## Project Overview-

The Thapar University campus has a growing population of students who need convenient and secure ways to access healthcare services. Students have strict time tables to follow and are not able to make time to wait for long hours at the dispensary. They are also often required to provide proof for medical leave, and the authenticity of these proofs often comes into question. A healthcare portal can provide a centralized solution for these needs, while also allowing doctors to manage their patients' care and stock maintainers to track medicine storage. This will ensure that no student has to go back to their room sick or not fully tended to.

Project Goals:

* To provide a convenient and secure way for patients to book appointments, view past appointments, and track their medical records.
* To allow doctors to manage their patients' appointments, view medical records, and prescribe medications.
* To enable stock maintainers to track medicine storage and shortages.
* To allow students to provide medical proof for leave through the portal history.

#### Scope of this project-

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##### Project Requirements-

The software must be able to perform the following operations:

1. **Login:** The software must be able to authenticate users by matching their username and access code against the values stored in the database.
2. **User details:** The software must be able to receive and store user details, such as name, email address, and phone number.
3. **Book an appointment:**
4. **Previous prescriptions:** The software must allow students to view their previous prescriptions.
5. **Appointment confirmation and cancellation:** The software must allow doctors to confirm or cancel appointments, and students to cancel their own appointments.
6. **Notification:** The software must notify patients and doctors of appointment confirmations and cancellations.
7. **Online prescription storage:** The software must store prescriptions in an online database.
8. **Past records:** The software must allow students and doctors to view their past records.
9. **Medical supplies:** The software must allow stock managers to continuously update their current medical supplies.
10. **Medicine requests:** The software must allow students to request medicines.

**User Interface:**

#### The healthcare portal website will provide a three-ended interface for doctors, patients, and stock managers. The UI will be simple and user-friendly, with clear and concise labels and instructions. The use of color and icons will be consistent throughout the website, to help users navigate easily. The website will be responsive, so that it can be accessed on any device, regardless of screen size. The website will be secure, with all patient data protected by effective hashing compliant to HIPAA Rules. The website will be dynamic, so that it can be easily updated with new information.

#### To avoid overcrowding and delay in finding data, the pages will be equipped with easy filtering and search options. For example, patients could filter their medical records by date, doctor, or diagnosis. Doctors could filter their appointment schedule by date, time, or patient. And stock managers could filter their inventory by medicine name, quantity, or reorder level.

**Functional Requirements:**

Doctor:

1. Login
2. View past records of patients
3. Manage (confirm/cancel) pending requests for appointments.
4. Manage their upcoming appointments
5. Digital Prescription Upload
6. Get informed about cancellation of appointment by patient.

Patient:

1. Login
2. Sign-Up/Register
3. View their past records/prescriptions
4. Book an appointment with preferred time being taken as input.
5. Cancel their appointments
6. Request for medicine to the stock manager
7. Manage their upcoming appointments
8. View previous prescriptions
9. Get notified about confirmation or cancellation from doctor.

Stock Manager:

1. Login
2. Manage (increase/decrease/add new medicines) to current database of medicines.
3. View medicine requests.
4. Notify patients if requested medicine has arrived.

**Non-Functional Requirements:**

#### User friendly interface.

#### Responsive Design.

#### Secure Patient information under HIPAA Rules.

#### Ability to access through any device.