

# **Dentist Appointment Management System**

## **Team members**



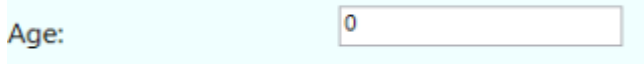


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## User Manual

Getting Started	
	<b>Description</b> <p>This project is built to reflect what a dental clinic appointments management system would be like.</p>
	<b>Project Structure</b> <p>This project is a Windows Presentation Foundation Application. WPF application has a reference project (console application) where hosts business logic classes.</p>
	<b>Scenario</b> <p>The clinic has two doctors, a General Dentist &amp; a Pediatric Dentist. Both have their separate calendars. Our clinic has only one dental chair. So, appointments should be booked in a systematic way via WPF application. The clinic has an admissions clerk (secretary), responsible for managing the appointments and filling the patients' information.</p>
Appointment Slot	Choose one of the available time slots from the combo box.  
Age	Enter age of the patient.  
Gender	Select gender from the drop-down list.  
Medical Conditions	Select if patient has any medical conditions mentioned in the list. 
CT-XRAY	Select yes if you patient has his CT-XRAY.

	<p>CT-XRAY: <input type="radio"/> Yes <input type="radio"/> No</p>
Treatment	<p>Choose one of the services which patient requests for.</p> <p>Treatment: <input type="text"/></p>
Credit card	<p>Make a payment for the appointment by taking 16-digit credit card number.</p> <p>Credit Card <input type="text"/></p>
Register	<p><input type="button" value="Register"/></p>
Save	<p>To book an appointment, save the appointment</p> <p><input type="button" value="Save"/></p>
Display	<p>View the details of the patient.</p> <p><input type="button" value="Display"/></p>
Search	<p>Search details of the patient by age</p> <p><input type="button" value="Search by age"/></p>

## **Use cases**

Register: Admissions clerk selects appointment time, age, gender, medical conditions, CT- XRAY, treatment and credit card number.

Display: Clerk views the details entered.

Save: Clerk saves all the details entered.

Search: Clerk views all the details by priority.

## **Fully Dressed use cases**

### **Use case 1**

Use case Name: Save Appointment

Scope: Booking an appointment online

Primary actor: Admissions clerk

Stake holder and Interests:

User wants to book a dental appointment.

Clerks takes the details of the patient and books an appointment.

Preconditions:

Clerk enters the details in the respective fields.

Success guarantee (Post conditions):

Appointment is successfully booked.

Main success scenario:

1. Clerk inputs all the valid details.
2. Clerk books an appointment for the patient.

Extensions:

Clerk enters the age which is out of range.

- a. Age field box will become red in color.

Clerk enters the credit card number in invalid format.

- a. Credit card field turns red in color.

## **Use case 2**

Use Case Name: Display details

Scope: Booking appointment online

Primary actor: Clerk

Stake holder and Interests:

Clerk wants to view the details accurately with out any errors.

Preconditions:

Clerk must register and an appointment save before displaying any details.

Success guarantee (Post conditions):

Details are displayed successfully in the data grid with out any errors.

Main success scenario:

1. User registers an appointment
2. User views the entered details.

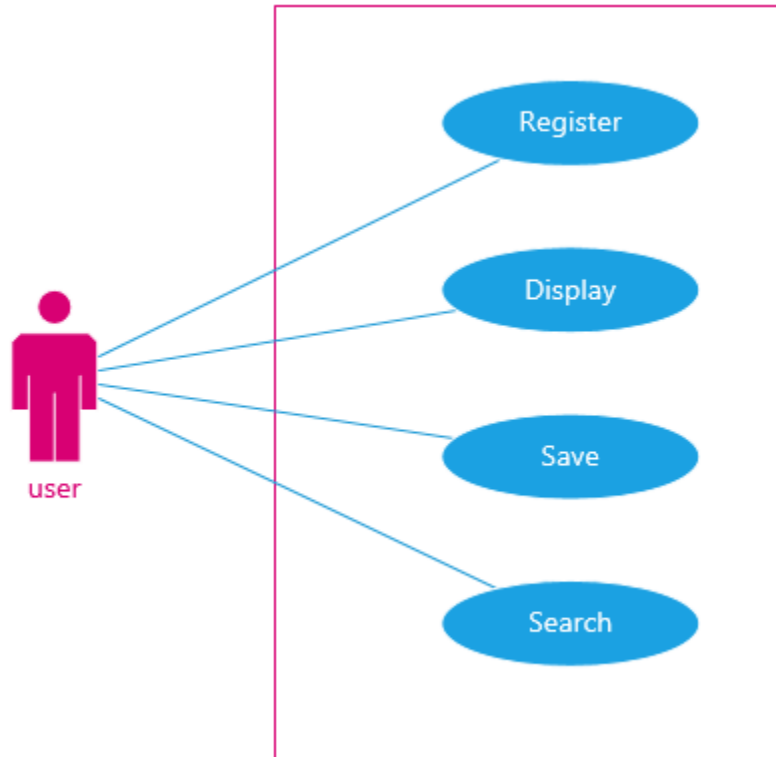
Extensions:

Clerk clicks display button before registering or saving an appointment.

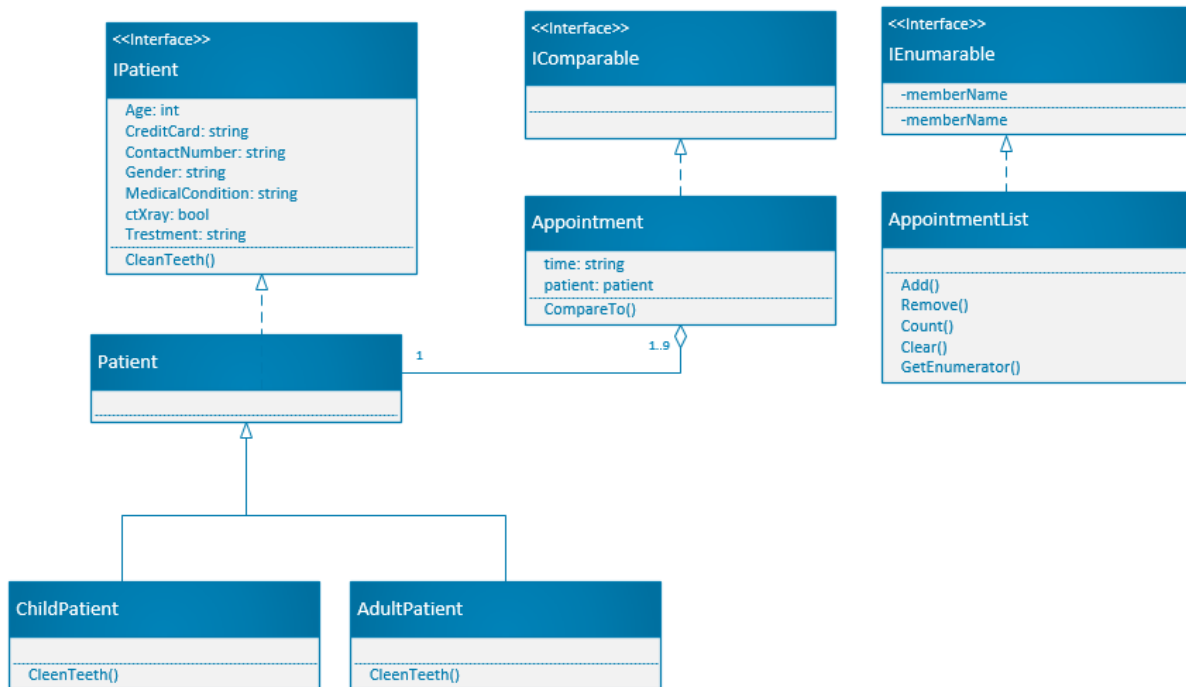
- a. No data is displayed on the screen.

## UML Diagrams

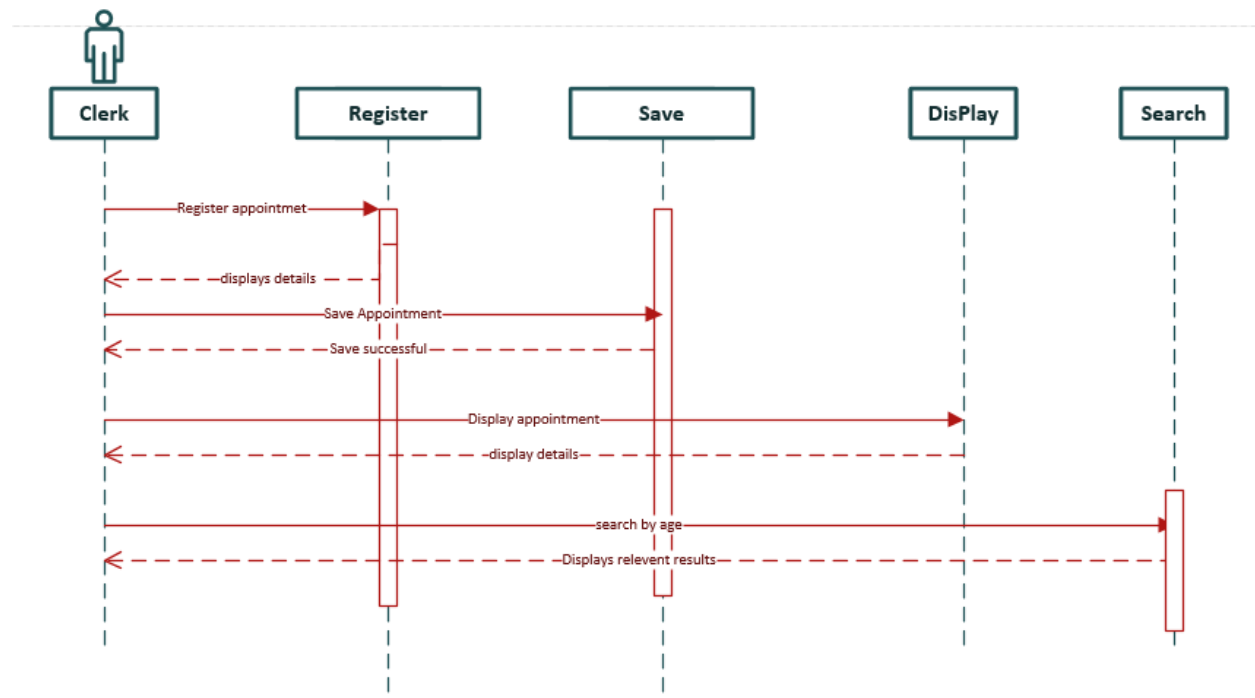
### Use Case Diagram



## Class Diagram

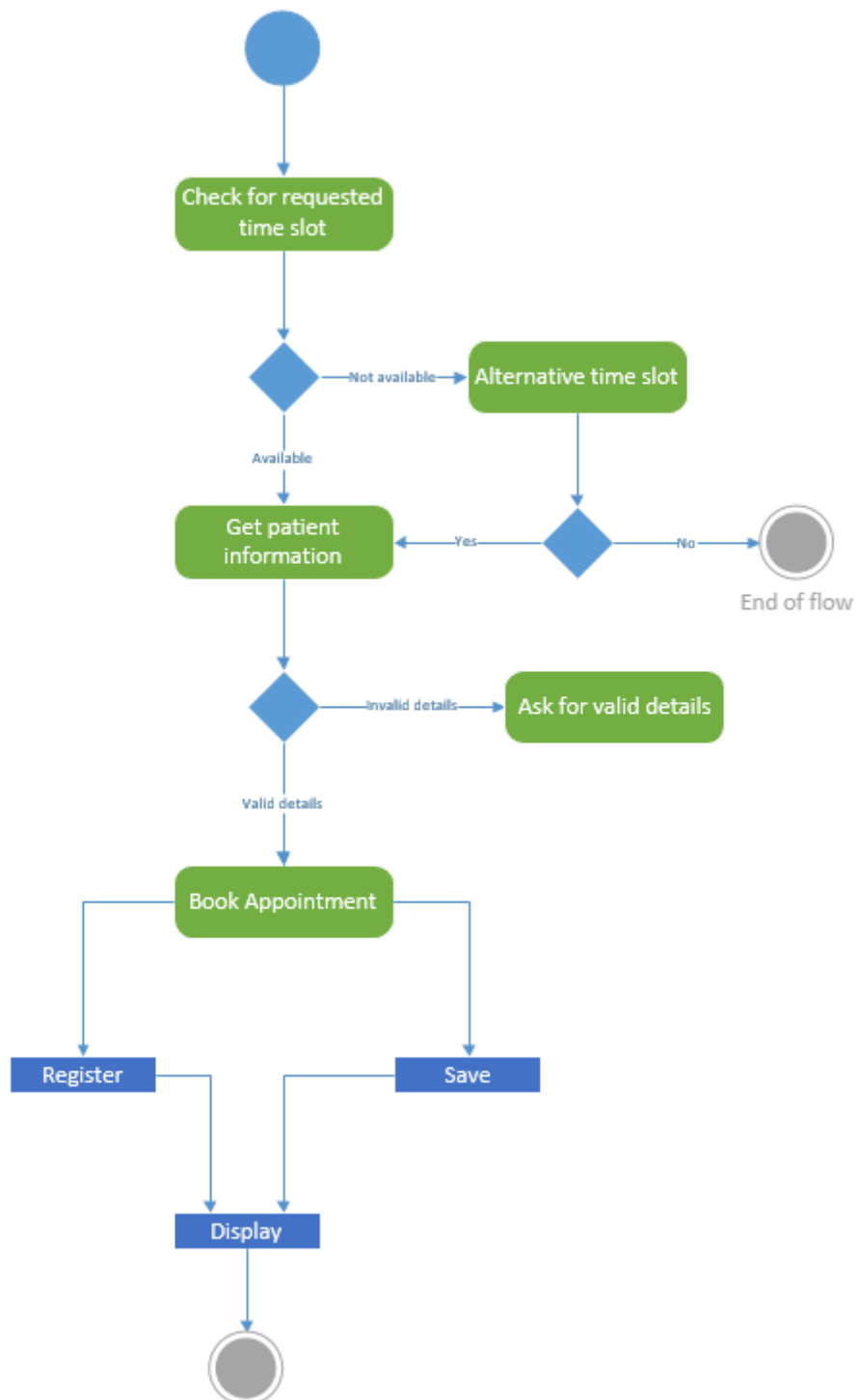


## System Sequence diagram





## Activity Diagram



## User Interaction and design

This project is built to reflect what a dental clinic's appointments and patient's management system would be like.

### GUI Screenshots

The screenshot displays the main interface of the dental clinic management system. On the left is a registration form with the following fields: Appointment Time (dropdown), Age (text input with '0'), Gender (dropdown), Medical Conditions (dropdown), CT-XRAY (radio buttons for Yes/No), Treatment (dropdown), and Credit Card (text input). Below these fields are three buttons: Register, Display, and Save. On the right is a table titled 'List of Customers' with columns: Time, Gender, Age, Medical Conditions, CT-XRAY, Treatment, and Credit Card. The table is currently empty. Below the table is a search bar labeled 'Search by age'.

Error is handled when the data is invalid.

The image shows two side-by-side screenshots of the registration form, illustrating error handling for invalid data. In the left screenshot, the form contains valid data: Appointment Time is '09:00 AM', Age is '13', Gender is 'Female', Medical Conditions is 'Diabetic', CT-XRAY is 'Yes', Treatment is 'Extraction', and Credit Card is '1234567890123456'. In the right screenshot, the form contains invalid data: Appointment Time is '09:00 AM', Age is '136', Gender is 'Female', Medical Conditions is 'Diabetic', CT-XRAY is 'Yes', Treatment is 'Extraction', and Credit Card is '12345678901234a'. Red rectangular boxes highlight the 'Age' and 'Credit Card' fields in the right screenshot, indicating that these values are invalid and have triggered an error state.

If the patient's age is 15 and above will be considered as Adult patient and age less than 15 is considered as a child patient.

Details of child patient is displayed in green where as adult patient details are displayed in yellow color.

Appointment Time

Age:

Gender:

Medical Conditions:

CT-XRAY:

☐ Yes ☐ No

Treatment:

Credit Card

Register

Display

Save

List of Customers

Time	Gender	Age	Medical Conditions	CT-XRAY	Treatment	Credit Card
10:00 AM	Male	17	None	True	Extraction	1234XXXXXXXX4561
12:00 PM	Female	12	Hepatitis	False	RootCanalTreatment	2345XXXXXXXX4561
15:00 PM	Female	16	Diabetic	True	Bleaching	2345XXXXXXXX4561

Search by age

When clerk saves an appointment with out any errors, it will be saved successfully.

Appointment Time

Age:

14

Gender:

Female

Medical Conditions:

None

CT-XRAY:

☒ Yes ☐ No

Treatment:

Bleaching

Credit Card

1234567890123456

Register

Display

Save

List of Customers

Time	Gender	Age	Medical Conditions	CT-XRAY	Treatment	Credit Card
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Search by age

Save Successful

OK

Error has been handled by displaying a message to the clerk.

Appointment Time

13:00 PM

Age:

45

Gender:

Female

Medical Conditions:

Diabetic

CT-XRAY:

☒ Yes ☐ No

Treatment:

RootCanalTreatment

Credit Card

123456789023456

Enter a valid Credit Card

Register

Display

Save

Error Registering Customer

List of Customers

Time	Gender	Age	Medical Conditions	CT-XRAY	Treatment	Credit Card
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Search by age

Filter appointments by age

Appointment Time

Age:

Gender:

Medical Conditions:

CT-XRAY:

☐ Yes ☐ No

Treatment:

Credit Card

Register

Display

Save

List of Customers

Time	Gender	Age	Medical Conditions	CT-XRAY	Treatment	Credit Card
12:00 PM	Female	12	Hepatitis	False	RootCanalTreatment	2345XXXXXXXX4561

Search by age

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