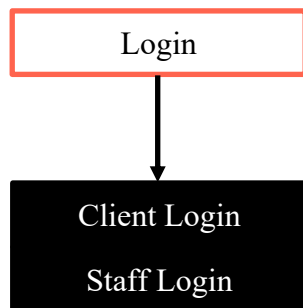# Criterion B: Design

**Graphical Visualization of User Interface (GUI):**
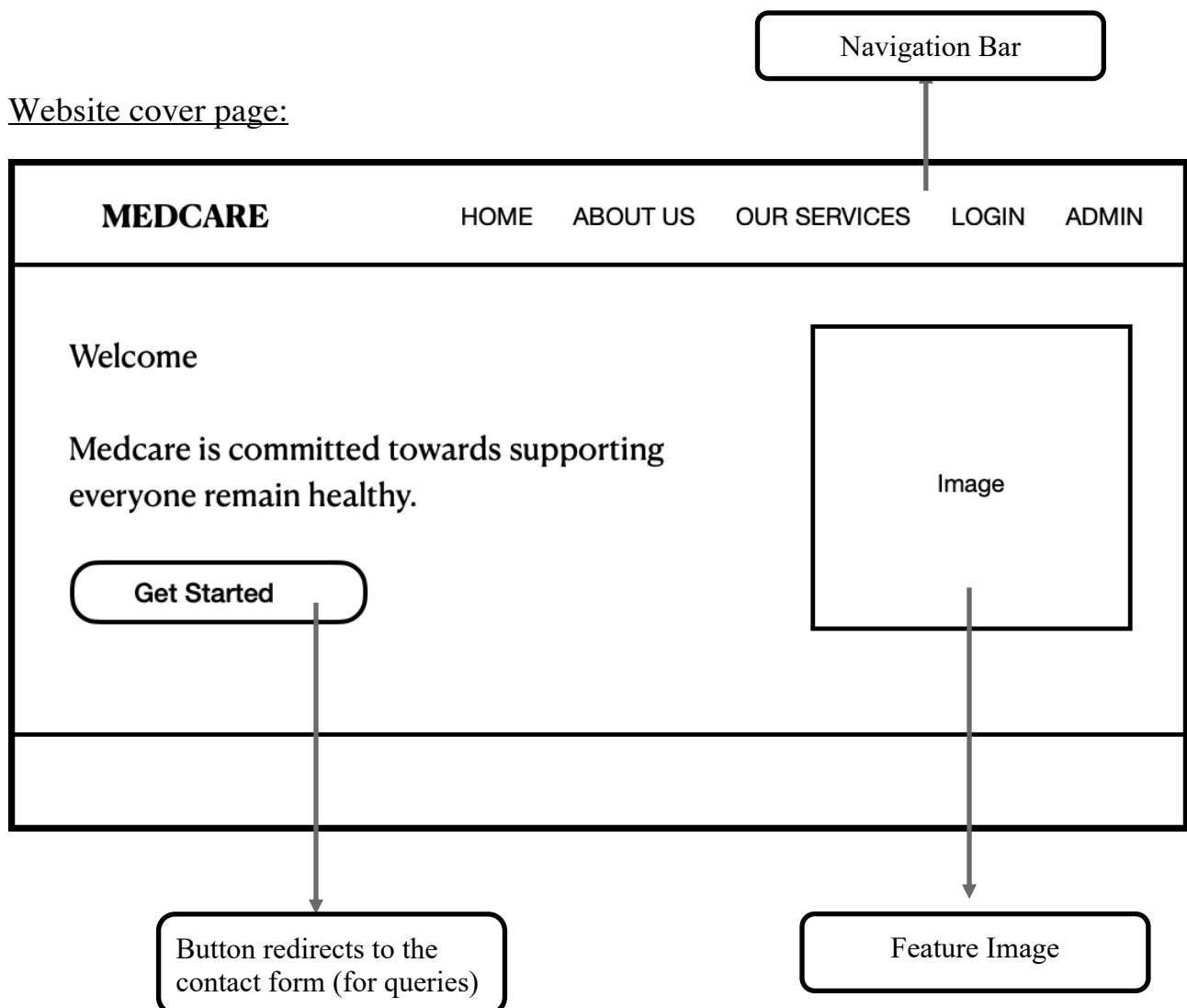
Elements required to be kept in the menu bar:

| Home | About Us | Our Services | Login | Admin |
|------|----------|--------------|-------|-------|

Submenus:

```
┌──────────────────────┐
│        Login         │
└──────────────────────┘
            │
            ▼
┌──────────────────────┐
│     Client Login     │
│                      │
│     Staff Login      │
└──────────────────────┘
```
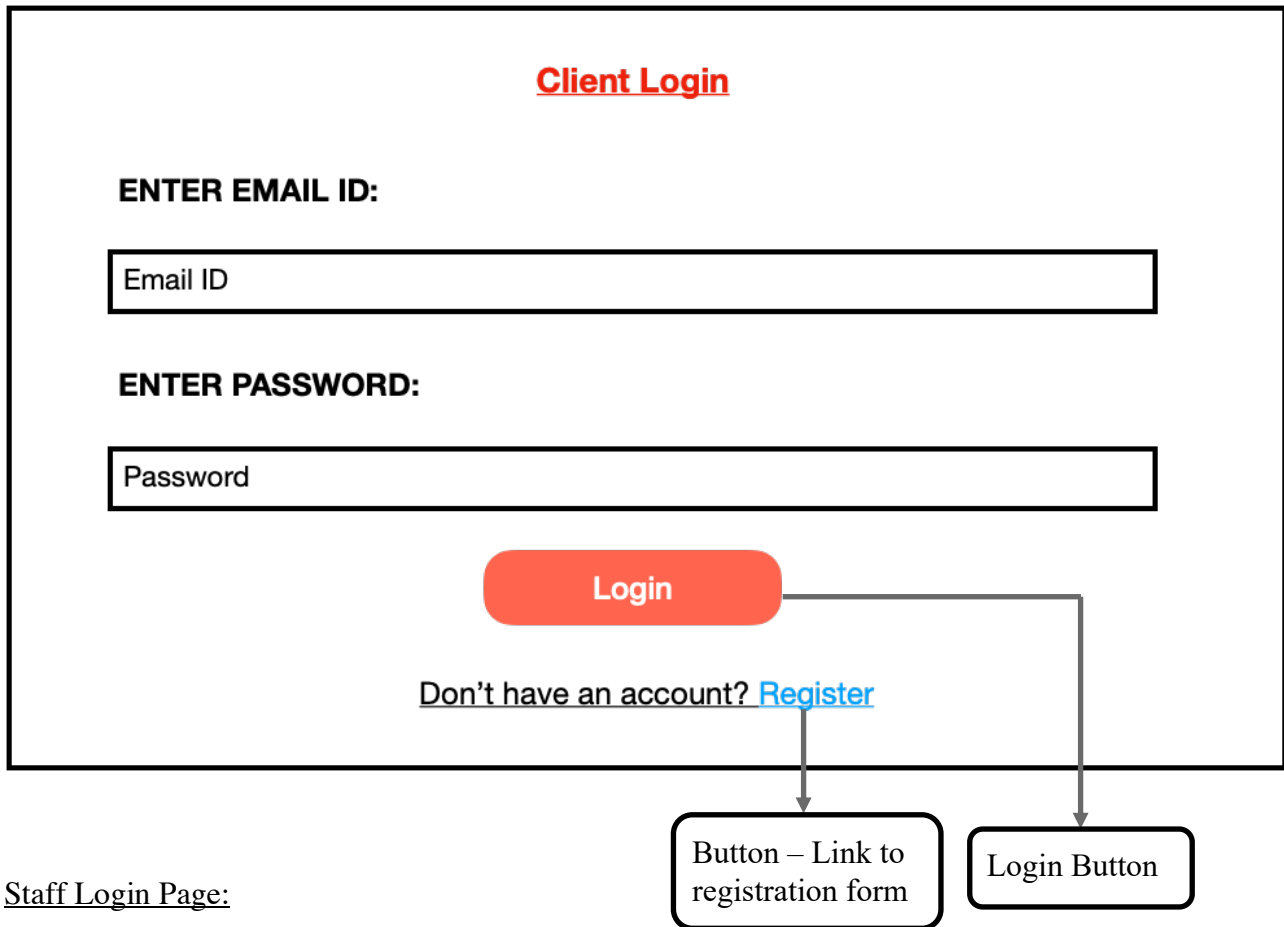
Navigation Bar

Website cover page:

**MEDCARE**     HOME    ABOUT US    OUR SERVICES    LOGIN    ADMIN

Welcome

Medcare is committed towards supporting everyone remain healthy.

Get Started

Image

Button redirects to the contact form (for queries)

Feature Image

About Page:

```
+----------------------------------------------------------+
|                                                          |
|              +------------------------+                  |
|              |        About US        |                  |
|              +------------------------+                  |
|                                                          |
|          +----------------------------------+            |
|          |   OUR AIM, VISION & MISSION       |            |
|          +----------------------------------+            |
|                                                          |
|    +------------------+    •    +------------------+      |
|    |                  |    •    |                  |      |
|    |      Image       |    •    |      Image       |      |
|    |                  |    •    |                  |      |
|    +------------------+         +------------------+      |
|                                                          |
+----------------------------------------------------------+
```
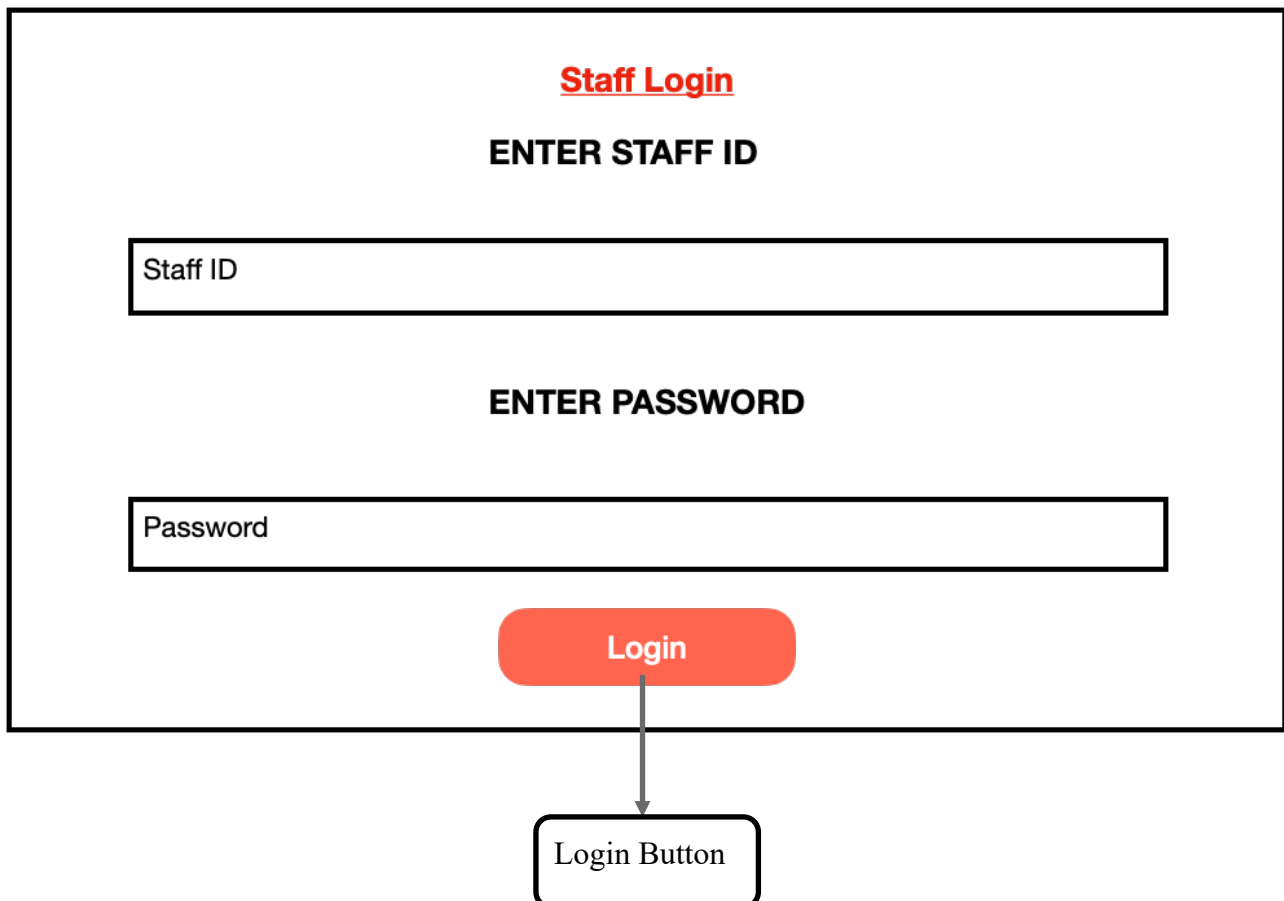
Our Services Page:

## Our Services

| FULL BODY CHECKUP Price: Rs.2,599 | DIABETIC HEALTH CHECKUP Price: Rs.1,499 | COMPLETE BLOOD COUNT(CBC) Price: Rs. 399 |
|---|---|---|
| Image | Image | Image |
| SENIOR CITIZEN PACKAGE Price: Rs. 1,899 | WOMEN WELLNESS CHECKUP Price: Rs. 2,299 | LIVER FUNCTION TEST (LFT) Price: Rs. 1,999 |
| Image | Image | Image |

Client Login Page:

**Client Login**

**ENTER EMAIL ID:**

Email ID

**ENTER PASSWORD:**

Password

Login

Don't have an account? Register

Button – Link to registration form

Login Button

Staff Login Page:

**Staff Login**

**ENTER STAFF ID**

Staff ID

**ENTER PASSWORD**

Password

Login

Login Button

Registration Page:

**Client Register**

FIRST NAME

First Name

LAST NAME

Last Name

EMAIL ID

Email ID

CITY

City

ADDRESS

Address

PASSWORD

Password

CONFIRM PASSWORD

Password

**Register**

If You have Account, Login

Button – Link to Client login form

Registration button—click to register.

4

## Main Menu/Navigation Bar for client's account page:

| Details | Change Password | Services | Cart🛒 | Logout |
|---------|-----------------|----------|--------|--------|

## Details Page:

**Details**

**First Name: XX**

**Last Name: X**

**Email: xxxx@gmail.com**

**City: XX**

**Address: House No.XX, Street XX, Hyd.**

**Edit**     **Delete**

Button for editing details

Button for account deletion

## Change Password Page:

**Change Password**

**Enter Old Password:**

Old Password

**Enter Password:**

New Password

**Submit**

Submit/Confirm Button

5

Service Page:

**Services**

| FULL BODY CHECKUP | DIABETIC HEALTH CHECKUP | COMPLETE BLOOD COUNT(CBC) |
|---|---|---|
| Price: Rs.2,599 | Price: Rs.1,499 | Price: Rs. 399 |
| Image | Image | Image |
| **Book Service** | **Book Service** | **Book Service** |

| SENIOR CITIZEN PACKAGE | WOMEN WELLNESS CHECKUP | LIVER FUNCTION TEST (LFT) |
|---|---|---|
| Price: Rs. 1,899 | Price: Rs. 2,299 | Price: Rs. 1,999 |
| Image | Image | Image |
| **Book Service** | **Book Service** | **Book Service** |

Cart:

| Email | Service | Date & Time | Status |
|---|---|---|---|
| xxx@gmail.com | *Service Name* | yyyy/mm/dd () AM/PM | Pending |
| xxxgmail.com | *Service Name* | yyyy/mm/dd () AM/PM | Pending |

Display date and time slot in the following format

Add to Cart:

**Add to Cart**

**Service:**

*Service Name*

**Date & Time:**

**Submit**

*Display calendar with dates and time slots, with a difference of an hour*

Main Menu for Staff account's page:

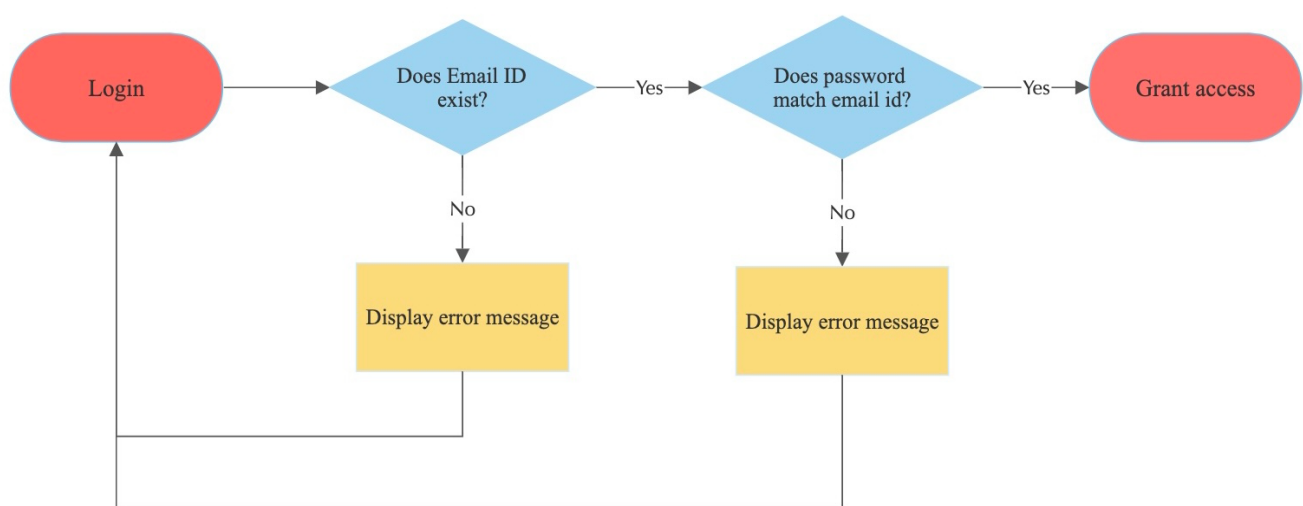| Service Bookings | Logout |
|---|---|
| | |

Service Bookings Page:

# **Cart**

| Email | Service | Date & Time | Status |
|---|---|---|---|
| xxy@gmail.com | *Service Name* | yyyy/mm/dd () AM/PM | Approve   Reject |
| yxy@gmail.com | *Service Name* | yyyy/mm/dd () AM/PM | Approve   Reject |
| yxx@gmail.com | *Service Name* | yyyy/mm/dd () AM/PM | Approve   Reject |

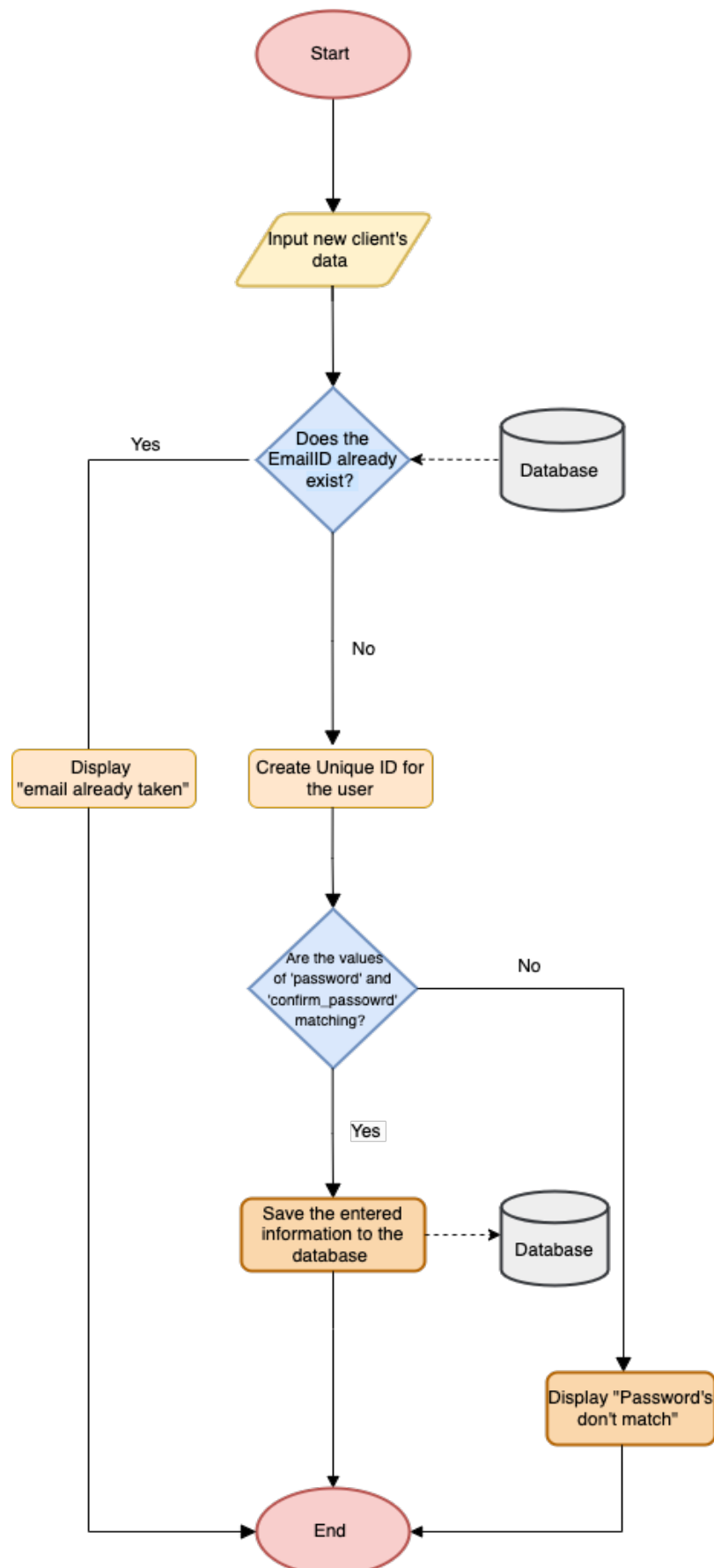Display date and time slot in the following format

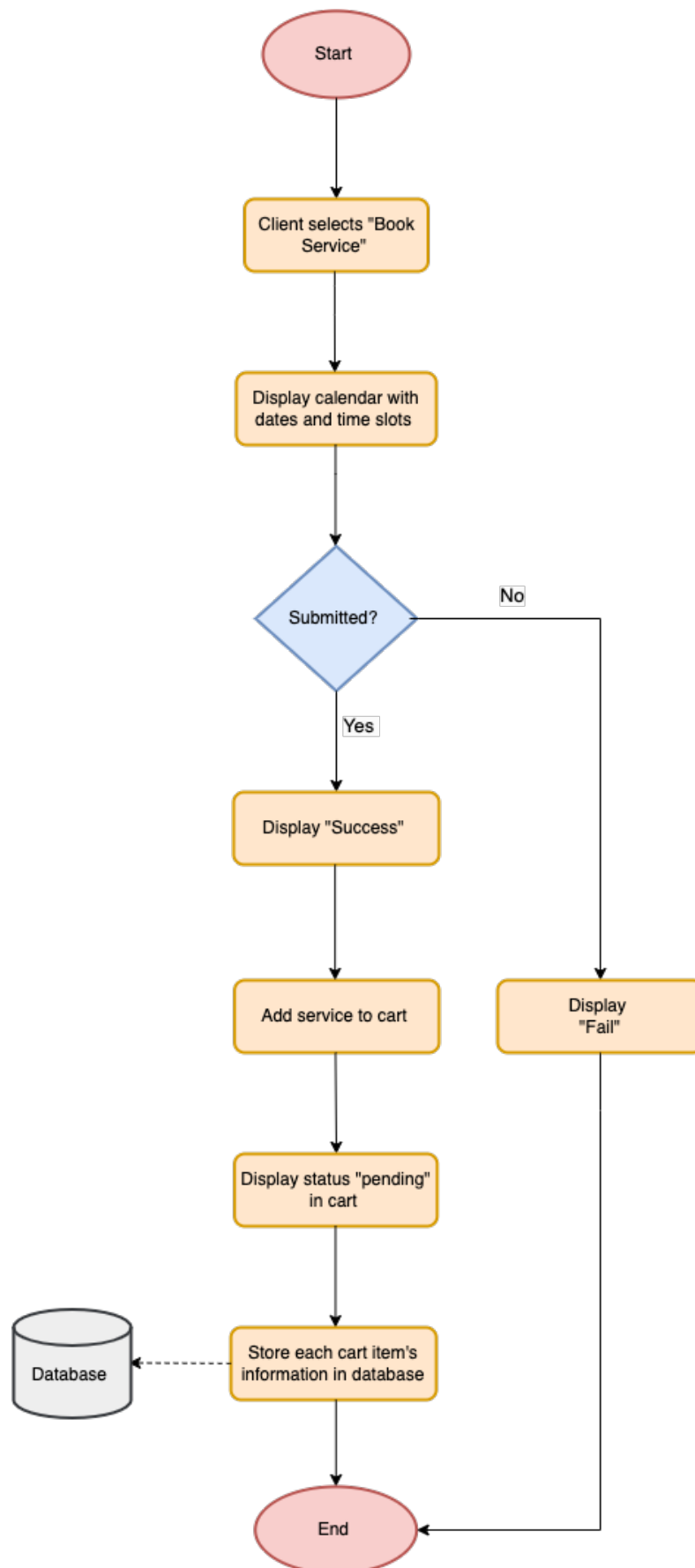Buttons for approval or rejection of the appointment

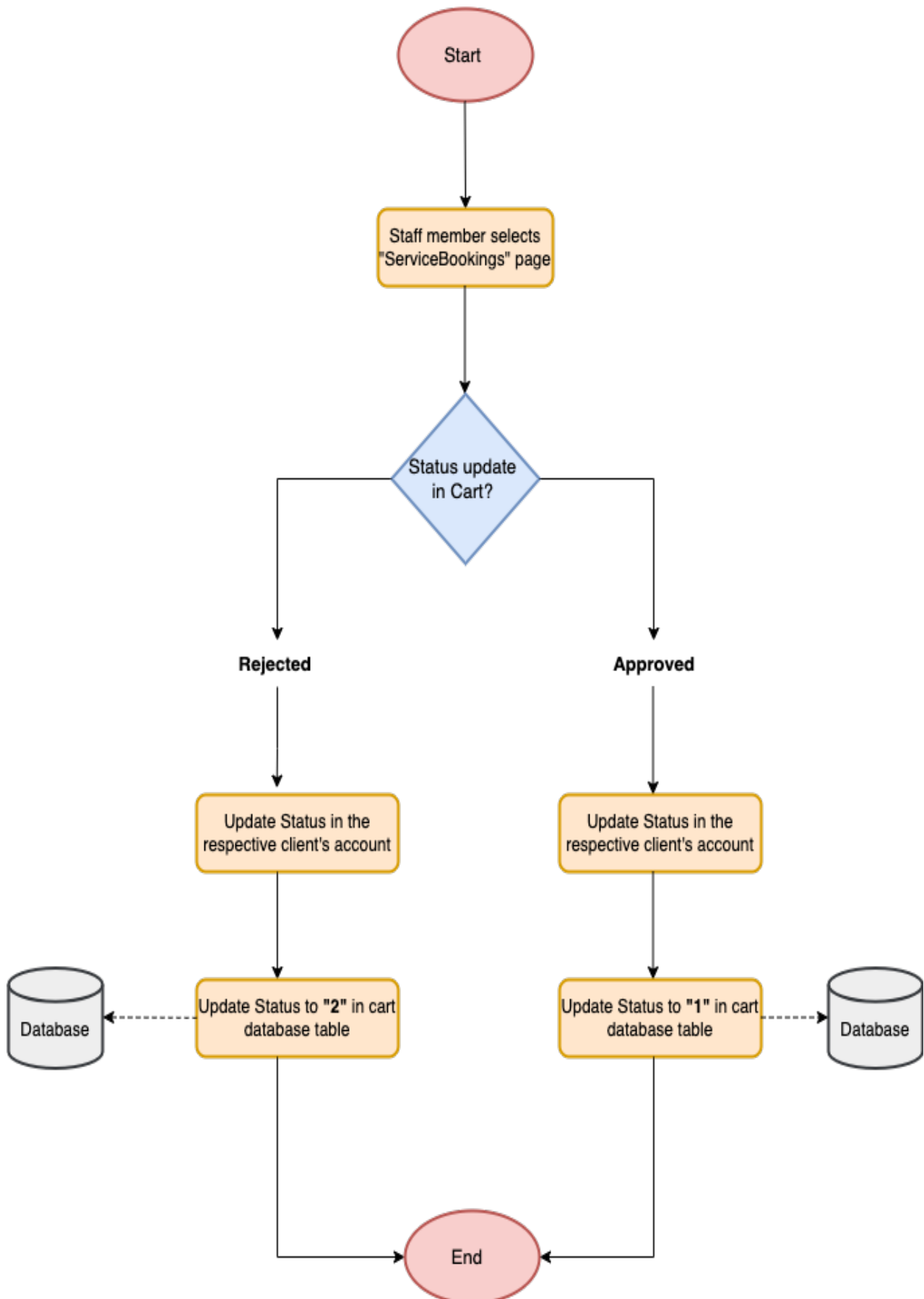# FLOWCHARTS:

## Client Login Process

# **Client Registration Process**

```mermaid
flowchart TD
    Start([Start])
    Input[/Input new client's data/]
    EmailCheck{Does the EmailID already exist?}
    Database1[(Database)]
    DisplayEmail[Display "email already taken"]
    CreateID[Create Unique ID for the user]
    PasswordCheck{Are the values of 'password' and 'confirm_passowrd' matching?}
    Save[Save the entered information to the database]
    Database2[(Database)]
    DisplayPass[Display "Password's don't match"]
    End([End])

    Start --> Input
    Input --> EmailCheck
    Database1 -.-> EmailCheck
    EmailCheck -- Yes --> DisplayEmail
    EmailCheck -- No --> CreateID
    CreateID --> PasswordCheck
    PasswordCheck -- No --> DisplayPass
    PasswordCheck -- Yes --> Save
    Save -.-> Database2
    DisplayEmail --> End
    Save --> End
    DisplayPass --> End
```

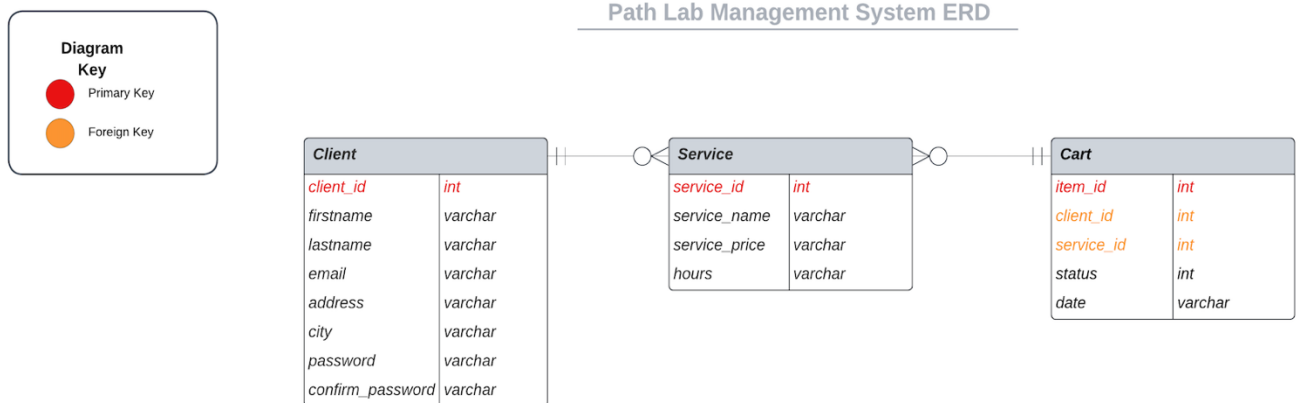# **Booking Services Process**

**Updating Status of Appointments:**

# Entity-Relationship Diagram (ER Diagram):

An ERD represents a logical view of the database and show how entities are related to each other.



Path Lab Management System ERD

**Diagram Key**
- 🔴 Primary Key
- 🟠 Foreign Key

**Client**

| client_id | int |
| firstname | varchar |
| lastname | varchar |
| email | varchar |
| address | varchar |
| city | varchar |
| password | varchar |
| confirm_password | varchar |

**Service**

| service_id | int |
| service_name | varchar |
| service_price | varchar |
| hours | varchar |

**Cart**

| item_id | int |
| client_id | int |
| service_id | int |
| status | int |
| date | varchar |

# UML Class Diagram:

UML (or Unified Modelling Language) was developed to create a standard way of visualizing the design of a system. The structural description in UML Class Diagrams show the system's classes and how they relate to one another.

The following UML Class Diagram was created for the Appointment Booking System and show how the classes involved are related to each other.
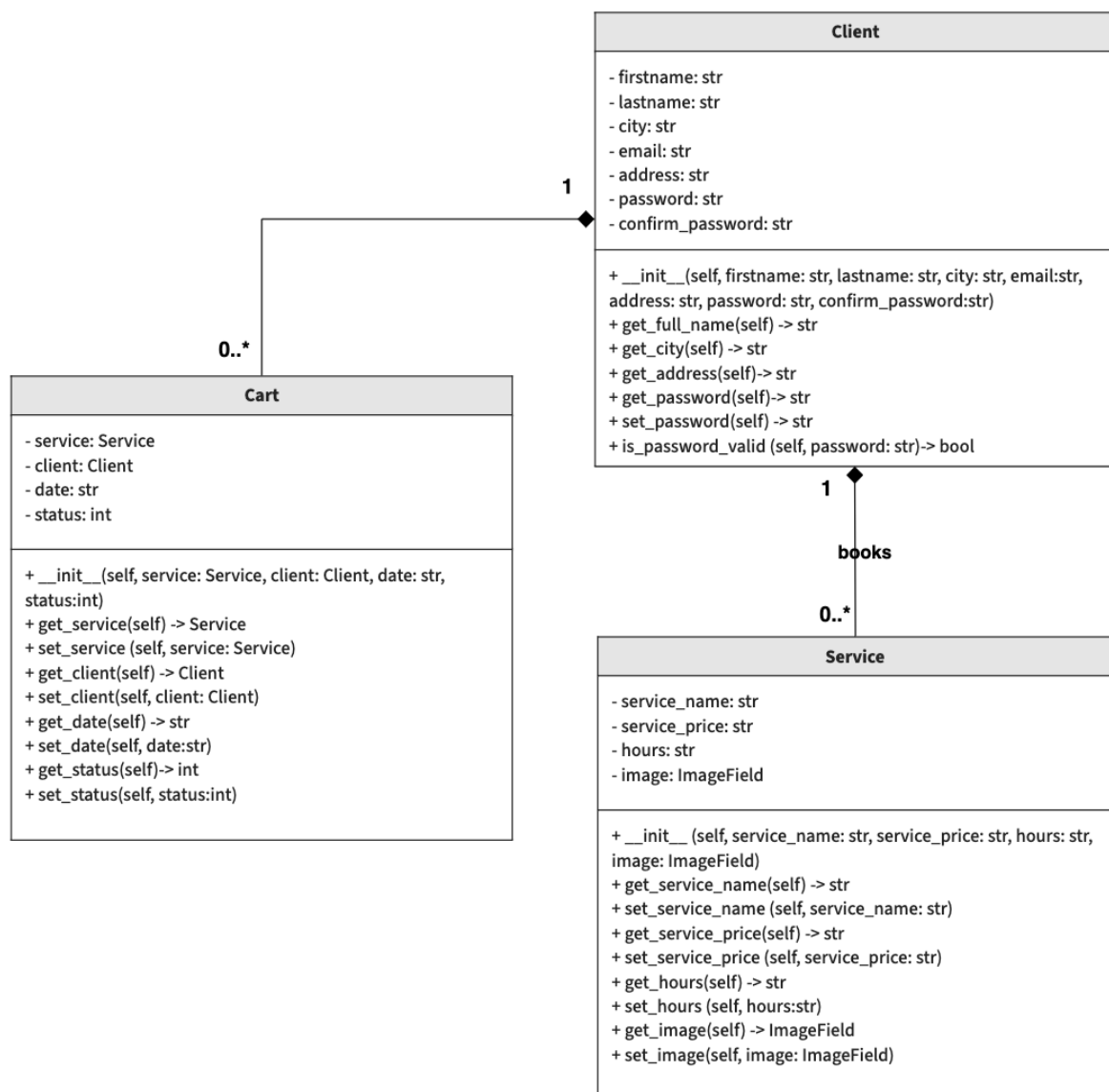
## Table Design/ Structure:

The following table designs/structures are used in SQLite database for storage where the user can store, edit, or delete the data.

## Table Name: "client"

| Field Name | Data type | Description |
|---|---|---|
| client_id | integer | Unique ID of every new user/client |
| firstname | Varchar (50) | First name of client |
| lastname | Varchar (50) | Last name of client |
| city | Varchar (50) | City name |
| email | Varchar (50) | Email address |
| address | Varchar (500) | House address |
| password | Varchar (50) | Password for client's new account. |
| confirm_password | Varchar (50) | Password confirmation |

This table stores the information entered by the client in the registration page. Each client is given a unique client ID.

**Table Name: "cart"**

| Field Name | Data type | Description |
|---|---|---|
| item_id | integer | Stores Unique ID of each item/booked service added to cart |
| client_id | bigint | Corresponding client id |
| service_id | integer | Corresponding service id |
| Status | integer | Status of confirmation of appointment |
| Date | Varchar (50) | Date of the appointment |

This table stores the cart information for every booked service. The status gets updated after the changes are made by the staff member. This table is mainly used for viewing a particular day's appointments.

**Table Name: "staff"**

| Field Name | Data type | Description |
|---|---|---|
| number_id | integer | Number ID for each staff member |
| staffid | varchar (100) | Staff ID for each staff member |
| password | varchar (100) | Password for staff login |

This table stores the staff user information entered by the admin in the administration page.

**Table Name: "services"**

| Field Name | Data type | Description |
|---|---|---|
| service_id | integer | Unique ID for each service |
| service_name | Varchar (100) | Name of the service |
| service_price | Varchar (100) | Price of the service |
| hours | Varchar (100) | Expected report result |
| image | Varchar (100) | Image file of service |

This table stores the details of each service under 'Our Services' page accessible by the clients.

# Test Plan:

| Test Type | Test Method | Expected result | Success Criteria |
|---|---|---|---|
| Clients are able to register. | Input appropriate data into the registration page, then submit. | Client/user created in the database. | 1 |
| Clients can change their personal info/password | Edit feature available on the details page, submit after making changes. Enter old password, and then new password on 'Change password' page, submit after updating. | Information gets updated on the database. | 4 |

| | | | |
|---|---|---|---|
| Clients can book appointments | In 'service bookings' page, book a specific service and select date and time slot. | The booking gets updated under the cart table in the database along with client id and status. (After approval/rejection from staff member) | 5 |
| Different UI for clients and lab staff members. | Under the login button on the main page of the website, choose client/staff login accordingly. | Different GUI appears for clients and staff members. Clients will have additional features, while the staff account page can only update the status of bookings. | 3 |
| Staff can log in with given credentials | Go to staff log in, enter StaffID and password to login. | Staff credentials are stored in the database as soon as they are created in the admin page. | 2 |
| Staff can update the status of bookings (approve/ reject) | After logging into staff account, go to service bookings page, client booking information will be available, along with two action buttons (approve/reject). | The status gets updated for the client in their account, and also under the cart table in database. | 6 |
| Admins can view information and access edit features | Go to admin page and login with credentials. Admin can access client and website information under site administration. | Editing done by the admin will automatically be updated on the website and specific database. | 7 |
| Clients can contact for queries | In the contact page, clients can send their messages/queries to the center. | The information gets updated under the contact table in database. | 8 |
| Input validation | When users accidentally enter inappropriate/incorrect | An error message is displayed on the | 9 |

| | data i.e., wrong credentials, mismatched passwords, etc. | screen and no further action is taken. | |
|---|---|---|---|
| Organized view of a particular day's schedule | Update appointment bookings on the website. | The admin and staff can view the number of appointments with details on each day under the cart table in the database. | 10 |