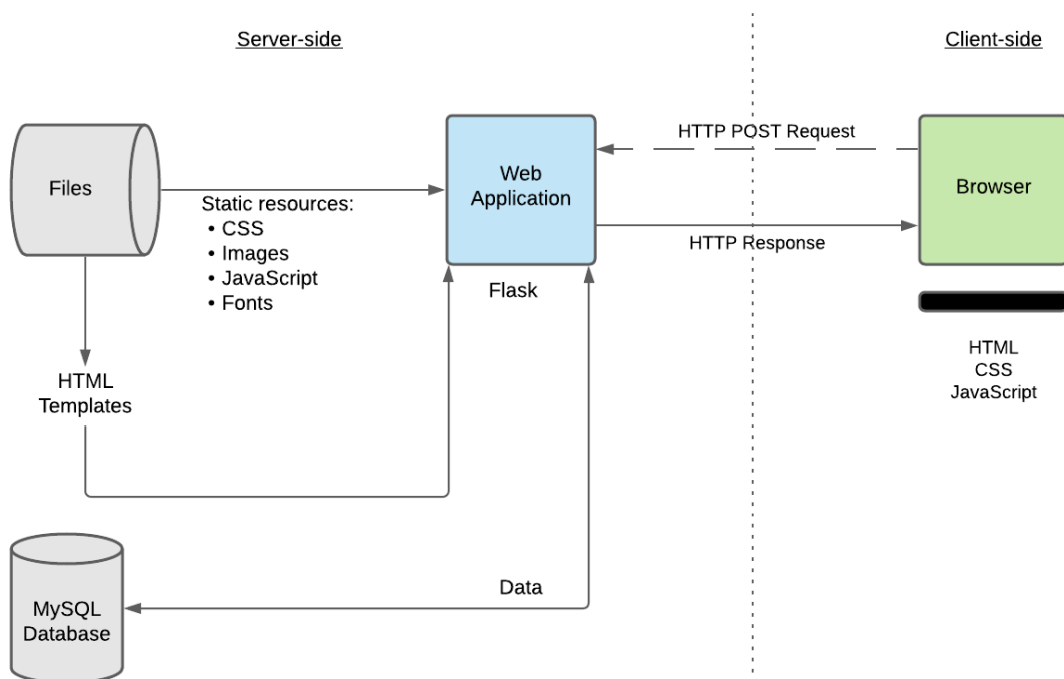


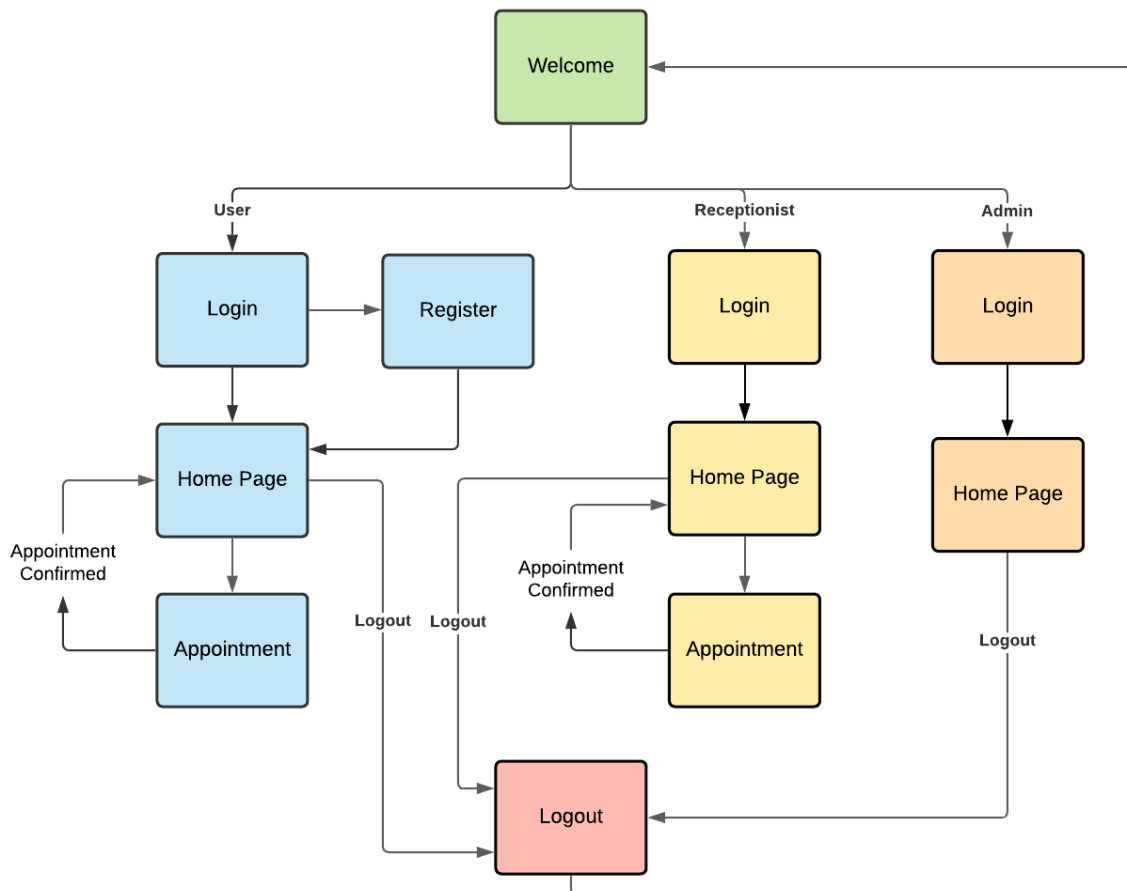
Architecture

Overview

- Nova Clinic is a web application that enables Health Centers to provide users an easy way of booking a doctor's appointment online and helps the Health Centers to manage the appointments with ease.
- Architecture



- Navigation chart of website



Frontend

User Portal

- Welcome
 - A brief introduction about the Clinic
 - Redirects to User Portal or Receptionist or Admin portal
- Login
 - Users can sign in using their Phone Number and Password.
 - New users can choose the Sign Up option.

- Sign Up
 - Users can create an account using their Phone number along with their Name, Date of Birth and Gender.
- Home Page
 - Users can view their upcoming appointments
 - Users can choose to book an Appointment
 - Users can choose to cancel an Appointment
 - Users can edit their profile, change their password and can logout
 - Information regarding the services offered
- Appointment
 - List of all Doctors information with filters
 - Availability of doctors slots on the selected date is shown

Receptionist Portal

- Login
 - Receptionists can log in using their Username and Password
- Receptionist Home Page
 - Receptionists can view all upcoming appointments
 - Receptionists can book a Walk-In Appointment
- Appointment (Walk-In Appointments)
 - Receptionists can book an appointment for patients with no account.
 - List of all Doctors information with filters
 - Availability of doctors slots on the selected date is shown

Admin Portal

- Login
 - Admins can log in using their Username and Password.
- Admin Home Page
 - Admin can add, update and delete Doctors
 - Admin can add and delete Receptionists
 - Admin can view all the existing Doctors, Receptionists and Admins

Backend

- /login
 - Receives the Phone Number and Password through a POST request
 - If the credentials are correct, This will redirect to the Homepage, else displays the error flash message
- /signup
 - Receives the User Information like Phone Number, Name, Date of Birth, Gender and Password
 - Verifies whether the given Phone Number is new and few other input compatibility checks.
 - If everything entered was correct, This'll add the User to the Database.
- /userName
 - Receives the Phone Number of the logged-in user
 - Returns the Name of the User

- /home
 - Receives the Phone Number of the logged-in user
 - Renders the User's homepage along with the data of upcoming appointments and the name of the User.
- /updateInfo
 - Receives the Edited Phone Number, First Name and Last Name
 - Updates the User Information in the database after a few verifications
- /updateCredentials
 - Receives the Old Password and New Password
 - Updates the User Credentials in the database if the old password matches the password in the database
- /apmnt
 - Receives the Doctor filter choices
 - Renders the Appointment page accordingly
- /getslotsinfo
 - Receives the Date and Doctor ID
 - Returns the data of the Slots of that Doctor on that date.
- /confirmapmnt
 - Receives the Date, Doctor ID, Name of the Patient, Slot
 - Creates the appointment in the Database and updates the Slots data in the Database
- /apmntDelete
 - Receives the appointment ID, date, slot, Doctor ID
 - Deletes the appointment in the Database and updates the Slots data in the Database

- /rlogin
 - Receives the Receptionists Username and Password
 - If the credentials are correct, This will redirect to the Receptionists Homepage, else displays the error flash message
- /receptionist
 - Receives the Filter choices of Appointments
 - Renders the Receptionist Home Page accordingly
- /raptmnt
 - Receives the Filter choices of Doctor
 - Renders the Appointment page accordingly
- /alogin
 - Receives the Admins Username and Password
 - If the credentials are correct, This will redirect to the Admins Homepage else displays the error flash message
- /admin
 - Returns the IDs and Name of the existing Doctors, Receptionists and Admins
- /addDoctor
 - Receives the Doctor ID, Name, Specialization, Gender, Experience and Education of the Doctor to be added
 - Will verify if the Doctor ID is unique, If unique, will add the Doctor to the Database.

- /updateDoctor
 - Receives the Doctor ID, Name, Specialization, Gender, Experience, Education of the Doctor to be updated
 - Will update the Doctor information in the Database
- /deleteDoctor
 - Receives the Doctor ID of the Doctor to be deleted
 - Will delete the Doctor information in the Database
- /addReceptionist
 - Receives the Receptionist ID, Name of the Receptionist to be added
 - Will verify if the Receptionist ID is unique, If unique will add the Receptionist to the Database.
- /deleteReceptionist
 - Receives the Receptionist ID of the Receptionist to be deleted
 - Will delete the Receptionist information in the Database
- /logout
 - Will clear the session variable and will redirect to the Welcome Page

Database

Tables and their Schema

- Users
 - To store the information and credentials of the user
 - `users('Phone_Number' char(10) NOT NULL, 'Password' char(56) NOT NULL, 'First_Name' varchar(20) NOT NULL, 'Last_Name' varchar(20) NOT NULL, 'Date_Of_Birth' date NOT NULL, 'Gender' varchar(6) NOT NULL, PRIMARY KEY ('Phone_Number'));`
- Appointments
 - To store the details of which patient is consulting which doctor at what time(slot) and date
 - `aptmnt('Aptmnt_ID' int(11) NOT NULL AUTO_INCREMENT, 'Patient_ID' char(10) NOT NULL, 'Doctor_ID' varchar(10) NOT NULL, 'Date' date NOT NULL, 'Slot' char(11) NOT NULL, PRIMARY KEY ('Aptmnt_ID'), CONSTRAINT `aptmnt_ibfk_2` FOREIGN KEY ('Doctor_ID') REFERENCES `doctors` ('Doctor_ID'));`
- Doctors
 - To store the information of Doctors
 - `Doctors('Doctor_ID' varchar(10) NOT NULL, 'First_Name' varchar(20) NOT NULL, 'Last_Name' varchar(20) NOT NULL, 'Specialization' varchar(20) NOT NULL, 'Experience' int(11) NOT NULL, 'Gender' varchar(6) NOT NULL, 'Education'`


```
varchar(40) NOT NULL, `Image` varchar(20) NOT NULL,  
PRIMARY KEY (`Doctor_ID`));
```

- Slots

- To store the availability status of the doctor at a given date, time
- slots(`Date` char(10) NOT NULL, `Doctor_ID` varchar(10) NOT NULL, `Time` char(24) NOT NULL DEFAULT '00000000000000000000000000', PRIMARY KEY (`Date`, `Doctor_ID`), KEY `Doctor_ID` (`Doctor_ID`), CONSTRAINT `slots_ibfk_1` FOREIGN KEY (`Doctor_ID`) REFERENCES `doctors` (`Doctor_ID`));

- Receptionists

- To store the Name and Credentials of Receptionists
- receptionists(`Recep_ID` char(10) NOT NULL, `First_Name` varchar(20) NOT NULL, `Last_Name` varchar(20) NOT NULL, `Password` char(56) NOT NULL DEFAULT '43c21023f40197a9e0e122d3d191fb2c101f664bf4a1cb4ca886dff7', PRIMARY KEY (`Recep_ID`));

- Admin

- To store the Name and Credentials of Admins
- admin(`Admin_id` varchar(10) NOT NULL, `Password` char(56) NOT NULL, `First_Name` varchar(20) NOT NULL, `Last_Name` varchar(20) NOT NULL, PRIMARY KEY (`Admin_ID`));

- Temporary Users

- To store the details of Patients who booked appointments through walk-in appointments
- `temp_users('First_Name' varchar(20) NOT NULL, 'Last_Name' varchar(20) NOT NULL, 'Date_Of_Birth' date NOT NULL, 'Gender' varchar(6) NOT NULL, 'Phone_Number' char(10) NOT NULL, 'Slot' char(11) NOT NULL, 'Date' date NOT NULL, 'Doctor_ID' varchar(10) NOT NULL, PRIMARY KEY ('Slot','Date','Phone_Number','Doctor_ID'));`

ER Diagram

