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| **ASSIGNMENT** | |
| **Subject:** | Programming Fundamentals |
| **Submitted By:** | Syed Muhammad Mahmood (103)  Tayyab Abdullah (003) |
| **Submitted To:** | Dr. Samia Riaz |
| **Project Name:** | Hospital Appointment System |

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# Main menu

* **START.**

// Displaying main menu option

OUTPUT "Welcome To MTA Hospital"

OUTPUT "Please choose an option from below:"

OUTPUT "1. Patient"

OUTPUT "2. Doctor"

OUTPUT "3. Admin"

//Input user choice and perform actions based on input

**SWITCH user choice:**

**Case 1:**

//Enter as a patient

Break.

**Case 2:**

//Enter as a doctor

Break.

**Case 3:**

//Enter as admin

Break

**Default:**

//Displays error message

OUTPUT "Invalid choice!!! please enter a valid choice."

**End SWITCH.**

* **END.**

## Enter as Patient (1st Module)

### 1. Register as a patient

* **START.**

//User Entered as a patient.

OUTPUT "Please select from the options below:"

OUTPUT "1. Registration"

OUTPUT "2. Login"

OUTPUT “3. Give feedback”

INPUT user choice

**SWITCH (user choice)**

**Case 1:**

// prompt user to register as a patient

OUTPUT "Enter the following Registration details:"

//Input registration details

INPUT "Username"

INPUT "Full name"

INPUT "Age"

INPUT "Gender"

INPUT "Password"

INPUT "Contact information"

INPUT "CNIC"

INPUT "Address"

//store all inputs in a file

//redirect to login page

### 2. Log in as a patient

**Case 2:**

//prompt user to enter patient id and password

INPUT "Patient ID"

INPUT "Password"

//check if patient id and password are valid

**If** (Username and password match the registered person) **Then**

//Display login message

OUTPUT "Login successful. Welcome [NAME]"

#### Appointment booking

##### Book appointment

* **START.**

//Display booking options.

OUTPUT "Please select an option"

OUTPUT "1. Book Appointment"

OUTPUT "2. Cancel Appointment"

OUTPUT "3. Log out"

//Input user choice

INPUT user choice.

**SWITCH (user choice)**

//perform actions based on inputs

**Case 1:**

OUTPUT "Please select your city from the following list:"

OUTPUT "[List of cities]"

// Input user's city choice

INPUT User city choice

//displays hospital list in selected cities

OUTPUT "Here are some hospitals in [city]"

OUTPUT "[List of Hospitals]"

INPUT user selects hospital

//Displays list for selection of specialists

OUTPUT "Please choose your concerned specialist:"

OUTPUT "1. Dermatologist"

Output "2. Cardiologist"

Output "3. Ophthalmologist"

//Add more options

INPUT User selects its concerned specialist

//displays list of available doctors with their time slots

OUTPUT "Here are available doctors for your chosen specialist"

OUTPUT "Doctor 1"

OUTPUT "Doctor 2"

//add more doctors

//input user choice

INPUT users choice

//displays message to confirm booking of appointment

OUTPUT "Are you sure you want to book an Appointment for [Date, Day, Time]? (Y/N)"

//Input users choice

**If** appointment confirmation is 'y' or 'Y' then

//appointment is confirmed

//send confirmation mail to doctor and patient

//store appointment information into a file

**Else**

//appointment is not confirmed

OUTPUT "Appointment booking cancelled"

**END IF**

##### Cancel appointment

**Case 2:**

//displays their scheduled table

OUTPUT “Select the appointment you want to cancel”

//after user selects the appointment to be cancelled

OUTPUT “Are you sure you want to cancel the appointment?”

**If** appointment confirmation is 'y' or 'Y' then

//appointment is cancelled

**ELSE**

//appointment is not cancelled

**End IF**

##### Logout

**Case 3:**

//displays prompt for user to logout

OUTPUT "Are you sure you want to logout (Y/N)?"

**IF** user selects 'y' or 'Y' then

//log out user and redirect to main menu

**Else**

//user do not logout

**End IF**

**Default:**

//Displays error message

OUTPUT "Invalid choice!!! please enter a valid choice."

**End SWITCH**

* **END.**

**Else**

//Login failed message

OUTPUT "Login failed. Please enter valid username or password"

**End If**

### 3. Give feedback

**Case 3:**

OUTPUT “Give feedback”

INPUT user gives feedback

//feedback stored

OUTPUT “Thankyou for your feedback”

**Default :**

//Displays error message

OUTPUT "Invalid choice!!! please enter a valid choice."

**End SWITCH**

* **END.**

## 2. Enter as Doctor (2nd Module)

### Log in as a doctor

* **START.**

//User Entered as a doctor.

//prompt user to enter username and password

INPUT "Username"

INPUT "Password"

//check if username and password are valid

**If** (user name and password match) Then

//Display login message

OUTPUT "Login successful. Welcome[NAME]"

**Else**

//Login failed message

OUTPUT "Login failed. Please enter valid username or password"

**End If**

**END.**

//Display options.

OUTPUT "Please select an option"

OUTPUT "1. Edit profile"

OUTPUT "2. Update Appointment"

OUTPUT "3. Log out"

//Input user choice

INPUT user choice

**SWITCH (User choice)**

//perform actions based on inputs

### Edit Profile

**Case 1:**

OUTPUT "Please select the option you want to edit from the following list:"

OUTPUT “[1. Personal information ]”

"[2. Time slots]"

"[3. Location]"

"[4. Qualification]"

**SWITCH (User choice)**

**Case 1:**

// Input user's personal information choice

INPUT User personal information to edit

//displays current profile

//prompt to update profile

OUTPUT "Are you sure you want to edit"

**IF** user types “Y”/ “y”

Then edit

**Else**

Not edited

**END IF**

**Case 2:**

// Input user's time slot choice

INPUT User time slot choice

//displays current time slots

//prompt to update time slots

OUTPUT "Are you sure you want to update"

**IF** user types “Y”/ “y”

Then update

**ELSE**

Not updated

**END IF**

**Case 3:**

// Input user's location choice

INPUT User location choice

//displays current location

//prompt to update location

OUTPUT "Are you sure you want to update"

**IF** user types “Y”/ “y”

Then update

**ELSE**

Not updated

**End IF**

**Case 4:**

// Input user's qualification choice

INPUT User qualification choice

//displays current qualification

//prompt to update qualification

OUTPUT "Are you sure you want to update"

**IF** user types “Y”/ “y”

Then update

**ELSE**

Not updated

**End IF**

**Default:**

//Displays error message

OUTPUT "Invalid choice!!! please enter a valid choice."

**End SWITCH.**

### Update Appointments

**Case 2:**

//displays current appointments

//prompt to update appointments

OUTPUT "Are you sure you want to update"

**IF** user types “Y”/ “y”

Then update

**ELSE**

Not updated

**END IF**

### Logout

**Case 3:**

//displays prompt for user to logout

OUTPUT "Are you sure you want to logout (Y/N)?"

**IF** user selects 'y' or 'Y' then

//log out user and redirect to main menu

**Else**

//user do not logout

**End IF**

**Default:**

//Displays error message

OUTPUT "Invalid choice!!! please enter a valid choice."

**END SWITCH**

* **END.**

## 3. Enter as Admin (3rd Module)

### Log in as an admin

* **START.**

//User Entered as an admin.

//prompt user to enter patient id and password

INPUT "Admin ID"

INPUT "Password"

//check if patient id and password are valid

**If** (user name and password match) Then

//Display login message

OUTPUT "Login successful. Welcome[NAME]"

**Else**

//Login failed message

OUTPUT "Login failed. Please enter valid username or password"

**End If**

* **END**

//Display options.

OUTPUT "Please select an option"

OUTPUT "1. Update city list"

OUTPUT "2. Update doctor’s list"

OUTPUT "3. Schedule appointments"

OUTPUT "4. History of Patients"

OUTPUT "5. Reminder mails"

OUTPUT "6. Notification for available slots"

//Input user choice

INPUT user choice

**SWITCH (User choice)**

//perform actions based on inputs

### 1. Update city list

**Case 1:**

//prompt to update city list

OUTPUT "Add or remove from the following list:"

OUTPUT "[List of cities]"

// Input user's city choice

INPUT User city choice

OUTPUT "Are you sure you want to update"

**IF** user types “Y”/ “y”

Then update

**ELSE**

Not updated

**END IF**

### 2. Update doctor’s list

**Case 2:**

//prompt to update doctors’s list

OUTPUT “Add or remove from the following list "

OUTPUT "[List of doctors]"

// Input user's doctor choice to add or remove

OUTPUT "Are you sure you want to update"

**IF** user types “Y”/ “y”

Then update

**ELSE**

Not updated

**End if.**

### 3. Schedule appointments

**Case 3:**

//prompt admin to enter patient id

OUTPUT “Enter patient ID”

INPUT patient id

//prompt admin to enter all the details to schedule the appointment

### 4. History of patient

**Case 4:**

//prompt to view history list of patients;

OUTPUT Enter patients id to view patient’s history;

INPUT user enters patients id

//display history list

### 5. Reminder mails

**Case 5:**

//prompt to enter patient’s id

OUTPUT Enter patient’s id to send reminder mail;

INPUT user enters patients id

//display reminder mail sent.

### 6. Notification for available slots

**Case 6:**

//prompt to enter patient’s id whom user wants to notify

OUTPUT Enter patient’s id to notify him.

INPUT user enters patients id

//notification sent to patient.

**Default:**

//Displays error message

OUTPUT "Invalid choice!!! please enter a valid choice."

**END SWITCH**

* **END**