



# IT314: SOFTWARE ENGINEERING PROJECT

GROUP:31

Project Title: Swasthya Sarathi

## Team Details

Student ID	Name
202201464	Mayank Parmar
202201522	Arnold Mochahari
202201484	Jaikrit Sanandiya
202201481	Anuj Valambhiya
202201474	Jeet Desai
202201463	Harsh Popatiya
202201487	Nandini Mandaviya
202201511	Aryan Patel
202201493	Harsh Lad
202201521	Jemini Chaudhari

## **Task 2: Product Backlog (User Stories)**

### **User Story 1**

#### **Front of the Card:**

As a doctor/patient/staff member, I want to register by providing my personal details when I visit the portal for the first time so that my information is stored within the portal and I can log in whenever I wish.

#### **Back of the Card:**

1. The registration form must collect required details such as name, email, phone number, password, gender, DOB, etc.
  2. Upon submission and validation of all the fields, the information is stored in the database.
  3. The registration process should prevent duplicate registrations for the same email address.
- 

### **User Story 2**

#### **Front of the Card:**

As a doctor/patient/staff member, I want to log in through Email and Password, or Google authentication so that I can access the features of the portal.

#### Back of the Card:

1. The login page must allow users to log in using Email/Password or Google authentication.
  2. For Email/Password login, validate credentials against stored data in the database.
  3. For Google authentication, validate the user's Google account and grant access upon successful authentication.
  4. Incorrect Email/Password combination must result in an error message.
  5. Successful login should direct users to their respective role-based dashboard.
- 

#### User Story 3

##### Front of the Card:

As a doctor/patient/staff member, I want a password recovery option so that I can reset my password securely through email if I forget it.

##### Back of the Card:

1. The password recovery page must ask the user for their registered email address.
2. Upon submission, an email with a password reset link is sent to the user.

3. The reset link should expire after a predefined time (e.g., 24 hours).
  4. Clicking on the reset link should direct the user to a secure page where they can set a new password and use it to login.
- 

## User Story 4

### Front of the Card:

As a doctor/patient/staff member, I want to select my role from the available options (Patient, Doctor, Admin) so that I can access features specific to my role.

### Back of the Card:

1. The registration form must include three options: Patient, Doctor, and Admin.
  2. Upon login, the user is directed to the features associated with their selected role.
  3. The system must store the selected role in the database and ensure appropriate access control based on the role.
- 

## User Story 5

### Front of the Card:

As a doctor/patient/staff member, I want my password to be stored securely through encryption so that my privacy is protected.

Back of the Card:

1. Passwords must never be stored in plain text, they must be hashed and salted before being stored in the database.
  2. The system must use secure cryptographic methods to store and retrieve passwords.
- 

## User Story 6

Front of the Card:

As a doctor, I want to register on the app by providing my name, years of experience, qualifications, date of birth, contact number, email, gender, and medical license number so that I can have a verified profile in the system.

Back of the Card:

1. The system must allow the doctor to input all required details (name, experience, qualifications, DOB, contact, email, gender, and medical license number) during registration.
2. Upon successful registration and verification of the medical license, the doctor's profile should display a "verified" badge.

---

## User Story 7

### Front of the Card:

As a doctor, I want to be able to update or edit my personal and professional details, such as contact information and qualifications, so that my profile remains accurate and up-to-date.

### Back of the Card:

1. The system should allow the doctor to modify fields such as contact information and qualifications after registration.
2. The doctor should receive a confirmation notification once the profile is successfully updated.

---

## User Story 8

### Front of the Card:

As a patient, I want to register on the app by providing my name, age, gender, date of birth, contact number and email so that I can have a verified profile in the system.

### Back of the Card:

1. The system must allow the patient to input all required details (name, age, gender, date of birth, contact number, and email) during registration.
  2. Upon successful registration, the patient should receive a confirmation email or SMS to verify their contact information, and their profile should be marked as "verified" after successful verification.
- 

## User Story 9

### Front of the Card:

As a hospital admin, I want to register my hospital on the app by providing my name, address, mail, registration number, type of ownership, contact info and available departments so that I can have a verified profile in the system.

### Back of the Card:

1. The system must allow the hospital admin to input all required information (name, address, email, registration number, type of ownership, contact info, and available departments) during the hospital registration process.
  2. Upon successful submission, the hospital registration number should be verified, and the hospital's profile should display a "verified" badge once verification is completed.
-



## User Story 10

### Front of the Card:

As a hospital admin/patient/doctor, I want secure storage of all records so that my privacy is maintained.

### Back of the Card:

1. All personal and medical records must be encrypted during transmission and while stored in the system to ensure data privacy and protection from unauthorized access.
2. Access to records should be role-based, ensuring that only authorized users (e.g., a patient, their assigned doctor, or the hospital admin) can view or modify relevant information.

## User Story 11

### Front of the Card:

As a doctor, I want to view the complete medical history of a patient, including past diagnoses, treatments, and medications, so that I can make informed decisions during their current visit.

### Back of the Card:

1. The system must display the patient's full medical history, including past diagnoses, treatments, and medications, in an organized manner when the doctor accesses their profile.

2. The medical history should be available to the doctor only if they have been assigned the patient for a consultation.

---

## User Story 12

### Front of the Card:

As a doctor, I want to generate and provide medical certificates directly from the app, so that patients can receive official documentation for their health conditions or treatment without additional paperwork

### Back of the Card:

1. The app must enable the doctor to create a medical certificate with necessary details, such as patient name, diagnosis, and treatment duration.
  2. The patient should be able to download or receive the medical certificate in a PDF format from their profile.
- 

## User Story 13

### Front of the Card:

As a doctor/staff member, I want to view a patient's medical history sorted by a specific timeline to have better analysis.

Back of the Card:

1. Upon accessing a patient's profile, an option should be available to view the patient's medical history.
  2. There should be an option to sort and view this history in timeline sequence.
- 

## User Story 14

Front of the Card:

As a doctor or staff member, I want to view a patient's medical history across different consulted doctors and hospitals so that I can have an understanding of the patient's medical background.

Back of the Card:

1. Upon accessing a patient's profile, an option should be available to view the patient's medical history.
  2. The system should provide functionality to view this patient's medical history across various consulted doctors and hospitals.
-

## User Story 15

### Front of the Card:

As a patient, I want my medical reports to be accessible only to the appointed doctor and authorized staff.

### Back of the Card:

1. The system should ensure that your medical reports are accessible only to your designated doctor and authorized staff.
- 

## User Story 16

### Front of the Card:

As a patient, I want a search bar so that I can easily find information about my desired hospital.

### Back of the Card:

1. The system should provide a search bar, allowing patients to easily find information about their desired hospital.
  2. The search bar should provide relevant information about the desired hospital.
-

## User Story 17

### Front of the Card:

As a patient, I want a navigation bar in the system for quick access to my records, appointments, billing, and other features so I can easily manage my healthcare needs.

### Back of the Card:

1. The system's home page should include a navigation bar.
  2. This bar must incorporate essential functions such as records, appointments, billing, and other key features of the system.
- 

## User Story 18

### Front of the Card:

As a doctor/patient/staff member, I want the ability to log in from multiple devices so that I can access and manage my account from different devices conveniently.

### Back of the Card:

1. The system should support logging in from multiple devices.

---

## User Story 19

### Front of the Card:

As a patient/staff/doctor, I want a logout option in the system so that I can securely end my session.

### Back of the Card:

1. The system should provide a logout option for users to securely end their session.
2. After logging out, users must re-enter their credentials to access the system again.

## User Story 20

### Front of the Card:

As a staff member, I want to be able to update/add/delete records, so that I can efficiently maintain them.

### Back of the Card:

1. The system must provide the staff member with a user interface to securely add, update, or delete records, with appropriate validation to ensure data integrity and accuracy.

2. Changes to records (addition, modification, or deletion) should be logged with timestamps and user details to ensure traceability and accountability.

---

## User Story 21

Front of the Card:

As a staff member, I want to generate bills according to different categories of fields so that a record can be saved on the patient and hospital records.

Back of the Card:

1. The system must allow the staff member to create bills by selecting and categorizing various fields (e.g., consultation fees, medication costs, lab tests) and generate a detailed invoice for each patient.
2. Once a bill is generated, it should be automatically saved to both the patient's and hospital's records, with the ability to view, print, or export the bill as needed.

## User Story 22

Front of the Card:

As a doctor, I want the patient to provide their Patient ID so that I can view their medical history accurately and efficiently.

Back of Card:

1. The system should provide a full medical history of the patient when patient ID is entered.
  2. The system should provide the search functionality for viewing patient's history only to the doctors.
- 

## User Story 23

Front of the Card:

As a doctor, I want to add or update a patient's prescription so that the patient receives the correct medication and dosages in their medical record.

Back of Card:

1. The system provides the 'Add prescription' option so that doctors can add prescriptions in the patient record.
  2. The system provides the 'Update prescription' option so that doctors can modify the prescription report for the patient.
-



## User Story 24

### Front of the Card:

As a staff member, I want to add the medical prescription form to the patient's medical history so that the patient's records are updated to the present.

### Back of the Card:

1. The staff member can add a medical prescription given by the doctor into the patient's medical history.
  2. The staff member can also put records to the hospital's internal database.
- 

## User Story 25

### Front of the Card:

As a staff member, I should view, manage and print the patient's medical invoice from the respective hospital or clinic in the system.

### Back of the Card:

1. The staff member can view, manage, and print an invoice from the hospital data in the system.
-

## User Story 26

### Front of the Card:

As a developer, I want to link different entries so that I can access a complete and integrated view of the patient's medical history and consistency for all records.

### Back of the Card:

1. The system should automatically link these entries to the patient's profile, making all related data easily accessible from a single point.
  2. When changes over any entry (like modify prescription, change in appointment, etc.) are made, it should reflect on the patient's as well as the hospital's side.
- 

## User Story 27

### Front of the Card:

As a patient, I want the prescription format to be in a comprehensible manner so that I can understand the diagnosis more simply.

### Back of the Card:

1. The system should provide a description in a certain format such that it would also be easy for the doctors to type inside it.

2. The format should also include Patient ID, Patient Name, Disease, name of prescription, dosage times, test reports, test recommendations, remarks, etc.

## User Story 28

### Front of the Card:

As a patient, I want to search for hospital names so that it would be easy for me to browse hospital details and book appointments as per my choice.

### Back of the Card:

1. The system provides search functionality to users for selecting hospitals or clinics as per their convenience.
  2. The user can also search hospitals or clinics as per chronological names, location-wise, rating-wise, etc.
- 

## User Story 29

### Front of the Card:

As a patient, I want to browse hospitals through a location filter to see which hospitals are the nearest to me.

### Back of the Card:

1. The search should come up with suggestions such that the nearest hospitals are shown first and farther hospitals are shown later.
  2. If the location of the patient is off, it should instruct the patient to turn it on.
- 

### User Story 30

#### Front of the Card:

As a patient, I want to browse hospitals through a speciality filter to see which hospitals are relevant to my treatment.

#### Back of the Card:

1. The search should only show hospitals that provide treatment of the particular speciality.
  2. If no such hospitals are found, it should show a relevant message on the screen.
- 

### User Story 31

#### Front of the Card:

As a patient/doctor/staff member, I want the website to be cross-browser compatible so I can run the website on a browser of my choice.

Back of the Card:

1. The website should show a consistent interface and response to all actions on all browsers.
  2. The website must be fully functional across the latest versions of all browsers.
- 

User Story 32

Front of the Card:

As a patient/doctor/staff member, I want the website to be mobile responsive so I can open the website on different devices.

Back of the Card:

1. The website interface should be scaled and responsive across all devices.
2. The website should be able to support both portrait and landscape mode.

User Story 33

Front of the Card:

As a patient, I want a feature where I can book appointments so I do not have to go through the hassle of calling and rescheduling appointments all the time.

**Back of the Card:**

1. The patient must be able to view available appointment slots and select their preferred time and date without requiring assistance.
  2. Upon booking, the patient should receive a confirmation message via email/SMS, including the appointment details.
- 

**User Story 34**

**Front of the Card:**

As a doctor, I want a feature that allows me to see my appointments so I can know my schedule.

**Back of the Card:**

1. The doctor should be able to view a list of all upcoming appointments, sorted by date and time.
  2. The appointment details should include the patient's name and appointment time.
-

## User Story 35

### Front of the Card:

As a staff member, I want to view schedules so that I can allot incoming appointments accordingly.

### Back of the Card:

1. The staff member must have access to an up-to-date view of all doctors' schedules, showing booked and available appointment slots.
  2. The system should allow staff to filter schedules by doctor, date, and time to efficiently manage appointment allocations.
- 

## User Story 36

### Front of the Card:

As a staff member, I want to enter appointment timings so that I can inform the doctors and patients about it.

### Back of the Card:

1. The staff member must be able to enter and edit appointment timings for patients and doctors, with the system automatically notifying both parties of any changes.
2. Any updates to appointment timings should trigger an automatic notification via email/SMS to the affected patient and doctor.

---

## User Story 37

### Front of the Card:

As a patient, I want to be notified of my appointments, so that I do not forget and miss them.

### Back of the Card:

1. The patient must receive automated reminders for upcoming appointments via email/SMS at least 24 hours in advance.
  2. The notification should include the appointment date, time, location, and any preparation instructions if needed.
- 

## User Story 38

### Front of the Card:

As a staff, I want to receive feedback from patients, so that I can make improvements in the hospital service accordingly.

### Back of the Card:



1. The staff member must be able to access and review feedback submitted by patients, categorized by patient.
  2. The system should generate reports on patient feedback trends, highlighting areas for potential improvement.
- 

### User Story 39

#### Front of the Card:

As a patient, I want to give feedback about the hospital and doctors, so that I can inform other people about them.

#### Back of the Card:

1. The patient must be able to submit feedback through a simple and accessible form, with the option to rate services and leave comments.