1. Phase 2: HTML, Javascript, Bootstrap, JSP servlet, JDBC
   a. Modules to be done following Model, View, DAO layers
      i. Role Based Login (Authentication and Authorization)
      ii. Appointment for Front office
         1. Patient List and search
         2. Make Appointment and give token
         3. View Appointment list for a date and cancel Appointment with confirmation
      iii. Admin manages staff
         1. See list of Staffs and search
         2. View details of Staffs
         3. Add/ Edit and Disable with needed validations and confirmations

      iv. Pharmacist
         1. See list of Medicines and search
         2. View details of Medicines
         3. Add/ Edit and Disable with needed validations and confirmations
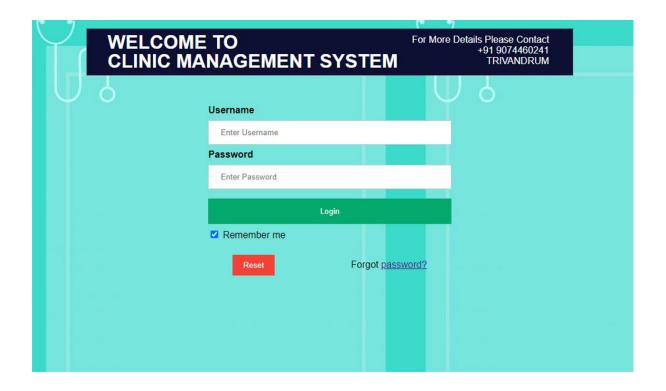   v. Lab technician
         1. See List of Tests and search
         2. View details of a Test
         3. Add/ Edit and Disable with needed validations and confirmations

Phase 2: HTML, Javascript, Bootstrap, JSP servlet, JDBC

Use case: 2.1	
Prepared by	
Use case	User Logs in
Pre-condition	Username and password exists The role exists
Normal Flow	1. User opens the application and sees the Home page of the CMS with description of CMS and UI to login 2. User fills username and password 3. If the username and password is correct, the user is taken to the welcome page according to the role of the user .
Alternate Flow	1. If the username or password is wrong, the system gives the message "Wrong username or password" and resets the login UI. 2. After three wrong attempts the message "Your account is locked due to three consecutive wrong attempts" is shown, the application locks the user until unlocked.
Input	1. Username 2. password
Validations	1. Username should be six characters long 2. Password should be six characters long 3. To login, username and password combination should be right and welcome page/ navigation is according to role 4. Only three consecutive wrong attempts are allowed. On the third wrong attempt message "Your account is locked due to three consecutive wrong attempts" is

	shown and the user is marked as locked. Locked users will not be able to login unless unlocked. 5. Set the username and password fields mandatory, If not given display a message "This field is mandatory". Note: To unlock, change the status in DB.

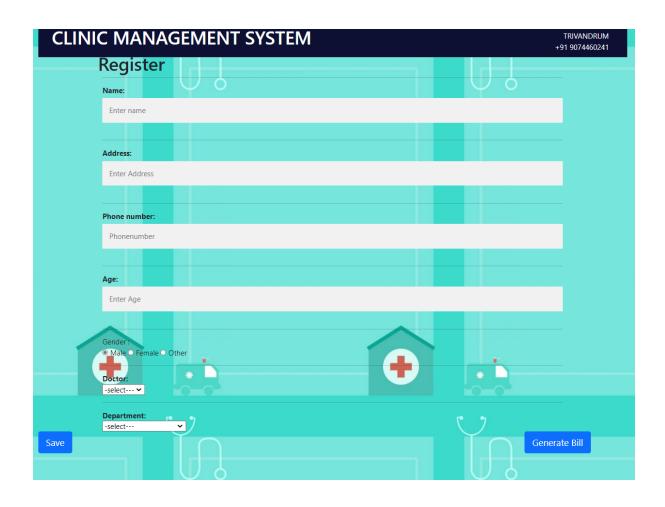
Use case: 2.2	
Prepared by	
Use case	Receptionist manages patients - List, Search , Make appointment, View appointment for a date, Cancel appointment.
Pre-condition	Receptionist is logged into the system

Normal Flow	1. The System displays the Patient management Home page with
	    • Patient list
	    • Button to add new patient Registration
	    • Button to view appointments for today.
	    • Search field for searching a patient
	    • Button to cancel appointment
	    • Menu to navigate to pages such as Home, Patient appointment.
	2. Receptionist clicks the button to add a new patient.
	3. User navigates to the patient registration page.
	3. User fills the fields
	    • Name .
	    • Address
	    • Phone Number
	    • Date of Birth
	    • chooses Gender
	    • Select the fields
	        • Doctor Name
	        • Department Name from the drop down list
	
	4.User clicks the save button to save that patient details and the system displays a message "Successfully Added" and navigates the user to Patient management homepage with updated data.
	5. If the user wants to make an appointment, they clicks the Make Appointment button for the corresponding patient.
	6. The system redirects the user to the Make appointment page with Patient Registration number and Name filled, also the options to choose the Department and Name of the Doctor
	7. The user selects the doctor's department and name then clicks the save button, the system displays "Appointment Successful " , and a token will be generated for that patient and navigates to another page named appointment List.
	8.At each row of the appointment list,there is a cancel appointment button.
	9.If the user clicks the cancel button the system should display "Do you want to cancel the Appointment".
	10. The user can choose Ok to continue, or cancel the operation.
	11. User can also navigate to Home or New Registration page using the side bar provided

Alternate Flow	1. To search a particular patient:-User enters Patient Registration number or phone Number in the search field and clicks the search button. 2. The system shows the patient details having that particular patient Registration Number with two buttons for Edit and Disable in the action column. 3. If the user clicks the edit button the user is redirected to the edit patient page with all the details filled in the form. 4. The user can make changes in the fields to edit and clicks the save button to save those changes. 5. If the user wants to disable the patient, They click the disable button, the system displays a message "Do you want to disable the patient?" 6. User can choose Ok to continue, or cancel the operation 7. If the user wants to view the appointments for a particular date, click the view appointments button. 8. User is redirected to the appointments page with a calendar control to select a particular date and search button. 9. The system displays the list of appointments for that date with a cancel button for each row of data. 10. If the user wants to cancel the appointment,they clicks the cancel button 11. The system displays a confirmation message "Do You want to cancel the appointment?" 12. The user can choose Ok to continue, or cancel the operation

Exception flow	1. If the searched Patient Registration number does not exist, the system displays a message "Patient does not exist". 2. User clicks "Add New" option To See the Add patient Flow, Refer Normal flow
Input	1. Full Name . 2. DOB 3. Phone Number 4. Address 5. Date of joining 6. Salary
Validations	1. If the searched patient is not in the system, show the appropriate message "Patient does not exist". 2. Name should have at least three characters 3. Date of birth in correct format. Else show message "Give the date in the correct format ('dd-mm-yyyy'). 4. Allow the user to select the date only yesterday or before for DOB 5. Gender identification using F/ M/ O 6. Phone number should have 10 digits 7. Do not allow the user to cancel the past appointments, allow only future appointments . 8. Set all the input fields mandatory,If not given display a message "This field is mandatory".

CLINIC MANAGEMENT SYSTEM

TRIVANDRUM

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ADD NEW

#	Name	Contactno	Last appointment	Consulted doctor	Department	Action
1	Rahul	9633824094	19-03-2022	Leema	Ophthalmologist	Book
2	Jacob	9633824095	19-03-2021	Jacob	Ophthalmologist	Book

Register

Name:

Enter name

Address:

Enter Address

Phone number:

Phonenumber

Age:

Enter Age

Gender :
◉ Male ○ Female ○ Other

Doctor:
-select---

Department:
-select---

Save

Generate Bill

PATIENT APPOINTMENT

Name	Doctor to be Consulted	Department	Action
Rahul	----select---	----select---	book

Generate

Use case: 2.3	
Prepared by	
Use case	Pharmacist manages medicines- See list of Medicines, search and view details of Medicines, Add medicines, Edit and Disable Medicines.
Pre-condition	Pharmacist is logged into the system
Normal Flow	1. The System displays the Medicine management Home page with • Medicine list with a view button in each row of data. • Button to add new Medicines. • Search field for searching a Medicine. • Button to Edit Medicines. • Button to Disable Medicines. 2. Pharmacist clicks the button to add a new Medicine. 3. User navigates to the Medicine adding page. 3. User fills the fields • Medicine_name. • Generic_name. • Select Company_name from drop down. • Quantity in strips. • Price 5. User clicks the save button to save that Medicine details and the system displays a message "Successfully Added" and navigates to Medicine management Home page 6. To search a particular Medicine:- User enters Medicine code in the search field and clicks the search button. 7. The system lists the medicine details having that particular medicine code with two buttons for Edit and Disable in the action column. 8. If the user clicks the edit button the user is redirected to the edit medicine page with all the details filled. 9. The user makes changes in the necessary fields and clicks the save button to save those changes and the system displays a message "Successfully updated." 10. If the user wants to disable any medicine, they click the disable button, the system displays a message "Do you want to disable the medicine?" User can choose Ok to continue, or cancel the operation
Alternate Flow	1. If the searched medicine code does not exist, the system displays a message "Medicine does not exist". 2. User clicks "Add New" option To See the Add medicine flow, Refer Normal flow
Input	1. Medicine Name 2. Generic Name 3. Company Name 4. Quantity in strips 5. Price
Validations	1. If the searched medicine is not in the system, show the appropriate message "Sorry, there is no such medicine." 2. Medicine Name should have at least three characters

	3. Do not allow duplicate medicine name and generic name 4. Set all the input fields mandatory, If not given display a message "This field is mandatory".

Use case: 2.4	
Prepared by	
Use case	Admin manages staffs- See list of Staffs, search and view details of Staffs, Add Staffs, Edit and Disable Staffs.
Pre-condition	Admin is logged into the system

Normal Flow	1. The System displays the Admin management Home page with
	    • Staff list with a view button in each row of data.
	    • Button to add new Staff.
	    • Search field for searching a Staff.
	    • Button to Edit Staff.
	    • Button to Disable Staff.
	
	2. User clicks the button to add a new Staff.
	3. User navigates to the Add Staff Page.
	3. User fills the fields
	    • Full Name
	    • DOB
	    • Phone Number
	    • Address
	    • Date of joining
	    • Salary
	
	4. User clicks the save button to save that Staff details and the system displays a message "Successfully Added" and navigates to Staff management Home page
	5. To search a particular Staff:- User enters Staff code in the search field and clicks the search button.
	6. The system displays the staff details having that particular staff code with two buttons for Edit and Disable in the action column.
	7. If the user clicks the edit button the user is redirected to the edit staff page with all the details filled.
	8. The user makes changes in the necessary fields and clicks the save button to save those changes and the system displays a message "Successfully updated."
	9. If the user wants to disable any staff, they click the disable button, the system displays a message "Do you want to disable the staff?" User can choose Ok to continue, or cancel the operation

Alternate Flow	If the searched Staff Code does not exist, the system displays a message "This Staff does not exist".
Input	1. Full Name 2. DOB 3. Phone Number 4. Address 5. Date of joining 6. Salary
Validations	1. If the searched staff is not in the system, show the appropriate message "Staff does not exist". 2. Name should have at least three characters

	3. Date of birth and Date of joining should be in the correct format. Else show message "Give the date in the correct format ('dd-mm-yyyy'). 4. Allow the user to select the date at least 18 years before from the current date for DOB 5. For Date of joining do not allow the user to select date tomorrow or after 6. Phone number should have 10 digits 7. Set all the input fields mandatory,If not given display a message "This field is mandatory".

Use case: 2.5

Prepared by	
Use case	Lab Technician manages Test- List, Search and View Test, Add Test, Edit and Disable Test
Pre-condition	Lab Technician is logged into the system

Normal Flow	1. The System displays the Test management Home page with
	    • Test list in table format
	    • Button to add new test
	    • Search field for searching a particular test using test code and a search button
	    • Edit and Disable button for each test
	
	2. The user clicks the 'Add new' button to add a new test.
	3. The system navigates the user to the Add a new Test page
	3. User fills the fields
	    1. Test Code
	    2. Test Name
	    3. Low Range
	    4. High Range
	    5. Select Unit from dropdown
	    6. Price
	
	5. User clicks the save button to save that test details and the system displays a message "Successfully added" and redirects to the Test management Home page.
	6. To search a particular test :-User enters test code in the search field and clicks the search button.
	7. The system displays that particular test details with two buttons for Edit and Disable the test
	8. If the user wants to edit a test, the user clicks the edit button. The user is redirected to the edit test page with all the details filled.
	9. The user can make changes in the fields to edit and clicks the save button to save those changes, the system displays a message "Successfully updated" and redirects to Test management Home page.
	10. If the user wants to disable a test, they click the disable button.
	11. The system displays a confirmation message "Do you want to disable the test?"
	17. User can choose Ok to continue, or cancel the operation

Alternate Flow	1. If the searched test code does not exist, the system displays a message "Test does not exist". 2. User clicks "Add New" button To See the Add test Flow, Refer Normal flow

Input	1. Test Code 2. Test Name 3. Low Range 4. High Range 5. Unit 6. Price
Validations	1. If the searched test is not in the system, show the appropriate message "Sorry, there is no such test." 2. Test Name should have at least three characters 3. Low range should be number 4. High range should be a number 5. Price should be in decimal. 6. Set all the input fields mandatory,If not given display a message "This field is mandatory".

DB design