

# Software Engineering

*Project report*

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*Problem statement:*

Clinic appointment reservation system:

The purpose of this project is to prevent conflicts of appointments that always happen.

A clinic appointment reservation system is a system used in clinics by doctors and receptionists to easily manage doctors' appointments. Doctors can add their free appointments within the upcoming week or view their already reserved appointments. Receptionists can search for free appointments, reserve appointments for patients, search for a reserved appointment, edit appointments or cancel appointments. Each user has a unique ID and password to use the system.

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### *2.3 first milestone :*

#### **Requirements elicitation:**

##### Doctor functionalities:

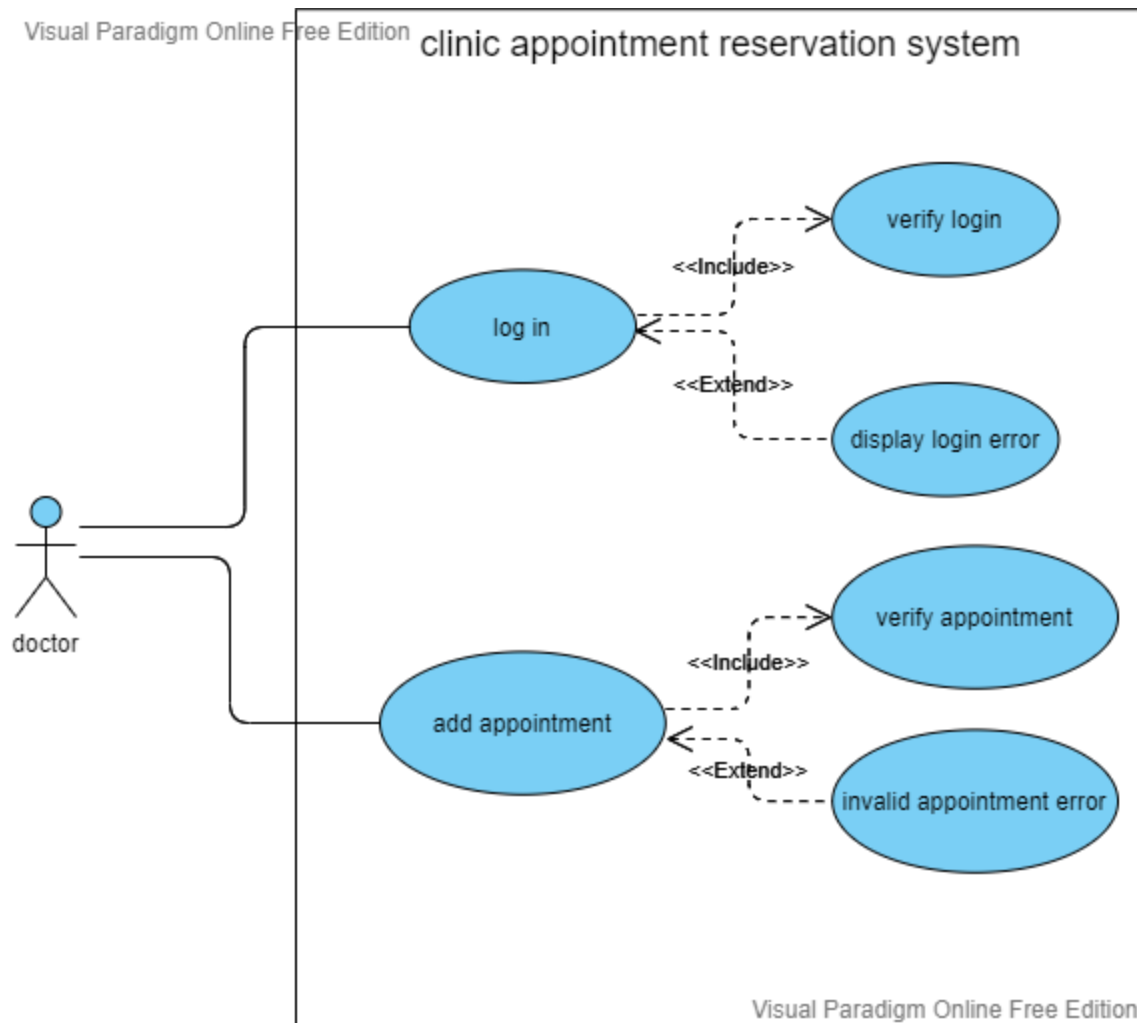
- Login.
- Add a free appointment.

##### Receptionist functionalities:

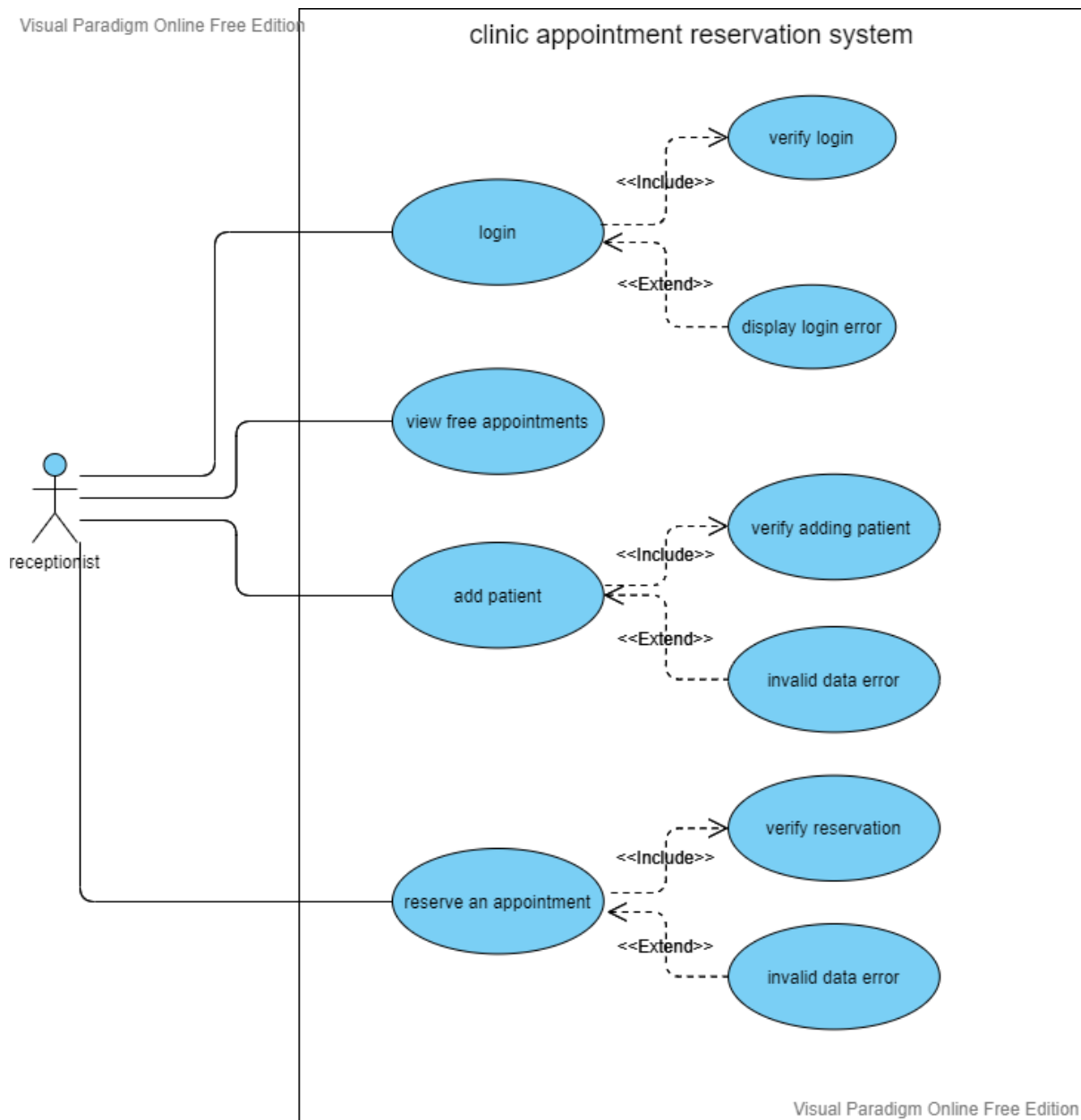
- Login.
- View all free appointments.
- Add patient information.
- Reserve an empty appointment for a patient.

## Interaction diagrams :

- Use case diagram for a doctor :

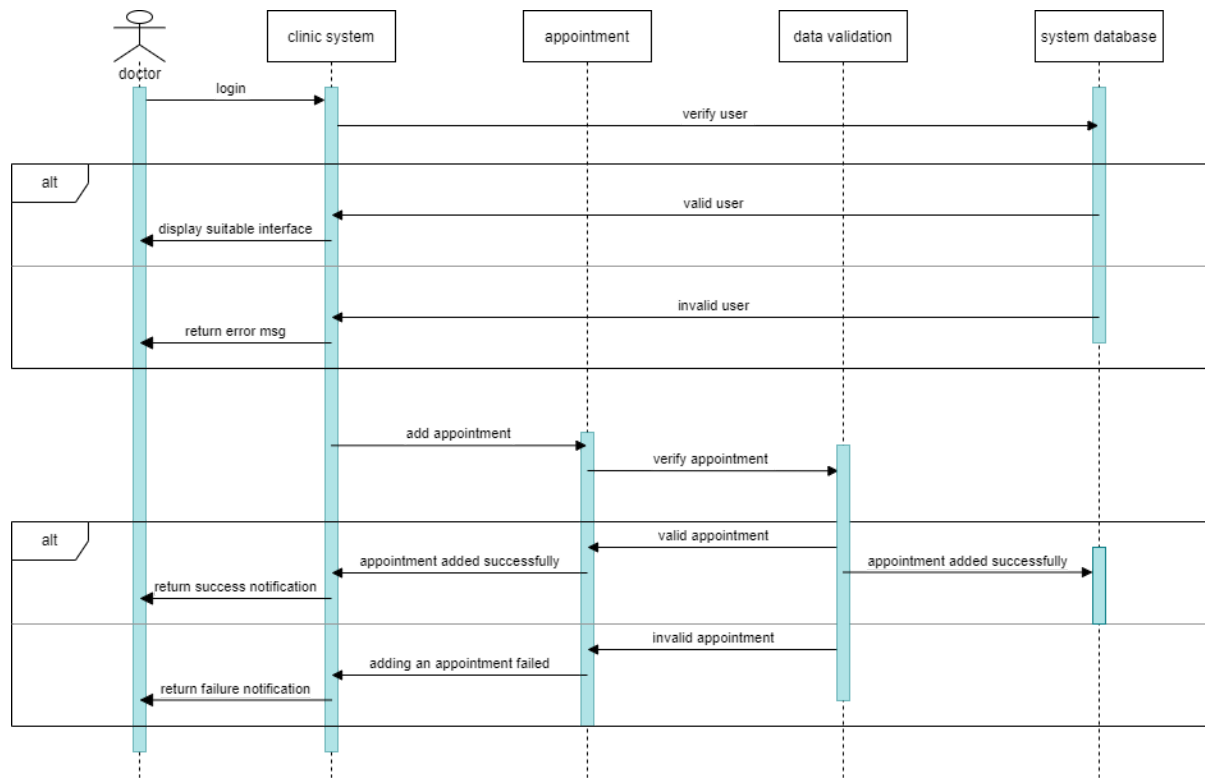


- Use case diagram for a receptionist :

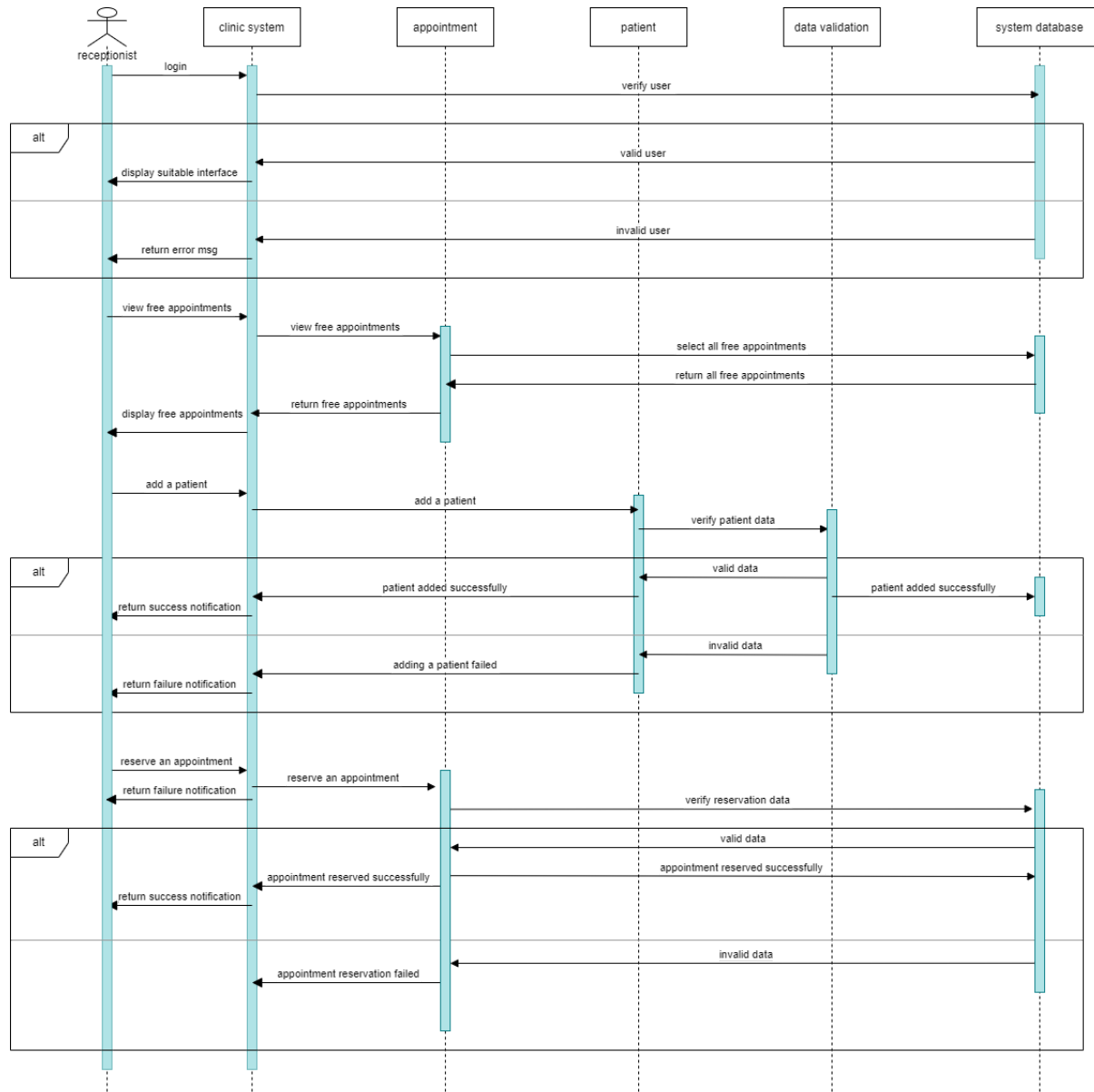


## Activity diagrams :

- Sequence diagram for a doctor:

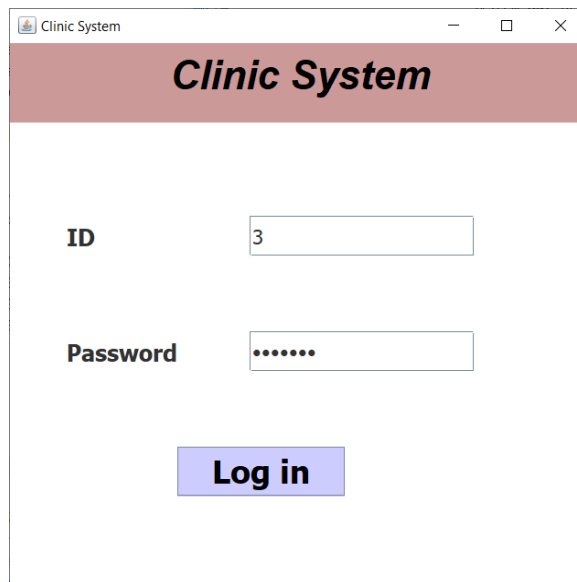


- Sequence diagram for a receptionist:

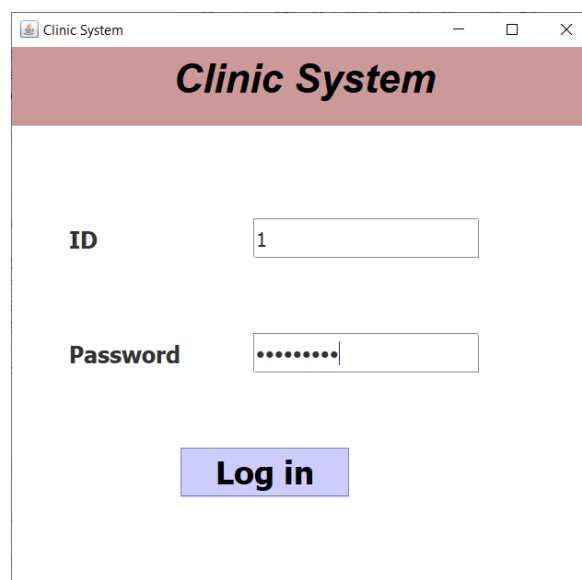
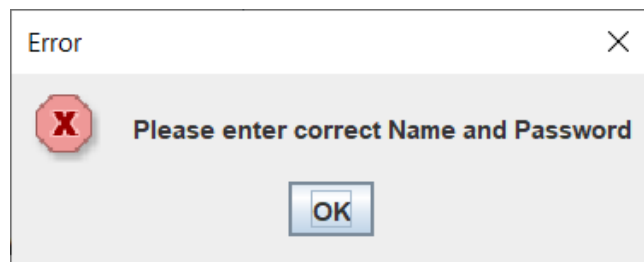


## User guide :

- First, user entre his ID and password



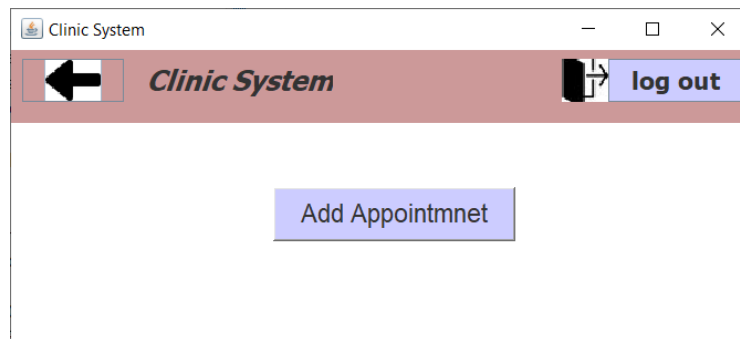
A screenshot of a web application window titled "Clinic System". The window has a red header bar with the text "Clinic System" in bold. Below the header, there are two input fields: "ID" with the value "3" and "Password" with masked characters ".....". A blue "Log in" button is positioned below the password field.



A screenshot of the "Clinic System" login window. The "ID" field now contains the value "1". The "Password" field is empty, showing only masked characters ".....". The "Log in" button remains at the bottom.



- After verifying ID and password, we returns the suitable interface:
- Doctor interface:



- Receptionist interface:

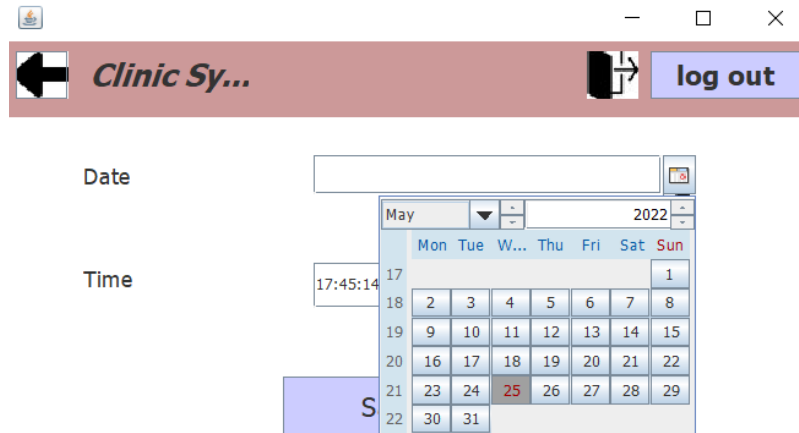
The image displays two screenshots of a web application titled "Clinic System".

The top screenshot shows the login interface. It features a header bar with the text "Clinic System". Below the header, there are two input fields: "ID" with the value "2" and "Password" with masked characters ".....". A blue button labeled "Log in" is positioned below the password field.

The bottom screenshot shows the main menu interface. It features a header bar with a back arrow icon, the text "Clinic System", and a "log out" button with a right arrow icon. Below the header, there are three blue buttons arranged vertically: "Add Patient", "Reserve Appointment", and "View Empty Appointment".

### Doctor interface:

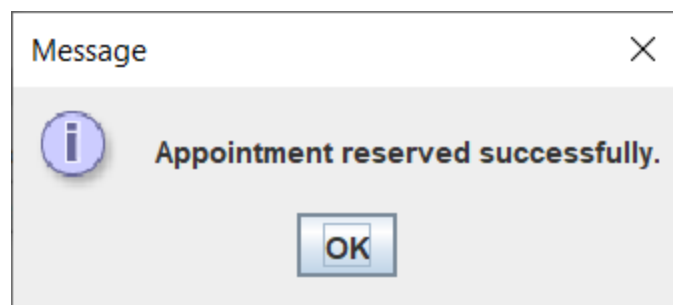
- Doctor can add a new free appointment by entering date and time as following:



The screenshot shows the top part of the Clinic Sy... interface. At the top, there is a header bar with a back arrow icon, the text "Clinic Sy...", a right arrow icon, and a "log out" button. Below the header, there are two input fields: "Date" and "Time". The "Date" field is currently empty, and the "Time" field shows "17:45:14". A calendar widget is open, displaying the month of May 2022. The calendar shows days from 1 to 31, with the 25th highlighted in red. The "Time" field is also open, showing a time selection interface with a vertical scroll bar and a horizontal scroll bar.



The screenshot shows the Clinic Sy... interface with the "Date" field set to "31-05-2022" and the "Time" field set to "19:47:47". A "Save" button is visible below the input fields. The interface also includes a header bar with a back arrow icon, the text "Clinic Sy...", a right arrow icon, and a "log out" button.

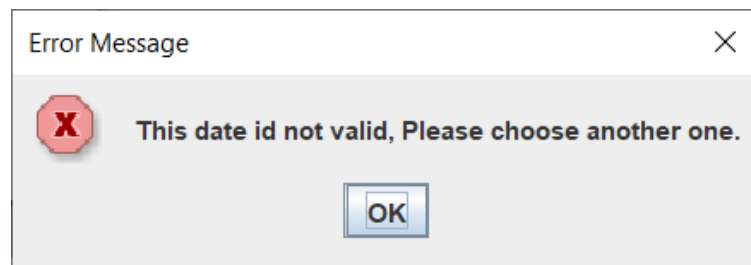


The screenshot shows a "Message" dialog box with a close button (X) in the top right corner. The dialog box contains an information icon (i) and the text "Appointment reserved successfully." Below the text is an "OK" button.

For invalid date or time, error message appeared as following:



The screenshot shows a web application window titled "Clinic Sy...". The header bar is red and contains a back arrow icon on the left and a "log out" button on the right. The main content area has two input fields: "Date" with the value "18-05-2022" and a calendar icon to its right, and "Time" with the value "19:47:47" and a time selection spinner to its right. Below these fields is a large blue "Save" button.



Receptionist interface:

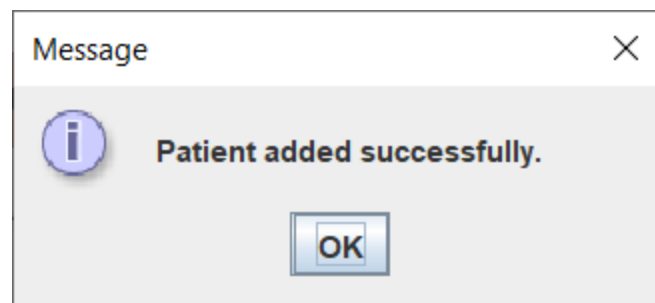
- Receptionist can add a new patient data as following:



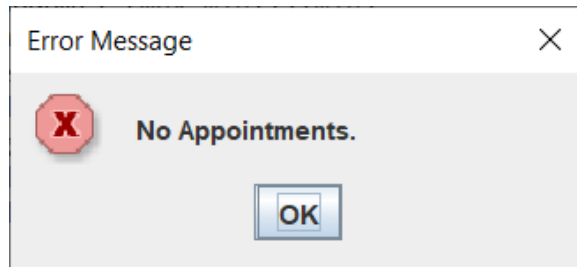
The screenshot shows a window titled "Clinic Sy..." with a "log out" button in the top right corner. The main area contains five input fields for patient data: "Patient Name" (ahmed), "Age" (54), "Gender" (Male), "Address" (alexandria egypt), and "ID" (15). A "Save" button is located below the "ID" field.

Patient Name	ahmed
Age	54
Gender	Male
Address	alexandria egypt
ID	15

Save



- Receptionist can view all free appointments as following:



Clinic System				
Doctor Id	Doctor Name	Date	Time	
1	salma	2022-11-25	22:38:44	▲
1	salma	2022-12-25	21:36:46	▼

- Receptionist can reserve an appointment to a patient as following:

The image shows a software interface for a clinic. The main window has a title bar with a back arrow icon, the text "Clinic Sy...", and a "log out" button. Below the title bar, there are five input fields: "Doctor ID" with the value "1", "Patient ID" with the value "15", "Patient Name" with the value "ahmed", "Date" with the value "25-05-2022" and a calendar icon, and "Time" with the value "19:47:47" and a time picker icon. A "Save" button is located below these fields. Below the main window, there is a "Message" dialog box with a close button (X). The dialog box contains an information icon (i) and the text "Appointment reserved successfully." with an "OK" button.

**Clinic Sy...** log out

Doctor ID: 1

Patient ID: 15

Patient Name: ahmed

Date: 25-05-2022

Time: 19:47:47

Save

**Message** X

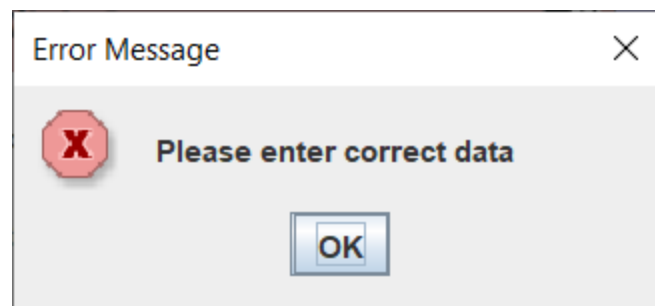
i Appointment reserved successfully.

OK

For invalid data, error message appeared as following:



The screenshot shows a Java Swing window titled "Clinic Sy...". The window has a red header bar with a back arrow icon on the left and a "log out" button on the right. Below the header, there are five input fields arranged vertically: "Doctor ID" with the value "1", "Patient ID" with the value "15", "Patient Name" with the value "ahmed", "Date" with the value "28-05-2022" and a calendar icon, and "Time" with the value "22:47:47" and a time picker icon. At the bottom center of the window is a blue "Save" button.



### Libraries included:

- Mysql-connector java jar