**PHASE 2- SQL STATEMENTS**

**Task 1: Login**

SELECT \* FROM User WHERE Username = $username AND Password=$password

SELECT \* FROM Patient WHERE

**Task 2: New User Registration**

INSERT INTO User (Username, Password) VALUES (‘Username’, ‘Password’)

**Task 3: Create Profile**

INSERT INTO Patient (Patient\_Username, Name, HomePhone, AnnualIncome, DateOfBirth, Address, WorkPhone, EmergencyContactName, EmergencyContactPhone, Weight, Height, Gender)

VALUES (‘PatientUsername’, ‘Name’, ‘HomePhone’, ‘AnnualIncome’, ‘DateofBirth’, ‘Address’, ‘WorkPhone’, ‘EmergencyContactName’, ‘EmergencyContactPhone’, ‘Weight’, ‘Height’, ‘Gender’)

INSERT INTO Patient\_Allergies(Allergy, Patient\_Username)

VALUES (‘Allergy’, ‘PatientUsername’)

//insert doctor information

INSERT INTO Doctor (Username, License\_Number, First\_Name, Last\_Name, Work\_Phone, Date\_of\_Birth, Specialty, Room\_Number, Home\_Address)

VALUES (‘Username’, ‘LicenseNumber’, ‘FirstName’, ‘LastName’, ‘WorkPhone’, ‘DateofBirth’, ‘Specialty’, ‘RoomNumber’, ‘HomeAddress’)

INSERT Doctor\_Availability(License\_Number, From, Day, To)

VALUES (‘LicenseNumber’, ‘From’, ‘Day’, ‘To’)

UPDATE Patient

SET Name=’$Name’, Home\_Phone=’$HomePhone’, Annual\_Income=’$AnnualIncome’, Date\_Of\_Birth=’$DateOfBirth’, Address=’$Address’, Work\_Phone=’$WorkPhone’), Emergency\_Contact\_Name=’$EmergencyContactName’, Emergency\_Contact\_Phone=’$EmergencyContactPhone’, Weight=’$Weight’, Height=’$Height’, Gender=’$Gender’

WHERE Patient\_Username=’$PatientUsername’

DELETE FROM Patient\_Allergies

VALUES Allergy=’$Allergy’

WHERE Patient\_Username=’$PatientUsername’

UPDATE Doctor

SET First\_Name=’$FirstName’, Last\_Name=’$LastName’, Work\_Phone=’$WorkPhone’, Date\_of\_Birth=’$DateofBirth’, Specialty=’$Specialty’, Room\_Number=’$RoomNumber’, Home\_Address=’$HomeAddress’

WHERE Username=’$Username’

UPDATE Doctor\_Availability

SET From=’$From’, Day=’$Day’, To=’$To’

WHERE License\_Number=’$LicenseNumber’

SELECT Name, Home\_Phone, Annual\_Income, Date\_Of\_Birth, Address, Work\_Phone, Emergency\_Contact\_Name, Emergency\_Contact\_Phone, Weight, Height, Gender

FROM Patient

WHERE Patient\_Username=’$PatientUsername’

SELECT Allergy FROM Patient\_Allergies WHERE Patient\_Username=’$PatientUsername’

SELECT License\_Number, First\_Name, LastName, WorkPhone, DateofBirth, Specialty, RoomNumber, HomeAddress

FROM Doctor

WHERE License\_Number=’$LicenseNumber’

SELECT From, Day, To FROM Doctor\_Availability WHERE License\_Number=’$LicenseNumber’

**Task 4: Scheduling an Appointment**

**4A:Search for Doctors**

SELECT Username, First\_Name, Last\_Name, Work\_Phone, Room\_Number, AVG(Rating) AS Average\_Rating FROM Doctor, Doctor\_Rating WHERE Speciality= ‘$Speciality’ Doctor.Username = Doctor\_Rating.Doctor\_Username GROUP BY Doctor.Username

SELECT To, From, Day FROM Doctor\_Availability WHERE Doctor\_Username=’$Username’

**4B: Request an Appointment**

INSERT INTO Appointment (Patient\_Username, Doctor\_Username, Date, Scheduled\_Time) VALUES (‘$PatientUsername’, ‘$DoctorUsername’, ‘$Date’, ‘$ScheduledTime’)

How do you run a check for to make sure the appointment wasn’t taken in that time span?

**Task 5: Order Medication**

**5A: Check if the medication has been prescribed**

SELECT Prescription\* FROM Prescription, Doctor WHERE Prescription.Doctor\_Username=Doctor.Username AND Doctor.First\_Name=’$FirstName’ AND Doctor.Last\_Name=’$LastName’ AND Prescription.Medicine\_Name=’$MedicineName’ AND Prescription.Dosage=’$Dosage’ AND Prescription.Duration=’$Duration’ AND Prescription.Date\_of\_Visit=’$DateofVisit’

**//if it returns something then store the Doctor\_Username to a variable**

UPDATE Prescription SET ORDER BY Patient\_Username=’$Username’ WHERE Prescription.Medicine\_Name=’$MedicineName’ AND Prescription.Dosage=’$Dosage’ AND Prescription.Date\_of\_Visit=’$DateofVisit’ AND Prescription.Doctor\_Username=’$DoctorUsername’ AND Prescription.Patient\_Username=’$PatientUsername’

**Task 6: Payment Information**

How do you check if a payment method has already been used/present?

//enter new payment information

INSERT INTO Payment\_Information VALUES (‘$Card\_Number’, ‘$Card\_Holder’s\_Name’, ‘$CVV’, ‘$Type’, ‘$Expiration\_Date’)

//auto-populate during checkout

SELECT Payment\_Information\* FROM Payment\_Information, Patient WHERE Patient.Card\_Number=Payment\_Information.Card\_Number AND Patient.Username=’$username’

**Task 7: View Visit History**

//display dates of visit

SELECT Date\_of\_Visit FROM Visit WHERE Patient\_Username=’$username’

SELECT VisitID, First\_Name, Last\_Name, Diastolic\_BP, Systolic\_BP FROM Visit, Doctor WHERE Patient\_Username=’$Username’ AND Date\_of\_Visit=’$selectedDateOfVisit’ AND Visit.Doctor\_Username=Doctor.Doctor\_Username

//display diagnosis

SELECT Diagnosis FROM Visit\_Diagnosis WHERE VisitID=$VisitID

//display medicine name

SELECT Medicine\_Name, Dosage, Duration, Notes FROM Prescription WHERE VisitID=$VisitID

**Task 8: Rating a Doctor**

//selecting doctor to rate

SELECT Doctor\_Username, First\_Name, Last\_Name FROM Doctor, Visit WHERE Visit.Doctor\_Username=Doctor.Username AND Visit.Patient\_Username=’$username’

//insert doctor rating

INSERT INTO Rates(Rating)

VALUES (‘$Rating’)

WHERE DoctorUsername=’$DoctorUsername’

**Task 9: View Appointments**

//view appointments by date

SELECT Patient.Name, Appointment.Time FROM Patient, Appointment WHERE Patient.Patient\_Username=Appointment.Patient\_Username AND Appointment.Doctor\_Username=’$doctorusername’ AND Appointment.Date=’$date’

//view appointments by month

SELECT Date.Count(\*) AS NumberofAppointments FROM Appointment WHERE Doctor\_Username=’$Doctor\_Username’ AND MONTH(Date)=’$Month’ AND YEAR(Date)=’$Year’ GROUP BY Date

**Task 10: Patient Visit History**

//search for patient with both patient name and home phone

SELECT Name, Home\_Phone FROM Patient, Visit WHERE Patient.Patient\_Username=Visit.Patient\_Username AND Visit.Doctor\_Username=’$loggeduser’ AND Patient.Name=’$Name’ AND Patient.Home\_Phone=’$HomePhone’

//search patient or homephone

SELECT Name, Home\_Phone FROM Patient, Visit WHERE Patient.Patient\_Username=Visit.Patient\_Username AND Visit.Doctor\_Username=’$loggeduser’ AND Patient.Name=’$Name’ OR Patient.Home\_Phone=’$HomePhone’

//display dates of visit

SELECT Date\_of\_Visit FROM Visit WHERE Patient\_Username=$Patient\_Username

//display visit history for selected date

SELECT VisitID, First\_Name, Last\_Name, Diastolic\_BP, Systolic\_BP FROM Visit, Doctor WHERE Patient\_Username=’$PatientUserSelected’ AND Date\_of\_Visit= ‘$selectedDateofVisit’ AND Visit.Doctor\_Username=Doctor.Doctor\_Username

//display diagnosis

SELECT Diagnosis FROM Visit\_Diagnosis WHERE VisitID=$VisitID

//display medicine name

SELECT Medicine\_Name, Dosage, Duration, Notes FROM Prescription WHERE VIsitID=’$VisitID’

**Task 11: Record a Visit**

SELECT Patient\_Username FROM Patient WHERE Name=’$Name’ AND Home\_Phone=’$HomePhone’

//is this the first check (for billing purposes)

SELECT COUNT(\*) FROM Visit WHERE Doctor\_Username=’$doctorusername’ AND Patient\_Username=’$patientusername’

If (count>0) :

$billingfee=$multiplevisitfee

else:

$billingfee=$initialfee

INSERT INTO Visit VALUES (‘$Date\_of\_Visit’, ‘$Diastolic\_BP’, ‘$Systolic\_BP’, ‘$Billing\_Amount’, ‘$Patient\_Username’, ‘$Doctor\_Username’)

INSERT INTO Visit\_Diagnosis VALUES (‘$VisitID’, ‘$Diagnosis’) WHERE VisitID=’$VisitID’, Diagnosis=’$Diagnosis’

INSERT INTO Prescription VALUES (‘$VisitID’, ‘$DateofVisit’, ‘$Medicine\_Name’, ‘$Dosage’, ‘$Duration’)

Delete visit once it occurs

**Task 12: Record a Surgery**

//display possible patients with given name

SELECT PatientUsername, Name, HomePhone FROM Patient WHERE Patient.Name=’$Name’

//create surgery record for the selected user by logged in doctor

INSERT INTO Performs(DoctorUsername, PatientUsername, CPTCode, SurgeryStartTime, SurgeryEndTime, AnesthesiaStartTime, NumberofAssistants, Complication) VALUES (‘$DoctorUsername’, ‘$PatientUsername’, ‘$CPTCode’, ‘$SurgeryStartTime’, ‘$SurgeryEndTime’, ‘$AnesthesiaStartTime’, ‘$NumberofAssistants’, ‘$Complication’)

INSERT INTO Preoperative\_Medications(CPTCode, NameofMedicine) VALUES (‘$CPTCode’, ‘$NameofMedicine’)

**Task 13: Send a Message**

//Patient Message to a Doctor

//patient sender is the patientusername of the logged in patient

//display all doctors

SELECT FirstName, LastName FROM Doctor

SELECT DoctorUsername FROM Doctor WHERE FirstName=’$FirstName’ AND LastName=’$LastName’

//Doctor Reciever is doctor selected previously

INSERT INTO Patient\_to\_Doctor\_Message(PatientSender, DoctorReciever, DateTime, Content) VALUES (‘$PatientSender’, ‘$DoctorReciever’, ‘$DateTime’, ‘$Content’)

//Doctor to Patient messaging

//doctor sender is the doctorusername of the logged in doctor

//display all patients

SELECT FirstName, LastName, HomePhone FROM Patient

SELECT PatientUsername FROM Patient WHERE Name=’$Name’ AND HomePhone=’$HomePhone’

//Patient Reciever is patient selected previously

INSERT INTO Doctor\_to\_Patient\_Message(DoctorSender, PatientReceiver, DateTime, Content) VALUES (‘$DoctorSender’, ‘$PatientReceiver’, ‘$DateTime’, ‘$Content’)

//Doctor to Doctor Message

//doctor sender is the doctorusername of the logged in doctor

//display all doctors

SELECT FirstName, LastName FROM Doctor

SELECT DoctorUsername FROM Doctor WHERE FirstName=’$FirstName’ AND LastName=’$LastName’

//Doctor Reciever is doctor selected previously

INSERT INTO Doctor\_to\_Doctor\_Message(PatientSender, DoctorReciever, DateTime, Content) VALUES (‘$PatientSender’, ‘$DoctorReciever’, ‘$DateTime’, ‘$Content’)

**Task 14: Viewing Messages**

//inbox for Patient

SELECT Doctor\_Sender AS From, Date\_Time, Content, Status FROM Doctor\_to\_Patient\_Message WHERE Doctor\_to\_Patient\_Message.Patient\_Reciever=’$Patient’ AND Doctor\_to\_Patient\_Message.Doctor\_Sender=’$docuser’

//inbox for Doctor

SELECT Patient\_Sender AS From, Date\_Time, Content, Status FROM Patient, Patient\_to\_Doctor\_Message WHERE Patient\_to\_Doctor\_Message.Doctor\_Reciever =’$docuser’ AND Patient.Patient\_Username= Patient\_to\_Doctor\_Message.Patient\_Sender

UNION ALL

SELECT Doctor.First\_Name as From, Date\_Time, Content, Status FROM Doctor, Doctor\_to\_Doctor\_Message WHERE Doctor\_to\_Doctor\_Message.Doctor\_Reciever=’$docuser’ AND Doctor.Doctor\_Username= Doctor\_to\_Doctor\_Message.Doctor\_Reciever

//display number of unread messages on doctor homepage

CREATE VIEW Messages AS SELECT \* FROM Doctor\_to\_Doctor\_Message WHERE Doctor\_Reciever=’$docuser’ UNION ALL SELECT \* FROM Patient\_to\_Doctor\_Message WHERE Doctor\_Reciever=’$docuser’

SELECT Count(\*) AS Unread\_Messages FROM Messages WHERE Status=’Unread’

//display number of unread messages on patient homepage

SELECT Count(\*) FROM Doctor\_to\_Patient\_Message WHERE Status=’Unread’ AND Doctor\_to\_Patient\_Message.Patient\_Receiver= ‘$patientuser’

//clicking on the message will update the status of the message to ‘Read’

**Task 15: Billing**

**//for selected patient**

SELECT Patient\_Username AS Customer FROM Patient WHERE Patient.Name=$Name AND Patient.Home\_Phone=$homephone

**//retrieve annual income**

SELECT Annual\_Income FROM Patient WHERE Patient\_Username=Customer

**//date of visits**

SELECT (\*) Date\_of\_Visit FROM Visit WHERE Patient\_Username=Customer

**//surgeries**

SELECT Surgery\_Type, Cost\_of\_Surgery FROM Surgery WHERE Surgery.Patient\_Username=Customer

**//total cost**

SELECT SUM(Cost\_of\_Surgery) FROM Surgery WHERE Surgery.Patient\_Username=Customer

**Task 16: Reports**

1. **Performance of Doctors by specialty**

//average rating for $specialty (selected from a dropdown)

CREATE VIEW DoctorSpecialtyRatings AS SELECT Doctor\_Username, AVG(Rating) AS Doctor\_Rating FROM Doctor, Rates WHERE Doctor.Specialty=$specialty

SELECT AVG(Doctor\_Rating) FROM DoctorSpecialtyRatings

//number or surgeries per specialty

CREATE VIEW SpecialtySurgeries AS SELECT Doctor\_Username, CPT\_Code FROM Surgery, Doctor WHERE Doctor.Specialty=$specialty

SELECT COUNT(CPT\_Code) AS SurgeryCount FROM SpecialtySurgeries

1. **Surgeries in last 3 months**
2. **Summary of Patients by Doctor**

CREATE VIEW PatientsSeen AS SELECT DISTINCT Prescription.Patient\_Username FROM Presciption, Doctor WHERE Presciption.Date\_of\_Visit=$dateofvisitselected AND Doctor.Username=Prescription.Doctor\_Username

SELECT COUNT(\*) FROM PatientsSeen