**Online Hospital Management Application**

Need to create an application for online Hospital management.

The application should allow to do below process

# Main Menu:

The Main menu must have the following options

1. **Patient Registration**
2. **User Login**
3. **Exit**

If the user selects Option **3. Exit**, then the application should be closed.

## Patient Registration:

On selection of the option “**1. Patient Registration**” from the main menu,

1. Need to get the below details from user for the user registration.
2. Patient Name
3. Father Name
4. Gender
5. Phone Number
6. Age
7. Wallet Balance
8. On completion of the user registration, we need to display the PatientID (auto generated Register number).
9. Then Need to show the main menu again

## Login

On selection of the Choice 2 in main menu “**Login**” option selected,

1. Ask for the “PatientID” of the user. Check the “PatientID” in the user list.
2. If the PatientID does not exist means, show “Invalid Patient ID. Please enter a valid one”.
3. If “Patient ID” exists, then show the below menu
   * + 1. **Book Appointment**
       2. **Appointment History**
       3. **Cancel Appointment**
       4. **Wallet Recharge**
       5. **Show Balance**
       6. **Exit**

* **Book Appointment**

1. If user choose 1 in login menu. Book Appointment selected.
2. First you need to show the Doctor List Details for picking a doctor for booking appointment.
3. Ask patient to enter the doctor ID, Appointment Date
4. Display Appointment Slot Details for the selected doctor to pick Appointment Slot ID.
5. Check whether the opted doctor is available for booking on that date and slot by checking those details with Appointment history list.
6. If the doctor is not having appointment on that date and slot. Then check validity of the date is greater or equal to today and check the Appointment slot is valid.
7. IF the conditions 4 and 5 is met then deduct the wallet balance of current logged in patient and then create Appointment details object and add to appointment details list.
8. Finally show “Your appointment is booked and Appointment ID is:”.

* **Appointment History**

Show the list of appointments made by the current logged in patient.

* **Cancellation of Appointments**
  + - 1. First need to show the list of appointment Details of current logged in user whose status of appointment is “Booked” and date is greater than current date.
      2. If there are no appointments in list display “there is no appointments”.
      3. Else, Ask the user to pick one appointment to cancel by asking AppointmentID.
      4. Check the appointment ID is valid. If the AppointmentID is invalid, then show “Invalid appointment ID”.
      5. If the appointment ID is valid then change the status of appointment to “Cancelled” and return the amount to current logged in user’s wallet balance. Then, show “AppointmentID …. is cancelled”
      6. Then show the submenu.

* **Wallet Recharge**

Ask the user to enter the amount to be recharged in his wallet and it to the current user’s wallet balance.

* **Show balance.**

Display the patients balance details.

* **Exit**

Exit from the Sub Menu to Main Menu.

# Personal Details Class:

**Properties:**

1. Name
2. FatherName
3. Gender
4. Phone
5. Age

# Doctor Details Class: Inherits PersonalDetails

* **Properties:**

1. DoctorID (Auto Increment – DID 300)
2. Experience
3. Specialization
4. Fees

**Details of Doctor Details:-**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DoctorID** | **Name** | **FatherName** | **Gender** | **Phone** | **Age** | **Experience** | **Specialization** | **Fee** |
| DID301 | John | Joe | Male | 89877 | 33 | 20 | General | 200 |
| DID302 | Saravanan | Mani | Male | 98776 | 39 | 30 | Heart | 500 |
| DID303 | Kavi | Karthi | Male | 77886 | 34 | 40 | Ortho | 100 |

# ITransaction Interface:

* **Property**:

1. WalletBalance

* **Method**:

1. Recharge
2. DeductBalance

# Available Slot Details Class:

* **Properties:**

1. DoctorID
2. SlotID
3. SlotTime

**Details of Doctor’s Slot Details:**

|  |  |  |
| --- | --- | --- |
| **DoctorID** | **SlotID** | **SlotTime** |
| DID301 | SL101 | 6.00-6.30 |
| DID301 | SL102 | 6.30-7.00 |
| DID301 | SL103 | 7.00-7.30 |
| DID301 | SL104 | 7.30-8.00 |
| DID301 | SL105 | 8.00-8.30 |
| DID301 | SL106 | 8.30-9.00 |
| DID302 | SL101 | 6.00-6.30 |
| DID302 | SL102 | 6.30-7.00 |
| DID302 | SL103 | 7.00-7.30 |
| DID302 | SL104 | 7.30-8.00 |
| DID303 | SL104 | 7.30-8.00 |
| DID303 | SL105 | 8.00-8.30 |
| DID303 | SL106 | 8.30-9.00 |

# Patient Details Class: Inherits Personal Details class & ITransaction Interface

* **Field:**

1. \_walletBalance

* **Properties:**

1. PatientID (Auto Increment - PID1001)
2. WalletBalance

* **Method**:

1. Recharge
2. DeductBalance

**Objects of Patient: -**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Patient ID (Auto)** | **Name** | **FatherName** | **Phone** | **Age** | **Gender** | **Wallet Balance** |
| PID1001 | Arun | Mani | 75757 | 45 | Male | 1000 |
| PID1002 | Kumar | Suresh | 57755 | 50 | Male | 500 |
| PID1003 | Malar | Ganesh | 58855 | 30 | Female | 100 |
| PID1004 | Selvi | Pandi | 58858 | 20 | Female | 50 |

# Appointment Details Class:

* **Properties:**

1. AppointmentID (Auto Increment – AID501)
2. PatientID
3. DoctorID
4. Appointment Date
5. Appointment Slot
6. Status – (Enum – Booked, Cancelled)
7. Fees

**Objects of Appointment History:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **AppointmentID** | **PatientID** | **DoctorID** | **AppointmentDate** | **Slot** | **Status** | **Fee** |
| AID501 | PID1001 | DID301 | 27/04/2022 | SL101 | Booked | 200 |
| AID502 | PID1002 | DID302 | 27/04/2022 | SL102 | Booked | 500 |
| AID503 | PID1003 | DID303 | 27/04/2022 | SL104 | Booked | 100 |
| AID504 | PID1001 | DID303 | 27/04/2022 | SL106 | Cancelled | 100 |