**Objective:**

The objective of developing a web-based tool for medical professionals to store and access patient records is to create a convenient and efficient system for managing and retrieving patient information. The tool aims to streamline the process of record-keeping, making it easier for medical professionals to maintain accurate and up-to-date patient records, access them when needed, and facilitate efficient healthcare delivery. The ultimate goal is to enhance patient care by providing a user-friendly platform that securely stores and organizes patient data, allowing healthcare providers to make informed decisions and provide personalized care.

**Features Supported in Application**

1. **User Registration and Authentication:**

* The platform should allow medical professionals to create accounts and provide necessary information (e.g., name, credentials, contact details).
* Users should be able to log in securely using their credentials or through authentication mechanisms like two-factor authentication.

1. **Patient Records Management:**

* Medical professionals should be able to create, store, and update patient records electronically.
* The system should provide fields to capture relevant patient information, such as demographics, medical history, allergies, medications, and test results.
* Users should have the ability to search and retrieve patient records based on criteria like patient name, medical record number, or date of birth.
* The application should support the creation and maintenance of comprehensive and structured patient records, allowing for easy access and reference.

1. **Appointment Scheduling and Management:**

* The web application should integrate with the appointment booking functionality mentioned in the previous requirement.
* Medical professionals should be able to view their appointment schedules, book new appointments for patients, and manage existing appointments.
* The system should provide reminders and notifications for upcoming appointments to both medical professionals and patients.
* There should be an option to link patient records to their respective appointments for easy access during consultations.

1. **Document Management:**

* The platform should allow medical professionals to upload and manage various types of documents related to patient care, such as lab reports, imaging files, and consent forms.
* Users should be able to attach documents to specific patient records for easy retrieval and reference.
* The system should support document versioning and ensure the security and confidentiality of sensitive information.

1. **Collaboration and Communication:**

* The web application should facilitate communication between medical professionals and patients, enabling secure messaging or telehealth consultations.
* Users should have the ability to send notifications, share test results, or request additional information from patients directly through the platform.
* The system should maintain an audit trail of communication for documentation and accountability purposes.

1. **Data Privacy and Security:**

* The application should adhere to applicable data privacy regulations, such as HIPAA (Health Insurance Portability and Accountability Act) for handling patient information.
* User data and patient records should be encrypted to ensure confidentiality and prevent unauthorized access.
* Robust access controls and user permissions should be implemented to limit data access based on user roles and responsibilities.

1. **Reporting and Analytics:**

* The platform should provide medical professionals with reporting and analytics capabilities to extract insights from patient data.
* Users should be able to generate reports on patient demographics, diagnoses, treatments, or outcomes for research, compliance, or quality improvement purposes.
* The system should offer visualization tools to present data in a meaningful and easily interpretable format.

1. **Integration with Existing Systems:**

* The web application should have the ability to integrate with other healthcare systems, such as electronic health record (EHR) systems or laboratory information management systems (LIMS).
* Integration can facilitate the exchange of patient data, test results, or other relevant information to streamline workflows and avoid duplicate data entry.

1. **Accessibility and Usability:**

* The application should be designed with accessibility features to ensure it can be used by individuals with disabilities.
* The user interface should be intuitive, user-friendly, and optimized for efficient data entry and retrieval.

1. **Scalability and Performance:**

* The web application should be designed to handle a growing number of patient records and user load while maintaining optimal performance.
* The system should be scalable to accommodate the increasing volume of data and users over time.

1. **Education:**

* The application will provide free awareness courses on mental health, menstruation, sex education, and hygiene.