

Medical Informatics
Information System

3rd Year First Semester
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Clinic Management System

Teamwork



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Introduction

- Clinic systems have been growing rapidly in the last few decades to provide better healthcare for patients via reliable computer-based applications.
- Due to the massive growth of modern computer-based methods, it has become much easier to simplify the difficulty of maintaining patients' manual records by computerizing them.
- In terms of desktop applications, they have to be installed separately on each computer while also having a usability constraint depending on the physical location where they are installed.
- Clinic Management System is design to help the employee in recording the patient's record and will change the manual record into computerized records.

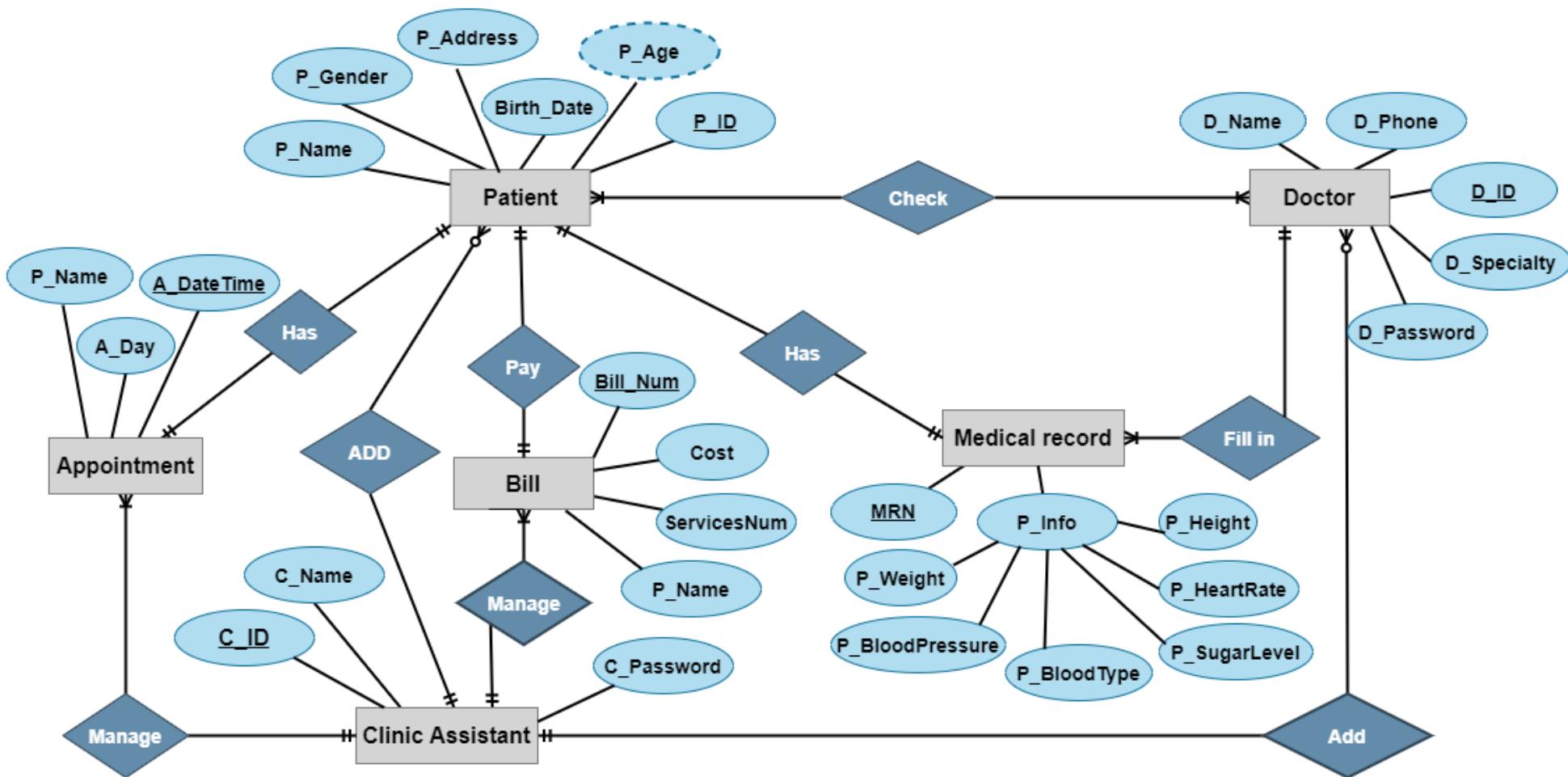
Problem Statement

- The clinic is face many problems in the manual way as :
 - The excessive paper usage in their daily operation.
 - It has become very difficult to manage the appointment system manually with the increase in the number of patients visiting the clinic daily and due to their paper base system.
- Clinic Assistants need a user-friendly system that allows them to do their jobs as:
check the status of their patients, manage appointments, manage doctors, generate the bills for patients.... etc.
- Doctors need to have an interactive system that allows them to manage and access the records.

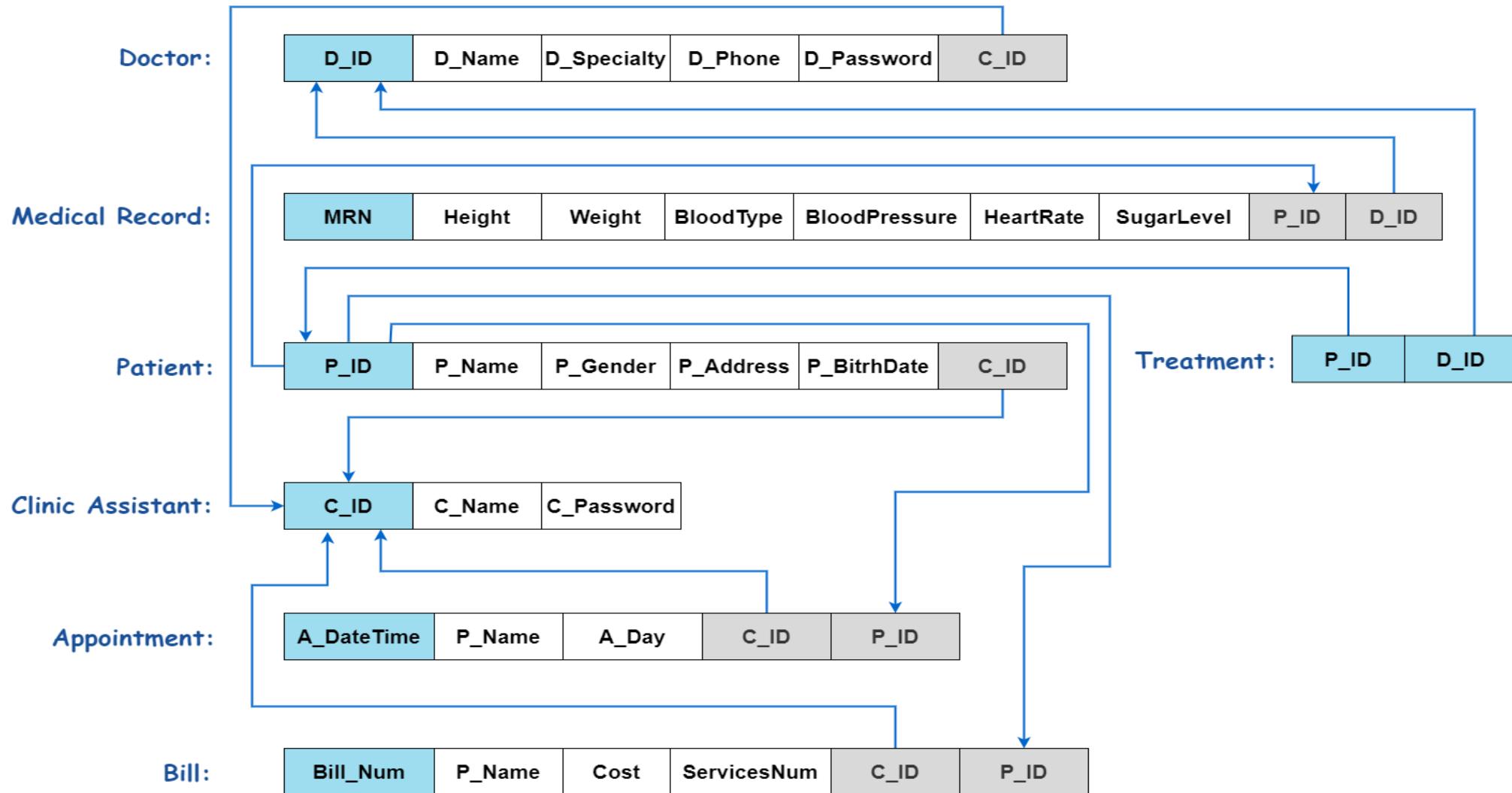
Project Objectives

- Improved Efficiency:
 - Clinic management system improves the general efficiency of the process of treatment by automating the entire system.
- Paperless Record System (Electronic System):
 - it helps you get rid of all the manual paperwork.
 - it maintains all the necessary documents and information about the patient.
- Accuracy:
 - it eliminates the chances of mistakes caused by human hands as all the tasks are automated.
- Easier and Quicker Access to Patient's Records.
- It saves time and provide speedy services with security.
- It helps clinic assistant to manage all clinic tasks easily and organize patients and doctors.

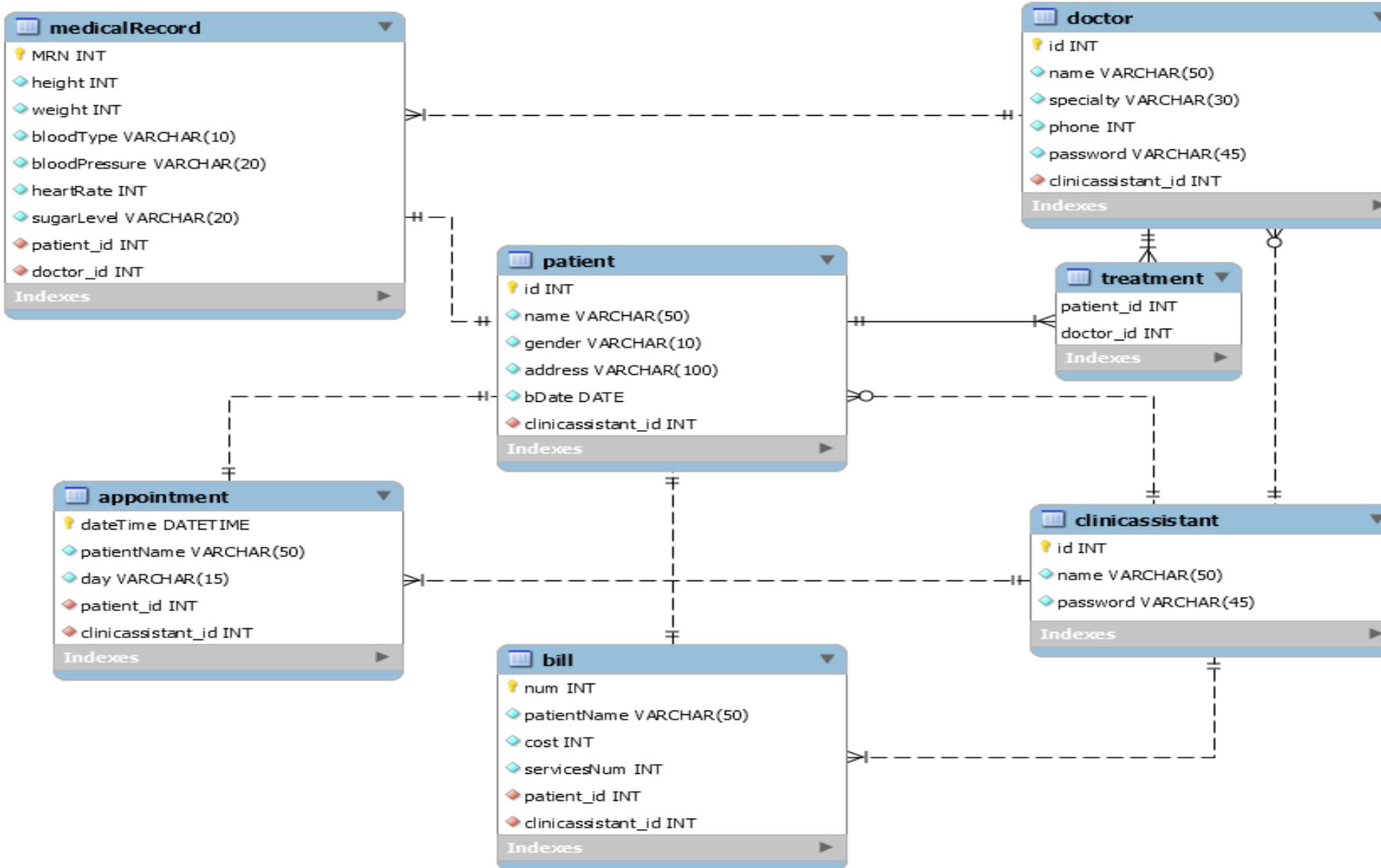
Project ERD



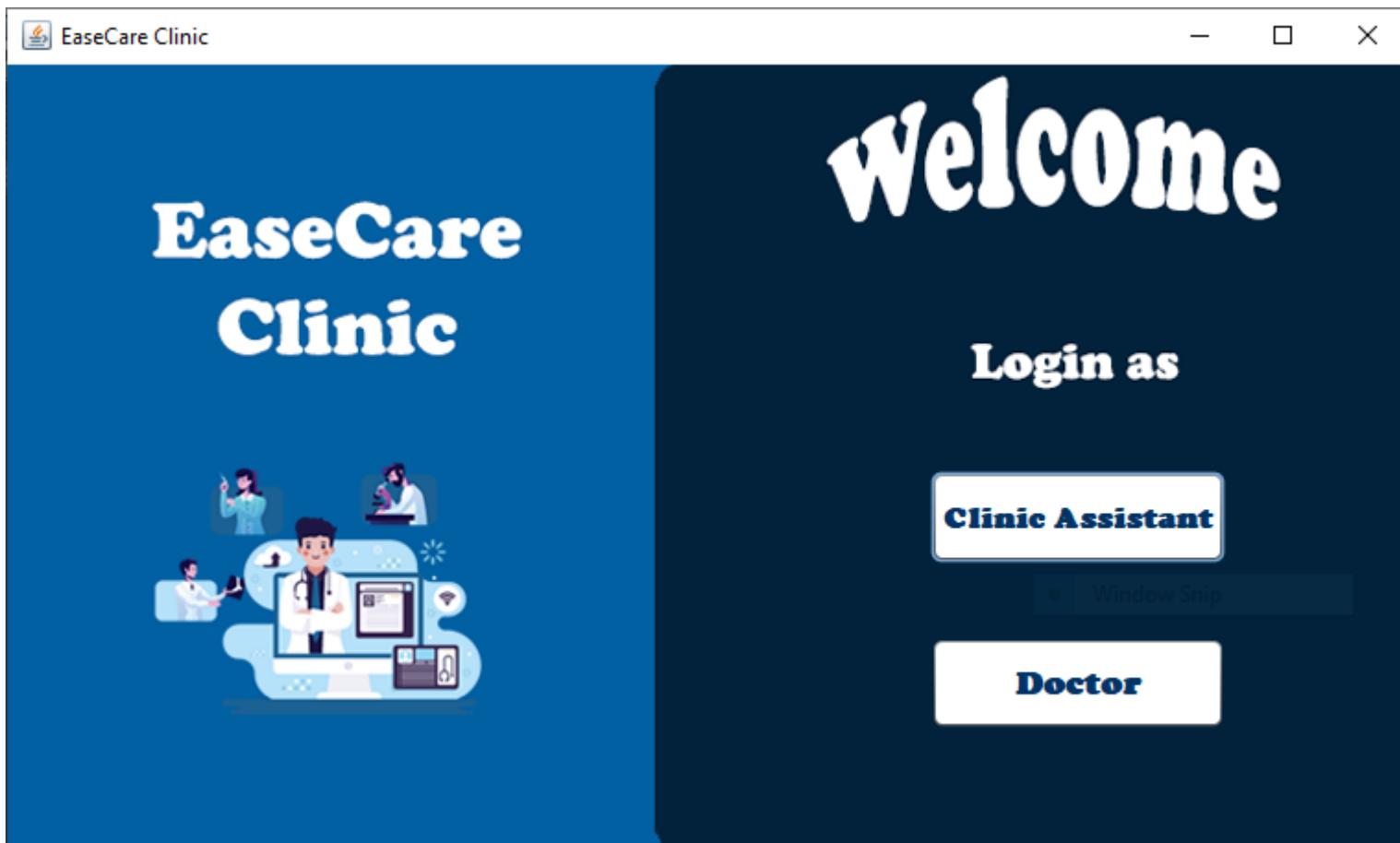
Project Mapping



Project Schema

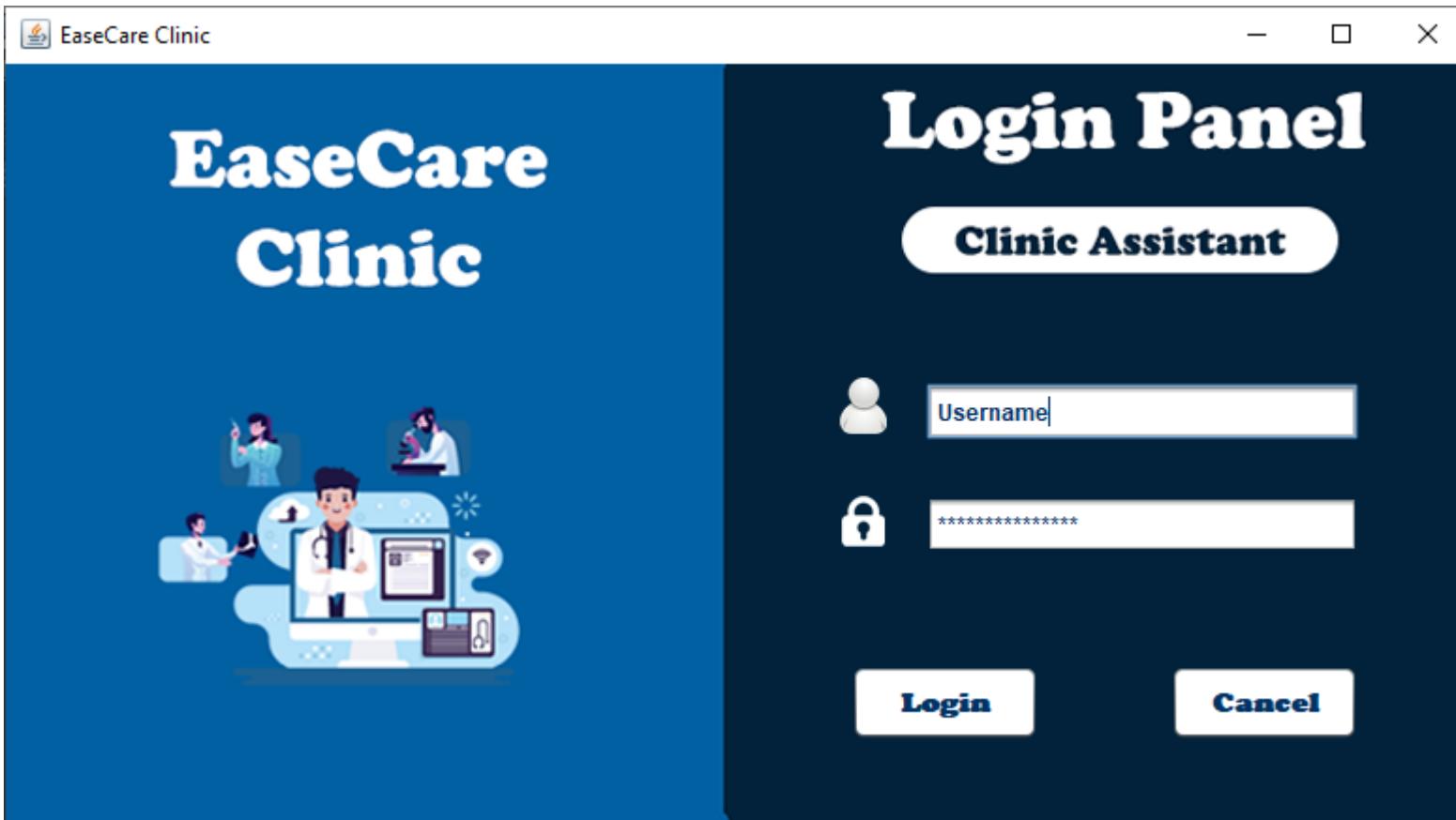


Project GUI



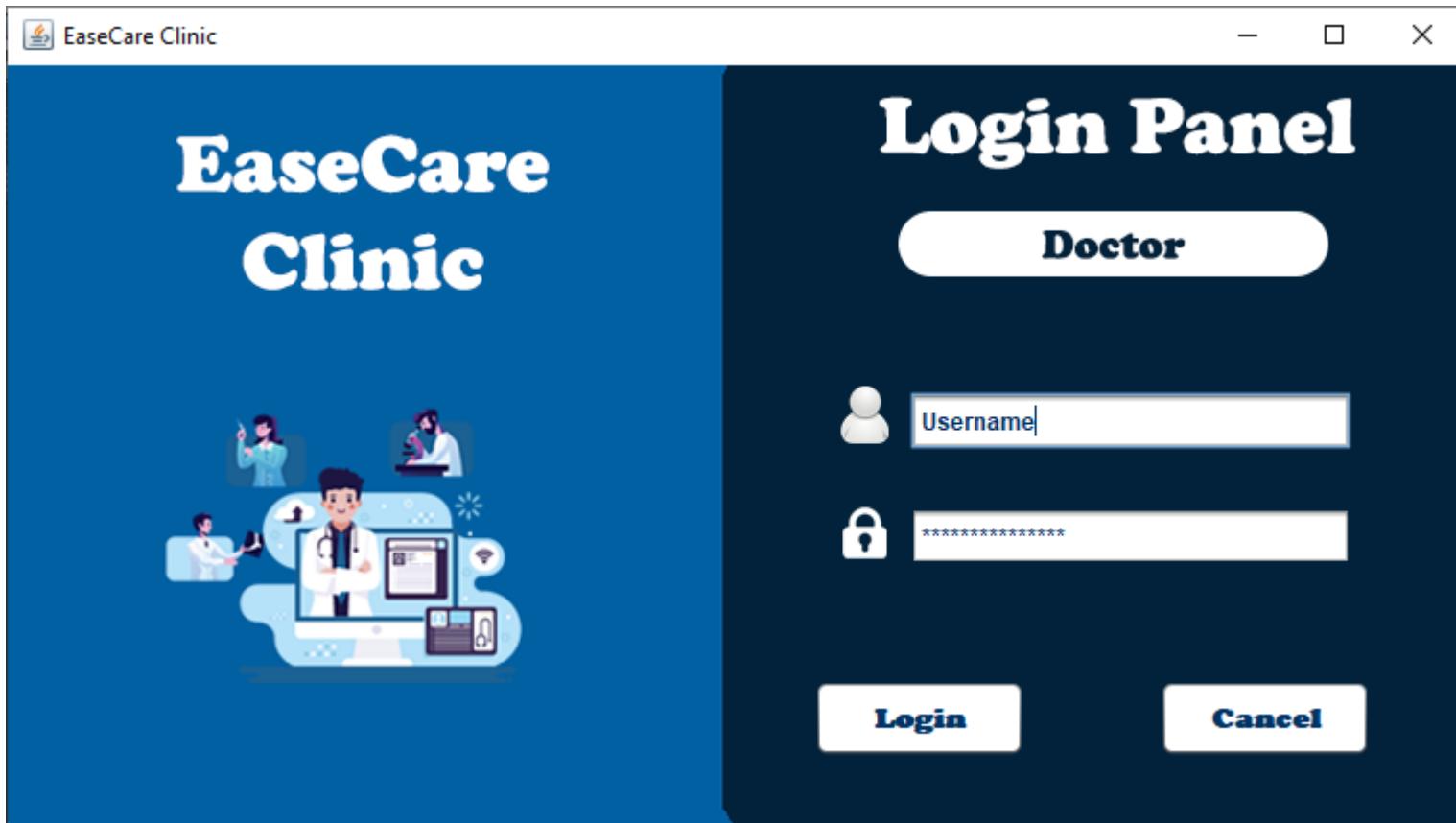
- In First Panel, user must choose to login as: "Clinic Assistant" or "Doctor" .

Project GUI



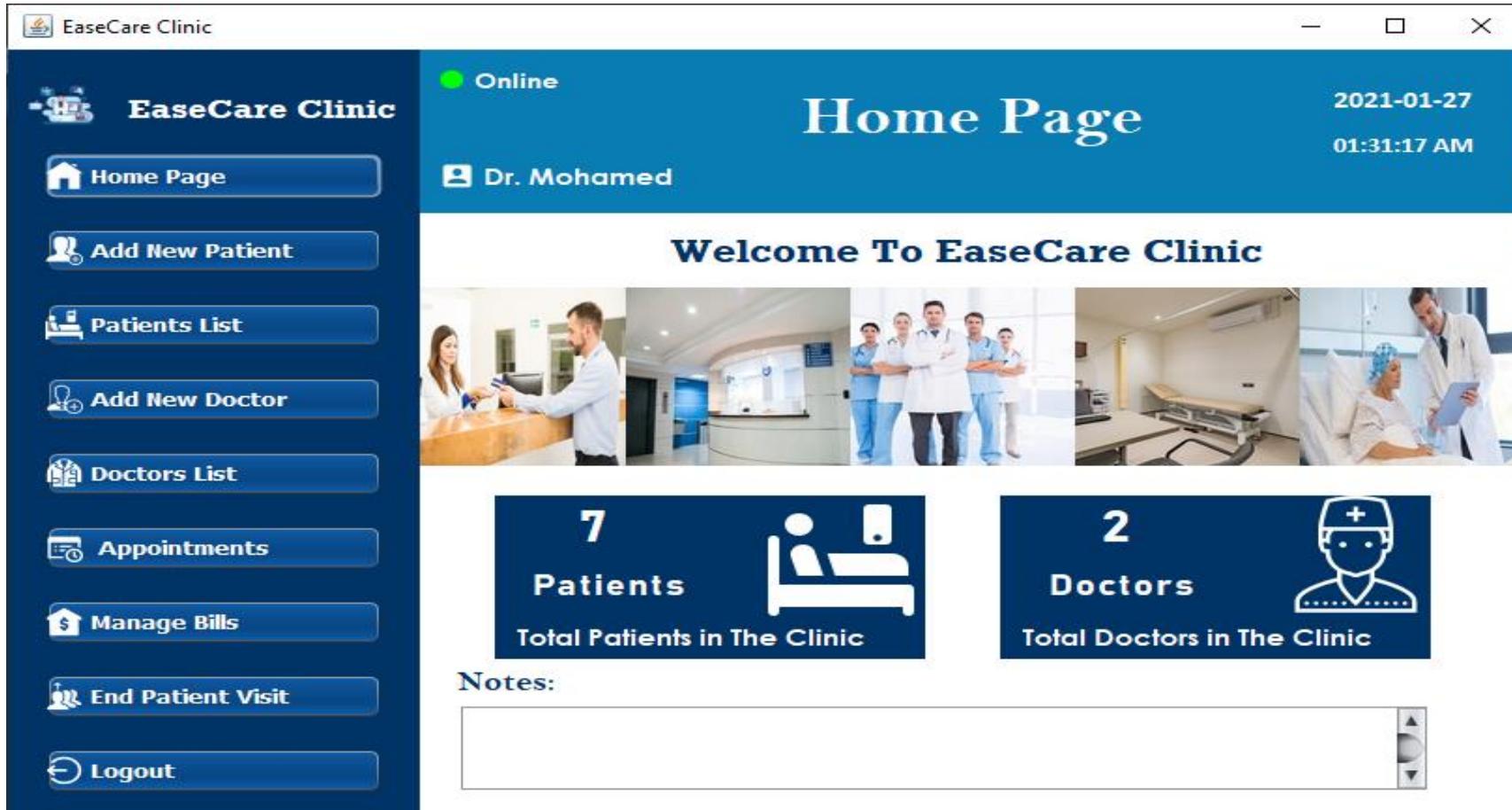
- If user is clinic assistant, he should enter his username and password correctly. If account is correct, he login into system successfully.

Project GUI



- If user is doctor, he should enter his username and password correctly. If account is correct, he login into system successfully.

Project GUI



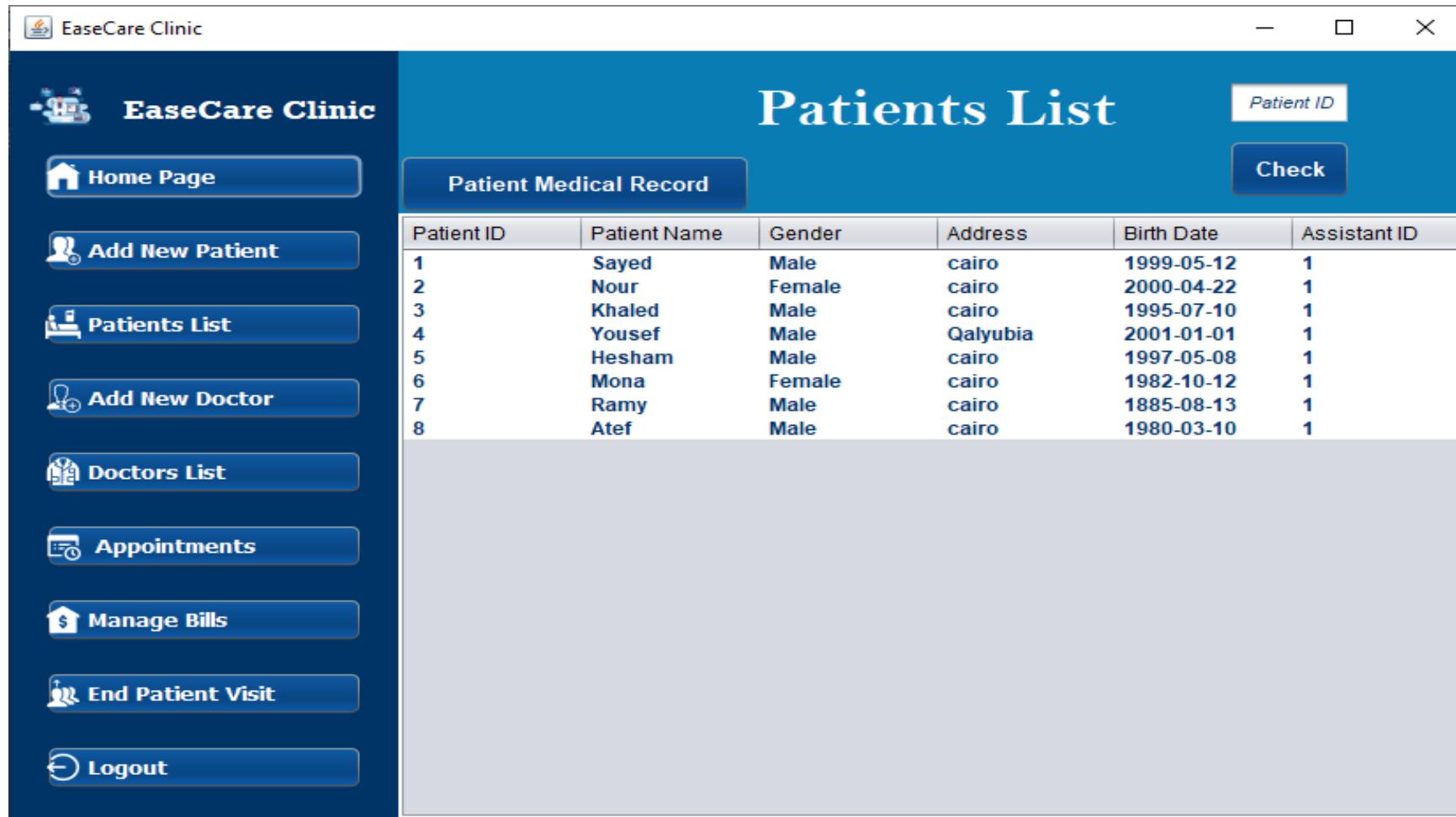
- Home page is the first screen when login to the system, it shows the number of patients registered in the clinic and the number of doctors in clinic. Also, on the right of the screen, there is today's date and current time. A nave bar is found in every screen to facilitate interacting with the system. Nave bar show all activities can be done in the system.

Project GUI



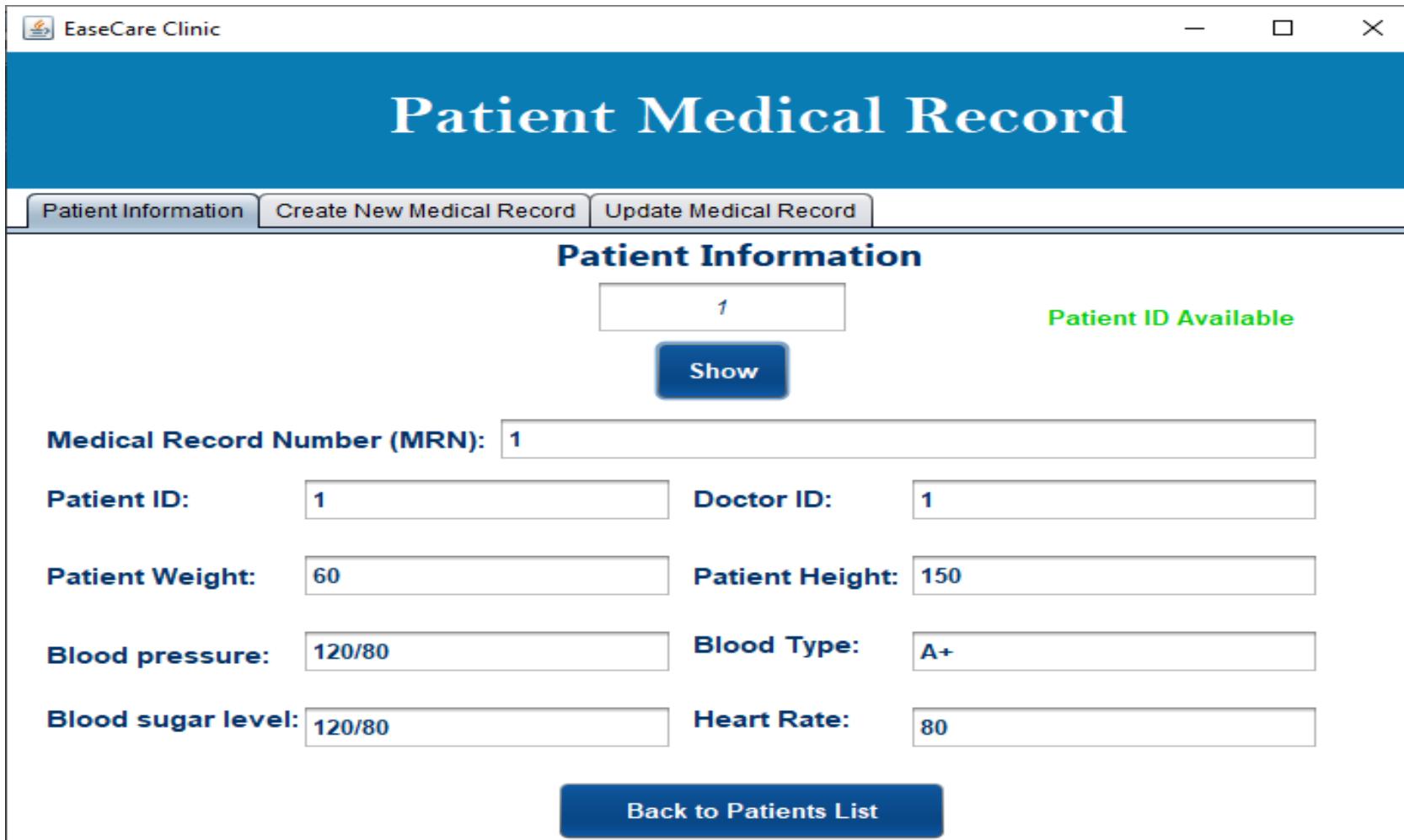
- Add New Patient is for clinic assistant only. The system gives patient a Unique ID by default (auto increment) and Clinic assistant writes down initial information of the patient like: name, gender, address, birth Date. the Clinic assistant writes id as an identification.

Project GUI



- Patients List: next screen shows the list of patients added to the clinic system and also can search by using Patient ID. By clicking on “Check Medical Record” move you to the Medical Record.

Project GUI



- Patient Medical Record: there are three tabs, first tab: for show patient medical record, the doctor enters the patient id to show the information. If patient doesn't have medical record, there is error message informs doctor that patient doesn't have medical record and doctor should create new one.

Project GUI



- Patient Medical Record, second tab: if the patient doesn't have medical record, doctor creates new MR by enter patient id and some medical info as: weight, height, blood type...etc. And doctor id who created the medical record. (The system gives patient a Unique MRN by default (auto increment)).

Project GUI

The screenshot shows a Windows application window titled "Patient Medical Record" from "EaseCare Clinic". The window has a blue header bar with the title and three tabs: "Patient Information", "Create New Medical Record", and "Update Medical Record". The "Update Medical Record" tab is selected. The main area is titled "Update New Medical Record". It contains five input fields: "Patient ID" (text box with value "5"), "Patient Weight" (text box with value "74"), "Patient Height" (text box with value "168"), "Blood pressure" (text box with value "110/80"), and "Blood Type" (dropdown menu currently showing "B+"). Below these are two more input fields: "Blood sugar level" (text box with value "120/80") and "Heart Rate" (text box with value "81"). At the bottom center is a blue "Update" button, and below it is a blue "Back to Patients List" button.

Patient ID: 5

Patient Weight: 74 Patient Height: 168

Blood pressure: 110/80 Blood Type: B+

Blood sugar level: 120/80 Heart Rate: 81

Update

Back to Patients List

- Patient Medical Record, third tab: for update the medical record for specific patient using his/her id and updating the medical record info.

Project GUI



- Add New Doctor: is for clinic assistant only, the system gives patient a Unique ID by default (auto increment) and Clinic assistant writes down doctor's information and give each doctor a username and a password to enable him to login to the system.

Project GUI



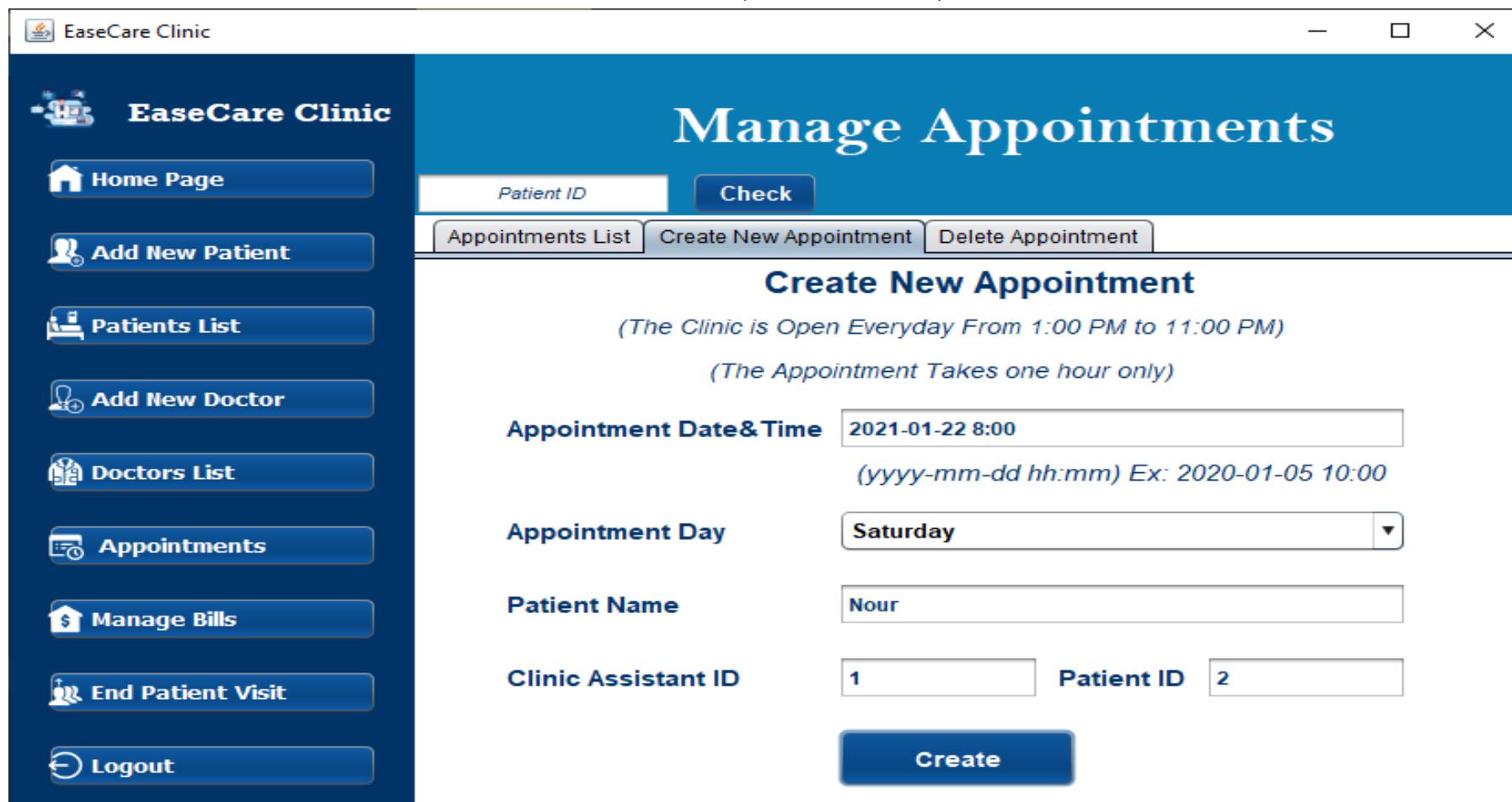
- Doctors List: Next activity is to view list of doctors found added to the clinic system and also can search by using doctor ID.

Project GUI



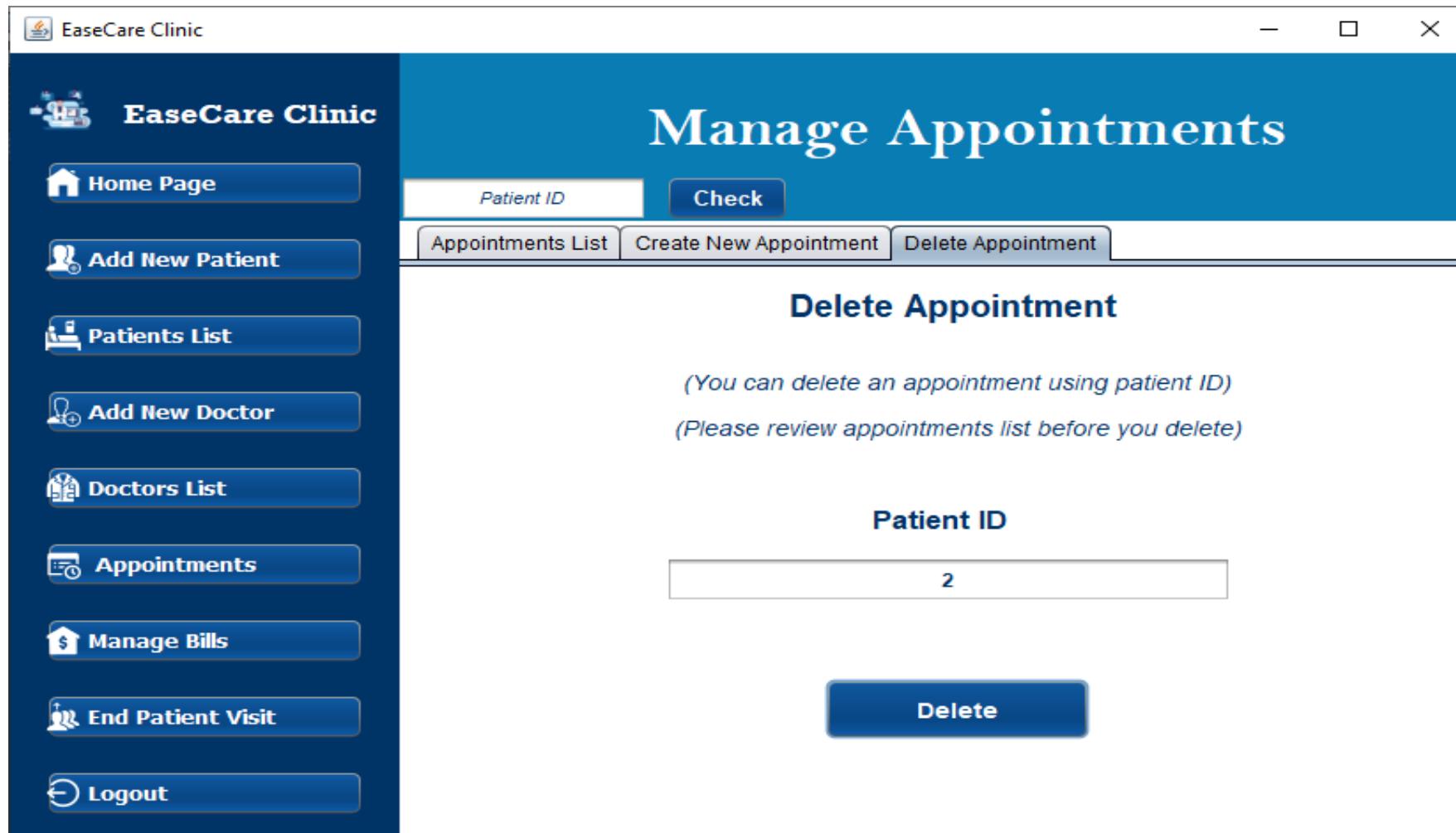
- Manage Appointments: it has three tabs, the first tab to view appointments list to decide the available dates and also can search using patient id to know if patient has booked appointment before or no.

Project GUI



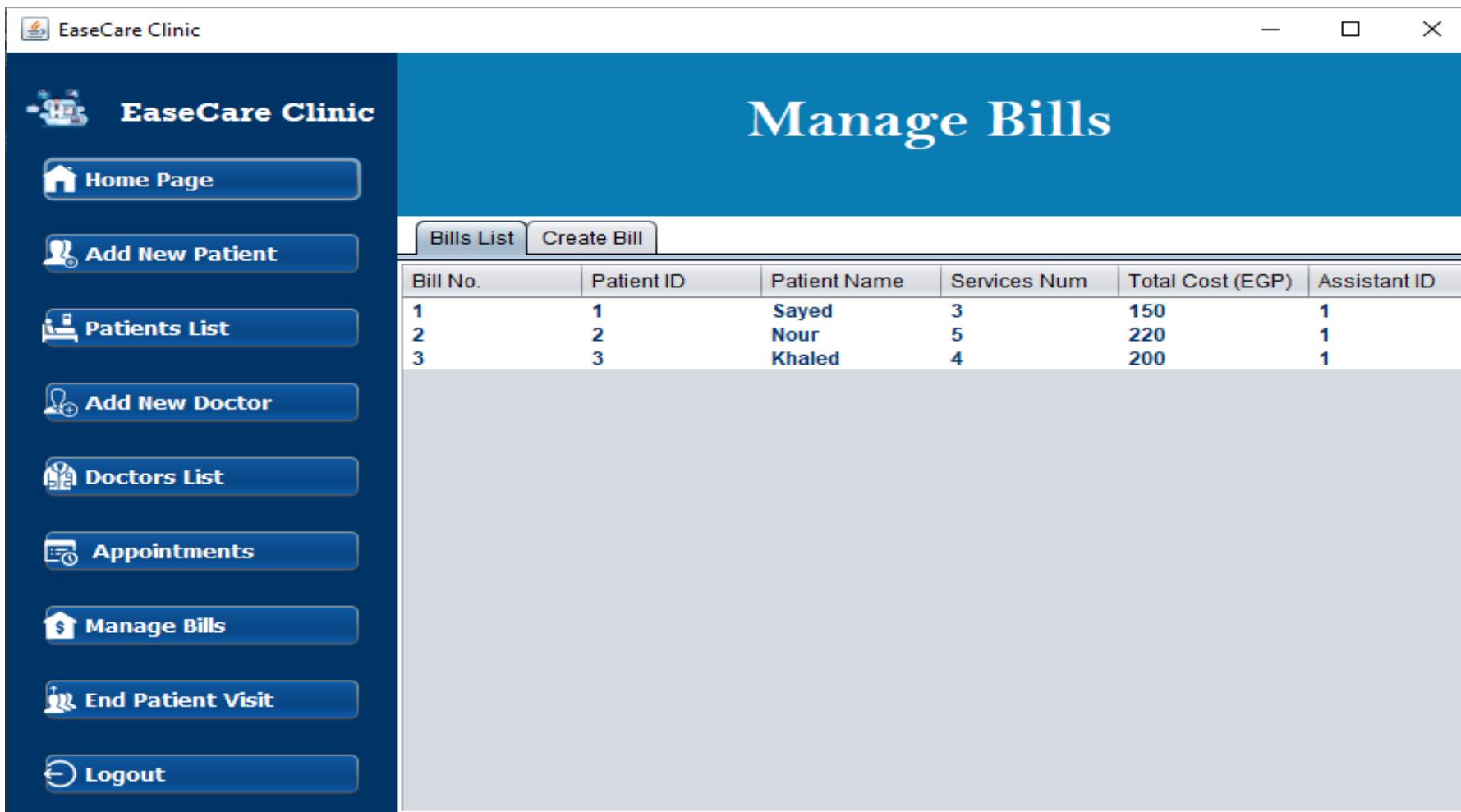
- Manage Appointments: second tab is to create new appointments, it includes date, time, day, and patient's name & ID and clinic assistant ID who created the appointment.

Project GUI



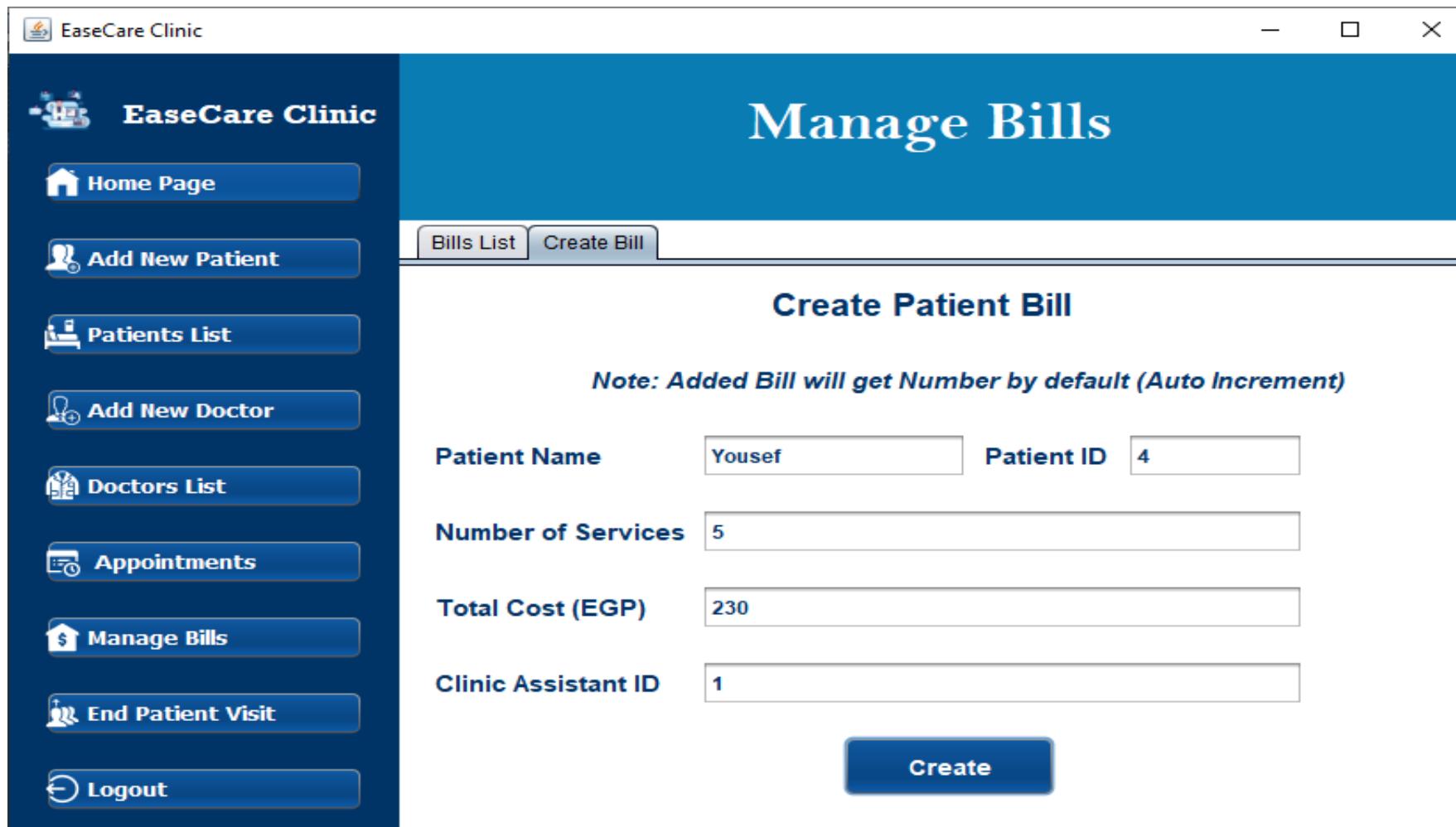
- Manage Appointments, third tab: for delete appointment using patient ID. The clinic assistant deletes the appointment if the appointment is missed or its time expires.

Project GUI



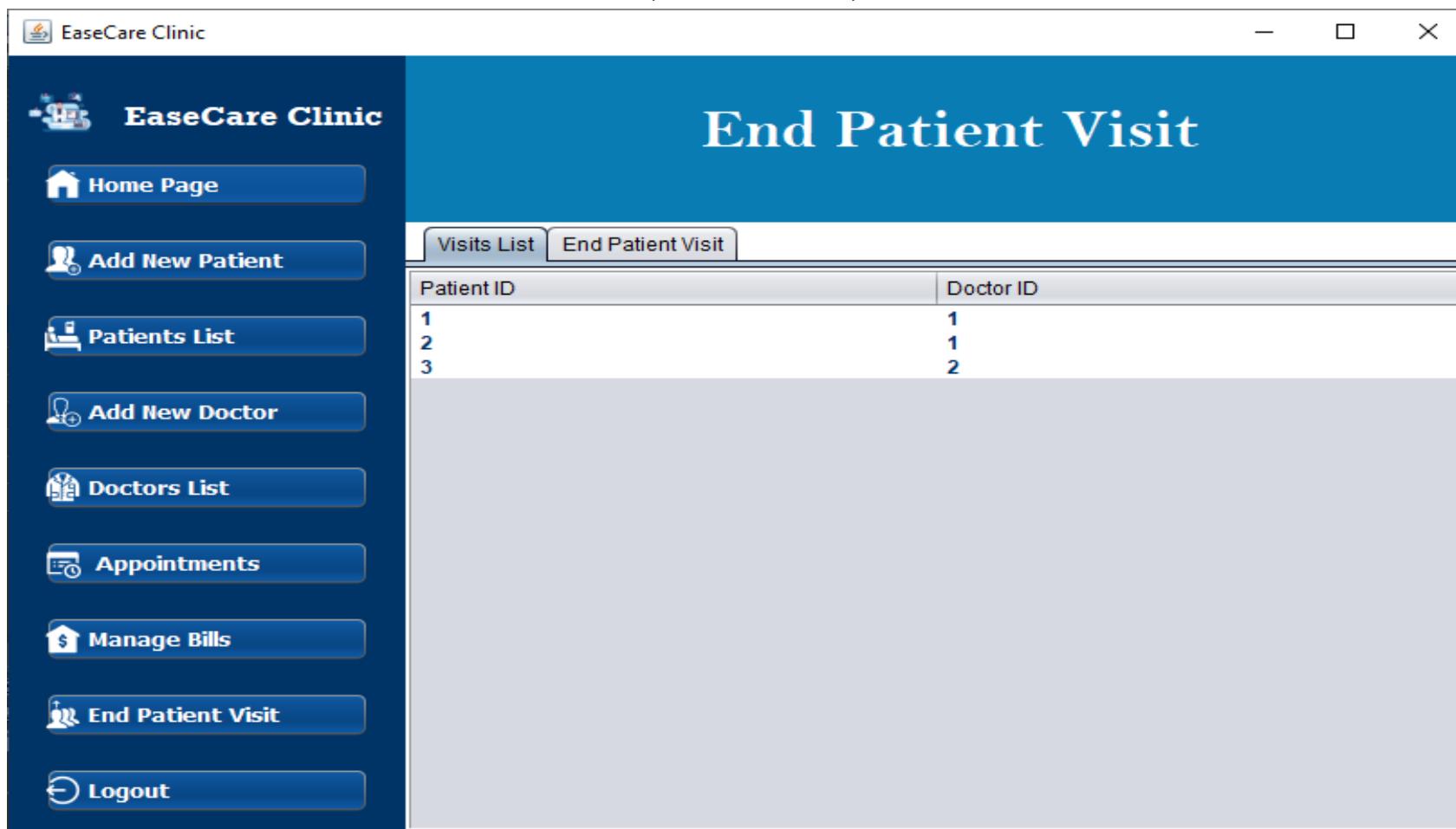
- Manage Bills: it has two tabs, the first tab to view the bills list that contains bill number, patient id, patient name, the number of services, total cost of services, and clinic assistant id who created the bill.

Project GUI



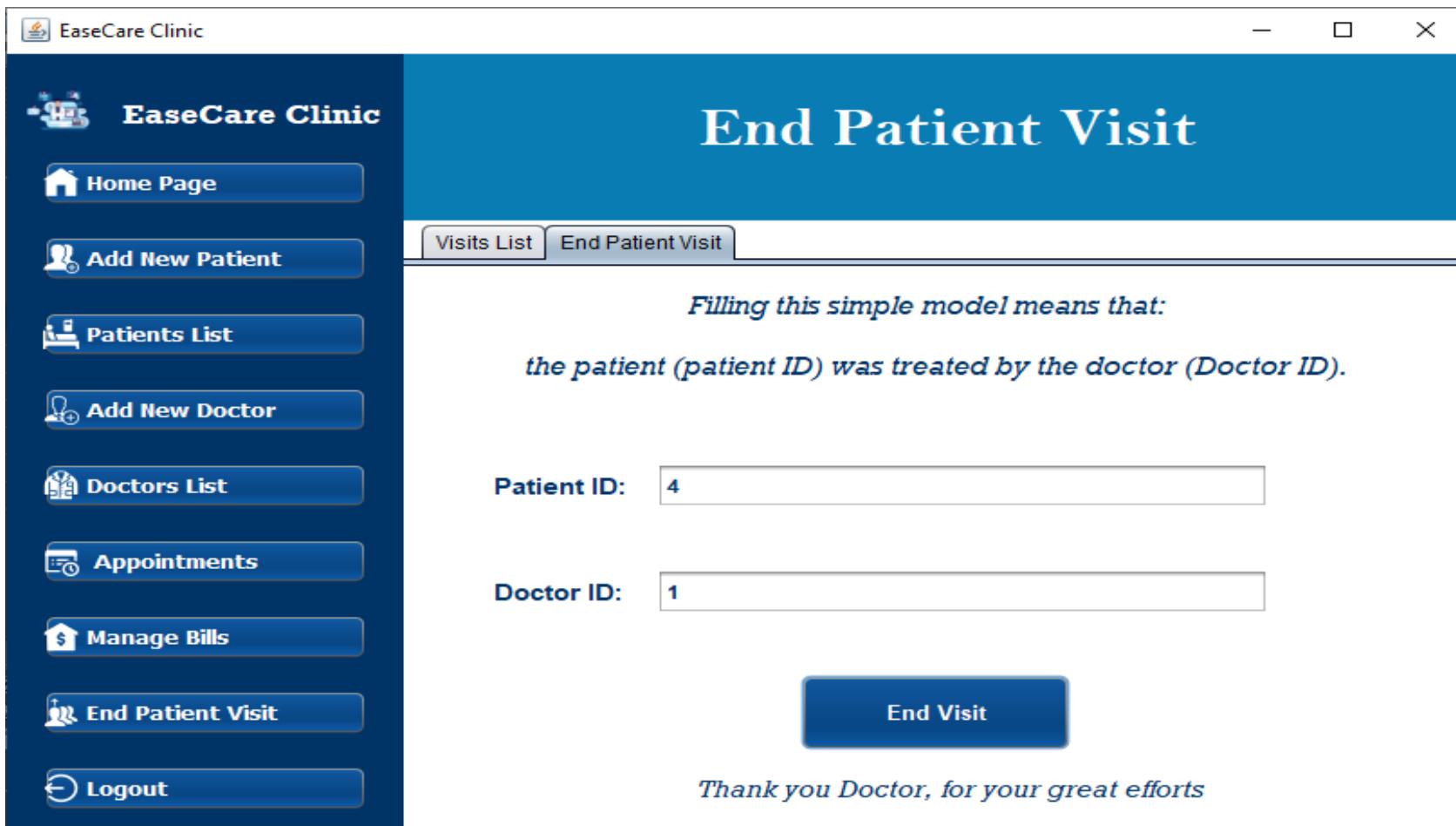
- Manage Bills: second bill for create new bill for patient, the system gives a unique bill number by default (auto increment) and clinic assistant writes down bill information as the number of services, cost of the services, patient id, patient name, and clinic assistant id who created the bill.

Project GUI



- End Patient Visit: it has two tabs, first tab for show the list of the patient id (who has been treated) and the doctor id (who has treated the patient).

Project GUI



- End Patient Visit: second tab, it is for doctor, after doctor end the treatment, he should fill the form that means that doctor has treated the patient (patient id) and that he checked out the patient.

Thanks!