**Project Proposal: Healthcare Portal**

**Business description:**

The proposed project is for any organization such as a hospital or local medical clinic who are primarily focused on treating patients of various illnesses. This organization, which is a part of the healthcare industry, provides various services to its patients. The proposed database system would enable the process of performing various tasks such as booking an appointment much easily for all the people associated with it. Other services provided by the proposed healthcare portal are viewing and updating medical records, tracking patients and doctors and providing insurance coverage to the patients who have claimed for it.

The business rules of the healthcare portal are as follows:

1. The only way to reserve appointments is via the health care portal.
2. The patient cannot book more than 5 appointments in a day.
3. Doctors cannot cancel an appointment.
4. If the doctors are unable to attend an appointment, the must find a substitute doctor.
5. Patient must show up 15 minutes before the appointment.

**Problem Statement:**

The process of managing people in an environment such as a hospital is very tedious. The patients must first place a call for an appointment and then must wait for long time at the hospital. The availability of doctors varies every day. Also, a patient with a specific type of illness must be addressed by a specific doctor. After the patient is treated, there is a hassle when it comes to bill payment because different patients have different insurance coverages. The current systems have the drawback as they fail to merge all these problems onto one interface as the process of data management is difficult.

**Proposed Solution:**

The healthcare portal serves as a common interface for the patients, doctors, management and insurance company which solves the problem related to management of data. This gives the patients easy access to their medical history and payment details. Also, it is easier for doctors to manage their patient data. Moreover, the insurance company has access to patient data in order to grant insurance to them. Lastly, the management can overlook the entire process and manage services such as allocation of patients to doctors in a convenient manner. This is the easiest way for the healthcare organization to ensure satisfaction of the patients and doctors, therefore increasing the profit of the organization. The business functions are booking an appointment, reschedule an appointment, viewing the appointment by the management, doctors can take up the appointments and insurance company can check coverage and then the patient can pay the bill.

**Users**

The users of this database system are:

1. Doctors
2. Patients
3. Receptionists
4. Insurance company

The patients must be signed up in the system in order for all the functionalities to work properly.

All the entities do not have equal access to the data. Data will be seen depending on the user type.



**Potential entities and attributes:**

The entities and their attributes are listed below:

1. **Users:**
   1. UserID
   2. UserType
   3. UserName
2. **DoctorDetails:**
   1. DoctorID
   2. DoctorFirstname
   3. DoctorLastname
   4. StreetNumber
   5. StreetName
   6. City
   7. State
   8. Zipcode
   9. PhoneNumber
   10. EmailID
3. **PatientDetails:**
   1. PatientID
   2. PatientFirstname
   3. PatientLastname
   4. StreetNumber
   5. StreetName
   6. City
   7. State
   8. Zipcode
   9. PhoneNumber
   10. EmailID
   11. InsuranceID
   12. IsInstate
4. **ReceptionistDetails:**
   1. ReceptionistID
   2. ReceptionistFirstname
   3. ReceptionistLastname
   4. StreetNumber
   5. StreetName
   6. City
   7. State
   8. Zipcode
   9. PhoneNumber
   10. EmailID
5. **MedicalExams:**
   1. ExamID
   2. ExamName
   3. ExamCost
   4. CoveredUnderInsurance
6. **InsuranceCoverageDetails**
   1. ExamID
   2. IsInstate
   3. PercentageCoverageInstate
   4. PercentageCoverageOutstate
7. **BillDetails**
   1. BillID
   2. ExamID
   3. PatientID
   4. DoctorID
   5. TotalCost