr Date		Age 33	1		
Arr Time	29-JUL-03 11 57 24	Problem HEAL	ACK		
Dept Id	122	Disti ISLA	MABAD	1	
Teh	ISLAMABAD	city JSLA	KABAD		
P 0	SITARA MARKET	Sector G-77			
St No	12 12 12 12 12 12 12 12 12 12 12 12 12 1	H Ho [6			
	Ph [28	372172			
	4 4 5	>> Query	Go BACK		

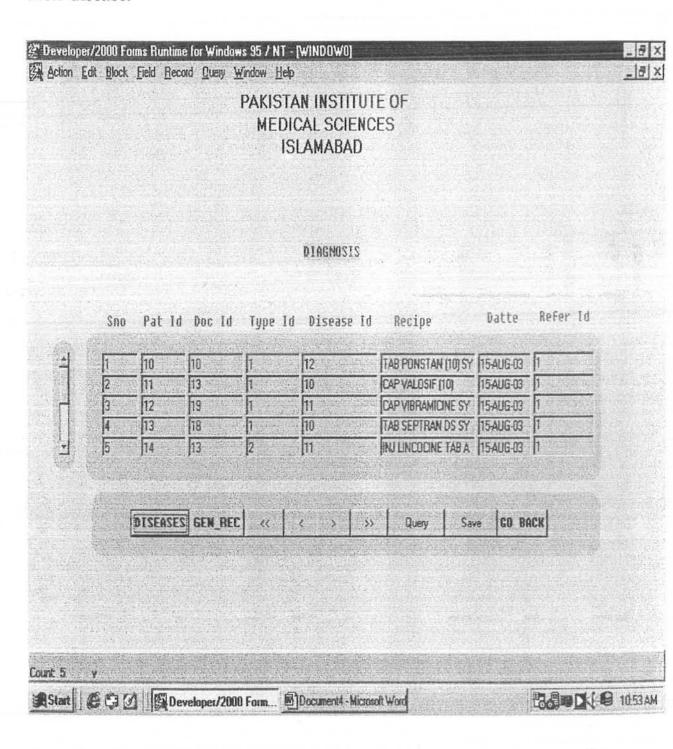


This form is used as a main switchboard for patoent entry and discharge system.

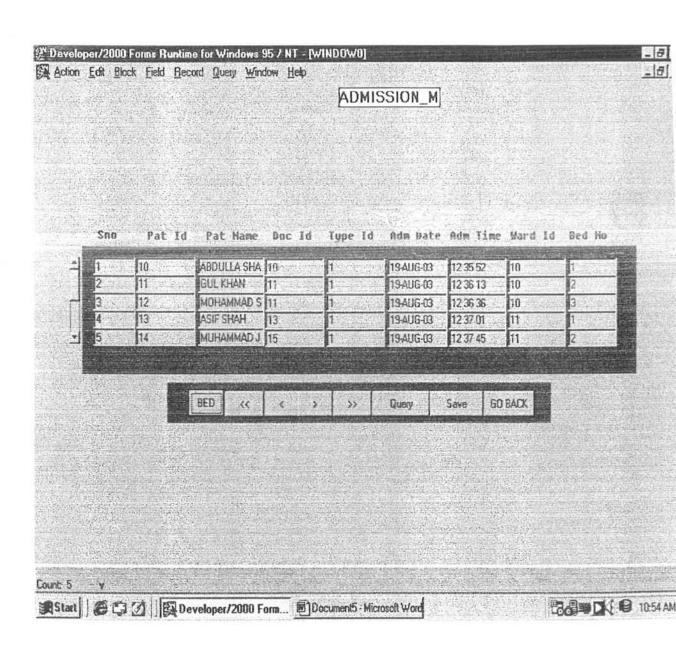


## Diagnosis

This form is used for inputting the record of the patients while diagnosis their disease.

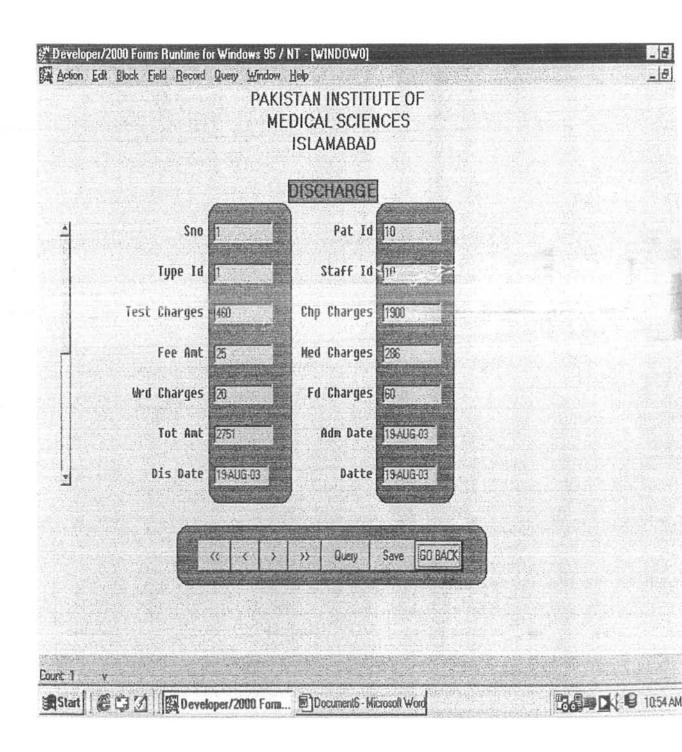


This form is used for inputting the record of the patients who are being admitted in the hospital.



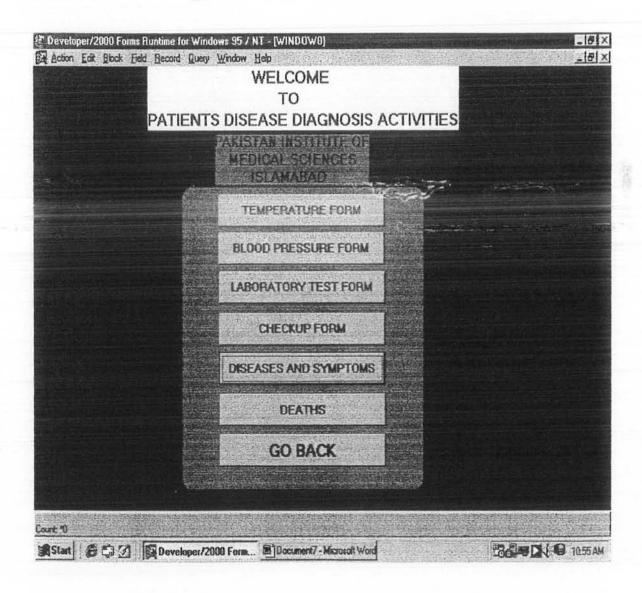
## Discharge

This form is used for inputting the record of the patients who are being discharge from the hospital.

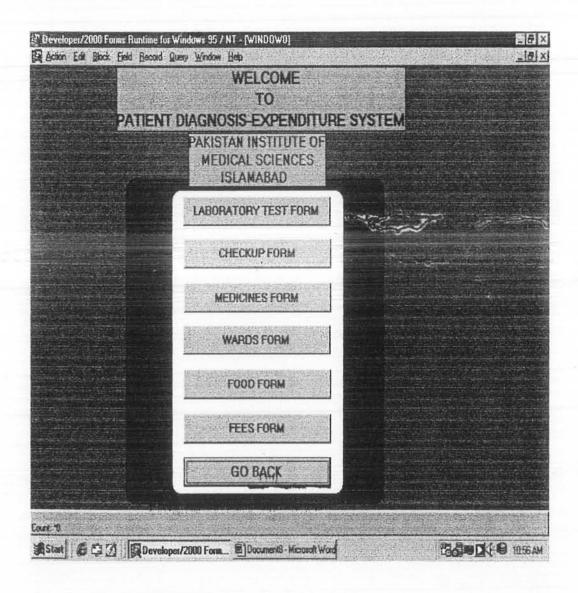


## admitted palieti recom

This form is used as a main switchboard for the record of patients who are admitted in hospital all the record like temp.bp etc are being attached to this form.

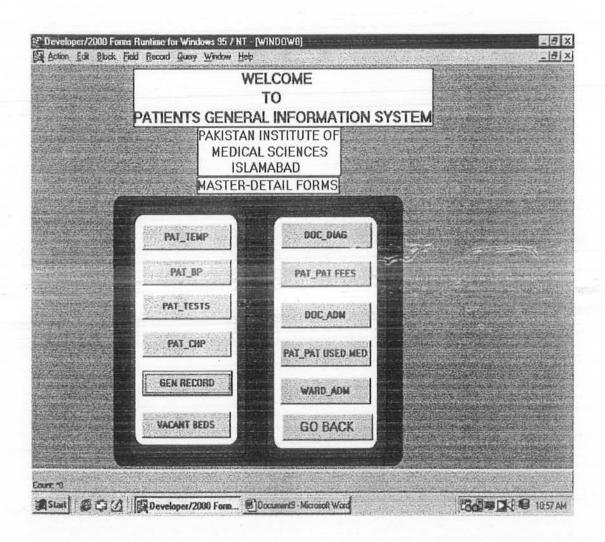


This form is used as a main switchboard for the record of patients who are admitted in hospital all the record like labtest, checkupforms and all the fees are being attached to this form.



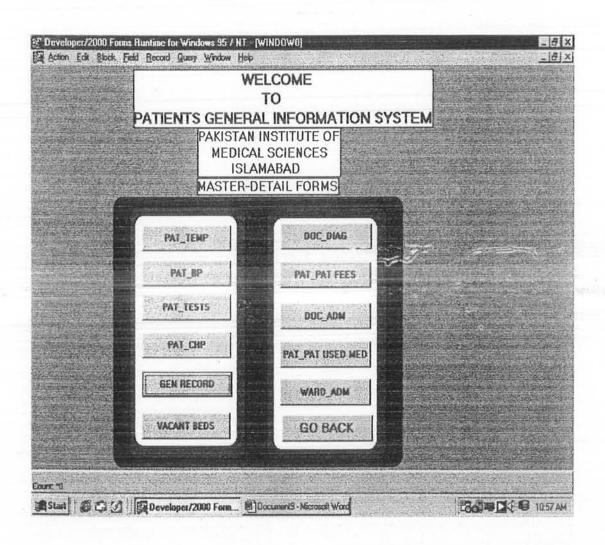
## Constal In Applied System

This form is used as a main switchboard for the general record of patients who are admitted in hospital.



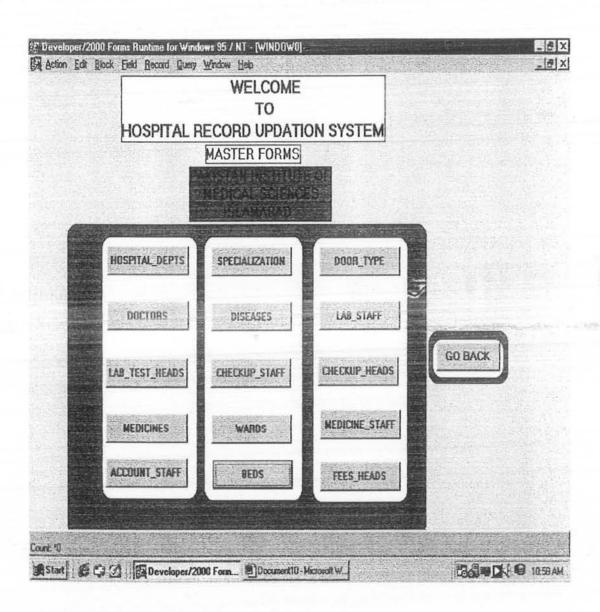
## 

This form is used as a main switchboard for the general record of patients who are admitted in hospital.



## SWITCHBOARD

This form is used as a main switchboard for the updation of record of the hospital all the information of the hospital is updated through this switchboard.



# SWITCHBOARD

This form is used as a main switchboard for the general reports for printing purpuse.

GENERAL PAKISTAN INSTANTAN INSTANTAN INSTANTAN INSTANTAN	TRUTE OF	
DEPARTMENTS	DOCTORS	
TESTS HEADS	DEATHS	
CHECKUP HEADS	WARDS	
MEDICINES	PATIENTS	
RECIPE	BILL	
DISEASES	GO BACK	



