

KOLEJ PROFESIONAL MARA BERANANG DIPLOMA

IN COMPUTER SCIENCE

COURSE NAME : PROJECT DESIGN IMPLEMENTATION AND EVALUATION

COURSE CODE : CSC2764

ACADEMIC SESSION : SESSION 2/2023

TYPE OF ASSESSMENT: FINAL PROJECT REPORT

DURATION : 15th SEPTEMBER 2023 – 20th OCTOBER 2023

CLO 3: Build a project according to the proposed plan and design (C3, PLO 6).

INSTRUCTION TO CANDIDATES:

1. Late submissions after the given due date will not be accepted.

2. Report should be written in using:

Font Type: Arial Size: 11 pts Line Spacing: 1.5

Pe	Personal Details				
Name	NURBASHIERAH BINTI MOHAMAD HAFIDZI				
I/D Number					
Class	☐ DCS 6A ☐ DCS 6B ☐ DCS 6C				
Lecturer	☐ MAWARWIDURI AB HALIK☐ NINI ANIZA ZAKARIA☐ ROZANA SUMAN				

Section / Question No.	Marks
1(a)	
2 (a)	
2 (b)	
Total	/ 60

SCENARIO:

Based on the Project Plan produced in Phase 1, the management committee had agreed with the proposed system. As a System Developer, you are now entering the most crucial phase in the system development where you are responsible for ensuring that the Project Plan is properly converted into design based on the user's requirements.

Apart from that, you are also required to proceed with the implementation of the system by using any appropriate software(s). The testing also needs to be conducted by using any appropriate testing methods that available, to make sure that your developed system meets all the user requirements (as being specified in Phase 1) and successfully functions without any error. In this project report, you are required to perform the following tasks:

1. PROJECT DESIGN/STRUCTRE

- a) Prepare a System Design Specification (SDS) by implementing the best practices of design aspects which include:
 - Use case diagram.
 - Sequence diagram
 - Class diagram
 - Storyboard

2. PROJECT IMPLEMENTATION

- a) Construct an original working system based on the user requirements, which fulfills the following criteria:
 - Functionality
 - Usability
 - Security Performance
 - Efficiency
- b) Prepare test cases by following the standard format to show verification of the project implementation.

Assessment Rubrics:

		Mark Mark			
Т	ask	2	4	6	Obtained
practice aspects	Specification by nenting the best es of design s including:				
i) Use (Case Diagram	 Incomplete use case diagram for the system development which does not include any one of below:	 Complete use case diagram for the system development include: □ Correct actors □ Correct use case □ Correct relationship between actors and use case. 	 Complete use case diagram for the system development include: □ Correct actors □ Correct use cases □ Correct relationship between actors and use case. □ Correct used of include and extend relationship. □ Cover all functionalities of the system and best practices of design 	

ii) Sequence Diagram	 □ Incomplete sequence diagram produces which not include either object, messages used, and the lifeline begin and ending. □ Sequence diagram does not cover all the use case diagrams 	 □ Complete sequence diagram produces which include object, messages used, and the lifeline begin and ending. □ The number of sequence diagram produced is not consistent with the number of use cases in the use case diagram. 	 □ Complete sequence diagram produces which include object, messages used, and the lifeline begin and ending. □ The number ofsequence diagram produced is consistent with the number of use cases in the use case diagram. □ The sequence diagram produced covers the alternative options of the specific use cases. □ The steps provided in the sequence diagram produced are logic and includes the best practices of design 	
iii) Class Diagram	 □ Incomplete Class Diagram which not includes either correct classname, attributes and behaviors/ operations. □ Partly correct relationship between class and symbol used of relationship and relationship naming. □ Partly correct use of multiplicity 	 □ Complete Class Diagram which includes correct class name, attributes, and behaviors/operations. □ Partly correct relationship between class and symbol used of relationship and relationship naming. □ Partly correct use of multiplicity. 	 □ Complete Class Diagram which includes correct class name, attributes and behaviors/operations. □ Correct relationship between class and symbol used of relationship and relationship naming. □ Correct use of multiplicity. The class diagram produced reflects the system implementation and includes the bestpractices of design 	

	iv) Storyboard	 □ Incomplete storyboard of system development which does not include either identifying symbolsor naming label. □ The story board produced not cover all forms/page of the system development 	system deversing includes iden and naming later the story be covers all the system.	oard produced e forms of the stem.	system development which includes identifying symbols and naming label. The story board produced	
	Task	15	N	lark	30	
2(a)	T	 □ Some of the functions proving as expected. (2 M) □ Only some of the functions system provide the correct re (2 M) □ Only some of the functions for the users to accomplish to consistent with the user required some links provided do not the predefined forms/page. (□ Links for navigation are labelled, making it difficult formove from a form/page form/page (forward and back) □ The system's forms/page cluttered look. (1 M) 	provided in the esult andoutput. are appropriate task. (2 M) provided are uirements. (2 M) take the user to (2M) not clearly or the user to e to related k). (2 M)	expected. (4 All the funct the correct All the funct users to acc All the funct user require Links for na predefined Links for na the user to related form The system usable layor	tions provided are working as 4 M) tions provided in the systemprovide result and output. (4 M) tions provided appropriate withthe complish task. (4 M) tions provided are consistent withthe ements. (4 M) vigation take the user tothe forms/page. (4 M) avigation are clearly labelled, allowing or easily move from a form/page to h/page (forward and back). (4 M) a's forms/page have an attractive,	

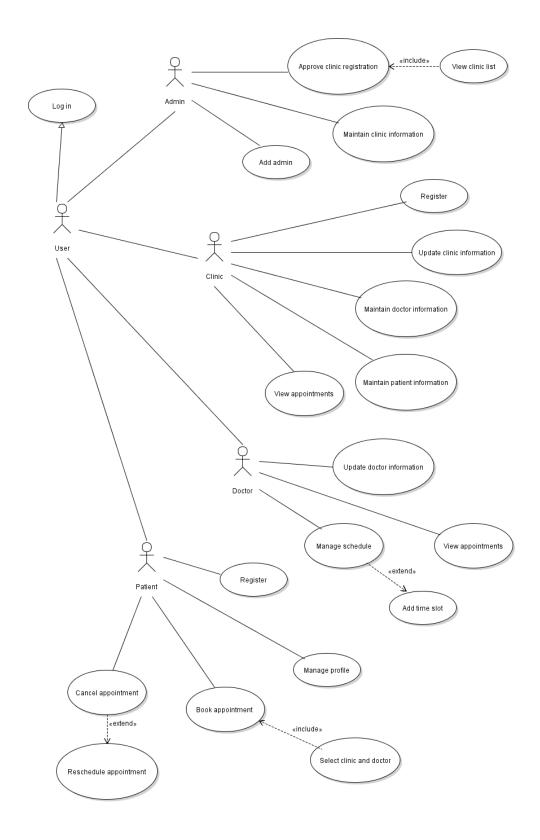
		 Buttons placement is not at appropriate place. (1 M) The system provides a basic username and password for the user. (1 M) 	reasonable place. (2 M) The system provides more secure security features by providing different levels of access for each user to access certain information based on their user type. (2 M)	
			Mark	
	Task	3	6	
2(b)	Prepare test cases by following the standard given format to show verification of the project implementation	uce incomplete test cases which might include only of the components of the Test Case ID, Test Case ription, Input Data, Expected Result, Actual Result, /Fail and Remarks. (1 M) test cases produced only cover part of the system's ions. (1 M) case cases produced are not organized properly d on each function available in each form/page.	 □ Produce a complete test case which contained all the components such as the Test Case ID, Test Case Description, Input Data, Expected Result, Actual Result, Pass/Fail and Remarks . (2 M) □ The test cases produced cover all of the system's functions. (2 M) □ The test cases are produced based on each function available in each form/page. (2 M) 	
Tota	I Marks Earned			/60
Tota	l Percentage (50%)			

Table of Contents

SCE	NARIO:		2
1.0	Syste	m Design Specification (SDS)	8
1.1	Use c	ase diagram	8
1.2	Seque	ence diagram	9
	1.2.1	Admin	9
	1.2.2	Clinic	13
	1.2.3	Doctor	19
	1.2.4	Patient	23
1.	3 Cla	ss diagram	28
1.	4 Sto	ryboard	29
2.0	Test (Cases	38

1.0 System Design Specification (SDS)

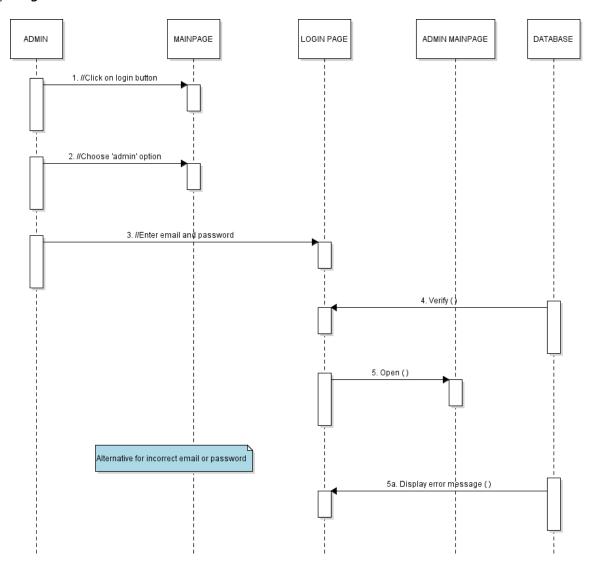
1.1 Use case diagram



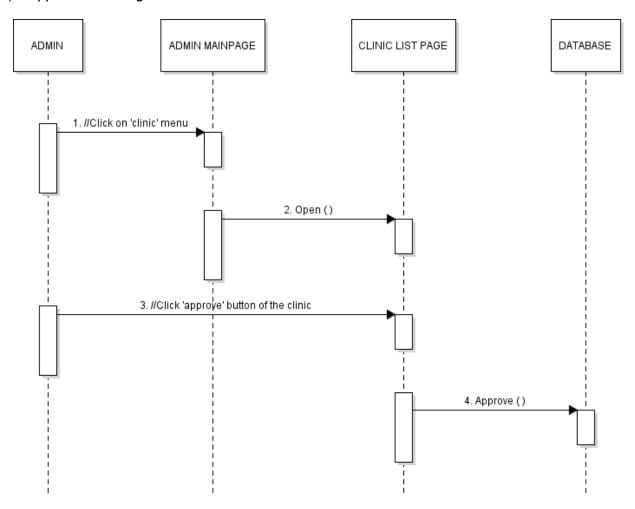
1.2 Sequence diagram

1.2.1 Admin

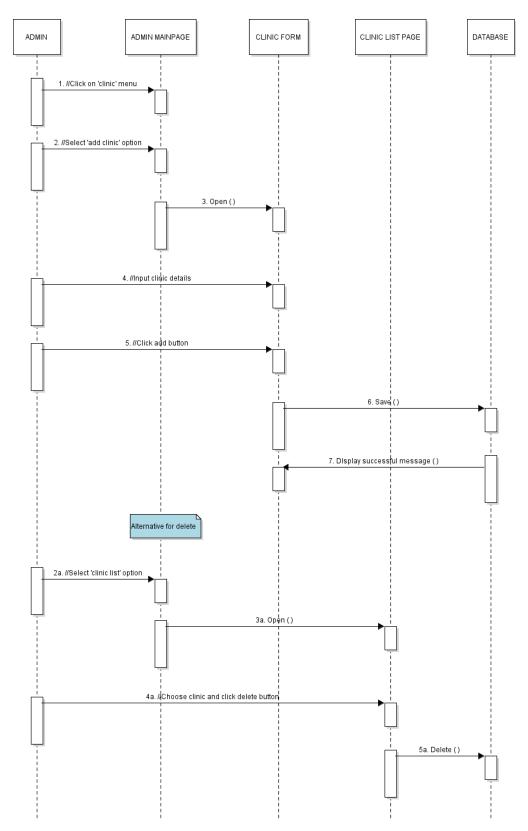
I) Login



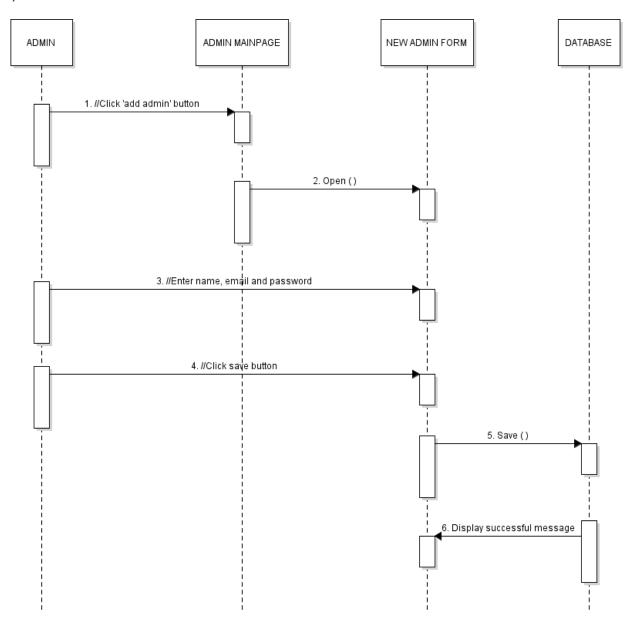
II) Approve clinic registration



III) Maintain clinic

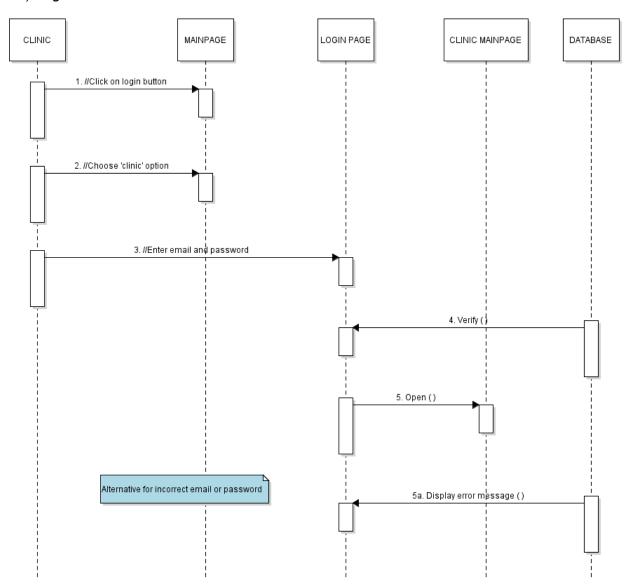


IV) Add admin

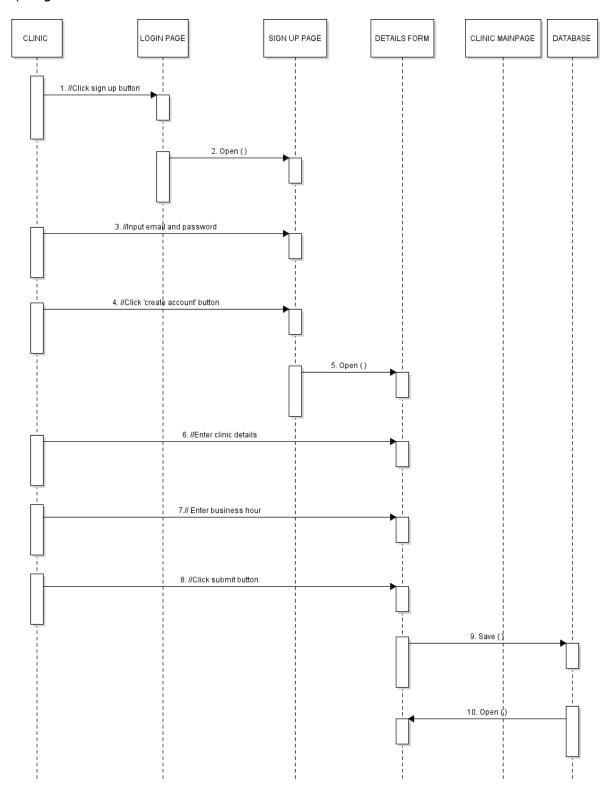


1.2.2 Clinic

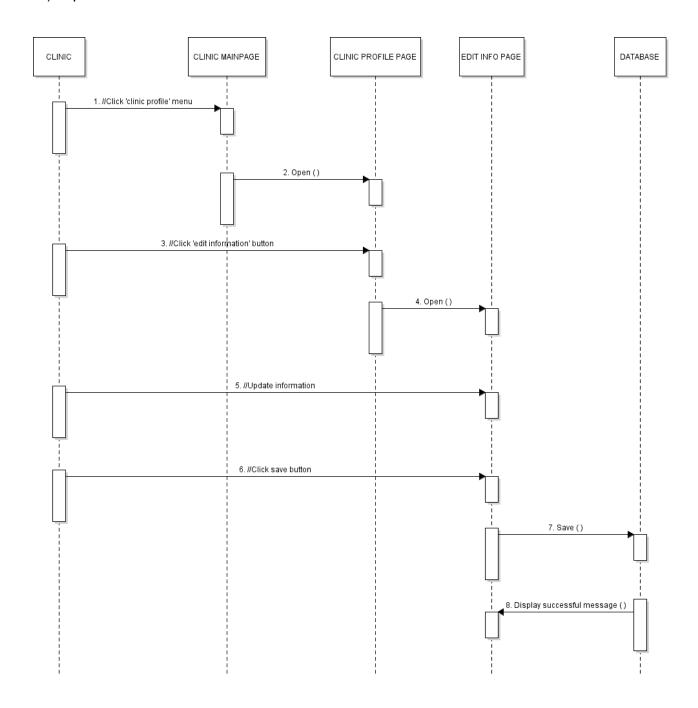
I) Login



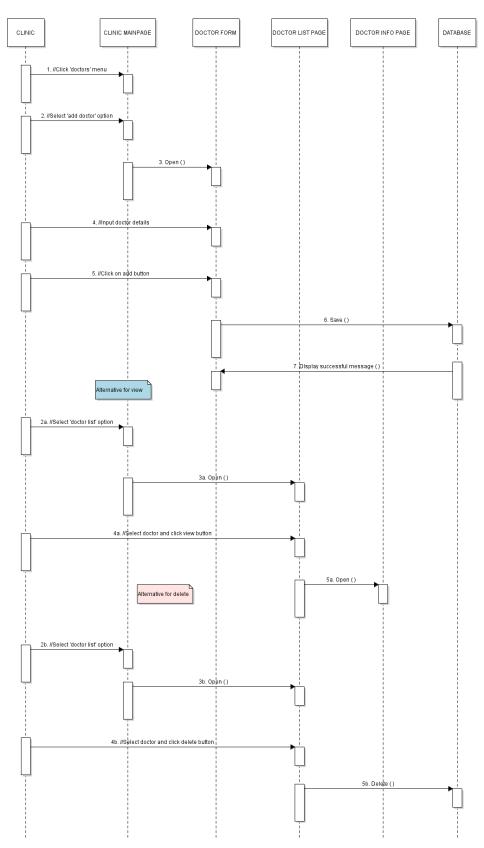
II) Register



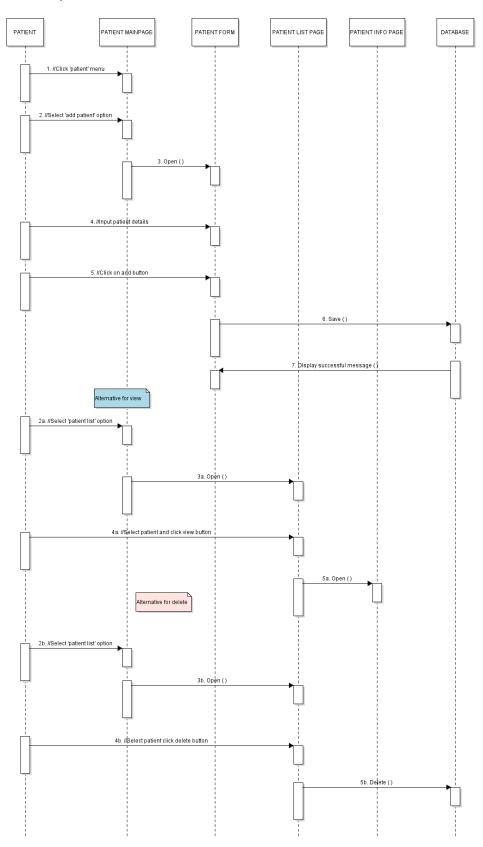
III) Update clinic information



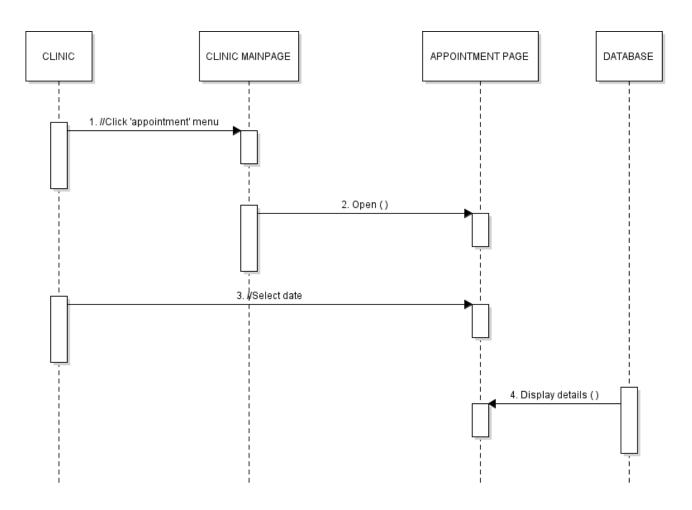
IV) Maintain doctor information



V) Maintain patient information

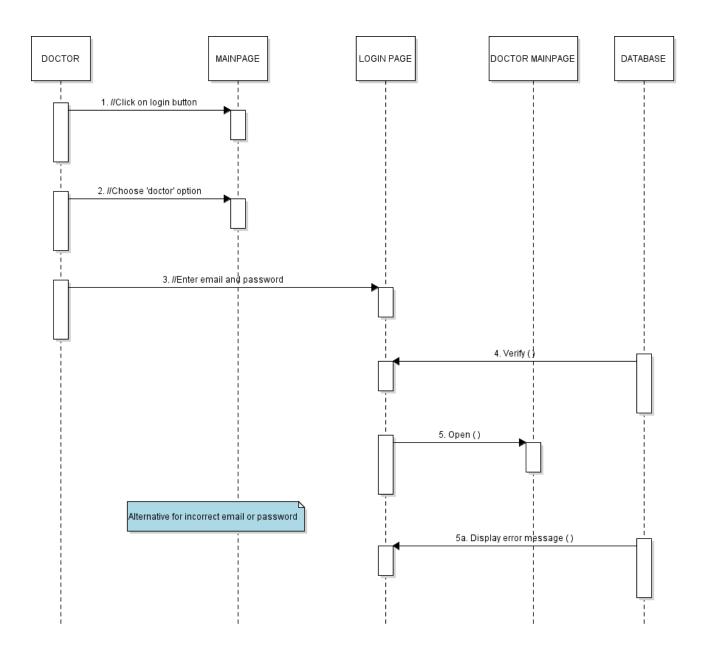


VI) View appointments

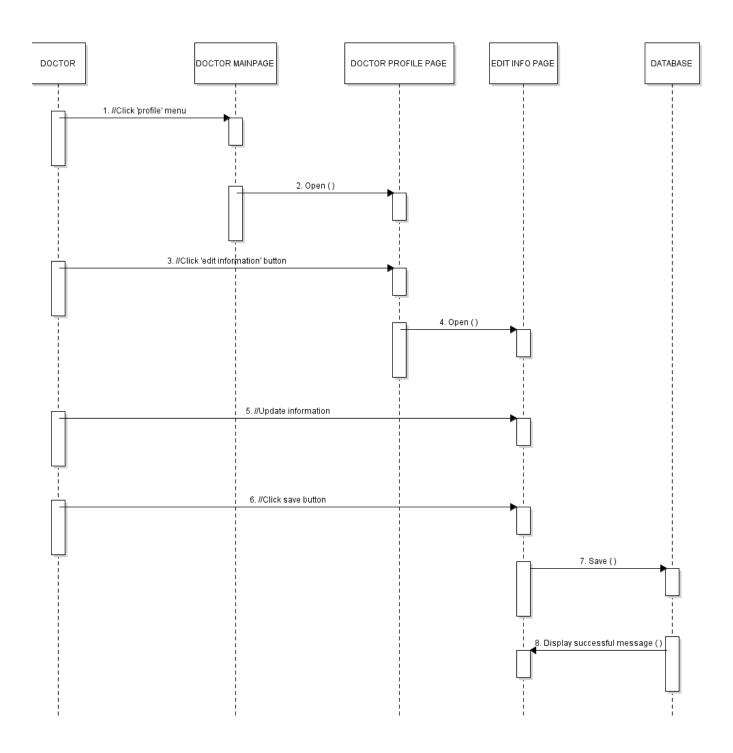


1.2.3 Doctor

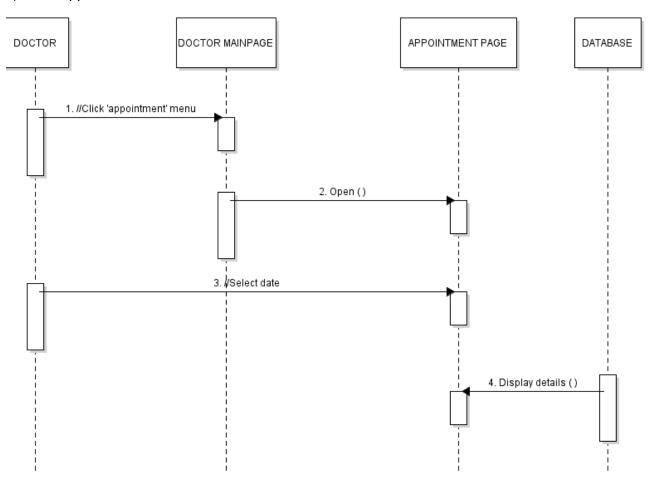
I) Login



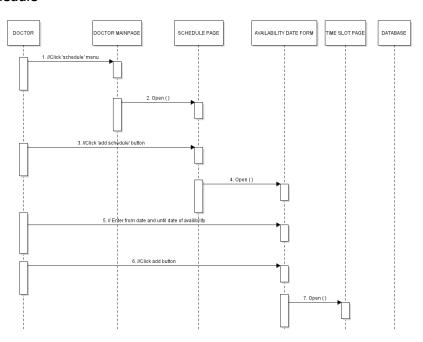
II) Update doctor information

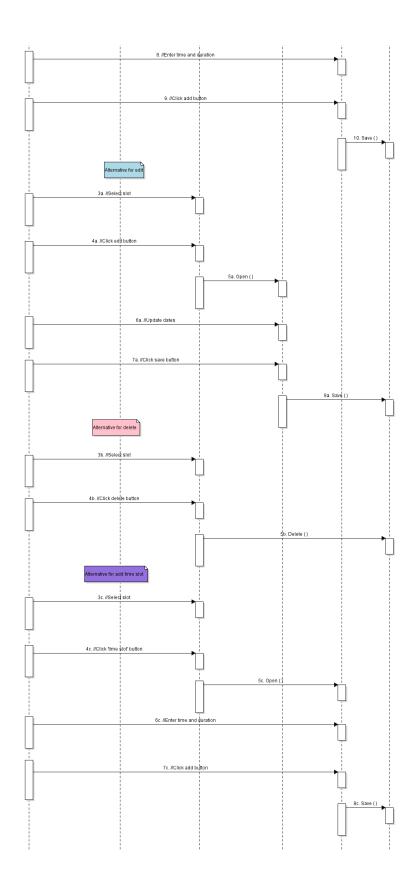


III) View appointments



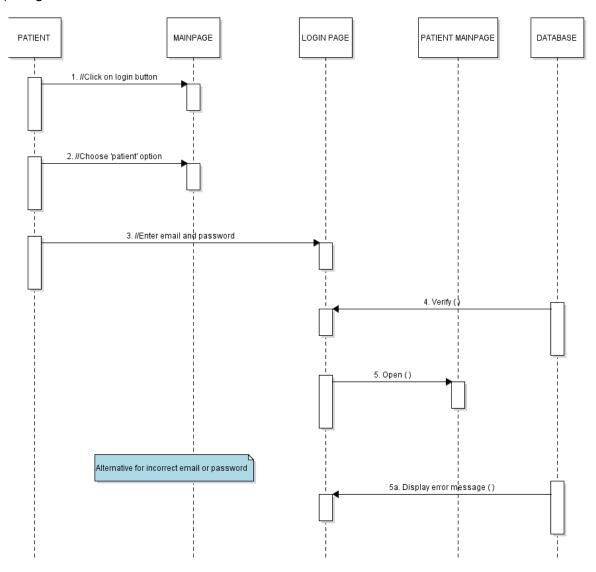
IV) Manage schedule



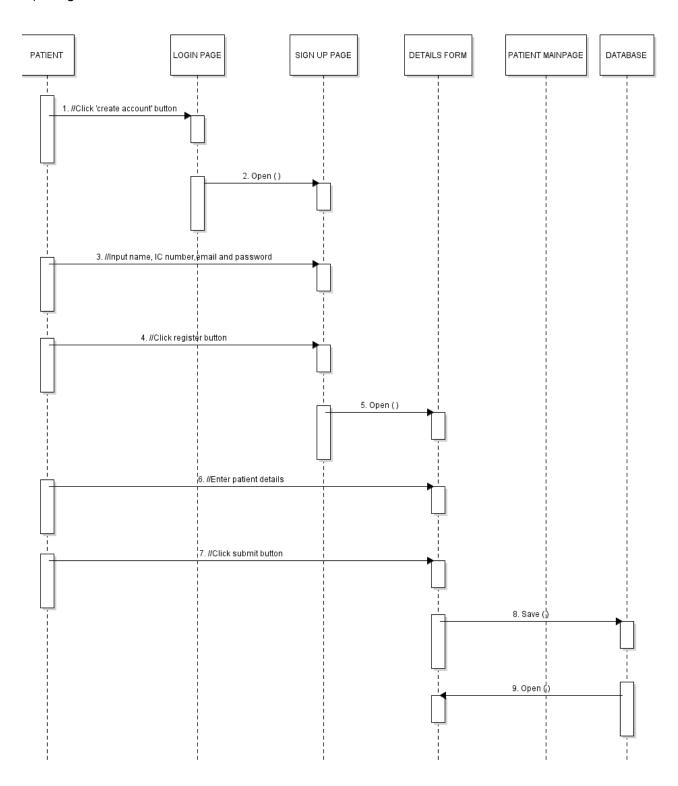


1.2.4 Patient

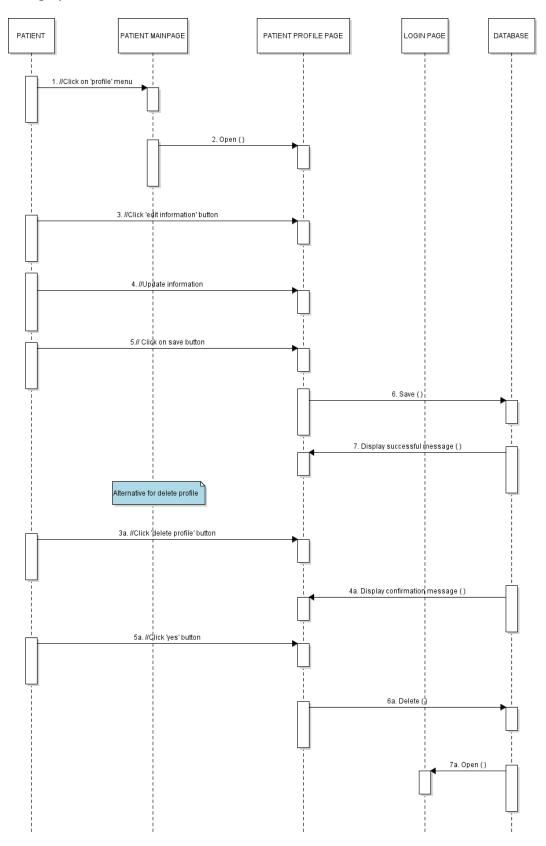
I) Login



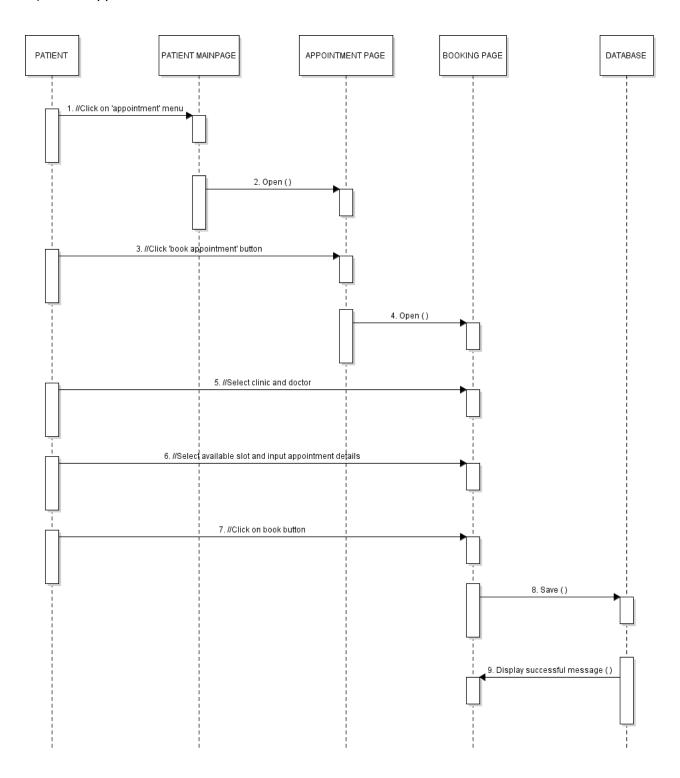
II) Register



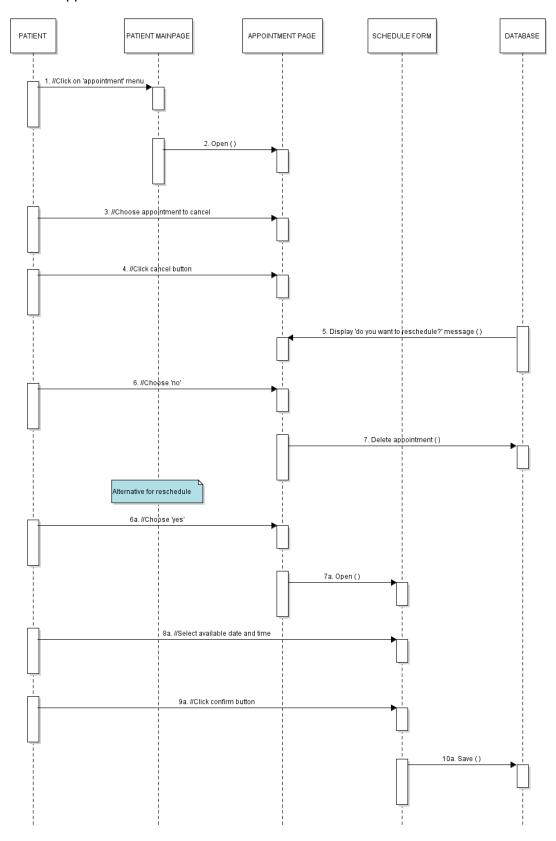
III) Manage profile



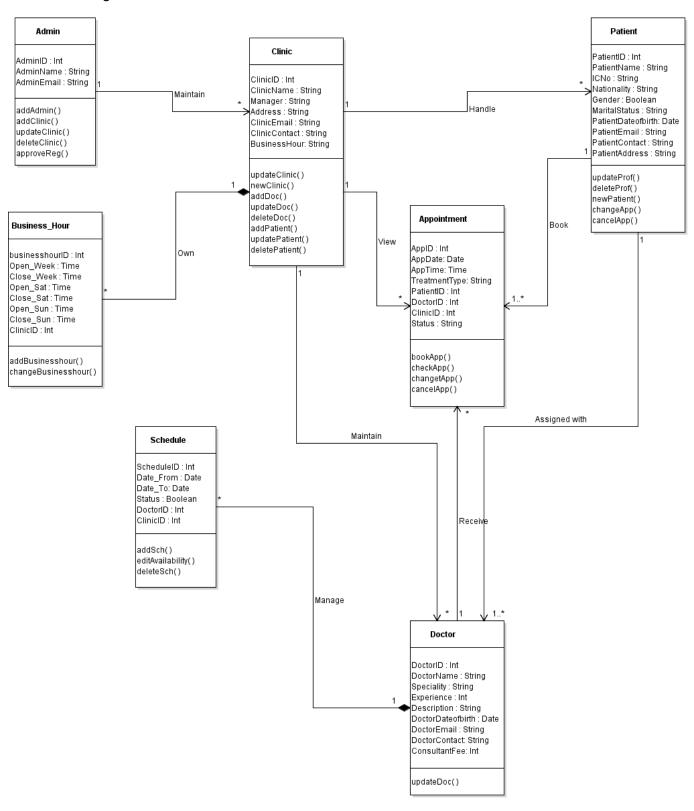
IV) Book appointment



V) Cancel appointment

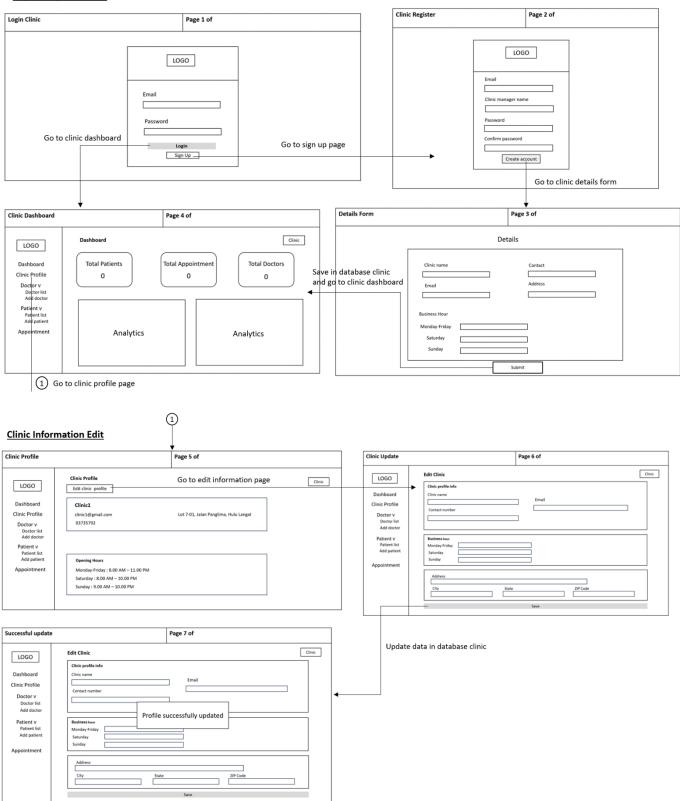


1.3 Class diagram

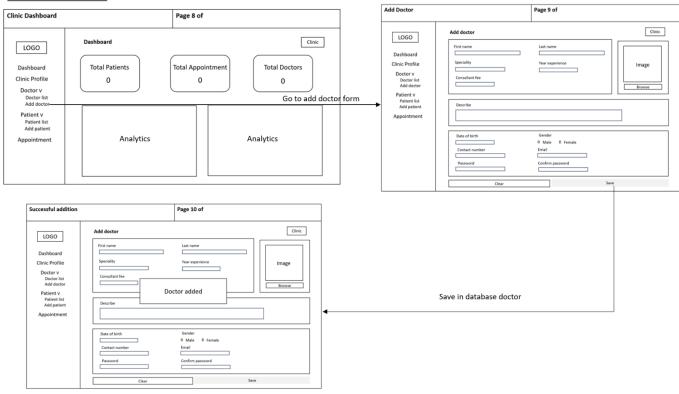


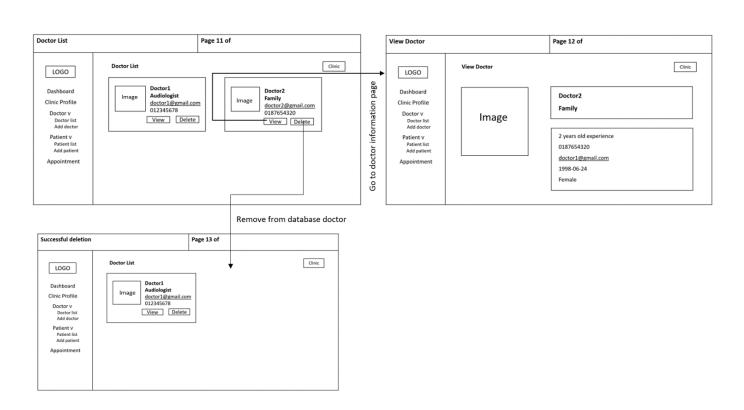
1.4 Storyboard

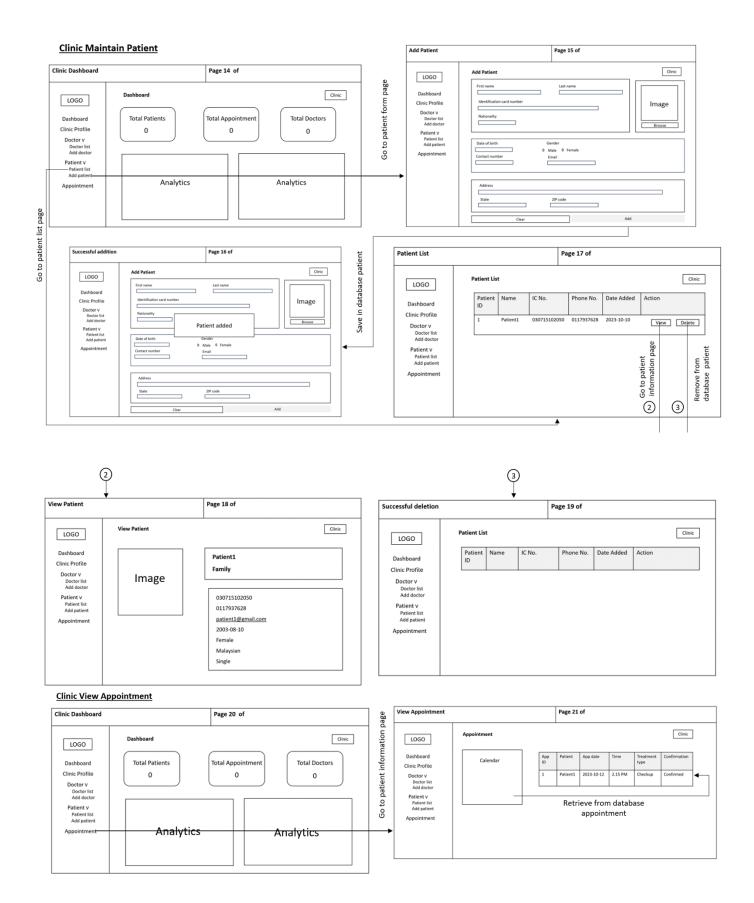
Login/ Register Clinic

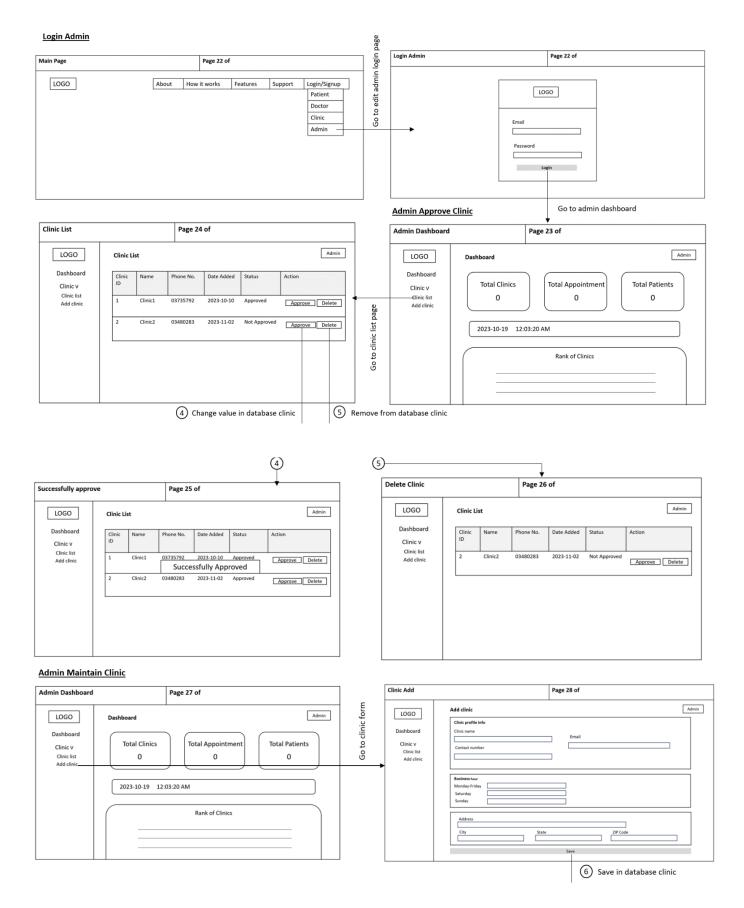


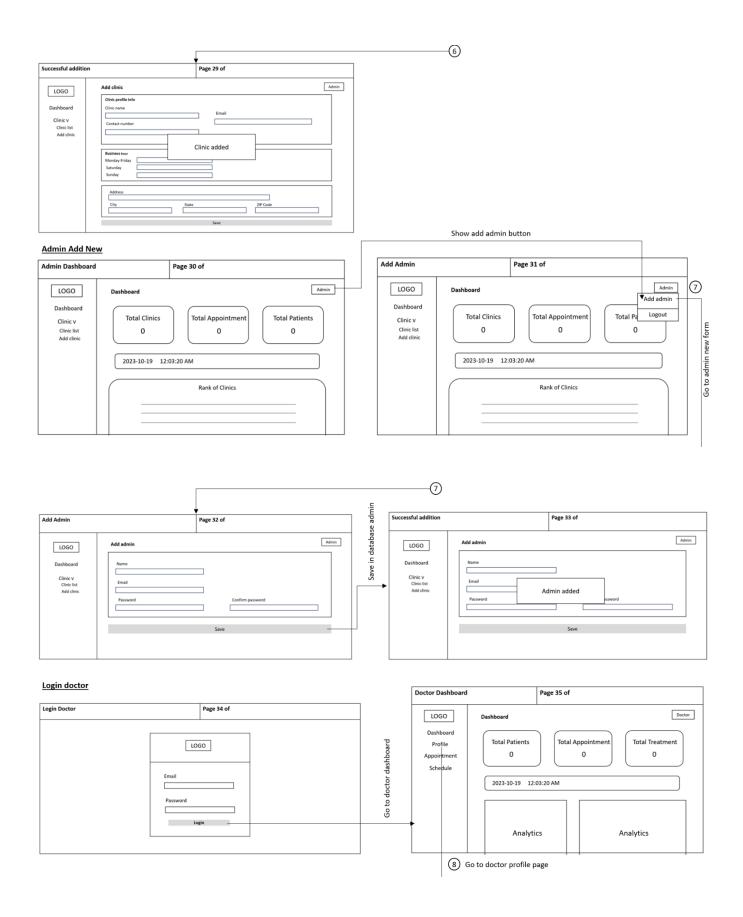
Clinic Maintain Doctor

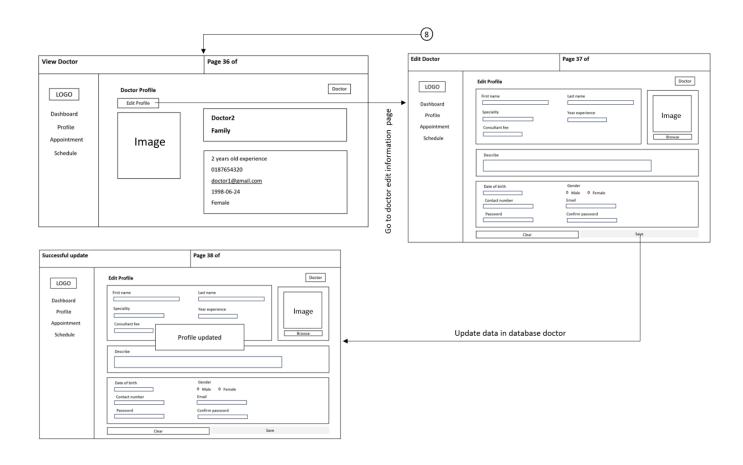




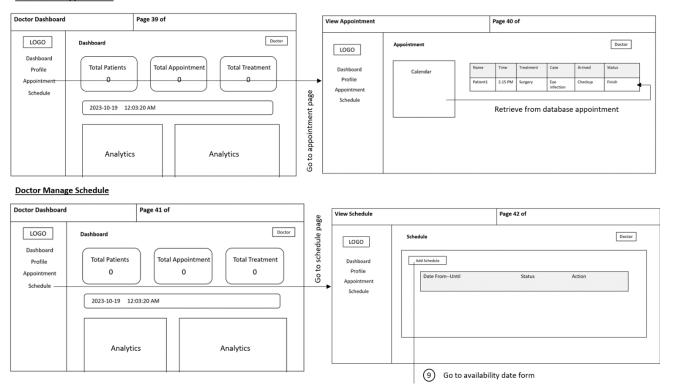


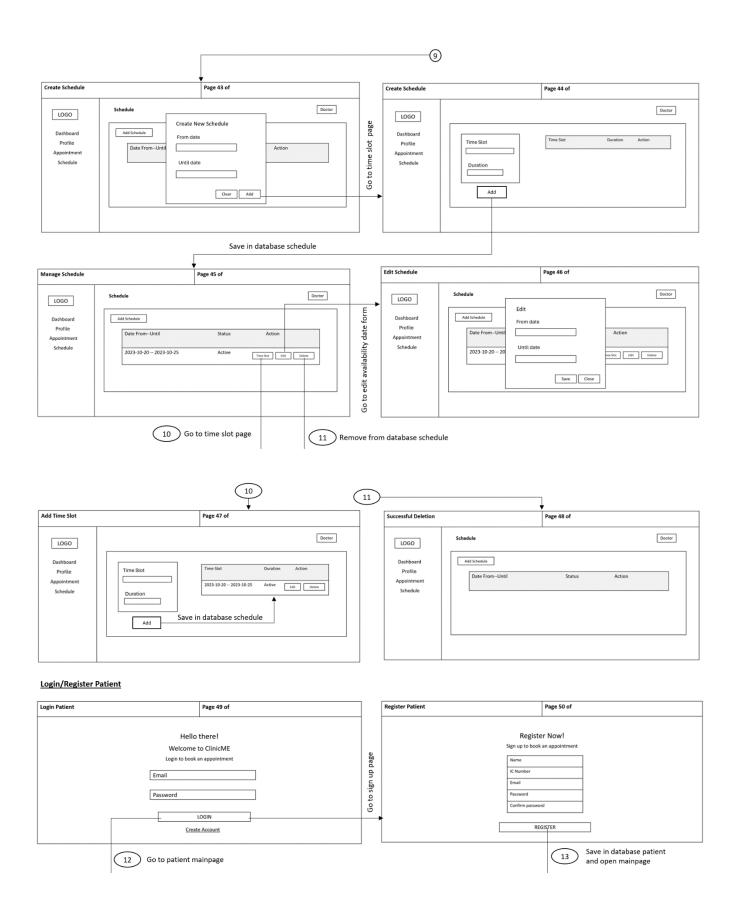


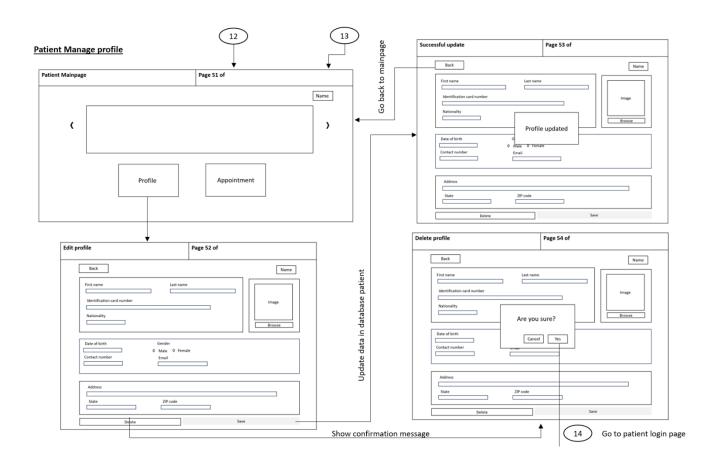


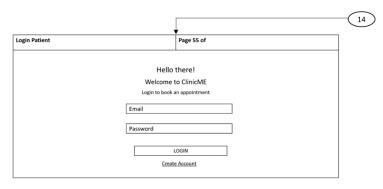


Doctor View Appointment

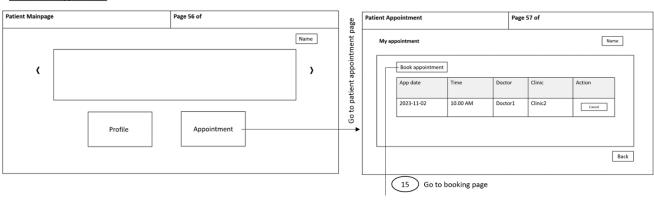


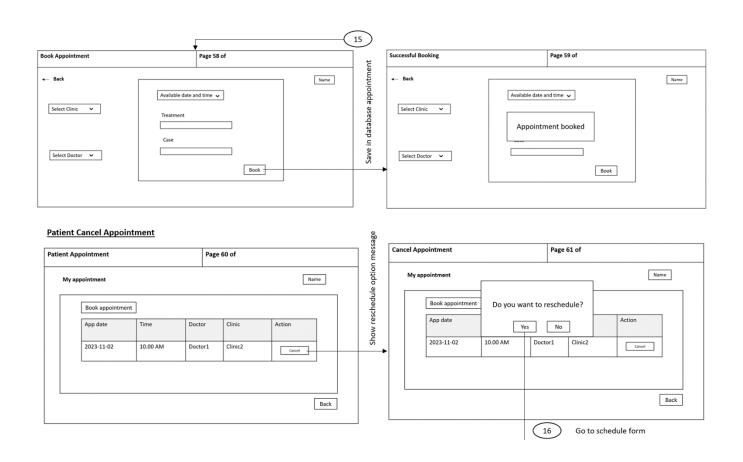


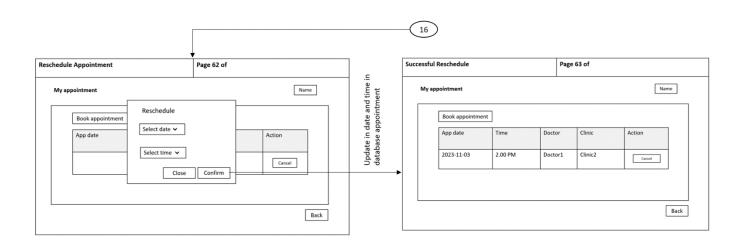




Patient Book Appointment







2.0 Test Cases

Test Case ID	Test Case Description	Input Data	Expected Result	Actual Result	Pass/ Fail	Remarks
TC/001	Clinic UI Hello there, Sign into your Account! Email address Enter email We'll never share your email with anyone else. Password Password Log In	• adminEmail • adminPass	User inserts the valid admin username and password in the login form and clicks on the login button. The system verifies the username and password and redirects the admin to the admin dashboard.	User is able to log in and access the admin dashboard.	Pass	Success Admin login functionality is working correctly
TC/002	Admin adds a new clinic to the system	 clinicName clinicPhone clinicEmail Businesshour clinicAddress 	User enters the clinic information in the input fields and clicks on the "Add Clinic" button. When the new clinic is successfully saved in database, a successful message will pop out.	User can add the new clinic and data is saved in database. The system displayed the successful message.	Pass	Success Admin is able to successfully add a new clinic
TC/003	Admin views clinic details in clinic list	clinicIDclinicNameclinicPhoneDateAddedStatus	User goes to clinic list to view clinic details. The list of the clinics added in database along with their details will be visible to the user.	User sees a list of clinics with their details.	Pass	Success Admin is able to view a list of all clinics and the details in the system

	Control					
TC/004	Admin updates clinic information	clinicName clinicPhone clinicEmail Businesshour clinicAddress	User goes to clinic list and click on edit button in the action column. The system will land on clinic information form to let the user update any intended information. Then, a message will show up after user clicks on save button when the data is successfully updated in database.	User update the clinic information without any problem and the system displays the successful message.	Pass	Admin can update clinic information without errors
TC/005	Admin deletes clinic from clinic list	-	User goes to clinic list and clicks on delete button in the action column. The clinic should be removed from the database and clinic list.	There is an error deleting the clinic and user cannot proceed with the deletion process.	Fail	Failure The clinic deletion process does not work as expected
TC/006	Admin approves clinic registration	-	User goes to clinic list to check the status of every clinic registered. If the status is 'Not Approve', user selects the clinic and clicks 'Approve' button. The status will be both changed in database	User is able to approve clinic registration and the status 'Not Approve' changed to 'Approve' for the selected clinic.	Pass	Successful This admin feature functions correctly

			and the clinic list.			
TC/007	Clinic ME Create an Account! Manage Your Clinic Clinic Name Clinic Name Clinic Name John Doe Email Address Example@address.coi O1012345678 Password Confirm Password Enter Password Enter Password Create an Account Already have an account? Sign In	clinicName clinicManager clinicEmail clinicPass clinicPhone Businesshour clinicAddress	User clicks sign up button then the system redirects to sign up page where user needs to input clinic manager name, email, and password. Then, upon clicking the 'create account' button, user goes to details form and enters necessary clinic information. Next, user clicks on submit button and lands on clinic dashboard.	User is able to register and all the information is saved in database.	Pass	Successful Clinic staff can register the clinic smoothly
TC/008	Clinic ME Itello there, Styr Indo year Account! Enall address Enter censal With trees they year add. Personal Proport Password Puscovard Forget Password? Log In Don't have an account? Sign up	• clinicEmail • clinicPass	User enters their login credentials and click login button. The clinic dashboard will be displayed after successful login.	User successfully login and lands on clinic dashboard when the system verified the input.	Pass	Successful Clinic staff is able to login into clinic account
TC/009	Clinic updates clinic profile information	 clinicName clinicPhone clinicEmail Businesshour clinicAddress 	User edits any information then clicks save button and the system will update the data in database clinic and the updated information will be shown in clinic profile	User can edit clinic profile information and the changes are saved in the database.	Pass	Successful Clinic staff have no problem updating clinic's information

			instead of the previous ones.			
TC/010	Clinic adds doctor in the clinic account	 doctorName Speciality Yearexperience Consultantfee Description DateofBirth Gender doctorPhone doctorEmail doctorPass 	User enters doctor details and clicks add button. The details are sent to the database and the 'doctor added' message is displayed when the process succeed.	User added doctor and the data are sent to database. The doctor will be visible in the doctor list.	Pass	Successful Clinic staff is able to add doctor in the system
TC/011	Clinic views doctor information	 doctorName Speciality Yearexperience Consultantfee Description DateofBirth Gender doctorPhone doctorEmail doctorPass 	User selects the doctor to view all the doctor information. The system will take the user to another page where the information is visible.	User can view the complete doctor information by clicking the view button in doctor list.	Pass	Successful Clinic staff is able to view the doctors information
TC/012	Clinic deletes doctor	-	User selects a doctor and clicks on the delete button in doctor list. The selected doctor should be removed from database and doctor list.	The selected doctor is successfully deleted from the system.	Pass	Successful The delete function for doctor works as expected
TC/013	Clinic maintains patient	 patientName icNo Nationality Gender MaritalStatus DateofBirth 	User able to view patient information, add a new patient, and delete patient.	User is not able to add a new patient because there are problems in the code which affects user ability to view and delete patient.	Fail	Failure Clinic functionality of maintaining patient does not work as intended

	TOTAL STATE OF THE PROPERTY OF	patientPhonedoctorPhonepatientEmailpatientAddress				
TC/014	Clinic ME Helio there, Sign linto your Account! Email address Enter email With scorr share your enail with anyone disc. Password Password Forgot Possword? Log In	doctorEmail doctorPass	User inserts email and password that was added in database. After clicking login button, the doctor dashboard will be visible.	User logged in to the doctor account without any difficulties.	Pass	Successful Doctor is able to log in successfully
TC/015	Doctor edits profile	 doctorName Speciality Yearexperience Consultantfee Description DateofBirth Gender doctorPhone doctorEmail doctorPass 	User edits information and clicks on save button. The data will be updated in database.	User can edit profile with no errors and the system will show the updated information in the profile page.	Pass	Successful No problem with update doctor profile functionality
TC/016	Doctor adds slot in schedule	• dateFrom • dateTo • Time	User add schedule to show their availability through entering from and until dates then choose the time. The schedule data is saved in database and will appear in the schedule	User can add the slot and the schedule details appeared in the schedule page as intended.	Pass	Successful Doctor add schedule feature is operates correctly

			page.			
TC/017	Doctor edits schedule	• dateFrom • dateTo	User selects slot and click edit button to edit the dates. A form will appear and user can change the date and clicks save button. The dates are changed in database and schedule page.	User is able to edit the schedule and the result of the change can be seen in the schedule page.	Pass	Successful Doctor edit schedule feature is operates correctly
TC/018	Doctor deletes schedule	-	User selects slot and clicks delete button. The data of the schedule slot will be removed in database and schedule page.	User successfully deleted the schedule slot.	Pass	Successful Doctor delete schedule feature is operates correctly
TC/019	Doctor adds time slot in the schedule Standard Sta	• Time	User selects slot and clicks 'time slot' button. The system will display time slot page where user can view the time slots for the selected slot schedule and user can enter the time slot to add another one. Once added, the time slot will appear in the time slot page.	User is able to add time slot to the respective slot schedule. The time slot is proven to be added in the page.	Pass	Successful Doctor add time slot feature is operates correctly
TC/020	Patient register Register Now! We then being required: ************************************	 patientName icNo patientEmail patientPass Nationality Gender 	User creates password and enters personal information to create an account for the system the click register button. The patient home page	User is not able to register. 'Email already existed' message keep appearing even though the email is not registered yet.	Fail	Patient unable to register due to the problem

		 MaritalStatus DateofBirth patientPhone doctorPhone patientAddress 	will be displayed after the registration.			
TC/021	Patient login Hello there! Homeone care its day and in the state of	patientEmail patientPass	User input login information into the input fields. When successfully logged in, user will land on the home page.	When user clicked the login button, nothing happened.	Fail	Failure Patient can not log in into their account
TC/022	Patient books appointment	 appDate appTime clinicName doctorName Treatment Case 	User inserts appointment details and clicks book button. The details will be sent to database and a successful message will pop out.	User can not book appointment. An error message is shown.	Fail	Failure This feature fails to perform as planned
TC/023	Patient cancels appointment	appDateappTime	User clicks cancel button for the selected appointment. A confirmation message will pop out and when user chooses yes, the system will remove the appointment.	User unable to cancel appointment as they can not book an appointment.	Fail	Failure This feature is not working properly due to the effect of booking failure
TC/024	Patient manages profile	 patientName icNo Nationality Gender MaritalStatus DateofBirth patientPhone doctorPhone patientAddress 	User can view and update profile as well as delete their account.	There was a problem with registering patient, so this function fails to be executed.	Fail	Failure Patient unable to manage their profile

TC/025	Doctor views appointment Speciment Sp	 patientName appTime Treatment Case Status 	User selects a date in the calendar to view the appointment booked in the particular date. Upon selecting the date, the system will display the appointments details.	User is able to view the appointments details of the selected date.	Pass	This feature is successful but as clinic staff unable to add patient and patient fails to register this feature was tested by adding patient in database manually
TC/026	Clinic views appointments details	 appID patientName appDate appTime Treatmenttype Confirmationstatus 	User selects a date in the calendar to view the appointment booked in the particular date. Upon selecting the date, the system will display the appointments details.	User is able to view the appointments details of the selected date.	Pass	Successful This feature is successful but as clinic staff unable to add patient and patient fails to register this feature was tested by adding patient in database manually