



# PROJECT

Done By:

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# Hospital Management System

## Abstract from the Project

A Hospital Management System is like a digital assistant for hospitals. It helps keep track of everything from patient check-ins and doctor appointments to treatments and records.

This computerized tool makes it easy for hospitals to manage patient details, doctor information, and treatment records. It also provides a way to look at the information in a clear and organized manner.

The goal is to make sure the right patients see the right doctors at the right times, making hospital operations smoother.

## Benefits of Implementing a Hospital Management System:

1. No manual records storage and access problem anymore.
2. Accurate and valid data availability.
3. The Doctors can able to know their appointments very timely and perform.
4. With the Reports analysis we get to know that how many outpatient are suffering from majority of which disease a lot.

## Project Objective

The project aims to create an app to:

- 1) **Make Hospital Records Easier:** Manage hospital records more efficiently.
- 2) **Easy Searching:** Search for information based on different factors.
- 3) **Save Time and Money:** Reduce the time and cost of managing records.
- 4) **Less Paperwork:** Cut down on paperwork.
- 5) **More Accuracy:** Increase the accuracy and reliability of records.

# Scope of Project

Keeping track of OPD, patients, doctors, and treatment records, as well as analyzing medical issues, can be a tough task for any hospital. Our application, designed to make this job easier and more accurate, includes the following features:

1. **Efficient Records Management:** Ensures effective management of hospital records.
2. **Easy OPD and Treatment Records:** Simplifies the management of daily OPD and treatment records.
3. **Data Analysis for Diseases:** Capable of analyzing data related to various diseases.
4. **User-Friendly Interface:** Designed with an interface that is easy for users to navigate.
5. **Simple to Use:** The application is very easy to use.
6. **High-Level Data Security:** Ensures a high level of security for data.

## SYSTEM REQUIREMENT AND SPECIFICATIONS

### Software Requirements:

Operating System	:	All windows versions
Language	:	Python
Platform	:	Jupyter Notebook
Database	:	MySQL
Database driver	:	MySQL Connector
Plotting	:	Bar Chart

### Hardware Requirements:

Processor	:	Inter processors and Ryzen systems.
Hard-Disk	:	Minimum 128 GB of disk size
RAM	:	Minimum 2 GB

### Input/output Requirements:

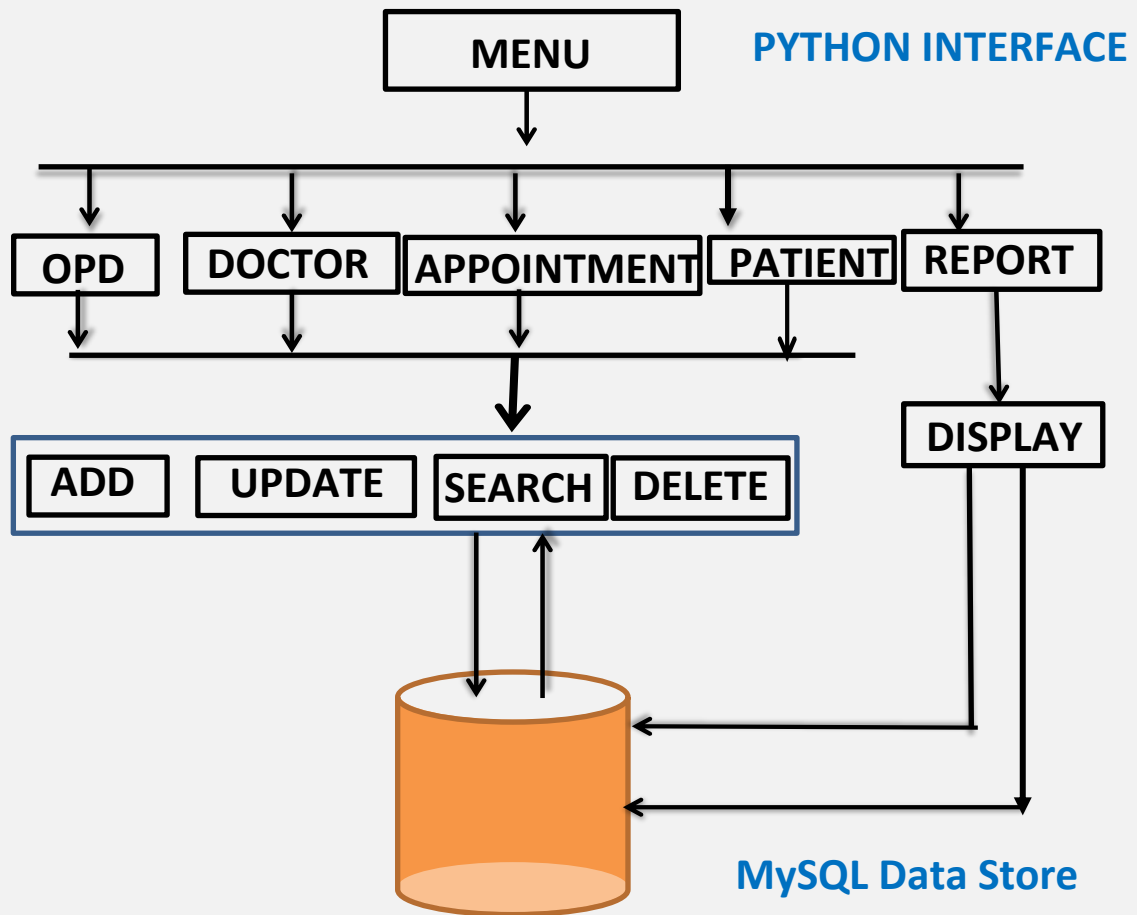
Input	:	Data
Input	:	Valid
Output	:	Desktop Application

# Modules

The Inventory Management System is split into different sections:

1. **OPD Module:** Add, change, or remove OPD data easily.
2. **Doctor Module:** Add, change, or remove information about doctors.
3. **Patient Data:** Add, change, or remove details about patients.
4. **Appointment Module:** Manage information about treatments.
5. **Report Module:** Generate reports like OPD report, Patient report, Doctors report, Treatment history, and see data in charts.

## Data Flow Chart



## Tables

### OPD

OPDNO	INT (PRIMARY KEY)
PNAME	VARCHAR
DNAME	VARCHAR
FEE	INT

### PATIENT

PID	INT (PRIMARY KEY)
PNAME	VARCHAR
PADD	VARCHAR
PMOB	VARCHAR

### DOCTOR

DID	INT (PRIMARY KEY)
DNAME	VARCHAR
DEPARTMENT	VARCHAR
PMOB	VARCHAR

### APPOINT

OPDNO	INT (Foreign Key)
DOA	DATE
PNAME	VARCHAR
DNAME	VARCHAR
SYMPTOM	VARCHAR
TREATMENT	VARCHAR

## The Output: -

## The Main Menu:

```
163  
164 break  
  
The connection is established  
The connection is established  
The connection is established  
The connection is established  
===== Hospital Management System =====  
1. OPD  
2. Doctor Details  
3. Appointment  
4. Reports  
5. Exit  
=====  
enter Your choice:   
  
In [ ]: 1
```

## The OPD MODULE:

```
=====
===== Hospital Management System =====
1. OPD
2. Doctor Details
3. Appointment
4. Reports
5. Exit
=====
enter Your choice: 1
===== OPD DETAILS =====
1. New OPD
2. Edit OPD
3. Delete OPD
4. Search OPD
5. Back to Main Menu

enter your choice: 
```

In [ ]: 1



# 1.1 Adding the OPD details.

```
enter Your choice: 1
===== OPD DETAILS =====
1. New OPD
2. Edit OPD
3. Delete OPD
4. Search OPD
5. Back to Main Menu
enter your choice: 1
Adding the new OPD:
Enter the OPD number: 3
Enter appointment date in (YYYY-MM-DD): 2024-01-20
Enter patient name: Jeslin
Enter patient address:Florida
Enter patient mobile number: 8569856927
The Doctor Details:
+-----+-----+-----+
| did |  dname | department |
+-----+-----+-----+
| 5001 |  Prema |      Ent   |
| 5002 | Pratibha |   Dental  |
| 5003 |   Rama  |   Ortho   |
| 5004 | Renu Desai |   Optha   |
| 5005 |   Sudha | Pediatrics |
| 5006 | Suresh Mehta | Radiology |
+-----+-----+-----+
Enter the doctor ID: 5001
+-----+-----+-----+
| did | dname | department |
+-----+-----+-----+
| 5001 | Prema |      Ent   |
+-----+-----+-----+
enter the symptom: Broken nose
Enter the fee: 18000
OPD record inserted successfully
Appointment record inserted successfully
Patient record inserted successfully
The OPD records are:
```

The OPD records are:

opdno	pname	dname	fee
1	Robert	Prema	16000
2	Tom Cruise	Renu Desai	18000
3	Jeslin	Prema	18000
1001	Hardik	Rama	8900
1002	George	Pratibha	9600
1003	william	Sudha	7500
1004	Joe Biden	Rama	9600
1005	Hillary clinton	Renu Desai	9500
1006	Narendra Modi	Suresh Mehta	6500

## 1.2 Editing or Updating the OPD details.

The OPD records are:

opdno	pname	dname	fee
1	Robert	Prema	16000
2	Tom Cruise	Renu Desai	18000
3	Jeslin	Prema	18000
1001	Hardik	Rama	8900
1002	George	Pratibha	9600
1003	william	Sudha	7500
1004	Joe Biden	Rama	9600
1005	Hillary Clinton	Renu Desai	9500
1006	Narendra Modi	Suresh Mehta	6500

===== OPD DETAILS =====

1. New OPD

2. Edit OPD

3. Delete OPD

4. Search OPD

5. Back to Main Menu

enter your choice: 2

You are modifying or Updating the existing data:

enter the opdno: 1

Enter the Updated fee: 21500

Updated Successfully.

OPD DETAILS

## 1.3 Deleting the OPD details.

```
===== OPD DETAILS =====
1. New OPD
2. Edit OPD
3. Delete OPD
4. Search OPD
5. Back to Main Menu
enter your choice: 3
Deleting the details of opd:
+-----+-----+-----+-----+
| opdno |      pname      |      dname      |      fee      |
+-----+-----+-----+-----+
| 1     | Robert         | Prema           | 21500         |
| 2     | Tom Cruise     | Renu Desai      | 18000         |
| 3     | Jeslin         | Prema           | 18000         |
| 1001  | Hardik         | Rama            | 8900          |
| 1002  | George         | Pratibha        | 9600          |
| 1003  | william        | Sudha           | 7500          |
| 1004  | Joe Biden      | Rama            | 9600          |
| 1005  | Hillary Clinton | Renu Desai      | 9500          |
| 1006  | Narendra Modi  | Suresh Mehta    | 6500          |
+-----+-----+-----+-----+
enter the opdno to delete: 3
Are you sure want to delete. (y/n): y
deleted successfully
+-----+-----+-----+-----+
| opdno |      pname      |      dname      |      fee      |
+-----+-----+-----+-----+
| 1     | Robert         | Prema           | 21500         |
| 2     | Tom Cruise     | Renu Desai      | 18000         |
| 1001  | Hardik         | Rama            | 8900          |
| 1002  | George         | Pratibha        | 9600          |
| 1003  | william        | Sudha           | 7500          |
| 1004  | Joe Biden      | Rama            | 9600          |
| 1005  | Hillary Clinton | Renu Desai      | 9500          |
| 1006  | Narendra Modi  | Suresh Mehta    | 6500          |
+-----+-----+-----+-----+
```

## 1.4 Selecting or Searching the OPD details.

1. New OPD
2. Edit OPD
3. Delete OPD
4. Search OPD
5. Back to Main Menu

enter your choice: 4

The OPD details:

opdno	pname	dname	fee
1	Robert	Prema	21500
2	Tom Cruise	Renu Desai	18000
1001	Hardik	Rama	8900
1002	George	Pratibha	9600
1003	william	Sudha	7500
1004	Joe Biden	Rama	9600
1005	Hillary Clinton	Renu Desai	9500
1006	Narendra Modi	Suresh Mehta	6500

enter the opdno to select: 1

opdno	pname	dname	fee
1	Robert	Prema	21500

## The Doctor Module

===== Hospital Management System =====

1. OPD
2. Doctor Details
3. Appointment
4. Reports
5. Exit

= = = = =

enter Your choice: 2

===== DOCTOR DETAILS =====

1. Add new details of doctor
2. Edit the details of doctor
3. Delete the details of doctor
4. Search the details of doctor
5. Back to Main Menu

enter your choice:

## 2.1 Adding the new details of Doctor

- ```
----- DOCTOR DETAILS -----
1. Add new details of doctor
2. Edit the details of doctor
3. Delete the details of doctor
4. Search the details of doctor
5. Back to Main Menu
```

```
enter your choice: 1
```

```
Add the details of doctor:
```

```
enter the doctor ID: 5007
```

```
enter doctor name: Jayanthi
```

```
enter department name: Cardio
```

```
successfully added
```

| did  | dname        | department |
|------|--------------|------------|
| 5001 | Prema        | Ent        |
| 5002 | Pratibha     | Dental     |
| 5003 | Rama         | Ortho      |
| 5004 | Renu Desai   | Optha      |
| 5005 | Sudha        | Pediatrics |
| 5006 | Suresh Mehta | Radiology  |
| 5007 | Jayanthi     | Cardio     |

## 2.2 Updating the new details of Doctor

```
===== DOCTOR DETAILS =====  
1. Add new details of doctor  
2. Edit the details of doctor  
3. Delete the details of doctor  
4. Search the details of doctor  
5. Back to Main Menu  
enter your choice: 2  
Updating the doctor details:  
enter the updated did to enter: 5001  
enter the new name of doctor: Varalaxmi  
enter the new department name: Optha  
Updated successfully
```

## 2.3. Deleting the new details of Doctor.

===== DOCTOR DETAILS =====

```
1. Add new details of doctor
2. Edit the details of doctor
3. Delete the details of doctor
4. Search the details of doctor
5. Back to Main Menu
enter your choice: 3
Delete doctor details:
enter the doctor id to delete: 5004
deleted successfully
```

```
+-----+-----+-----+
| dname | department | did |
+-----+-----+-----+
| 5004  | Renu Desai | Optha |
+-----+-----+-----+
```

===== DOCTOR DETAILS =====



## 2.4. Searching the Doctor.

```
+-----+
===== DOCTOR DETAILS =====
1. Add new details of doctor
2. Edit the details of doctor
3. Delete the details of doctor
4. Search the details of doctor
5. Back to Main Menu
enter your choice: 4
The Doctor Details:
+-----+
| did | dname      | department |
+-----+
| 5001 | Varalaxmi  | Optha      |
+-----+
| 5002 | Pratibha   | Dental     |
+-----+
| 5003 | Rama       | Ortho      |
+-----+
| 5005 | Sudha      | Pediatrics |
+-----+
| 5006 | Suresh Mehta | Radiology  |
+-----+
| 5007 | Jayanthi   | Cardio     |
+-----+

enter the doctor ID: 5001
+-----+
| did | dname      | department |
+-----+
| 5001 | Varalaxmi  | Optha      |
+-----+
```

## 3.0 Appoints

```
===== Hospital Management System =====  
1. OPD  
2. Doctor Details  
3. Appoinment  
4. Reports  
5. Exit  
= = = = =  
enter Your choice: 3  
===== APPOINTMENT DETAILS =====  
1.Appointment  
2.Appoinment Edit  
3.Back to Main Menu  
enter your choice: 
```

## 3.1 Appointment

```
===== APPOINTMENT DETAILS =====
1.Appointment
2.Appoinment Edit
3.Back to Main Menu
enter your choice: 1
The Doctor Appointments:
+-----+-----+-----+-----+-----+-----+
| opdno |   doa   |   pname  |   dname  |   symptom  | treatment |
+-----+-----+-----+-----+-----+-----+
1002	2024-01-20	George	Pratibha	toothache	newtooth
1006	2024-01-20	Narendra Modi	Suresh Mehta	diabetes	noob
1	2024-01-20	Robert	Prema	nose broken	noob
2	2024-01-20	Tom Cruise	Renu Desai	ribs brokenn	steel ribs
3	2024-01-20	Jeslin	Prema	broken nose	
+-----+-----+-----+-----+-----+-----+					
Enter Doctor name: Sur					
+-----+-----+-----+-----+-----+-----+					
opdno	doa	pname	dname	symptom	treatment
+-----+-----+-----+-----+-----+-----+					
1006	2024-01-20	Narendra Modi	Suresh Mehta	diabetes	noob
+-----+-----+-----+-----+-----+-----+					
Enter patient name: mod					
+-----+-----+-----+-----+-----+-----+					
opdno	doa	pname	dname	symptom	treatment
+-----+-----+-----+-----+-----+-----+					
1006	2024-01-20	Narendra Modi	Suresh Mehta	diabetes	noob
+-----+-----+-----+-----+-----+-----+
Treatment: tablets
successfully updated treatment.
```

## 3.2 Appointment

===== APPOINTMENT DETAILS =====

1.Appointment

2.Appoinment Edit

3.Back to Main Menu

enter your choice: 2

Edit or Update the appoinment details:

| opdno | doa        | pname         | dname        | symptom      | treatment  |
|-------|------------|---------------|--------------|--------------|------------|
| 1002  | 2024-01-20 | George        | Pratibha     | toothache    | newtooth   |
| 1006  | 2024-01-20 | Narendra Modi | Suresh Mehta | diabetes     | tablets    |
| 1     | 2024-01-20 | Robert        | Prema        | nose broken  | noob       |
| 2     | 2024-01-20 | Tom Cruise    | Renu Desai   | ribs brokenn | steel ribs |
| 3     | 2024-01-20 | Jeslin        | Prema        | broken nose  |            |

Enter Doctor name: pratib

| opdno | doa        | pname  | dname    | symptom   | treatment |
|-------|------------|--------|----------|-----------|-----------|
| 1002  | 2024-01-20 | George | Pratibha | toothache | newtooth  |

Enter patient name: ge

| opdno | doa        | pname  | dname    | symptom   | treatment |
|-------|------------|--------|----------|-----------|-----------|
| 1002  | 2024-01-20 | George | Pratibha | toothache | newtooth  |

enter treatment: injection

successfully updated treatment.

## 4.0 Reports

===== Hospital Management System =====

1. OPD
2. Doctor Details
3. Appoinment
4. Reports
5. Exit

= = = = =

enter Your choice: 4

===== REPORTS =====

1. Display the Doctors List
2. Display the patients List
3. Display the Historty of doctor
4. Display the History of Patient
5. Display the OPD details
- 6.Max Diagnose(chart)
7. Back to Main Menu

enter your choice:

## 4.1 Display the Doctors List

-----REPORTS-----

1. Display the Doctors List
2. Display the patients List
3. Display the History of doctor
4. Display the History of Patient
5. Display the OPD details
6. Max Diagnose(chart)
7. Back to Main Menu

enter your choice: 1

The Doctors List:

| did  | dname        | department |
|------|--------------|------------|
| 5001 | Varalaxmi    | Optha      |
| 5002 | Pratibha     | Dental     |
| 5003 | Rama         | Ortho      |
| 5005 | Sudha        | Pediatrics |
| 5006 | Suresh Mehta | Radiology  |
| 5007 | Jayanthi     | Cardio     |

-----REPORTS-----

## 4.2 Display the Patients list

```
===== REPORTS =====
1. Display the Doctors List
2. Display the patients List
3. Display the History of doctor
4. Display the History of Patient
5. Display the OPD details
6. Max Diagnose(chart)
7. Back to Main Menu
enter your choice: 2
the patients list:
+---+-----+-----+-----+
| pid |      pname      |   padd   |   pmob   |
+---+-----+-----+-----+
| 28 |      Hardik      |   Mumbai | 7417417410 |
| 29 |      George      |   London | 7896544569 |
| 30 |      william      | Washington | 9638528523 |
| 31 |      Joe Biden    | New York | 7537533579 |
| 32 | Hillary Clinton  | Nevada  | 9511593578 |
| 33 | Narendra Modi    | Gujarat  | 6300630058 |
| 34 |      Robert      | Botswana | 9874563570 |
| 35 |      Tom Cruise   | Michigan | 9898898965 |
| 36 |      Jeslin       | Florida  | 8569856927 |
+---+-----+-----+-----+
```

## 4.3 Display the History of doctor

enter your choice: 2

the patients list:

| pid | pname           | padd       | pmob       |
|-----|-----------------|------------|------------|
| 28  | Hardik          | Mumbai     | 7417417410 |
| 29  | George          | London     | 7896544569 |
| 30  | william         | Washington | 9638528523 |
| 31  | Joe Biden       | Newyork    | 7537533579 |
| 32  | Hillary clinton | Nevada     | 9511593578 |
| 33  | Narendra Modi   | Gujarat    | 6300630058 |
| 34  | Robert          | Botswana   | 9874563570 |
| 35  | Tom Cruise      | Michigan   | 9898898965 |
| 36  | Jeslin          | Florida    | 8569856927 |

===== REPORTS =====

1. Display the Doctors List
2. Display the patients List
3. Display the History of doctor
4. Display the History of Patient
5. Display the OPD details
6. Max Diagnose(chart)
7. Back to Main Menu

enter your choice: 3

the doctor history:

enter doctor name: rama

| opdno | doa        | pname     | dname | symptom      | treatment |
|-------|------------|-----------|-------|--------------|-----------|
| 1001  | 2024-01-21 | Hardik    | Rama  | bonefracture |           |
| 1004  | 2024-01-21 | Joe Biden | Rama  | bonefracture |           |



## 4.4 Display the History of Patient

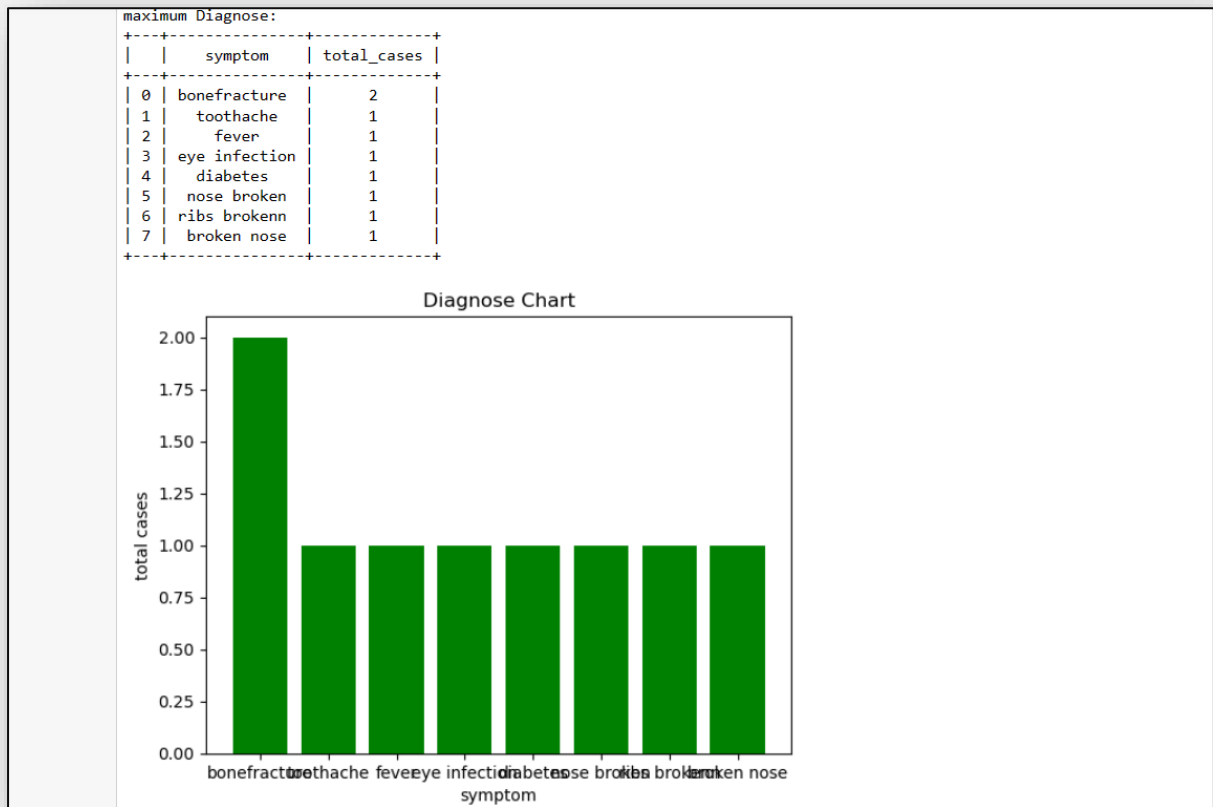
```
+-----+-----+-----+-----+-----+-----+
===== REPORTS =====
1. Display the Doctors List
2. Display the patients List
3. Display the History of doctor
4. Display the History of Patient
5. Display the OPD details
6.Max Diagnose(chart)
7. Back to Main Menu
enter your choice: 4
Patient History:
Enter patient name: har
+-----+-----+-----+-----+-----+-----+-----+
| opdno |   doa   | pname | symptom | treatment |   pmob   |   padd   |
+-----+-----+-----+-----+-----+-----+-----+
| 1001  | 2024-01-21 | Hardik | bonefracture |           | 7417417410 | Mumbai |
+-----+-----+-----+-----+-----+-----+-----+
===== REPORTS =====
```

## 4.5 Display the OPD details

```
+-----+-----+-----+-----+-----+-----+
===== REPORTS =====
1. Display the Doctors List
2. Display the patients List
3. Display the Historty of doctor
4. Display the History of Patient
5. Display the OPD details
6.Max Diagnose(chart)
7. Back to Main Menu

enter your choice: 5
the opd details:
enter the beginning date in YYYY-MM-DD: 2024-01-01
enter the ending date in YYYY-MM-DD: 2024-01-30
+-----+-----+-----+-----+-----+-----+
| opdno |   doa   |   pname   |   dname   |   symptom   | treatment |   fee   |
+-----+-----+-----+-----+-----+-----+
1001	2024-01-21	Hardik	Rama	bonefracture		8900
1002	2024-01-20	George	Pratibha	toothache	injection	9600
1003	2024-01-23	william	Sudha	fever		7500
1004	2024-01-21	Joebiden	Rama	bonefracture		9600
1005	2024-01-21	Hillary clinton	Renu Desai	eye infection	steel ribs	9500
1006	2024-01-20	Narendra Modi	Suresh Mehta	diabetes	tablets	6500
1	2024-01-20	Robert	Prema	nose broken	noob	21500
2	2024-01-20	Tom Cruise	Renu Desai	ribs brokenn	steel ribs	18000
+-----+-----+-----+-----+-----+-----+
```

## 4.6 Display the Max Diagnose(Bar Chart)



## 5. EXIT

7. Back to Main Menu

enter your choice: 7

Back to Main Menu

= = = = =

===== Hospital Management System =====

1. OPD

2. Doctor Details

3. Appointment

4. Reports

5. Exit

= = = = =

enter Your choice: 5

===== Exit =====

===== Good Bye. Have a Good Day:) =====

# THANK YOU

THANK YOU

