Premier Care Hospital

"Where you Come First"

Project Documentation

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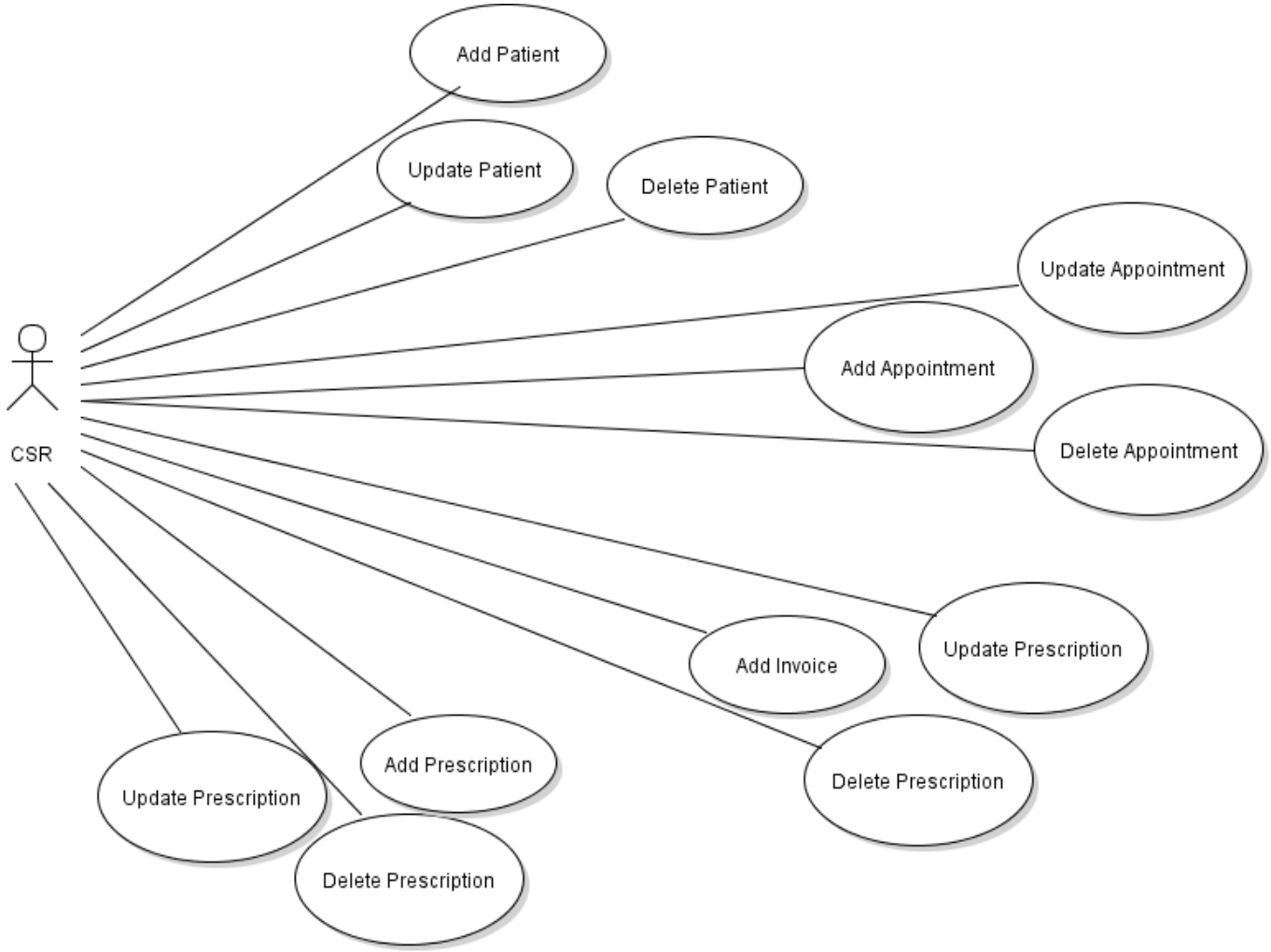
Non-Functional Requirements

- Must be scalable (should be able to add additional components easily).
- Must be lightweight (produce full functionality and performance on low-spec devices).
- Must be able to store all data inputted into the system.
- System should be able to be easily updated by administrative staff.

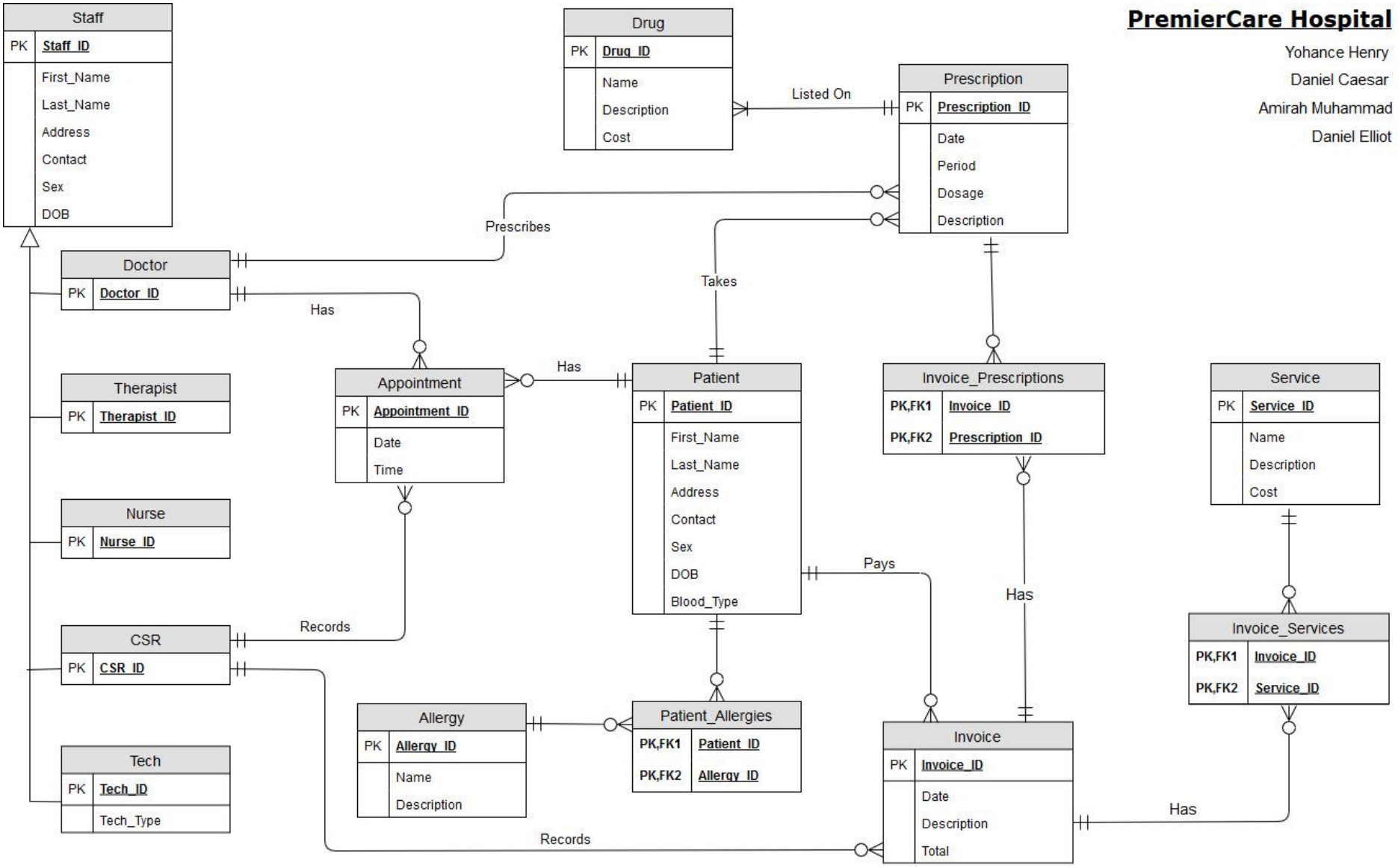
Functional Requirements

- Adding patient data with unique patient number.
- Appointments must be made.
- Details of nurses, x-ray and lab technicians must be recorded.
- There are six categories of services with different unit costs: Pediatrics, GP, specialist lab, therapy and x-ray.
- Must record the drugs a patient must take along with the number of times per day and the length of time it must be taken for.
- The cost of drugs must be recorded.
- System must track a patient's treatment and system must be capable of calculating the cost of treatment to provide itemized billing.
- Billing invoices must be generated for every visit a customer has. Must provide a detailed list of services used during the visit.

Use Case Diagram



ER Diagram



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Relational Model

Staff (Staff_ID, First_Name, Last_Name, Address, Contact, Sex, DOB)

Primary key: Staff_ID

Doctor (Doctor_ID, Staff_ID)

Primary key: Doctor_ID

Foreign key: Staff_ID references Staff (Staff_ID)

Therapist (Therapist_ID, Staff_ID)

Primary key: Therapist_ID

Foreign key: Staff_ID references Staff (Staff_ID)

Nurse (Nurse_ID, Staff_ID)

Primary key: Nurse_ID

Foreign key: Staff_ID references Staff (Staff_ID)

Relational Model (cont'd)

CSR (CSR_ID, Staff_ID)

Primary key: CSR_ID

Foreign key: Staff_ID references Staff (Staff_ID)

Tech (Tech_ID, Staff_ID, Tech_Type)

Primary key: Tech_ID

Foreign key: Staff_ID references Staff (Staff_ID)

Appointment (Appointment_ID, Patient_ID, Doctor_ID, CSR_ID, Service_ID, Date, Time)

Primary key: Appointment_ID

Foreign keys: Patient_ID references Patient (Patient_ID)

Doctor_ID references Doctor (Doctor_ID)

CSR_ID references CSR (CSR_ID)

Service_ID references Service (Service_ID)

Patient (Patient_ID, First_Name, Last_Name, Address, Contact, Sex, DOB, Blood_Type)

Primary key: Patient_ID

Relational Model (cont'd)

Patient_Allergies (Patient_ID, Allergy_ID)

Primary keys: Patient_ID, Allergy_ID

Foreign keys: Patient_ID references Patient (Patient_ID)

Allergy_ID references Allergy (Allergy_ID)

Allergy (Allergy_ID, Name, Description)

Primary key: Allergy_ID

Prescription (Prescription_ID, Doctor_ID, Patient_ID, Drug_ID, Date, Period, Dosage, Description)

Primary key: Prescription_ID

Foreign keys: Doctor_ID references Doctor (Doctor_ID)

Patient_ID references Patient (Patient_ID)

Drug_ID references Drug (Drug_ID)

Invoice_Prescriptions (Invoice_ID, Prescription_ID)

Primary keys: Invoice_ID, Prescription_ID

Foreign keys: Invoice_ID references Invoice (Invoice_ID)

Prescription_ID references Prescription (Prescription_ID)

Relational Model (cont'd)

Invoice (Invoice_ID, CSR_ID, Patient_ID, Date, Description, Total)

Primary key: Invoice_ID

Foreign keys: CSR_ID references CSR (CSR_ID)

Patient_ID references Patient (Patient_ID)

Invoice_Services (Invoice_ID, Service_ID)

Primary keys: Invoice_ID, Service_ID

Foreign keys: Invoice_ID references Invoice (Invoice_ID)

Service_ID references Service (Service_ID)

Service (Service_ID, Name, Description, Cost)

Primary key: Service_ID

Drug (Drug_ID, Name, Description, Cost)

Primary key: Drug_ID

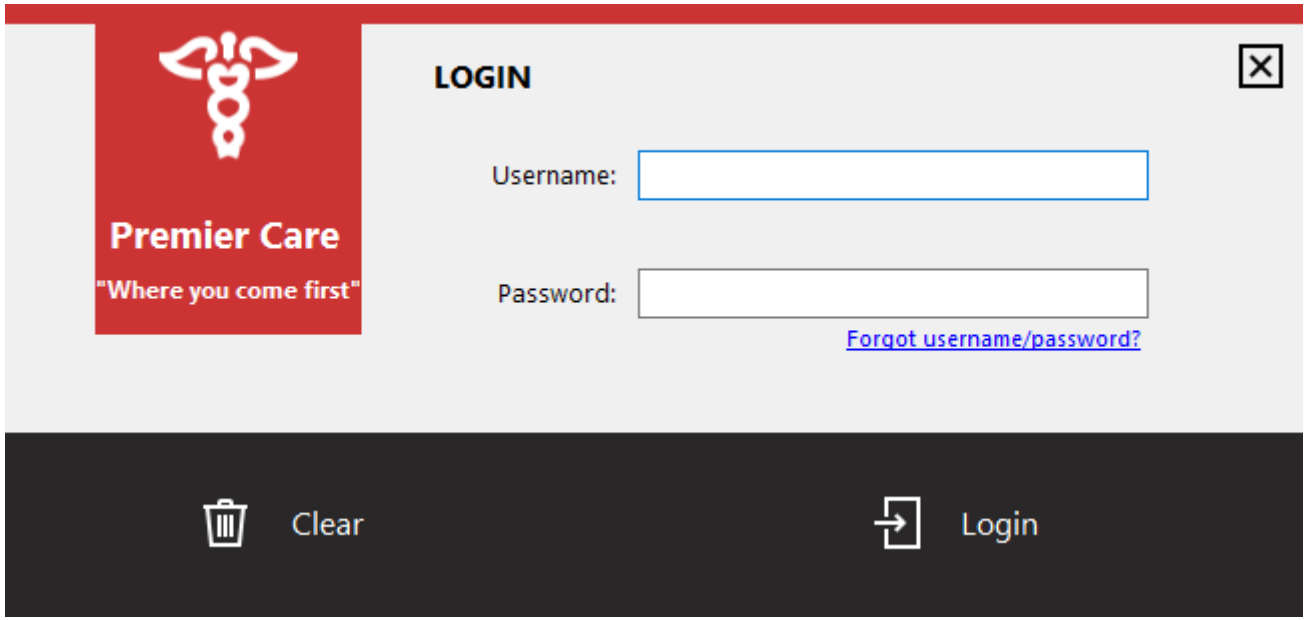
Premier Care Screenshots

Login Screen

The Login screen is displayed on program execution.

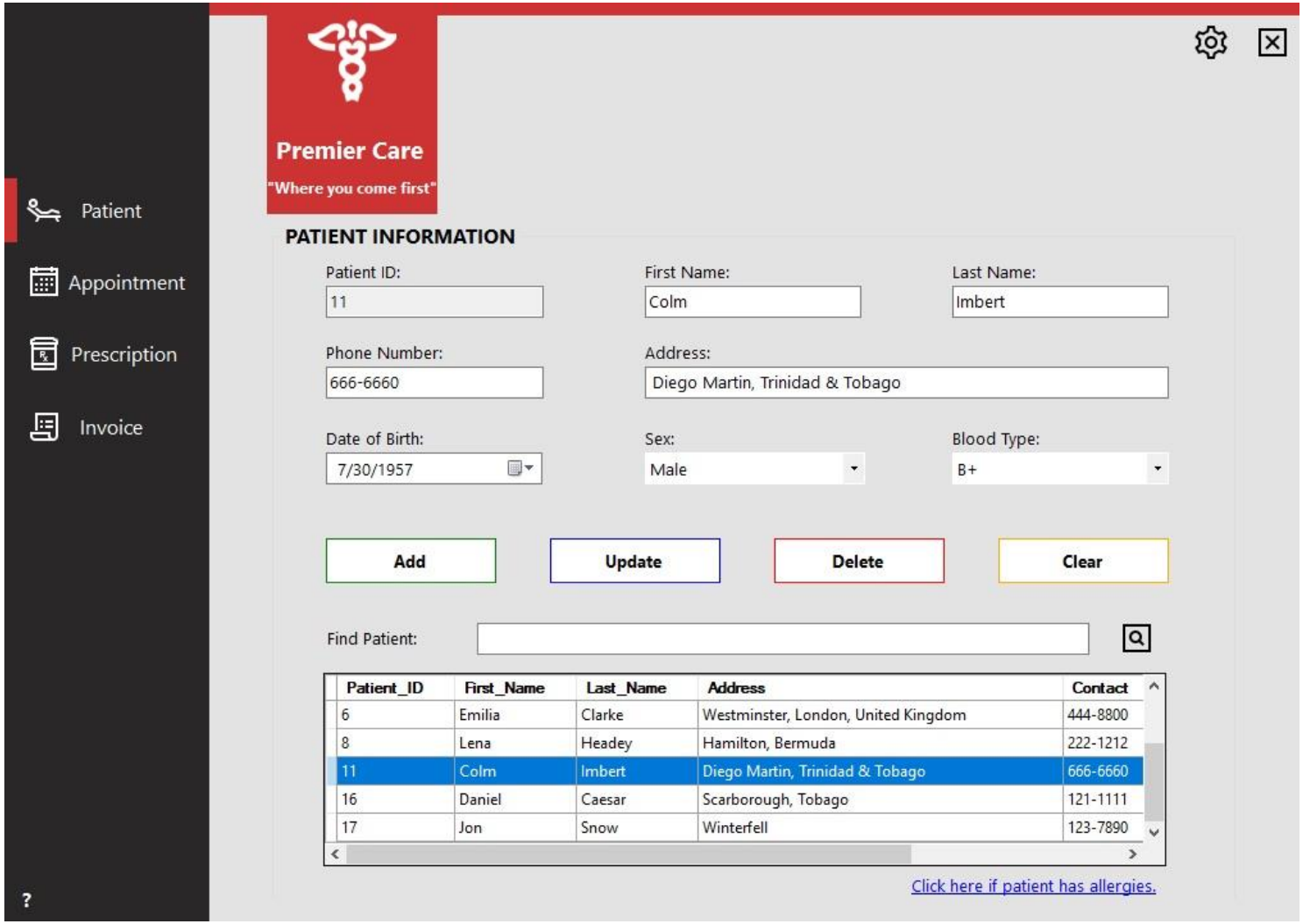
The default username is ‘admin’. Password is ‘123’.

The program displays an error to the user if username or password is incorrect.



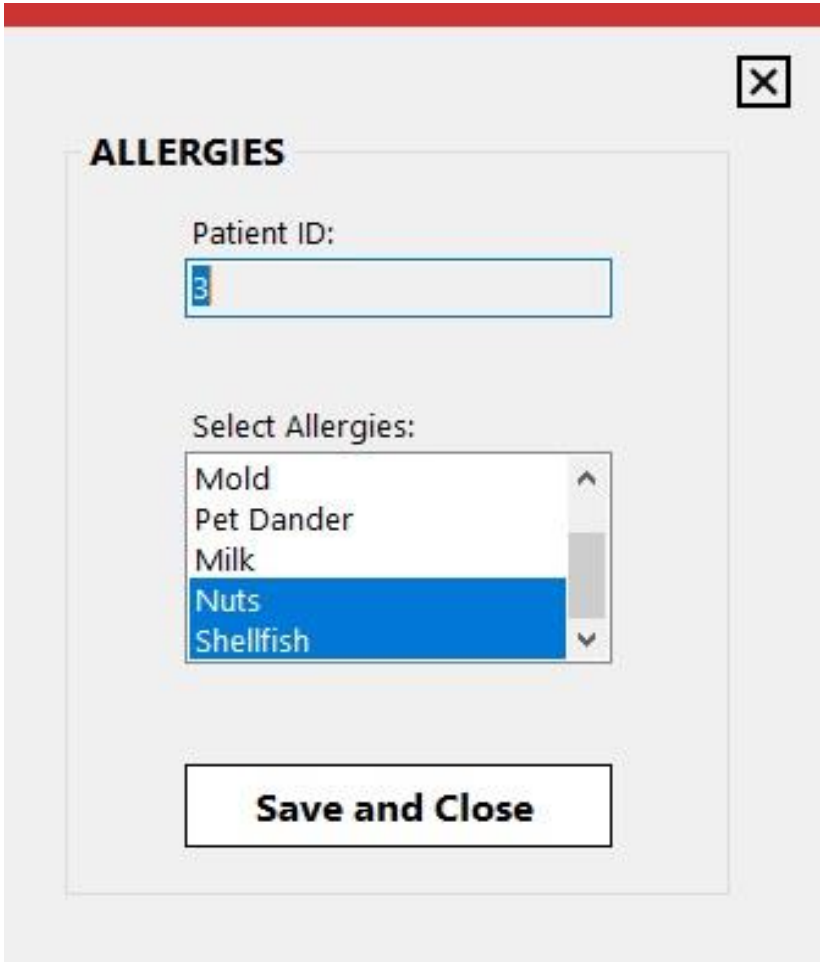
Patient Information

Full Create, Read, Update & Delete functionality for new and existing patients.



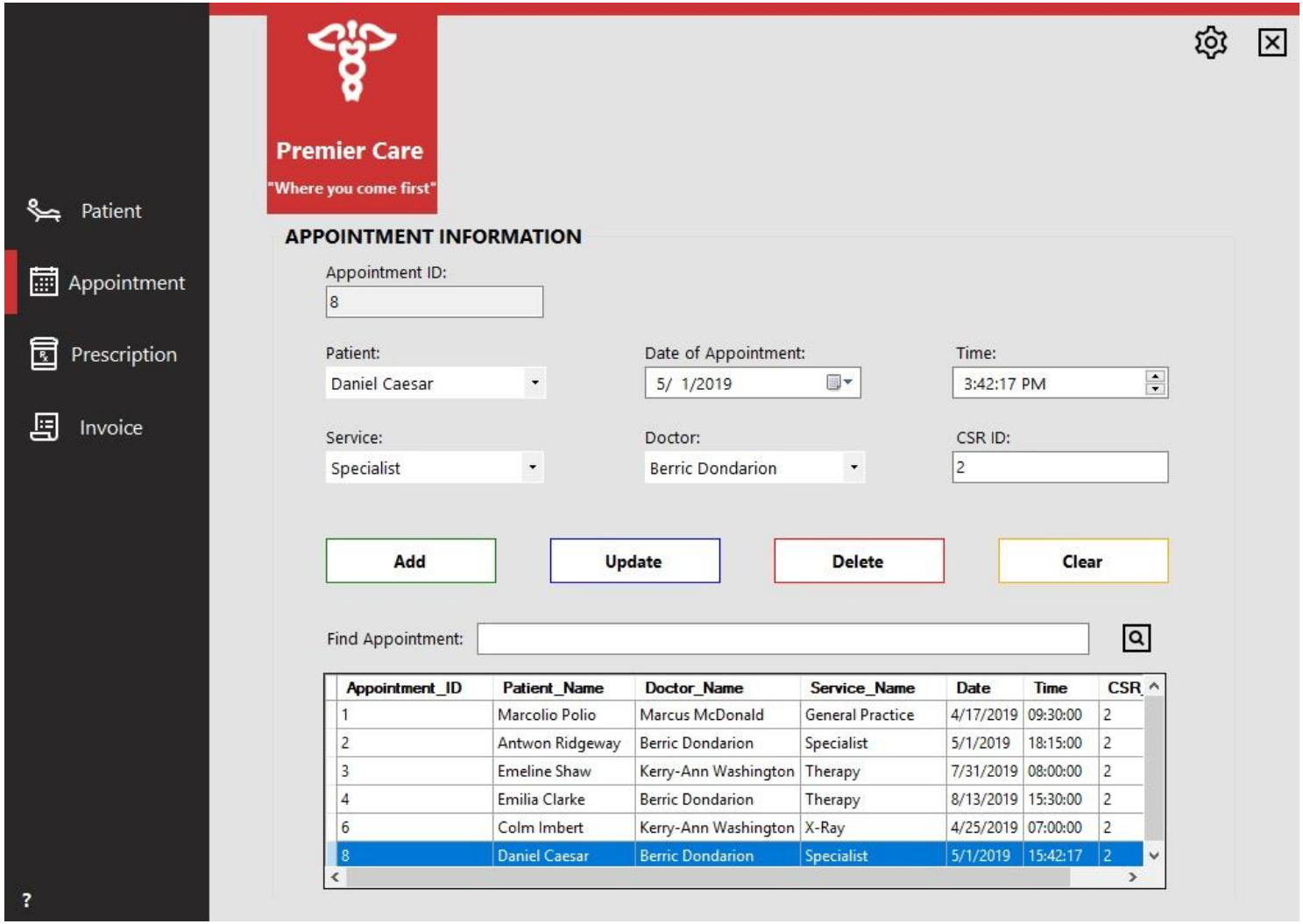
Allergy Selection

Support for single, none or multiple selections per patient.



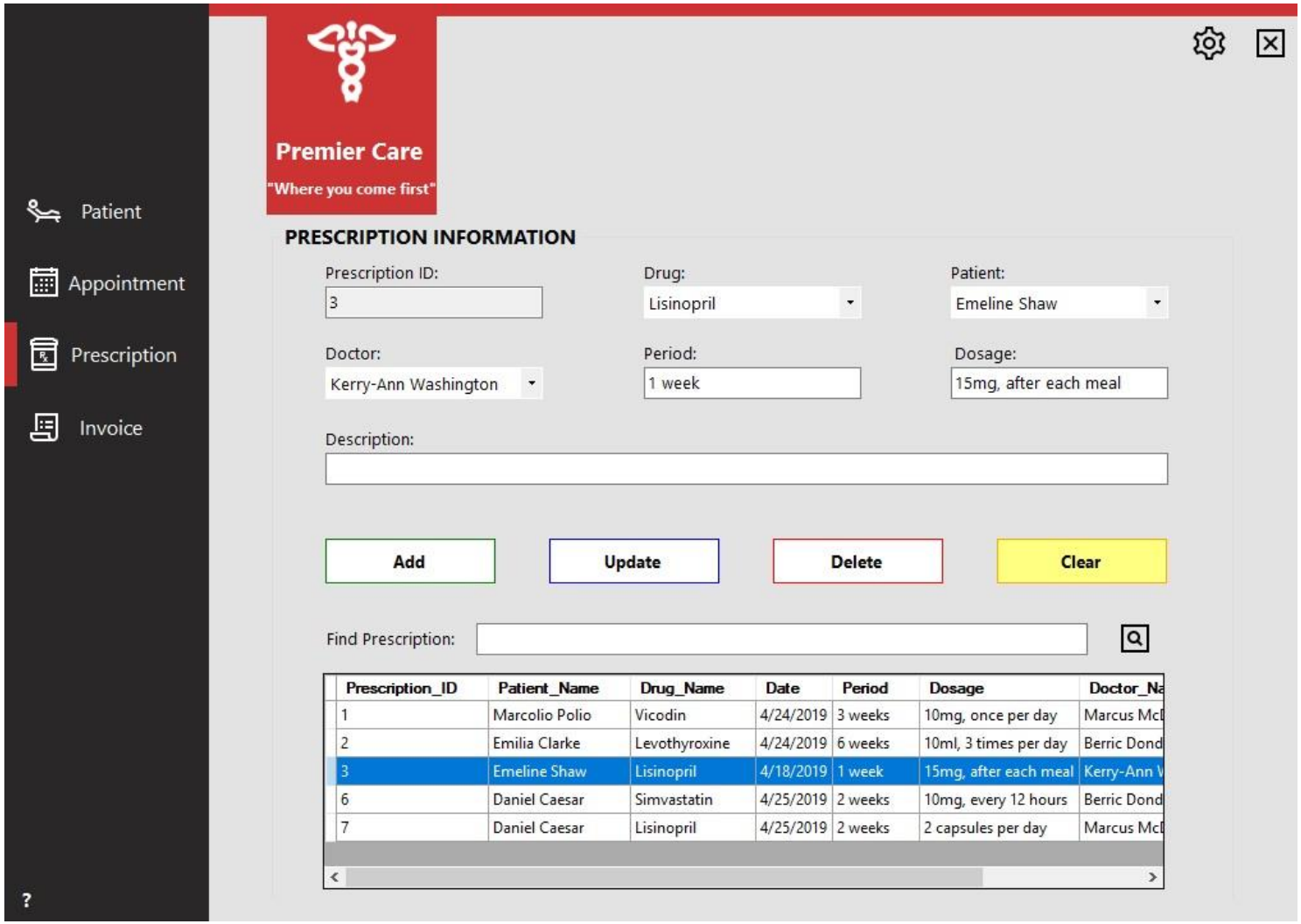
Appointment Information

Full Create, Read, Update & Delete functionality for new and existing appointments.



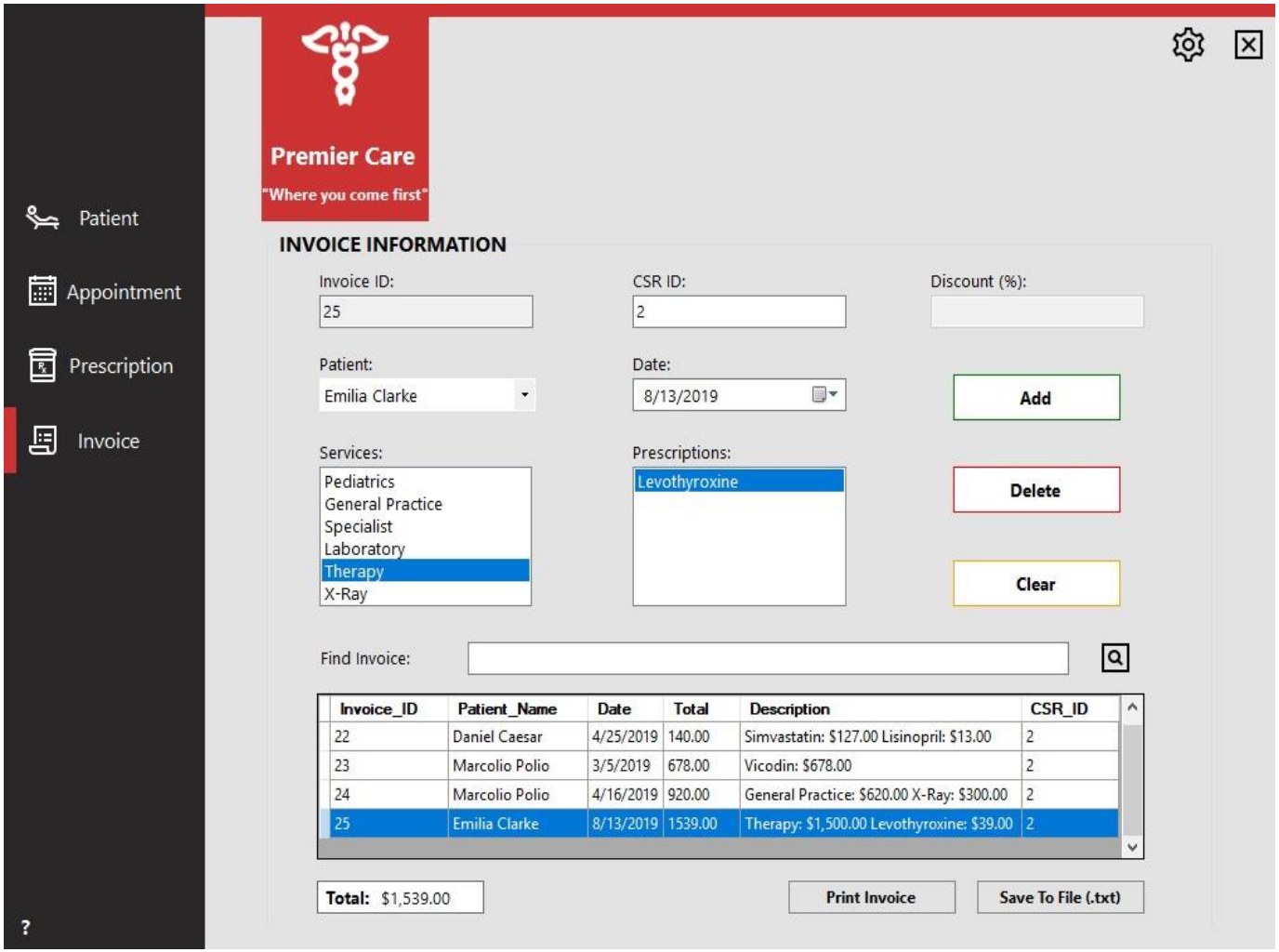
Prescription Information

Full CRUD functionality with prescription details and additional description/notes.



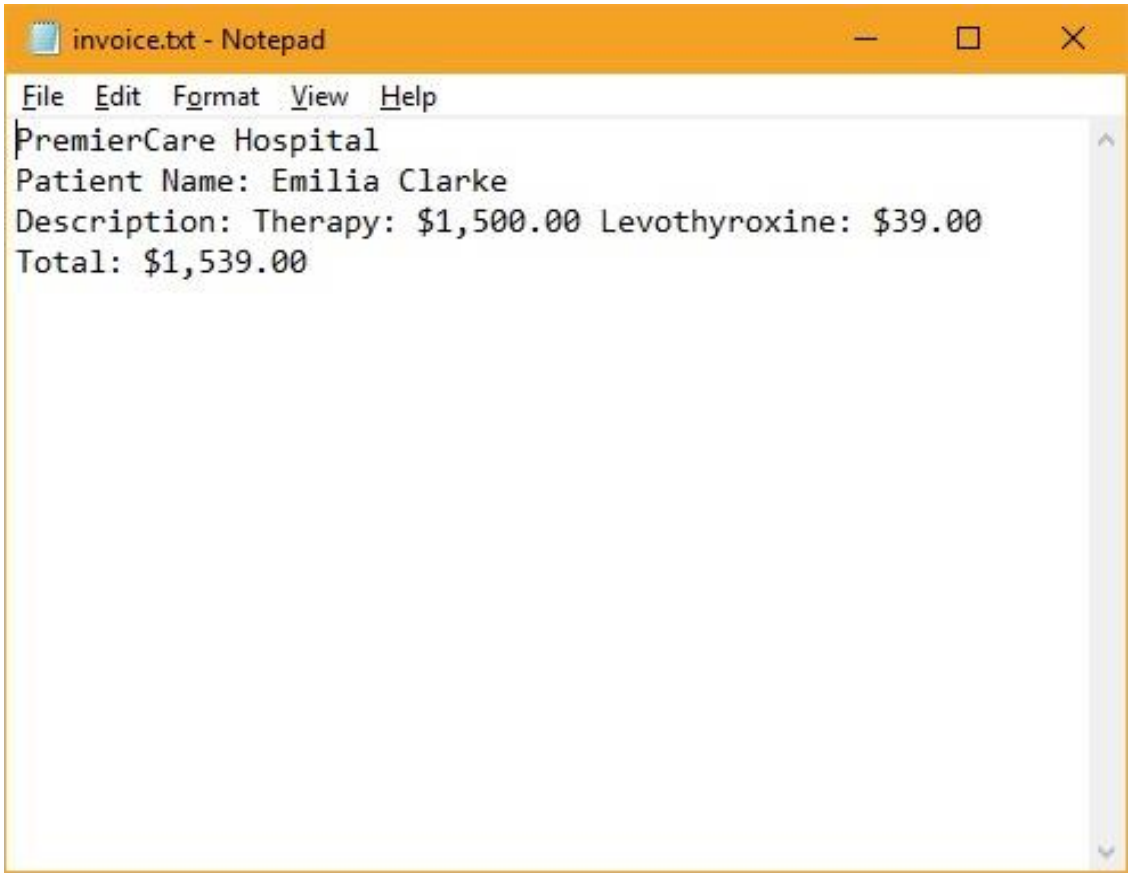
Invoice Information

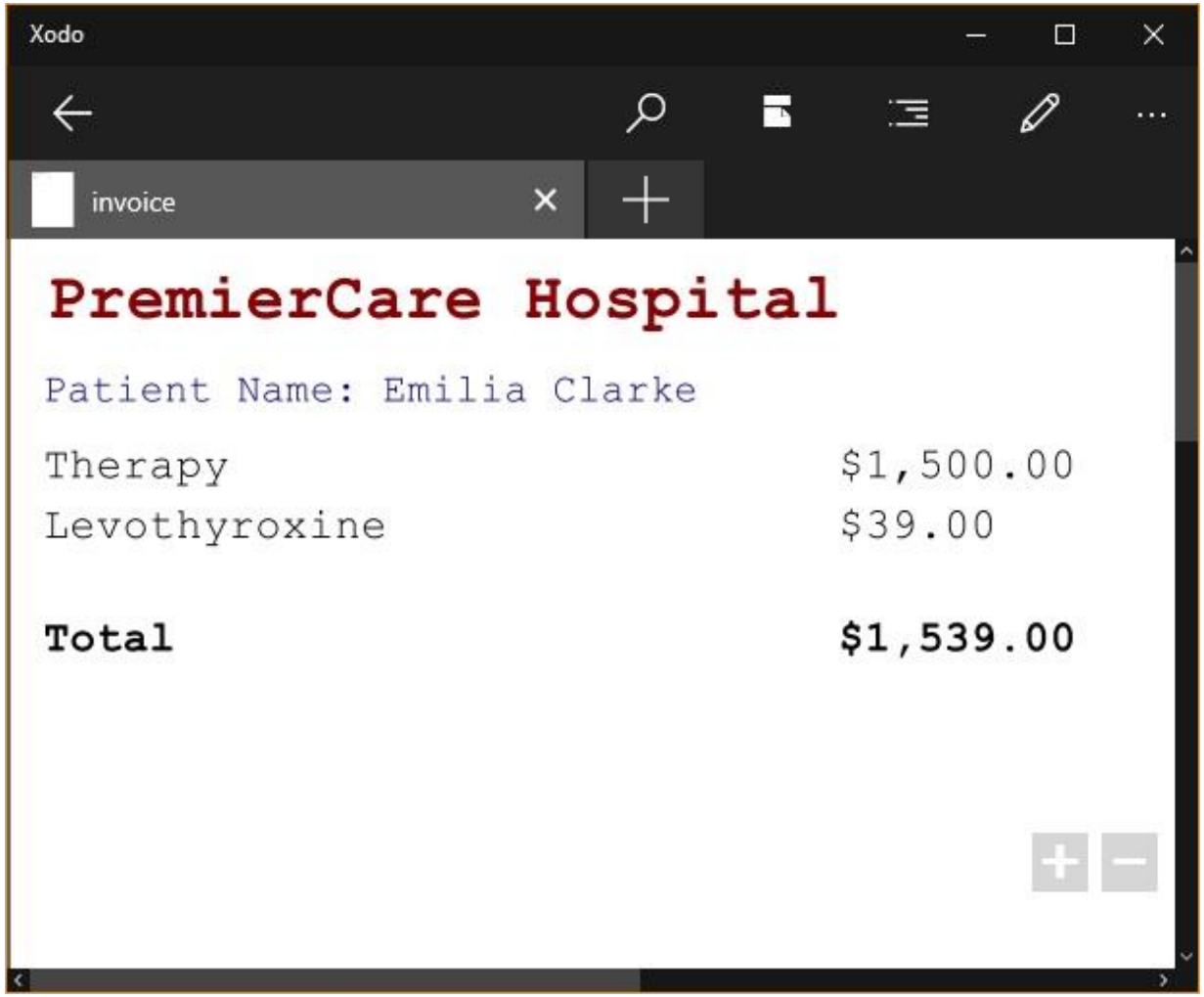
Support for multiple services and prescriptions on a single invoice.



Save to File Example

Support for saving invoice information to a text file.



Print Invoice Example

Print support for invoices.