



Dr. Help

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Project Name: Dr. Help – Healthcare Management System

Presented by

Anantharaman Chandar	– A20403439
Ashok Ramasami	– A20441032
Gowrisankar Arumugam	– A20400590

Revision History

Version No.	Date	Prepared by / Modified by	Significant Changes
1.0	11/03/2017	Ananth Ashok Gowrisankar	Initial project proposal.
1.1	11/28/2017	Ananth Ashok Gowrisankar	Application Knowledge and Known Error Database.

WHO CAN REFER

This document can be referred by the following persons as a part of ITMD510 Object Oriented Application Development

- ✓ James Papademas
- ✓ Shivam Narula
- ✓ Devan Chawla
- ✓ Anantharaman Chandar
- ✓ Ashok Ramasami
- ✓ Gowrisankar Arumugam

Table of Contents

1. Introduction.....	6
1.1 Cynosure of DR. HELP	6
2. Technical Details	6
2.1 Application Architecture	6
2.2 Use case	8
2.3 UML.....	8
2.4 ERD.....	11
2.5 Technology Used	11
2.5.1 Front End:.....	11
2.5.2 Back End:	11
2.5.3 Technical Requirements:	11
2.5.4 Domain Knowledge Requirements	11
2.5.5 Tools Used:	12
3. Login.....	12
3.1 Login Screen:	12
3.2 Screenshot	13
3.2.1 Successful Login and Login time gets updated	13
3.2.2 No user found for the registered domain:	14
3.2.3 Invalid password for the registered user	14
3.2.4 Label Description:	15
3.2.5 Java Reference:	15
3.2.6 Database Reference:	15
3.2.7 Exception Handling	15
4. Sign Up Screen	16
4.1 User Registration Screen:	16
4.1.1 Screenshot	16
4.1.2 Label Description:	16
4.1.3 Java Reference:	17
4.1.4 Database Reference:	17
4.1.5 Exception Handling	17
5. User.....	18
5.1 Issue Description screen.....	19
5.1.1 Label Description:	19
5.1.2 Java Reference:	20
5.1.3 Database Reference:	20

5.1.4	Exception Handling:	20
5.2	Appointment Schedule Screen:	20
5.2.1	Label Description:	21
5.2.2	Java Reference:	21
5.2.3	Database Reference:	21
5.2.4	Exception Handling:	21
5.3	Hospital List Screen:	22
5.3.1	Label Description:	22
5.3.2	Java Reference:	23
5.3.3	Database Reference:	23
5.4	Appointment Summary Screen:	23
5.4.1	Label Description:	24
5.4.2	Java Reference:	24
5.4.3	Database Reference:	24
6.	Doctor	24
6.1	Appointment Screen:	25
6.1.1	Screenshot	25
6.1.2	Label Description:	25
6.1.3	Java Reference:	26
6.1.4	Database Reference:	26
6.1.5	Exception Handling	26
6.2	Appointments details Screen:	26
6.2.1	Screenshot	27
6.2.2	Label Description:	27
6.2.3	Java Reference:	28
6.2.4	Database Reference:	28
6.2.5	Exception Handling	28
7.	Manager	28
7.1.1	Screenshot	29
7.1.2	After a successful Login	30
7.1.3	Enter Start Date and End Date to fetch reports	31
7.1.4	Populate list of appointments for the users	31
7.1.5	Update Logout time when Logout button is clicked	32
7.1.6	Label Description:	32
7.1.7	Java Reference:	33
7.1.8	Database Reference:	33

7.1.9	Exception Handling	34
8.	Admin.....	34
8.1	Screenshot	35
8.1.1	After a successful Login	36
8.1.2	If Admin wants to Perform a DML Activity.....	37
8.1.3	Basic Syntax for every DBA Activity populates automatically.....	37
8.1.4	Invalid Ticket Number or Ticket is not in Open Status	38
8.1.5	SQL Syntax Error if Query is wrong.....	38
8.1.6	If SQL Query is valid	39
8.1.7	Label Description:	39
8.1.8	Java Reference:	39
8.1.9	Database Reference:	40
8.1.10	Exception Handling	40
9.	Raise A Request	40
9.1.1	Standard Template Followed	41
9.2	Screenshot	41
9.2.1	Label Description:	41
9.2.2	Java Reference:	42
9.2.3	Database References	42
9.2.4	Exception handling.....	42
10.	Exception Handling	42
10.1.1	Login Error Handler:.....	42
10.1.2	Empty Field Error Handler:.....	43
10.1.3	SQL Error Handler	43
10.2	Screenshot	44
10.2.1	Login Error Handler	44
10.2.2	Empty Fields Error Handler	45
10.2.3	SQL Error Handler	45
10.2.4	Java Reference	46
10.2.5	Database Reference	46
11.	References	46
11.1	Java.....	46
11.2	Database.....	47
11.2.1	List of tables	47
11.2.2	Column Details	48
12.	Future Scope.....	52

1. INTRODUCTION

Dr. Help is a stand-alone application which is can be accessed by Users to book, cancel medical consultations. Doctors can view, update medical records of the User. Higher Management can view the Hospitals metrics, the performance of the Doctors, Users consultation report and provide feedback to the Developers. Admins to perform DBA activities and Ad-hoc request raised by Higher Management.

1.1 CYNOSURE OF DR. HELP

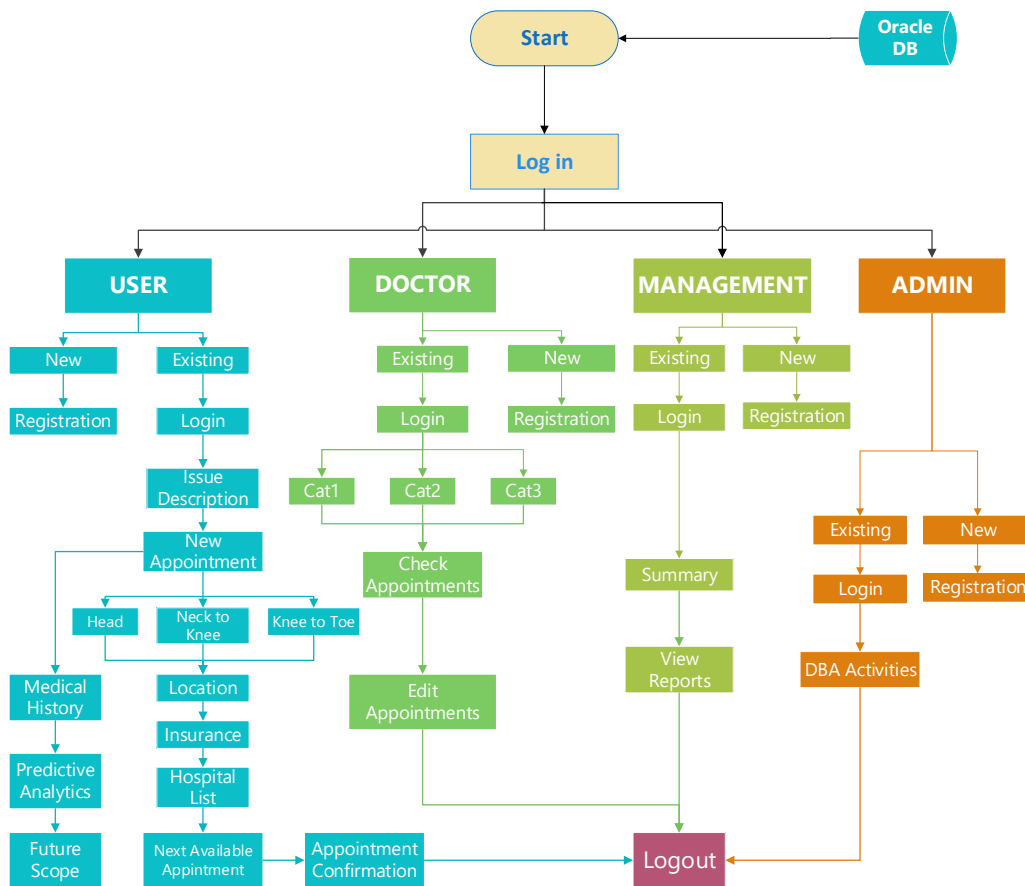
- ✓ Login made easy by selecting your email domain from the drop-down box
- ✓ MD5 Password authentication is provided for making the password secure
- ✓ Handled maximum exceptional handling and recorded all the exceptions in the database table to improve this application.
- ✓ Choosing medical issue made easy by classifying your medical issue into three (3) categories
- ✓ Doctors can view, update user's medical records
- ✓ Provided in-built report generation to some of the most important reports which will be fetched from the database and listed in the screen
- ✓ Admins are provided with the syntax for their IT Operations.
- ✓ Maintain Login and Logout time for each individual.

2. TECHNICAL DETAILS

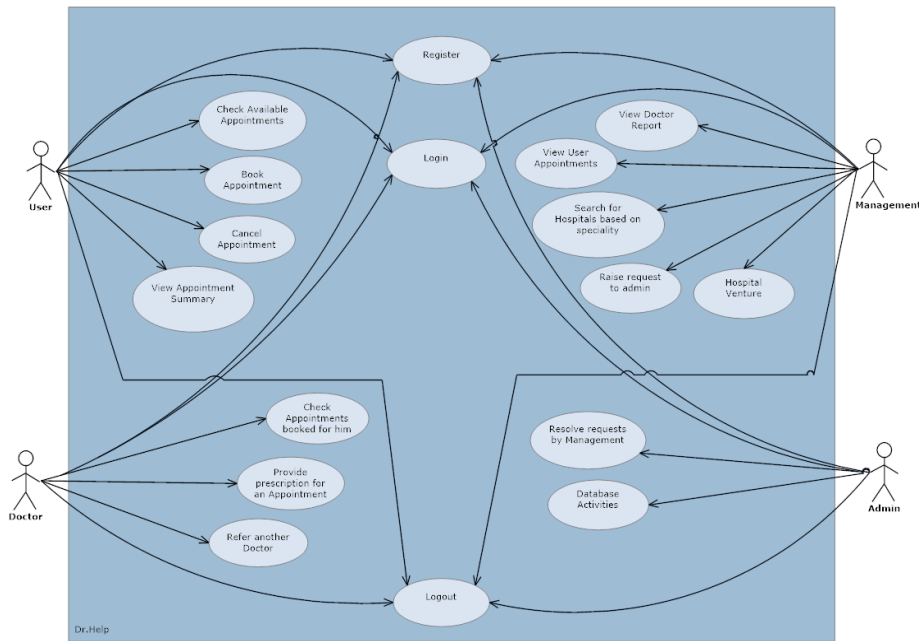
2.1 APPLICATION ARCHITECTURE

Below is the overview of the application and the navigation inside the application depending upon the category

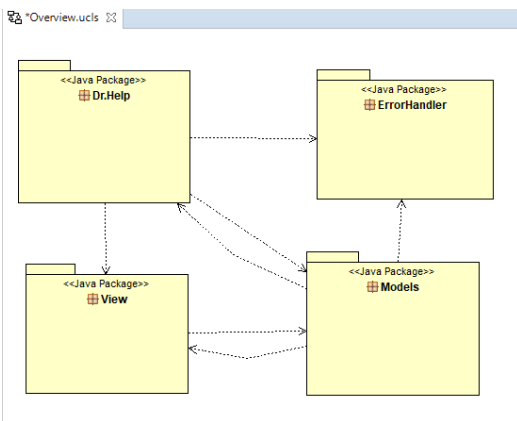
Dr. Help

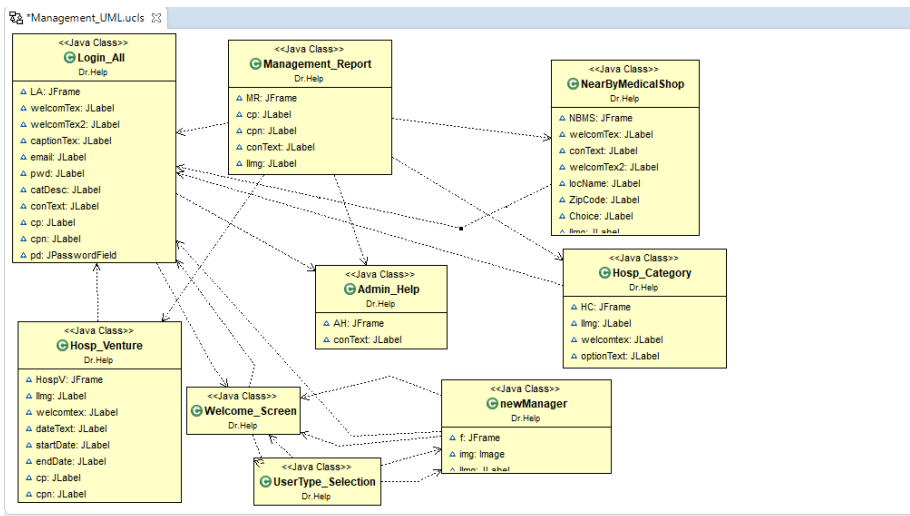
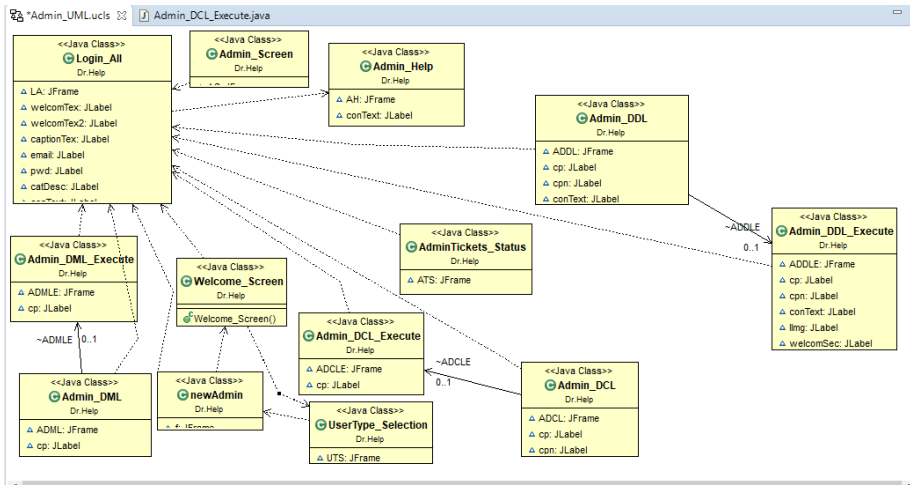


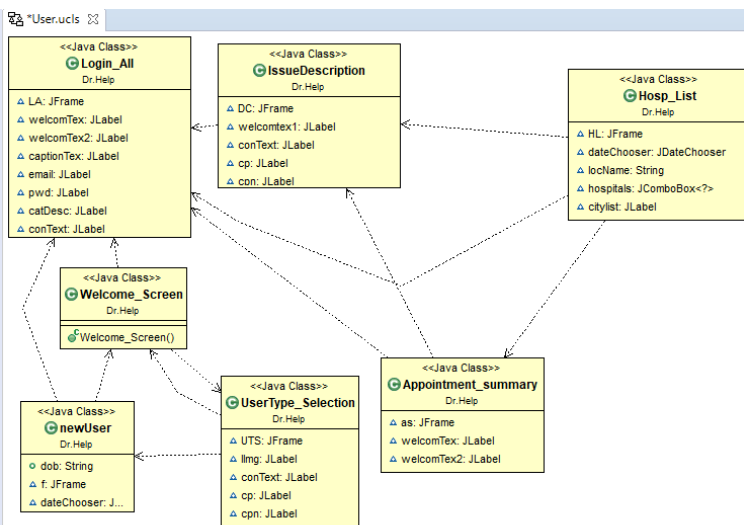
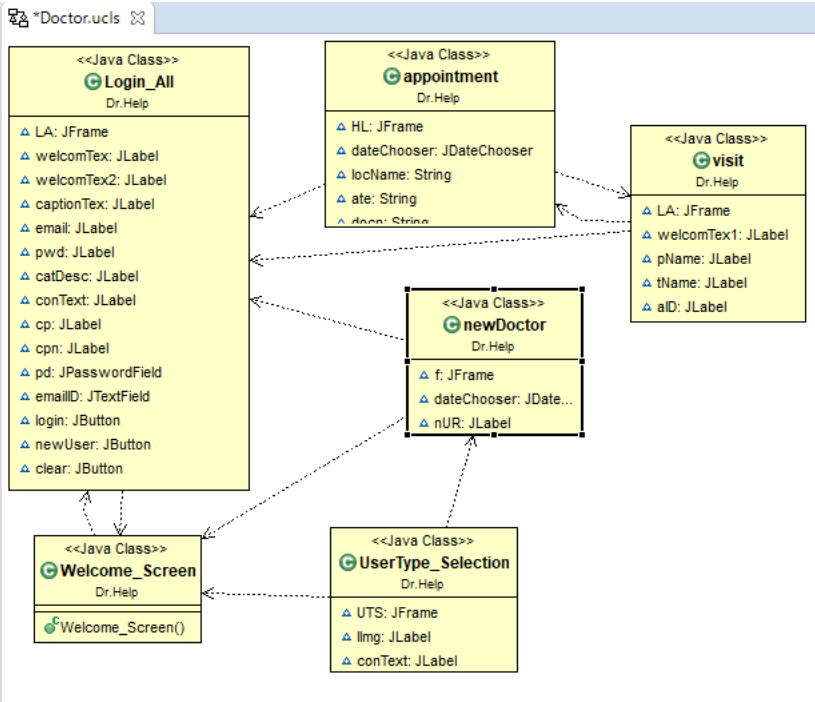
2.2 USE CASE



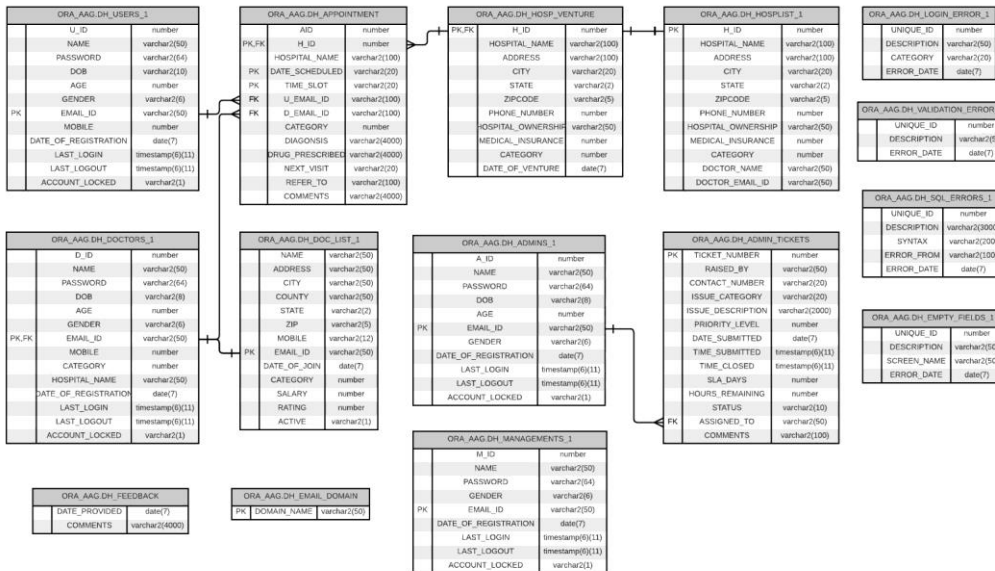
2.3 UML







2.4 ERD



2.5 TECHNOLOGY USED

2.5.1 Front End:

JavaFX: Software platform for creating and delivering desktop applications.

2.5.2 Back End:

Oracle SQL Developer: Integrated development environment for working with SQL in Oracle databases

2.5.3 Technical Requirements:

Below is the technology that needed to build this project

Java

JavaFX

Oracle Database or MySQL

2.5.4 Domain Knowledge Requirements

Health Care System or Medical Consultation system or Hospital appointment consultation

2.5.5 Tools Used:

Java Eclipse EE Oxygen

Oracle SQL Developer

3. LOGIN

3.1 LOGIN SCREEN:

The login screen will be displayed when the application is started and will be a common screen for every individual. Depending upon the Category the Login screen will redirect to the respective screens.

When an individual login he/she must enter their Email-Id in the Email-Id Textbox and select the domain from the drop-down. If there are any discrepancies such as domain name in the Email-Id text box, use @ symbol in the Email-Id textbox, not entering any values in the Email-Id text box all these are covered as a part of exception handling.

If the password value is not entered and left as blank then an error message pops up saying Password Field is empty.

The category defines what type of individual you are either USER or DOCTOR or MANAGEMENT, ADMIN. If the category is not selected then an error message pops up saying category must be selected.

Once all the required fields are filled the following validations will be executed to determine whether the entered details are valid or invalid.

Depending upon the category selected the application will check whether there is an Email-ID available for the entered value. If the Email-Id is not available then an error message pops up saying no user found in the selected category.

If the Email-Id is available then the entered password is converted to a Hash value format and validates against the existing password in the database which is also stored in a Hash value format. If the Hash value is not matched then an error message pops up saying Incorrect Password for the entered user. If password matches then Login time is captured and it will be updated to the logged in user.

S. No	Email-ID	Domain	Password	Category	Description
1	achandar	@hawk.iit.edu	Ananth@1234	User	Successful Login
2	achandar	@gmail.com	Ananth@1234	User	No user found for this registered category
3	achandar	@hawk.iit.edu	Ananth@1000	User	Invalid password for the registered user

Similarly, the same validations are implemented if an individual chooses the category DOCTOR or MANAGEMENT, ADMIN.

3.2 SCREENSHOT

3.2.1 Successful Login and Login time gets updated

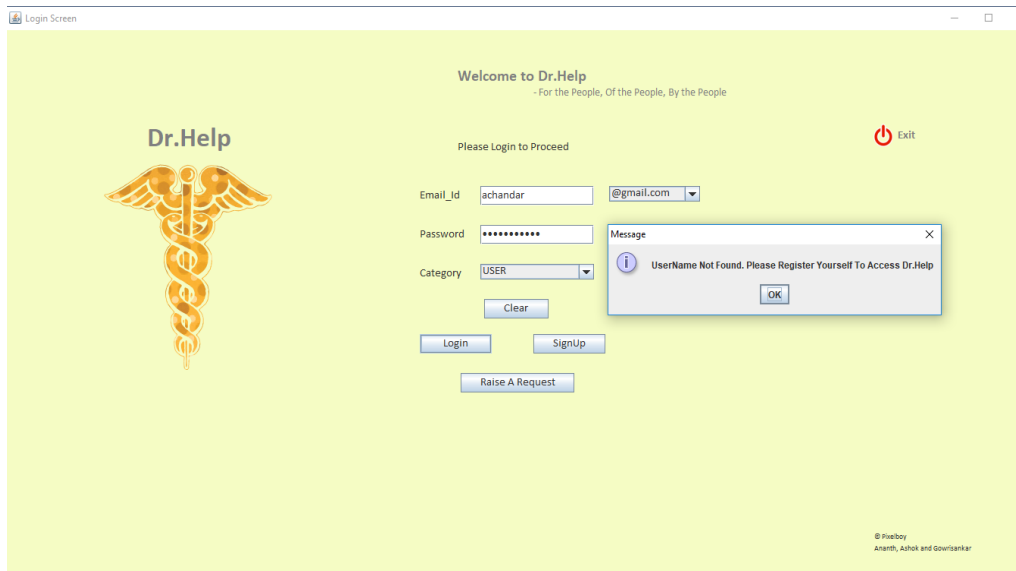
```
SELECT
U_ID, NAME, LAST_LOGIN, PASSWORD
FROM DH_USERS_1 WHERE EMAIL_ID = 'achandar@hawk.iit.edu';
```

Query Result x

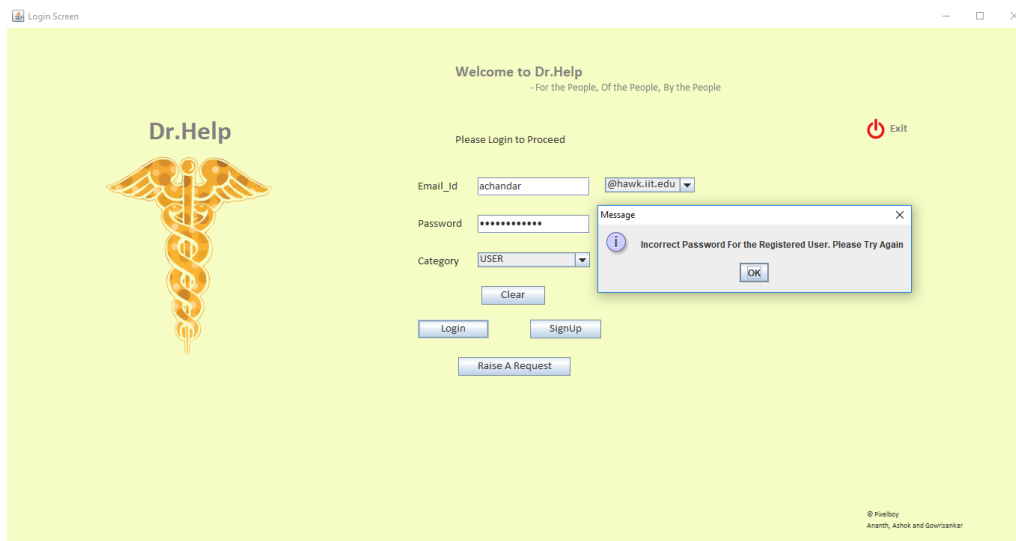
SQL | All Rows Fetched: 1 in 0.035 seconds

U_ID	NAME	LAST_LOGIN	PASSWORD
11151	Ananth	01-DEC-17 11.59.20.123000000 PM	f9b8b431777430af054f97021b3fb501e419e6d238f6b2fe612a43c469ee0cd5

3.2.2 No user found for the registered domain:



3.2.3 Invalid password for the registered user



3.2.4 Label Description:

S. No.	Name	Description
1	Login Screen	JFrame Name
2	Email_Id	To enter Email_Id
3	Dropdown	Select email domain
4	Password	To enter Password for the user
5	Category	Identify yourself whether User or Doctor or Management or Admin
6	Clear	Clear all the details on the Login Screen
7	Login	Validates and route the individual to corresponding screens
8	Sign up	New Registration for Dr. Help
9	Raise A Request	Raise a ticket for Admin Support team

3.2.5 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Login_All	ResultSetFetch.getLoginDetails	-	-
		ResultSetFetch.getEmailCount		
		ResultSetFetch.getAccountStatus		
		ResultSetFetch.updateLoginTime		
		ResultSetFetch.get_SecurePassword		

3.2.6 Database Reference:

S. No.	Table Name	Referred For
1.	DH_USERS_1	Registered USERS details
2.	DH_DOCTORS_1	Registered DOCTORS details
3.	DH_MANAGEMENTS_1	Registered higher MANAGEMENT details
4.	DH_ADMINS_1	Registered ADMINS details
5.	DH_EMPTY_FIELDS	If any fields are filled empty
6.	DH_LOGIN_ERROR_1	Login Validation failure

3.2.7 Exception Handling

S. No.	Reference	Error If	Reference Table
1.	Email_Id	Empty	DH_EMPTY_FIELDS_1
2.	Dropdown for Domain	Empty	DH_EMPTY_FIELDS_1
3.	Password	Empty	DH_EMPTY_FIELDS_1
4.	CATEGORY	Empty	DH_EMPTY_FIELDS_1
5.	Incorrect Password	Password Mismatch	DH_LOGIN_ERROR_1
6.	Incorrect Email-Id	No User Found	DH_LOGIN_ERROR_1

4. SIGN UP SCREEN

The Sign-up screen is the screen through which new registration can be done, the individual can be a User, Doctor, Management team member, Admin. Here the basic details of the individual are needed like name, password, date of birth, email-id, phone number, and gender. There is separate screen for registration of a User, Doctor etc, though the details required for registration is common for all kinds of users.

4.1 USER REGISTRATION SCREEN:

4.1.1 Screenshot

4.1.2 Label Description:

S. No.	Name	Description
1	User Registration Screen	JFrame name
2	Name	Text field to enter the name of the individual (mandatory field)
3	Password	Password field for the individual's account
4	Re-Enter Password	Password field to confirm that the individual doesn't enter random password
5	Date of Birth	Date picker to get the date of birth of the individual
6	Email-Id text box	Text field for the individual to enter his/her email id so that already registered mail id cannot be used
7	Mail domain	Combo box with email domains available for registration

8	Phone number	Text field where the individual can input his/her personal contact number
9	Gender	Combo box to choose the individual's gender
10	Reset	JButton to reset the inputs in all the fields in the screen
11	Submit	JButton to submit the account details and create a new account
12	Cancel	JButton to cancel the registration process.

4.1.3 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Welcome_Screen	-	-	Login_All
2.	UserType_Selection	-	-	Welcome_Screen
3.	newUser, newAdmin, newDoctor, newManager	InsertInToDB.insertNewUsers InsertInToDB.insertNewDoctor InsertInToDB.insertNewManager InsertInToDB.insertNewAdmin	-	UserType_Selection

4.1.4 Database Reference:

S. No.	Table Name	Referred for
1.	DH_USERS_1	Inserting the account details into the database for new User registration
2.	DH_DOCTORS_1	Inserting the account details into the database for new Doctor registration
3.	DH_MANAGEMENTS_1	Inserting the account details into the database for new Manager registration
4.	DH_ADMINS_1	Inserting the account details into the database for new Admin registration
5.	DH_EMPTY_FIELDS_1	When the individuals didn't fill in any mandatory fields during registration

4.1.5 Exception Handling

S. No.	Reference	Error If	Reference Table
1.	Name	Not filled	DH_EMPTY_FIELDS_1
2.	Password	Not filled	DH_EMPTY_FIELDS_1
3.	Re-Enter Password	Not filled	DH_EMPTY_FIELDS_1
4.	Password Mismatch	If fields Passwords and Re-Enter password field inputs mismatch	DH_EMPTY_FIELDS_1
5.	Date of Birth	Not Selected	DH_EMPTY_FIELDS_1

6.	Email-Id	Not Filled, Contains special character “@”	DH_EMPTY_FIELDS_1
7.	Email domain	Not Selected	DH_EMPTY_FIELDS_1
8.	Phone	Not Filled, Exceeds 10 digits	DH_EMPTY_FIELDS_1
9.	Gender	Not Selected	DH_EMPTY_FIELDS_1

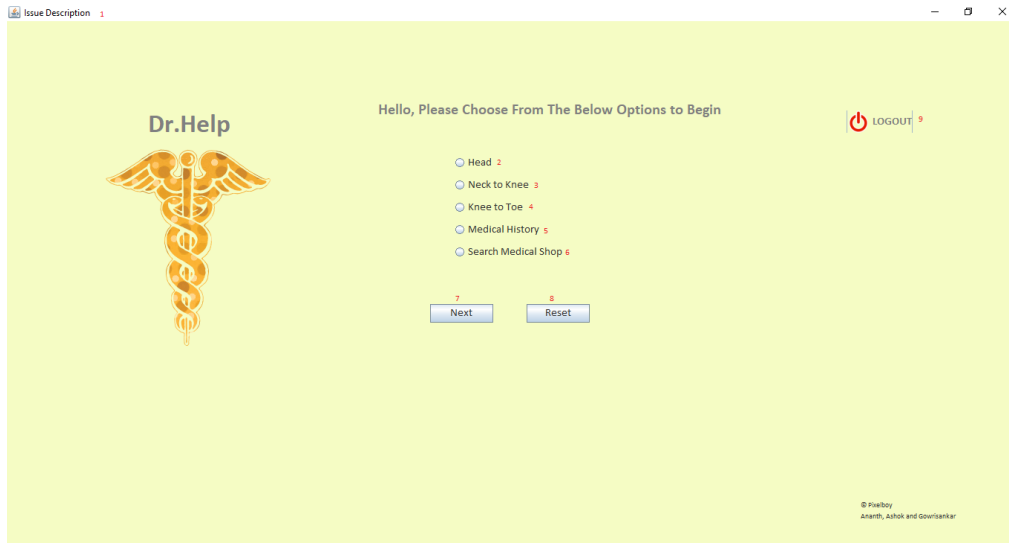
5. USER

Once the individual logs in as a User he has access to four screens namely Issue Description, Appointment Schedule, Hospital List, Appointment Summary screen. The operations possible for User Selecting a category for which he needs to visit the doctor, search for pharmacy available in the needed location. Choosing the city in which he wants to search for a hospital. Choose between “Having Medical Insurance/No Medical Insurance” to list the hospitals with cheaper fare. Select a hospital from the list based on previous responses and check the available time slots on a day of his choice. Book an appointment two day from now until 30 days on his own choice provided the slot is available. Cancel the appointment if he doesn’t need it. Finally, he can log out of the application which will lead to the start screen of the application (“Login All screen”).

Below are the Login ID and Password for logging in to User Section and book an appointment. Once a successful login is made the login time is updated for the individual. Any Invalid Email-Id and Password will display error message explained in the [Login Section](#)

S. No	Email-ID	Domain	Password	Category	Description
1	achandar	@hawk.iit.edu	Ananth@1234	User	Successful Login

5.1 ISSUE DESCRIPTION SCREEN



5.1.1 Label Description:

S. No.	Name	Description
1	Issue Description	JFrame Name
2	Head	Radio Button for letting the user book appointments in the hospitals that specialize treatment related to organs in Head
3	Neck To Knee	Radio Button for letting the user book appointments in the hospitals that specialize treatment related to organs in between Neck and the Knees.
4	Knee to Toe	Radio Button for letting the user book appointments in the hospitals that specialize treatment related to organs in between Knee and the Toes.
5	Medical History	The radio button to be selected if the user needs to check his previous appointments and medications.
6	Search Medical Shop	Radio Button to be selected if the user needs to search for nearby available medical shops.
7	Next	JButton to move to the next screen along with the selection of the above radio button
8	Reset	JButton to clear the selection made by the user.
9	Logout	JButton to log out of the application.

5.1.2 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	IssueDescription	-	-	Login_All

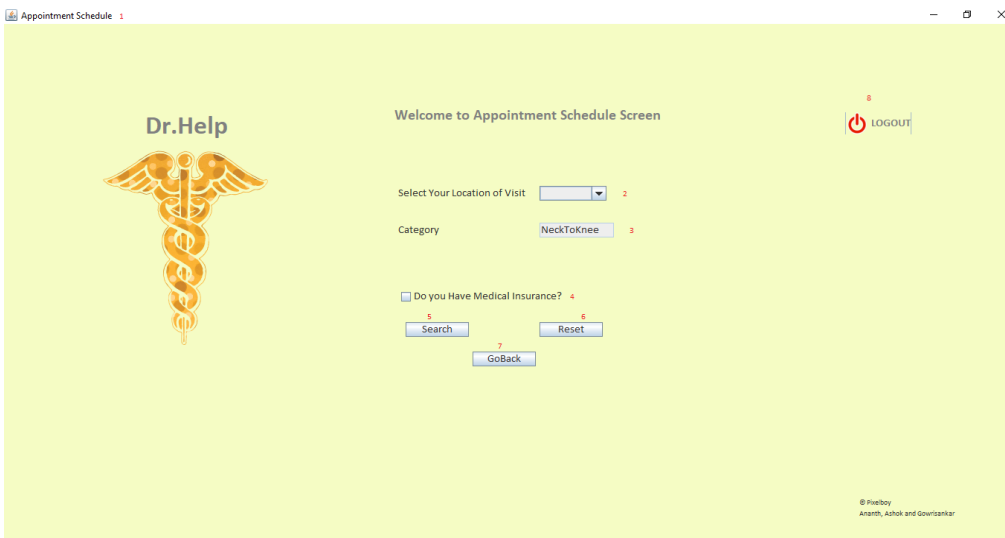
5.1.3 Database Reference:

S. No.	Table Name	Referred for
1.	DH_EMPTY_FIELDS_1	When there is no selection made by the user.

5.1.4 Exception Handling:

S. No.	Reference	Error If	Reference Table
1.	Radio Buttons (Head, Neck To Knee, Knee to Toe, Medical history, Search Medical Shop)	No Selection	DH_EMPTY_FIELDS_1

5.2 APPOINTMENT SCHEDULE SCREEN:



5.2.1 Label Description:

S. No.	Name	Description
1	Appointment Schedule	JFrame Name
2	Location	Combo box lists the cities where hospitals have been registered with Dr. Help
3	Category	Text field prefilled with the user choice of category from the Issue Description screen (Non_Editable)
4	Insurance	Checkbox whether to know if the user has Medical insurance or not to suggest hospitals with cheap fare for users with no insurance
5	Search	JButton to search for hospitals based on the city selection by the User
6	Reset	JButton to reset all the choices on the screen made by the User
7	GoBack	JButton to redirect the User to the previous screen ("Issue Description")
8	Logout	JButton to log out of the application.

5.2.2 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	UserAppConfirmation	-	-	IssueDescription

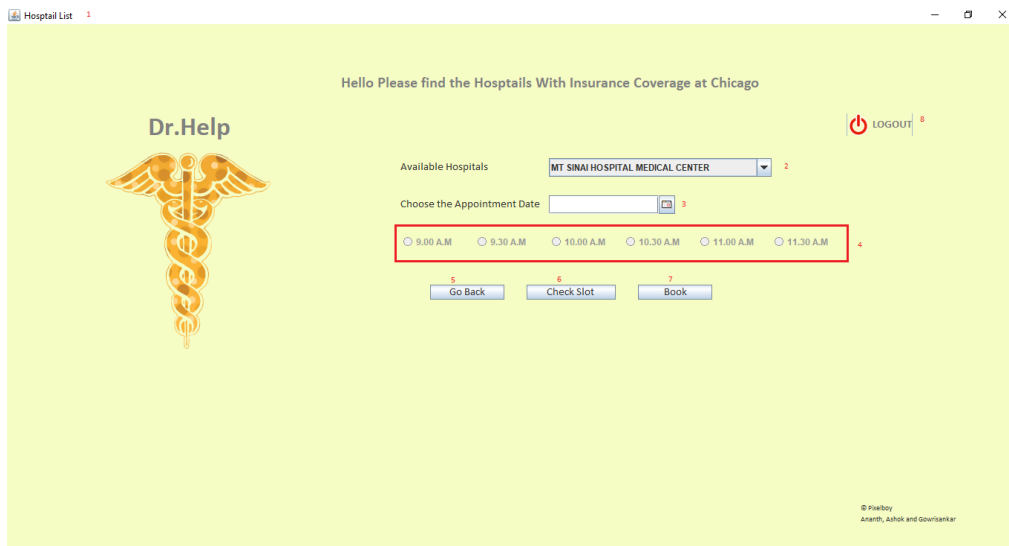
5.2.3 Database Reference:

S. No.	Table Name	Referred for
1.	DH_EMPTY_FIELDS_1	when there is no city selection made by the user.

5.2.4 Exception Handling:

S. No.	Reference	Error If	Reference Table
1.	Location	No Selection	DH_EMPTY_FIELDS_1

5.3 HOSPITAL LIST SCREEN:



5.3.1 Label Description:

S. No.	Name	Description
1	Hospital List	JFrame Name
2	Available Hospitals	Combo box lists the available hospitals based on the user selection from the previous screen
3	Appointment date	Date picker for selecting the date of user choice for booking an appointment
4	Time Slot	Group of Radio Buttons that are enabled based on the time available of the hospital selected on the day chose by the user
5	GoBack	JButton to redirect the User to the previous screen ("Issue Description")
6	Check Slot	JButton to check the available time slots from the database for the date and hospital selection, enable only radio buttons with available time slots.
7	Book	JButton to Book the appointment for the User selection and insert the details into the database.
8	Logout	JButton to log out of the application.

5.3.2 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Hosp_List	ResultSetFetch.hosplist ResultSetFetch.checkdate ResultSetFetch.getdoc InsertInToDB.bookappointment	-	UserAppConfirmation

5.3.3 Database Reference:

S. No.	Table Name	Referred for
1.	DH_HOSPLIST_1	Getting Hospitals and Doctor associated with the Hospital based on the city selected by the User
2.	DH_APPOINTMENT	Finding Available time slots in the hospital, inserting the booking details selected by user

5.4 APPOINTMENT SUMMARY SCREEN:

Summary Screen 1

Appointment Confirmation



LOGOUT 10

Appointment number - 5131 2

Hospital Name - SALEM HEALTH WEST VALLEY in DALLAS 3

Visiting category - Knee to Toe 4

Appointment scheduled to Dr.Ashok Ramasami 5

Date of visit - 12-18-2017 6

Time scheduled for visit - 10.00 A.M 7

8 Cancel

9 Book New

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5.4.1 Label Description:

S. No.	Name	Description
1	Summary Screen	JFrame Name
2	Appointment Number	JLabel displays the appoint number booked by the User
3	Hospital Name	JLabel displays the User Selected Hospital name from previous screen and city from Appointment screen
4	Visiting Category	JLabel displays the User selected category from Issue Description screen.
5	Appointment Schedule	JLabel displays the Doctor name associated with the hospital selected by the user.
6	Date of Visit	JLabel displays the date User chose in the previous screen.
7	Time Scheduled	JLabel displays the time slot chosen by the User for the appointment.
8	Cancel	JButton to cancel the appointment the user just made.
9	Book New	JButton to redirect the User to Issue Description screen, to begin with the booking of a new appointment.
10	Logout	JButton to log out of the application.

5.4.2 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Appointment_summary	ResultSetFetch.getsummary InsertInToDB.cancelappointment	-	Hosp_List

5.4.3 Database Reference:

S. No.	Table Name	Referred for
1.	DH_APPOINTMENT	Getting Summary details of the User booked appointment and delete the record if User cancel the appointment

6. DOCTOR

The appointments scheduled by the users are then accessed by doctors through their login. When a doctor logs in to the application, we will be taken to a screen where he can check the appointments. Once he selects an appointment and clicks on the "Details" button, he will be redirected to a page which displays the information about appointment which was selected. Each doctor is linked to a hospital based on the category. Sample login details for doctor login.

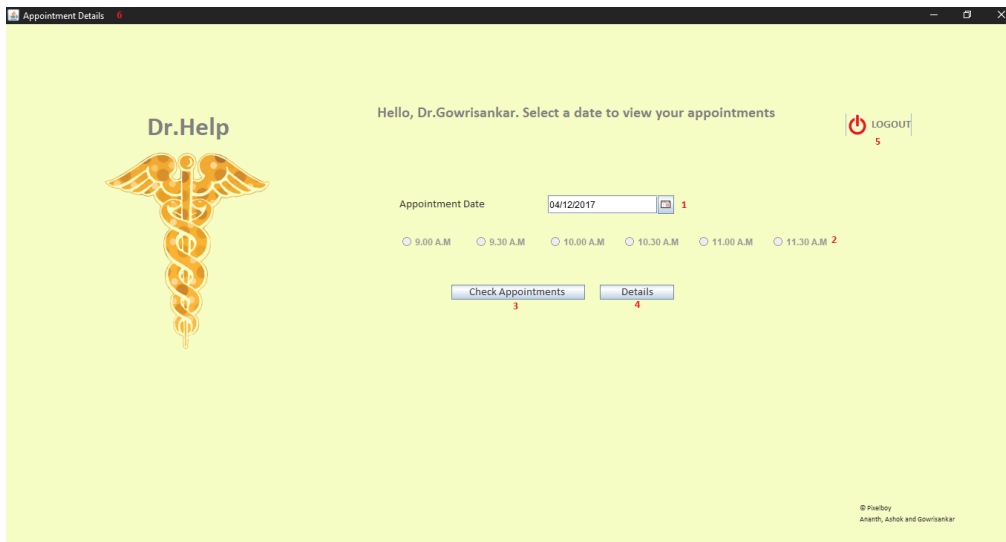
Below are the Login ID and Password for logging in to Doctor Report Section and medical records. Once a successful login is made the login time is updated for the individual. Any Invalid Email-Id and Password will display error message explained in the [Login Section](#)

S. No	Email-ID	Domain	Password	Category	Description
1	garumugam	@hawk.iit.edu	itmd510	Doctor	Successful Login

6.1 APPOINTMENT SCREEN:

The doctor is greeted with an appointment availability check screen where he can select a date which is 30 days from today. On clicking on the “Check appointments” button doctor will be able to select only the time slots for which appointments are booked. All the time slots which are not booked will be disabled and the doctor will not be able to select them. After the doctor has selected a particular time slot he can click on “Details” button to make any changes to the appointment.

6.1.1 Screenshot



6.1.2 Label Description:

S. No.	Name	Description
1	Appointment Date	Date chooser where the doctor can select a date for which he can check the appointments for.

2	Time Slot	Displays the available time slots
3	Check Appointments	Clicking on this button will refresh the time slots for the doctor to select the time slots which are booked for a particular date.
4	Details	Clicking on this button will take the Doctor to the next page to edit the details of the appointment.
5	Logout	Logout from the current session.
6	Appointment details	Screen name

6.1.3 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1	Appointment.java	ResultSetFetch.hosplist ResultSetFetch.checkdate	-	Login_All

6.1.4 Database Reference:

S. No.	Table Name	Referred for
1	DH_DOCTORS_1	To retrieve the Name of the doctor who has logged in
2	DH_APPOINTMENT	To display the time slot booked for a particular day.

6.1.5 Exception Handling

S. No.	Reference	Error If	Reference Table
1	Appointment date	Any date which is lesser than today or greater than 30 days from now is selected.	-

6.2 APPOINTMENTS DETAILS SCREEN:

The appointments details screen will be the preceding screen on the Check Appointments screen. The screen will be used by the Doctor to update the Diagnosis, Drugs prescribed, date of the next visit and refer to any other doctor if he needs to refer a particular patient to another doctor. There are also options for the doctor to see the medical history of a patient and look up details of diseases. These two options are not yet incorporated in the application and will be added in the future.

6.2.1 Screenshot

Dr.Help

Visit Summary for Mr. Ananth

Appointment ID 5124 1 Appointment Date 12-04-2017 3

Patient Name Ananth 2 Appointment Time 11:00 A.M 4

Diagnosis 5

Drugs 6

Next Visit 7

Refer to 8

Go Back 9 Submit 10 Reset 11

Medical History 12 Disease Info 13

Logout 14

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6.2.2 Label Description:

S. No.	Name	Description
1	Appointment ID	Displays the appointment ID for the appointment selected by the doctor in the previous screen.
2	Patient Name	Displays the Patient Name for the appointment selected by the doctor in the previous screen.
3	Appointment Date	Displays the Appointment date for the appointment selected by the doctor in the previous screen.
4	Appointment Time	Displays the Appointment time for the appointment selected by the doctor in the previous screen.
5	Diagnosis	Text box for the doctor to input the diagnosis for the patient.
6	Drugs	Text box for the doctor to input the drugs for the patient.
7	Next Visit	A date chooser box for the doctor to select a date for the next visit.
8	Refer to	Text box for the doctor to refer the patient to another doctor.
9	Go Back	Takes the Doctor to the previous screen.
10	Submit	Submits the data entered to the database.
11	Reset	Resets the input fields in the screen.
12	Medical History	Future scope – Displays the appointment history of the patient
13	Disease Info	Future scope – Displays the details of the diseases.

14	Logout	Log out the doctor from the current session.
15	Visit Details screen	Screen Name

6.2.3 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1	visit	ResultSetFetch.selapp ResultSetFetch.selusr ResultSetFetch.updateApp ResultSetFetch.updateApp1	-	appointment

6.2.4 Database Reference:

S. No.	Table Name	Referred for
1	DH_USERS_1	To retrieve the name of the patient for that appointment.
2	DH_APPOINTMENT	To display the appointment details, update the details entered by the doctor.

6.2.5 Exception Handling

S. No.	Reference	Error If	Reference Table
1	Next visit date	Next visit date is not from tomorrow and 30 days from tomorrow.	

7. MANAGER

Dr. Help is developed in a way that Higher Management can view the performance metrics which can be used for the application development, provide feedback and create an ad-hoc request for customized reports via Raise A Request option. Dr. Help provides 5 customized reports which are available on the go also a feedback section to provide comments and suggestions.

Following are the functionalities of a Management which is available in this application. The manager can Login or Register for accessing Dr. Help, Access reports such as Doctor Report, User Report, Hospital Report, Hospital Venture Report, Hospital Category list. Create a customized report, add a new record, drop a table, grant privileges, revoke privileges by creating an ad-hoc request from Raise A Request option. Management can also give suggestions and their comments to improve the application by clicking Provide Feedback To Developers.

Below are the Login ID and Password for logging in to Management Report Section and access reports. Once a successful login is made the login time is updated for the individual. Any Invalid Email-Id and Password will display error message explained in the [Login Section](#)

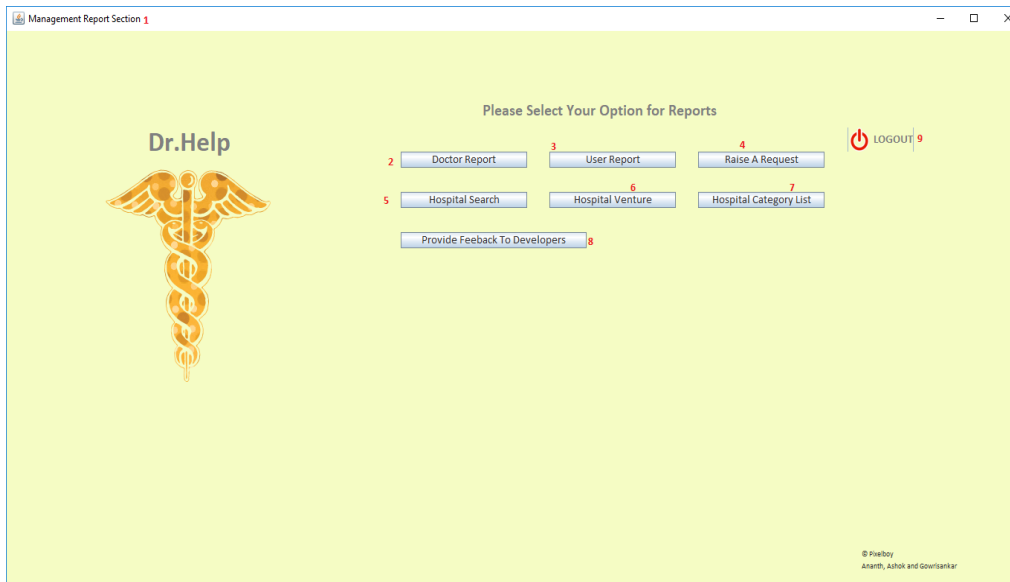
S. No	Email-ID	Domain	Password	Category	Description
1	cananthc	@yahoo.com	Ananth@1234	MANAGEMENT	Successful Login

After a successful login below screen will be displayed and the reports are readily available to view. All these results are fetched from the database and populated in a new JFrame.

Exceptional handling is also implemented if the Start Date and End Date is not filled. A pop-up message comes stating Start Date or End Date cannot be empty. Once all the necessary fields have filled the reports are displayed in a new JFrame.

Similarly, all other reports work the same way and exception handling is implemented to all the fields and these exceptions are stored in the database which can be later used to improve the application. Once the Logout option is clicked the application routes back to the Login page and updates the Logout timings for the respective Manager.

7.1.1 Screenshot



7.1.2 After a successful Login

Management Report Section

Please Select Your Option for Reports

Dr.Help

© Prashant Ananth, Ashok and Gowrisankar

SQL Worksheet | History

Worksheet | Query Builder

```
SELECT M_ID, EMAIL_ID, LAST_LOGIN
FROM DH_MANAGEMENTS_1 WHERE EMAIL_ID = 'cananthc@yahoo.com';
```

Query Result x


SQL | All Rows Fetched: 1 in 0.033 seconds

	M_ID	EMAIL_ID	LAST_LOGIN
1	11143	cananthc@yahoo.com	02-DEC-17 12.31.05.614000000 PM

7.1.3 Enter Start Date and End Date to fetch reports

User Report

Dr.Help



Hello, Welcome to Doctor's Report Section.

Please Select Your Dates for the Report Generation

Enter Your Start Date

Dec 1, 2017

Enter Your End Date

Dec 26, 2017

Reset Start Date

Reset End Date

Fetch Reports

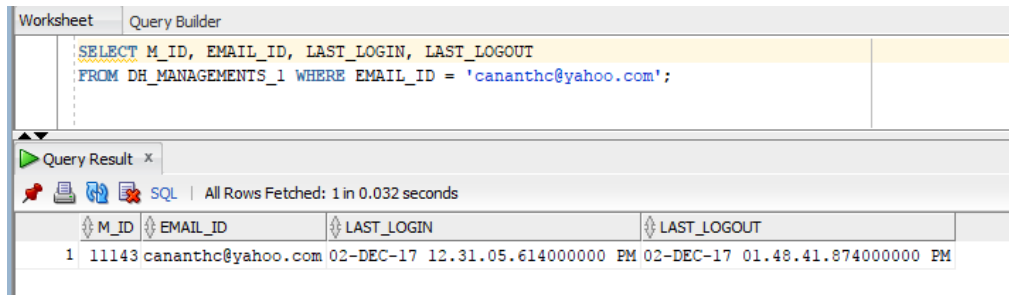
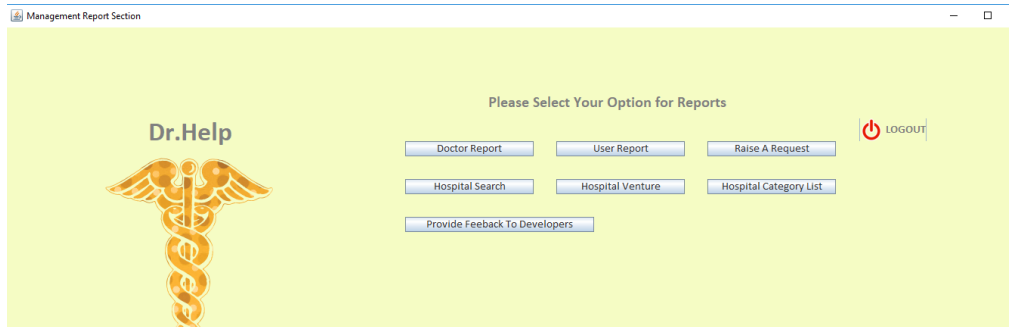
Go Back

LOGOUT

7.1.4 Populate list of appointments for the users

AID	HOSPITAL_NAME	DATE_SCHEDULED	TIME_SLOT	U_EMAIL_ID	D_EMAIL_ID	CATRGORY	DIAGNOSIS	DRUG_PRESCRI.	NEXT_VISIT	REFER_TO	COMMENTS
5129	MT SINAI HOSPIT...	12-22-2017	10:00 A.M	achandar@hawk.i...	hhaufer@yahoo.c...	2					
5128	THOREK MEMORI...	12-19-2017	10:00 A.M	achandar@hawk.i...	detra@yahoo.com	2					
5127	PHOENIX INDIAN...	12-12-2017	9:30 A.M	achandar@hawk.i...	mraymo@yahoo.c...	1					
5124	UT SOUTHWEST...	12-04-2017	11:00 A.M	achandar@hawk.i...	garumugam@ha...	3					
5120	PARKLAND HEAL...	12-04-2017	10:30 A.M	achandar@hawk.i...	rosio.cork@gmail...	2					
5105	UT SOUTHWEST...	12-04-2017	10:30 A.M	achandar@hawk.i...	garumugam@ha...	1	Cold, Cough,	Vicks,	12-11-2017	James	
5104	THOREK MEMORI...	12-04-2017	10:00 A.M	achandar@hawk.i...	detra@yahoo.com	1					
5103	UT SOUTHWEST...	12-04-2017	10:00 A.M	achandar@hawk.i...	garumugam@ha...	3	Common Cold, FL	Vicks	12-06-2017	Yong Zeng	
5102	UT SOUTHWEST...	12-03-2017	10:30 A.M	achandar@hawk.i...	garumugam@ha...	3					
5100	ADVOCATE TRIPL...	12-02-2017	10:30 A.M	achandar@hawk.i...	garumugam@ha...	2	Flu	Flu Shots	12-16-2017		
5083	HOSPITAL FOR S...	12-03-2017	10:30 A.M	a@gmail.com	Gowrisankar	1					
5082	HOSPITAL FOR S...	12-03-2017	10:00 A.M	a@gmail.com	Gowrisankar	1					
5081	NORWEGIAN-AME...	12-02-2017	10:30 A.M	a@gmail.com	Gowrisankar	2	Flu	Flu Shots	12-16-2017		
5080	MT SINAI HOSPIT...	12-03-2017	10:30 A.M	a@gmail.com	Gowrisankar	2					
5075	LOUIS A WEBBS M...	12-15-2017	10:30 A.M	a@gmail.com	Gowrisankar	2					
5074	MOUNT SINAI BET...	12-07-2017	9:30 A.M	a@gmail.com	Gowrisankar	3					
5073	MT SINAI HOSPIT...	12-15-2017	10:30 A.M	a@gmail.com	Gowrisankar	2					
5072	PARKLAND HEAL...	12-22-2017	10:00 A.M	a@gmail.com	Gowrisankar	2					
5071	MT SINAI HOSPIT...	12-20-2017	10:00 A.M	a@gmail.com	Gowrisankar	2					
5070	MT SINAI HOSPIT...	12-13-2017	9:30 A.M	a@gmail.com	Gowrisankar	2					
5069	BANNER - UNIVE...	12-02-2017	9:00 A.M	a@gmail.com	Gowrisankar	2	Common Cold	Chestron	12-09-2017	Ananth	
5068	TEXAS HEALTH P...	12-01-2017	9:30 A.M	a@gmail.com	Gowrisankar	2					
5067	MT SINAI HOSPIT...	12-06-2017	10:00 A.M	a@gmail.com	Gowrisankar	2					
5066	NORWEGIAN-AME...	12-01-2017	10:00 A.M	a@gmail.com	Gowrisankar	3					
5065	JOHN H STROGE...	12-09-2017	10:00 A.M	a@gmail.com	Gowrisankar	1	Common Cold	p-650	12-16-2017	Ananth	
5064	MT SINAI HOSPIT...	12-02-2017	10:30 A.M	a@gmail.com		2					
5063	JOHN H STROGE...	12-02-2017	10:00 A.M	a@gmail.com		2					
5062	MT SINAI HOSPIT...	12-02-2017	10:00 A.M	a@gmail.com		2					
5061	MT SINAI HOSPIT...	12-22-2017	10:30 A.M	a@gmail.com		2					
5060	MT SINAI HOSPIT...	12-01-2017	10:30 A.M	achandar@hawk.i...	garumugam@ha...	2	Common Cold	P650, Chestron	12-09-2017	Ashok	
5006	MT SINAI HOSPIT...	11-30-2017	9:00 A.M	null	ashok@hawk.it.e...	2					
5005	JOHN H STROGE...	11-30-2017	9:30 A.M	null	garumugam@ha...	2					
5001	MOUNT SINAI BET...	11-30-2017	9:00 A.M		garumugam@ha...	2					
1	ABC	25-NOV-17	9:00		garumugam@ha...						

7.1.5 Update Logout time when Logout button is clicked



7.1.6 Label Description:

S. No.	Name	Description
1	Management Report Section	JFrame Name
2	Doctor Report	View list of Doctors who joined over a period of time
3	User Report	View User appointments for over a period of time
4	Raise A Request	Create ad-hoc request, or add, delete, update, insert any new records into the database
5	Hospital Search	View Hospitals names by entering location or zip code
6	Hospital Venture	View list of hospitals which was agreed to be a part of Dr. Help
7	Hospital Category List	View list of hospitals category wise
8	Provide Feedback	Provide comments and suggestions to Developer
9	Logout	Takes back to Login page and updates Logout time

7.1.7 Java Reference:

Commented [AC1]: a

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Login_All	ResultSetFetch.getLoginDetails	-	
2.	Login_All	ResultSetFetch.getEmailCount		
3.	Login_All	ResultSetFetch.getAccountStatus		
4.	Login_All	ResultSetFetch.updateLoginTime		
5.	Login_All	ResultSetFetch.get_SecurePassword		
6.	newManager	InsertIntoDB.insertNewManager		Login_All
7.	Management_Report			Login_All
8.	ManagementReport (Doctor Report)	ResultSetFetch.getDocList	Report_View	
9.	ManagementReport (User Report)	ResultSetFetch. getUserAppointment	User_Report	
10.	Admin_Help (Raise A Request)	InsertIntoDB.insertRequestTick		
11.	NearByMedicalShop (Hospital Search)	ResultSetFetch.getMedRecordsByLoc ResultSetFetch.getMedRecordsBy. getMedRecordsByZip	MedViewByLoc MedView	
12.	Hospital_Venture	ResultSetFetch.getHospVenture	HospVenture_View	
13.	Hosp_Category	ResultSetFetch.getHospCategory	Hosp_Category	
14.	Management_Report (feedbackReport)	InsertInToDB.feedbackComments		

7.1.8 Database Reference:

S. No.	Table Name	Referred For
1.	DH_MANAGEMENTS_1	Registered higher MANAGEMENT details
2.	DH_DOC_LIST_1	Doctor Report
3.	DH_APPOINTMENT	User Report
4.	DH_ADMIN_TICKETS	Raise ad-hoc request
5.	DH_HOSPLIST_1	Hospital Search
6.	DH_HOSP_VENTURE	Hospital Venture
7.	DH_HOSPLIST_1	Hospital Category
8.	DH_FEEDBACK	Feedback Report
8.	DH_EMPTY_FIELDS	If any fields are filled empty
9.	DH_SQL_ERRORS_1	SQL Error Identifier
9.	DH_LOGIN_ERROR_1	Login Validation failure

7.1.9 Exception Handling

S. No.	Reference	Error If	Reference Table
1.	Email_Id	Empty	DH_EMPTY_FIELDS_1
2.	Dropdown for Domain	Empty	DH_EMPTY_FIELDS_1
3.	Password	Empty	DH_EMPTY_FIELDS_1
4.	CATEGORY	Empty	DH_EMPTY_FIELDS_1
5.	Incorrect Password	Password Mismatch	DH_LOGIN_ERROR_1
6.	Incorrect Email-Id	No User Found	DH_LOGIN_ERROR_1
7.	Start Date	Empty	DH_EMPTY_FIELDS_1
8.	End Date	Empty	DH_EMPTY_FIELDS_1
9.	Name	Empty	DH_EMPTY_FIELDS_1
10.	Contact Number	Empty	DH_EMPTY_FIELDS_1
11.	Issue Type	Empty	DH_EMPTY_FIELDS_1
12.	Issue Description	Empty	DH_EMPTY_FIELDS_1
13.	Priority Level	Empty	DH_EMPTY_FIELDS_1

8. ADMIN

Admin plays the role of IT Ops in Dr. Help. Admins functionalities are described as to manage the overall application, handle issues and concerns raised in a form of a ticket. Admins will also be able to perform DBA activities such as Data definition language (DDL), Data manipulation language (DML), Data control language (DCL).

Below are the operations Admin can perform in Dr.Help. Admin can Login to access the Admin portal or can signup with Dr.Help and requests for an Admin account. After a successful Login admin can perform activities such as View list of Open/Closed/In-Progress tickets depending upon the priority for a period of time.

Dr. Help also helps admin to perform DBA activities such as Data definition language (DDL) operations such as (SELECT, INSERT, UPDATE), Data manipulation language (DML) such as (CREATE, ALTER, DROP), Data control language(DCL) such as (GRANT, REVOKE). Dr. Help also provides basic syntax for the above DBA operations to help the Admins.

To perform the above activities there are certain validations that should be satisfied to perform DBA activities.

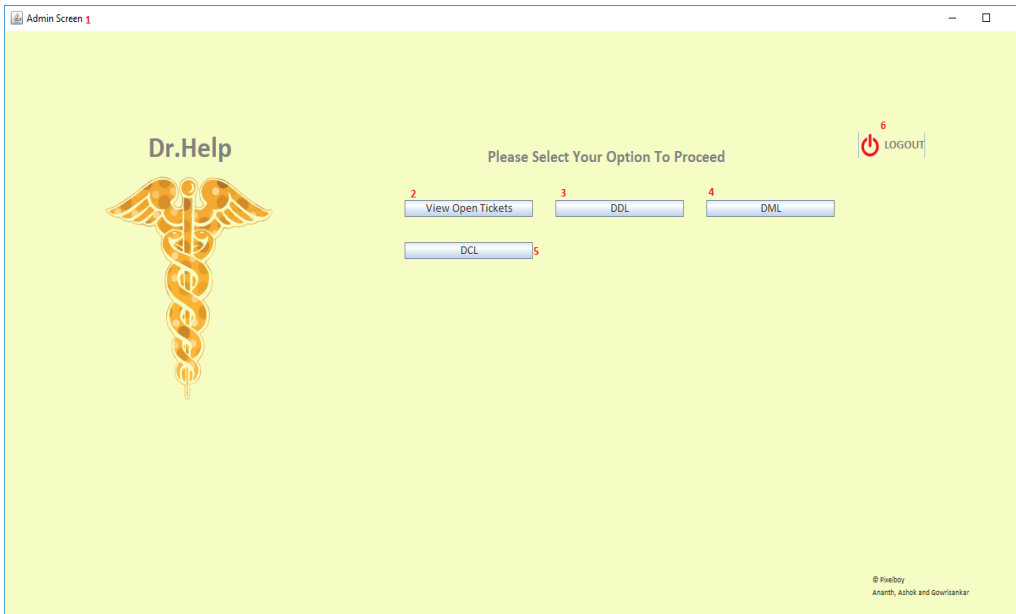
Must have a valid Ticket Number registered for the operation else a pop up saying Invalid Ticket Reference Number or Ticket is not in Open Status will be displayed. Syntax will be auto-populated depending on the DBA activities. Admin must enter a valid syntax before executing the operations. All the entered syntax will be validated from the Validate SQL Query Button before executing against the database.

Special care has been taken for DROP and DELETE statements as it will result in data loss. Hence when an Admin performs DROP or DELETE a confirmation dialogue will be popped up for confirmation.

Below are the Login ID and Password for logging in to Admin Portal Section. Once a successful login is made the login time is updated for the individual. Any Invalid Email-Id and Password will display error message explained in the [Login Section](#).

S. No	Email-ID	Domain	Password	Category	Description
1	c.ananthc	@gmail.com	Ananth@1234	ADMIN	Successful Login

8.1 SCREENSHOT



8.1.1 After a successful Login

The screenshot shows the 'Admin Screen' of the 'Dr.Help' application. The interface has a light yellow background. On the left is a large orange caduceus logo with the text 'Dr.Help' above it. In the center, the text 'Please Select Your Option To Proceed' is displayed above four buttons: 'View Open Tickets', 'DDL', 'DML', and 'DCL'. On the right, there is a 'LOGOUT' button with a red power icon. At the bottom right, a small copyright notice reads '© Pineboy Ananth, Author and Developer'.

Below the admin screen, a 'Query Builder' window is shown. It contains the following SQL query:

```
SELECT
A_ID, NAME, EMAIL_ID, LAST_LOGIN
FROM DH_ADMINS_1;
```

The 'Query Result' window shows the following data:

	A_ID	NAME	EMAIL_ID	LAST_LOGIN
1	11157	Ananth	c.ananthc@gmail.com	02-DEC-17 02.04.36.786000000 PM

8.1.2 If Admin wants to Perform a DML Activity

Admin DML Screen

Dr.Help

Please Select Your Option To Proceed

LOGOUT

Create Alter Drop

GoBack

8.1.3 Basic Syntax for every DBA Activity populates automatically

Admin DDL Execute Screen

Dr.Help

Enter Your Database Query

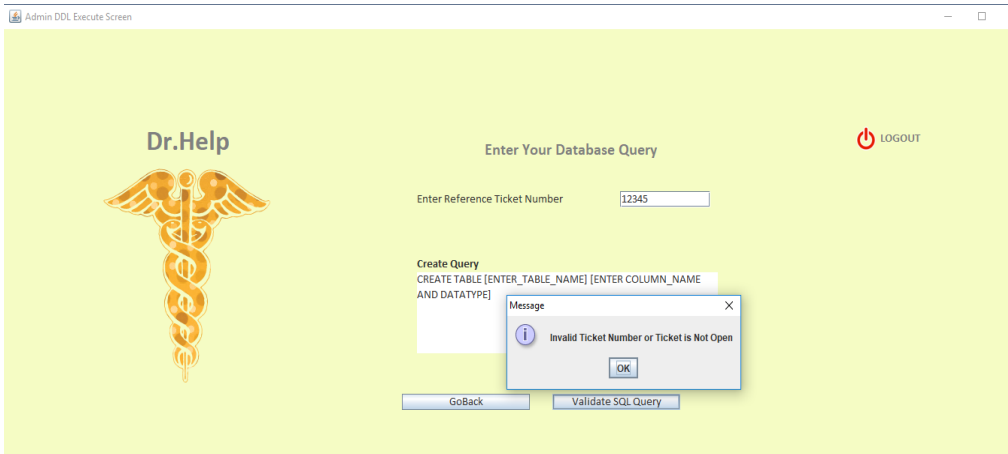
LOGOUT

Enter Reference Ticket Number 12345

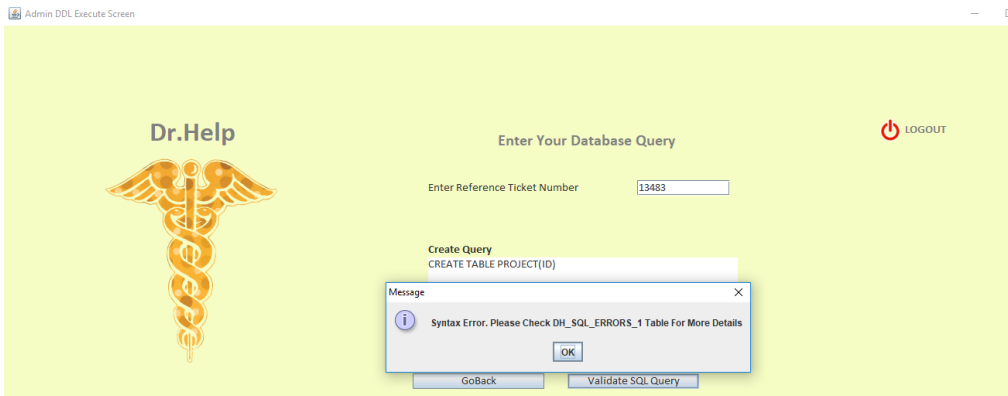
Create Query
CREATE TABLE [ENTER_TABLE_NAME] [ENTER COLUMN_NAME
AND DATATYPE]

GoBack Validate SQL Query

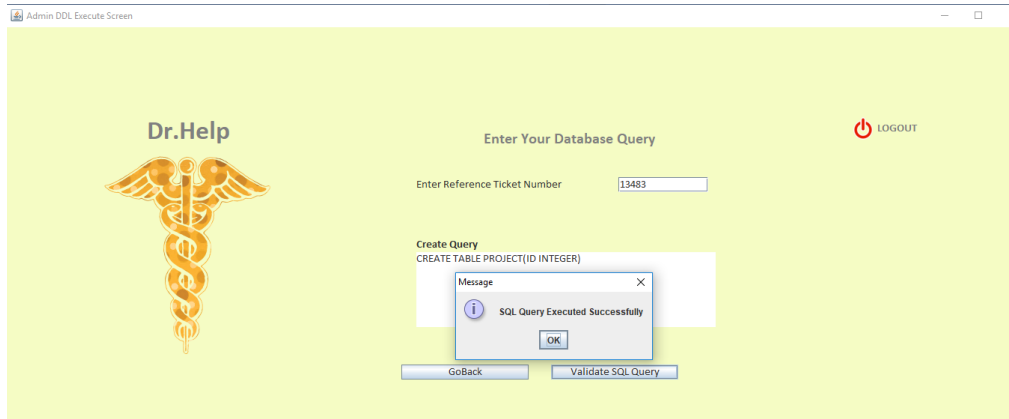
8.1.4 Invalid Ticket Number or Ticket is not in Open Status



8.1.5 SQL Syntax Error if Query is wrong



8.1.6 If SQL Query is valid



8.1.7 Label Description:

S. No.	Name	Description
1	Admin Screen	JFrame Name
2	View Open Tickets	View list of tickets which is Open/Closed/In-Progress depending upon priority
3	DDL	Perform DDL Operations
4	DML	Perform DML Operations
5	DCL	Perform DCL Operations
6	Logout	Takes back to Login page and updates Logout time

8.1.8 Java Reference:

Commented [AC2]: a

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Login_All	ResultSetFetch.getLoginDetails	-	
2.	Login_All	ResultSetFetch.getEmailCount		
3.	Login_All	ResultSetFetch.getAccountStatus		
4.	Login_All	ResultSetFetch.updateLoginTime		
5.	Login_All	ResultSetFetch.get_SecurePassword		
6.	newManager	InsertIntoDB.insertNewManager		Login_All
7.	Admin_Screen			Login_All
8.	Admin_Ticket_status		Admin_Tickets_View	
9.	Admin_DDL_Execute	ResultSetFetch.validateSQLQueryDDL ResultSetFetch.validateSQLQuerySelect	Admin_Select_DDL	

		ResultSetFetch.updateClosedTicketTime		
10.	Admin_DML_Execute	ResultSetFetch.validateSQLQueryDML ResultSetFetch.updateClosedTicketTime		
11.	Admin_DCL_Execute	ResultSetFetch.validateSQLQueryDCL ResultSetFetch.updateClosedTicketTime		

8.1.9 Database Reference:

S. No.	Table Name	Referred For
1.	DH_ADMINS_1	Registered Admin details
2.	DH_ADMIN_TICKETS	View Ad-hoc request tickets
3.	DH_LOGIN_ERROR_1	Login failure validations
4.	DH_EMPTY_EMPTY_FIELDS	If any fields are filled empty
5.	DH_SQL_ERRORS_1	Any SQL Error while performing DBA activities

8.1.10 Exception Handling

S. No.	Reference	Error If	Reference Table
1.	Email_Id	Empty	DH_EMPTY_FIELDS_1
2.	Dropdown for Domain	Empty	DH_EMPTY_FIELDS_1
3.	Password	Empty	DH_EMPTY_FIELDS_1
4.	CATEGORY	Empty	DH_EMPTY_FIELDS_1
5.	Incorrect Password	Password Mismatch	DH_LOGIN_ERROR_1
6.	Incorrect Email-Id	No User Found	DH_LOGIN_ERROR_1
7.	SQL Syntax	Syntax Error	DH_SQL_ERRORS_1
8.	SQL Syntax	Empty	DH_EMPTY_FIELDS
9.	Ticket Reference Number	Invalid or Ticket Reference number not Open	DH_EMPTY_FIELDS_1
10.	Name	Empty	DH_EMPTY_FIELDS_1
11.	Contact Number	Empty	DH_EMPTY_FIELDS_1
12.	Issue Type	Empty	DH_EMPTY_FIELDS_1
13.	Issue Description	Empty	DH_EMPTY_FIELDS_1
14.	Priority Level	Empty	DH_EMPTY_FIELDS_1

9. RAISE A REQUEST

Dr. Help has a ticket request tool which can be used to raise a request and Admin will take over the ticket to resolve the issue.

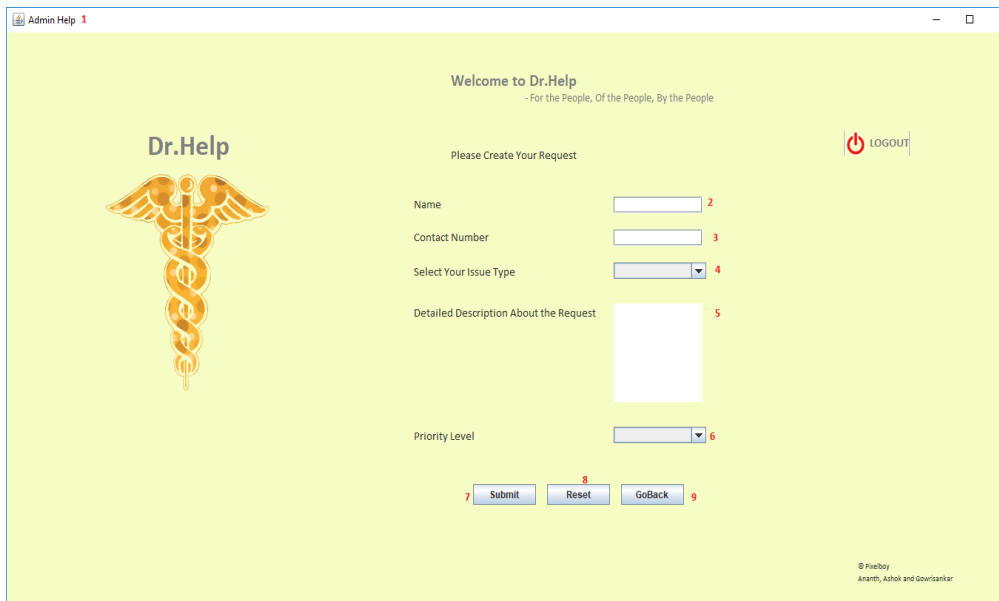
Raise A Request is an online form where you can use this to Create any reports, tables etc, delete any records, reports, drop tables, grant access, remove access, create customized reports, unlock Account.

An automated TicketNumber will be generated for every new ticket and will be updated in the database when it is raised. There is an option called priority which should be selected to action your request as per urgency. With this priority, the SLA Days, Hours remaining will be calculated automatically as per the industry standards. All these are populated into DH_ADMIN_TICKETS table

9.1.1 Standard Template Followed

S. No	Priority	SLA_DAYS	Hours Remaining
1	1	1	2
2	2	1	4
3	2	2	8
4	3	2	16

9.2 SCREENSHOT



9.2.1 Label Description:

S. No.	Name	Description
1	Admin_Help	JFrame Name
2	Name	Name of the Person requesting

3	Contact Number	Phone Number of the person requesting
4	Select Issue Type	Select Your Issue Category type
5	Detailed Description Of the Request	Provide details about the request
6	Priority Level	Select your Priority of the Request

9.2.2 Java Reference:

S. No.	Class Name	Model Dependency	View Dependency	Controller Dependency
1.	Admin_Help	InsertInToDB.insertRequestTick	-	Login_All

9.2.3 Database References

S. No.	Table Name	Referred For
1.	DH_ADMIN_TICKETS	Ticket details are stored

9.2.4 Exception handling

S. No.	Reference	Error If	Reference Table
1.	Name	Empty	DH_EMPTY_FIELDS_1
2.	Contact Number	Empty	DH_EMPTY_FIELDS_1
3.	Issue Type	Empty	DH_EMPTY_FIELDS_1
4.	Issue Details	Empty	DH_EMPTY_FIELDS_1
5.	Priority	Empty	DH_LOGIN_ERROR_1

10. EXCEPTION HANDLING

One of the most important aspects is error trapping and error handling which is incorporated in Dr. Help. Maximum Exception Handling has been covered and also stored in the database depending upon the classification of errors.

In this application exception handling is covered for each field which will be filled or left blank. Starting from Login page to Logout page every interaction made with this application is recorded in the database which will be used for further development of Dr. Help

10.1.1 Login Error Handler:

If all the required fields are not filled or if there no Email-Id for the registered category, bad username and password all these are captured under one table with actions that are performed. Since these are related

to Login issues, these are captured in a table called DH_LOGIN_ERROR_1. Each column located under this table has its own explanation.

Column Name	Description
UNIQUE_ID	Generated unique ID whenever an error occurs
DESCRIPTION	Describes what type of Login Error
CATEGORY	From which Category Login
ERROR_DATE	Date of Error

10.1.2 Empty Field Error Handler:

If a field is not filled and left empty and the USER/DOCTOR/MANAGEMENT/ADMIN want to go to the next screen it will not be possible because it may be a mandatory field. Then these are captured in a table called DH_EMPTY_FIELDS_1.

Column Name	Description
UNIQUE_ID	Generated unique ID whenever an error occurs
DESCRIPTION	Describes what type of Login Error
SCREEN_NAME	From which Screen error came
ERROR_DATE	Date of Error

10.1.3 SQL Error Handler

When Admin performs any DBA activities and if any syntax is wrong these are captured along with the actual error and admin will be informed to check the table for more details. Table name for SQL Error handler is DH_SQL_ERRORS where the error is captured along with SQL Error Code.

Column Name	Description
UNIQUE_ID	Generated unique ID whenever an error occurs
DESCRIPTION	Describes what type of Login Error
SYNTAX	What is the Syntax entered by Admin
ERROR_FROM	Which Screen this SQL ERROR with SQL Error Code
ERROR_DATE	Date of Error

10.2 SCREENSHOT

10.2.1 Login Error Handler

Worksheet

Query Builder

SELECT * FROM DH_LOGIN_ERROR_1 ORDER BY 1 DESC;

Query Result x

SQL | Fetched 50 rows in 0.028 seconds

UNIQUE_ID	DESCRIPTION	CATEGORY	ERROR_DATE
1	90326 No EmailId Found	USER	02-DEC-17
2	90324 Wrong EmailID and Password	MGMT	02-DEC-17
3	90323 Wrong EmailID and Password	USER	02-DEC-17
4	90322 Wrong EmailID and Password	USER	02-DEC-17
5	90321 No EmailId Found	USER	02-DEC-17
6	90318 Wrong EmailID and Password	MGMT	01-DEC-17
7	90317 Wrong EmailID and Password	MGMT	01-DEC-17
8	90315 Wrong EmailID and Password	Admin	01-DEC-17
9	90312 Wrong EmailID and Password	Admin	01-DEC-17
10	90311 Wrong EmailID and Password	Admin	01-DEC-17
11	90305 Wrong EmailID and Password	DOC	01-DEC-17
12	90304 Wrong EmailID and Password	DOC	01-DEC-17
13	90303 No EmailId Found	DOC	30-NOV-17
14	90302 Wrong EmailID and Password	DOC	30-NOV-17
15	90290 Wrong EmailID and Password	USER	30-NOV-17

10.2.2 Empty Fields Error Handler

Worksheet		Query Builder	
		SELECT * FROM DH_EMPTY_FIELDS_1 ORDER BY 1 DESC;	
		Query Result x	
		SQL Fetched 50 rows in 0.047 seconds	
	UNIQUE_ID	DESCRIPTION	SCREEN_NAME
1	90327	Either Location or ZipCode not Selected	User Hosp Location Search
2	90325	Medical Option Not Selected	User Screen IssueDescription
3	90320	Medical Option Not Selected	User Screen IssueDescription
4	90316	Ticket Number Empty	Admin DML Drop
5	90314	Password Mismatch	New Admin
6	90313	Domain Not Selected	New Doctor
7	90310	Appointment Book Date Empty	User Appointment Screen
8	90309	Appointment Book Date Empty	User Appointment Screen
9	90308	Medical Option Not Selected	User Screen IssueDescription
10	90307	Either Location or ZipCode not Selected	User Hosp Location Search
11	90306	Medical Option Not Selected	User Screen IssueDescription

10.2.3 SQL Error Handler

Worksheet		Query Builder	
		SELECT * FROM DH_SQL_ERRORS_1 ORDER BY 1 DESC;	
		Query Result x	
		SQL All Rows Fetched: 28 in 0.028 seconds	
	UNIQUE_ID	DESCRIPTION	SYNTAX
1	90328	ORA-02263: need to specify the datatype for this column	CREATE TABLE PROJECT(ID)
2	90285	ORA-00990: missing or invalid privilege	GRANT (PRIVILEGE_TYPE) ON [TABLE_NAME] TO [GRANTEES]
3	90284	ORA-00990: missing or invalid privilege	GRANT (PRIVILEGE_TYPE) ON [TABLE_NAME] TO [GRANTEES]
4	90282	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
5	90281	ORA-00942: table or view does not exist	SELECT * FROM dh_use
6	90280	ORA-00903: invalid table name	SELECT * FROM user
7	90139	ORA-00928: missing SELECT keyword	INSERT INTO james(2040)
8	90138	ORA-00928: missing SELECT keyword	INSERT INTO james(123)
9	90137	ORA-00903: invalid table name	CREATE TABLE [ENTER_TABLE_NAME] [ENTER COLUMN_NAME AND DATATYPE]
10	90122	ORA-00907: missing right parenthesis	CREATE TABLE test (Name varchar2(10))
11	90121	ORA-00922: missing or invalid option	CREATE TABLE test(name varchar2(10));
12	90120	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
13	90119	ORA-00942: table or view does not exist	SELECT * FROM admin
14	90118	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
15	90117	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
16	90116	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
17	90115	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
18	90114	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]
19	90113	ORA-00903: invalid table name	SELECT * FROM [ENTER_TABLE_NAME]

10.2.4 Java Reference

S. No	Package Name	Class Name	Description
1	ErrorHandler	EmptyFields_Error_Handler	If Empty Fields are filled
2	ErrorHandler	Login_Error	If Login Validation fails
3	Models	ResultSetFetch.validateSQLQuerySelect	Validates Select Statement
4	Models	ResultSetFetch.validateSQLQueryDDL	Validates DDL Commands
5	Models	ResultSetFetch.validateSQLQueryDML	Validates DML Commands
6	Models	ResultSetFetch.validateSQLQueryDCL	Validates DCL Commands
7	Models	InsertInToDB.SQLSyntaxErrorMessage	Inserts SQL Error Message into the database

10.2.5 Database Reference

S. No.	Table Name	Referred For
1.	DH_LOGIN_ERROR_1	Login Validation failure
2.	DH_EMPTY_FIELDS_1	If any field is left empty
3.	DH_SQL_ERRORS_1	SQL Exceptions

11. REFERENCES

11.1 JAVA

S. NO	Package Name	Package Description	Class Name	Class Description
1	Dr. Help	Controller Package	Login and Registration	
			Login_All.java	Main Program
			Welcome_Screen.java	New Registration Type
			UserType_Selection.java	Choose New Registration
			newUser.java	New User Registration
			newDoctor.java	New Doctor Registration
			newManager.java	New Manager Registration
			newAdmin.java	New Admin Registration
			User Section	
			IssueDescription.java	Choose Issue Type
			UserAppConfirmation.java	Choose location
			Hosp_List.java	Choose Hospital and Time Slot
			Appointment_summary.java	Summary Screen of User
			Doctor Section	
			visit.java	Check Appointment for Date
			appointment.java	Appointment summary

			Management Section	
			Management_Report.java	Management Screen Main Menu
			Hosp_Category.java	Hospital Report Category wise
			Hosp_Venture.java	Hospital Venture Report
			NearByMedicalShop.java	Search Hospital by location or Zip
			Admin Section	
			Admin_Screen.java	Admin Main Menu
			Admin_DCL_Execute.java	Admin DCL Exectuion
			Admin_DCL.java	Admin DCL Menu
			Admin_DML_Execute.java	Admin DML Exectuion
			Admin_DML.java	Admin DML Menu
			Admin_DDL_Execute.java	Admin DDL Exectuion
			Admin_DDL.java	Admin DDL Menu
			Admin_Help.java	Raise A Request
			AdminTickets_Status.java	Check tickets
2	ErrorHandler	Error Handler Pacakge	EmptyFields_Error_Handler.java	Captures Empty Fields errors
			Login_Error.java	Captures Login validation errors
3	Models	CRUD Operations	Connector.java	Database Connection
			InsertInToDB.java	Insert/Update/Delete operations
			ResultSetFetch.java	Results from database
4	View	Jtable function	Admin_Select_DDL.java	Select query populates in a Jtable
			Admin_Tickets_View.java	Admin tickets populates in a Jtable
			Hosp_Category.java	Category wise hospital populates in a Jtable
			HospVenture_View.java	Hospital are populated in a Jtable based on Venture date
			MedView.java	Populates Hospital based on Location or ZipCode
			Report_View.java	User appointment report populates in a Jtable
			User_Report.java	Doctor report populates in a Jtable

11.2 DATABASE

11.2.1 List of tables

Scheme Name	Table Name	Description
ORA_AAG	DH_USERS_1	User Details

ORA_AAG	DH_DOCTORS_1	Doctor Details
ORA_AAG	DH_MANAGEMENTS_1	Manager Details
ORA_AAG	DH_ADMINS_1	Admin Details
ORA_AAG	DH_APPOINTMENT	User Appointment Details
ORA_AAG	DH_HOSPLIST_1	Hospital List
ORA_AAG	DH_HOSP_VENTURE	Hospital Venture List
ORA_AAG	DH_DOC_LIST_1	Doctor List
ORA_AAG	DH_ADMIN_TICKETS	Admin Ticket Details
ORA_AAG	DH_FEEDBACK	Management Feedback
ORA_AAG	DH_EMAIL_DOMAIN	Email Domain for Login
ORA_AAG	DH_EMPTY_FIELDS_1	Empty Field Error Details
ORA_AAG	DH_LOGIN_ERROR_1	Login Error Details
ORA_AAG	DH_SQL_ERRORS_1	SQL Error Details

11.2.2 Column Details

DH_ADMIN_TICKETS			
Column Name	Data Type	Nullable	Description
TICKET_NUMBER	NUMBER(38,0)	No	Ticket ID
RAISED_BY	VARCHAR2(50 BYTE)	Yes	Raise By
CONTACT_NUMBER	VARCHAR2(20 BYTE)	Yes	Contact Number
ISSUE_CATEGORY	VARCHAR2(20 BYTE)	Yes	Ticket Category
ISSUE_DESCRIPTION	VARCHAR2(2000 BYTE)	Yes	Details about the ticket
PRIORITY_LEVEL	NUMBER(38,0)	Yes	Priority Level
DATE_SUBMITTED	DATE	Yes	Date submitted
TIME_SUBMITTED	TIMESTAMP(6)	Yes	Time when created
TIME_CLOSED	TIMESTAMP(6)	Yes	Resolved time
SLA_DAYS	NUMBER(38,0)	Yes	Days remaining for this ticket
HOURS_REMAINING	NUMBER(10,2)	Yes	Hours remaining for this ticket
STATUS	VARCHAR2(10 BYTE)	Yes	Status of the ticket
ASSIGNED_TO	VARCHAR2(50 BYTE)	Yes	Assigned to
COMMENTS	VARCHAR2(100 BYTE)	Yes	Comments

DH_ADMINS_1			
Column Name	Data Type	Nullable	Description
A_ID	NUMBER(38,0)	Yes	Admin ID
NAME	VARCHAR2(50 BYTE)	Yes	Admin Name
PASSWORD	VARCHAR2(64 BYTE)	Yes	Admin Password Encrypted
DOB	VARCHAR2(8 BYTE)	Yes	Admin Date of Birth

AGE	NUMBER(38,0)	Yes	Admin Age
EMAIL_ID	VARCHAR2(50 BYTE)	No	Admin Email-Id
GENDER	VARCHAR2(6 BYTE)	Yes	Admin Gender
DATE_OF_REGISTRATION	DATE	Yes	Admin Registered Date
LAST_LOGIN	TIMESTAMP(6)	Yes	Admin Last Login
LAST_LOGOUT	TIMESTAMP(6)	Yes	Admin Last Logout
ACCOUNT_LOCKED	VARCHAR2(1 BYTE)	Yes	Account Status

DH_USERS_1			
Column Name	Data Type	Nullable	Description
U_ID	NUMBER(38,0)	Yes	User Id
NAME	VARCHAR2(50 BYTE)	Yes	User Name
PASSWORD	VARCHAR2(64 BYTE)	Yes	User Password Encrypted
DOB	VARCHAR2(10 BYTE)	Yes	User Date of Birth
AGE	NUMBER(38,0)	Yes	User Age
GENDER	VARCHAR2(6 BYTE)	Yes	User Gender
EMAIL_ID	VARCHAR2(50 BYTE)	No	User Id
MOBILE	NUMBER(38,0)	Yes	User Mobile Number
DATE_OF_REGISTRATION	DATE	Yes	User Registered Date
LAST_LOGIN	TIMESTAMP(6)	Yes	User Last Login
LAST_LOGOUT	TIMESTAMP(6)	Yes	User Last Logout
ACCOUNT_LOCKED	VARCHAR2(1 BYTE)	Yes	Account Status

DH_DOCTORS_1			
Column Name	Data Type	Nullable	Description
D_ID	NUMBER(38,0)	Yes	Doctor ID
NAME	VARCHAR2(50 BYTE)	Yes	Doctor Name
PASSWORD	VARCHAR2(64 BYTE)	Yes	Doctor Password Encrypted
DOB	VARCHAR2(8 BYTE)	Yes	Doctor Date of Birth
AGE	NUMBER(38,0)	Yes	Doctor Age
GENDER	VARCHAR2(6 BYTE)	Yes	Doctor Email-Id
EMAIL_ID	VARCHAR2(50 BYTE)	No	Doctor Gender
MOBILE	NUMBER(38,0)	Yes	Doctor Mobile Number
CATEGORY	NUMBER(38,0)	Yes	Doctor Category
HOSPITAL_NAME	VARCHAR2(50 BYTE)	Yes	Doctor's Hospital
DATE_OF_REGISTRATION	DATE	Yes	Doctor Registered Date
LAST_LOGIN	TIMESTAMP(6)	Yes	Doctor Last Login
LAST_LOGOUT	TIMESTAMP(6)	Yes	Doctor Last Logout
ACCOUNT_LOCKED	VARCHAR2(1 BYTE)	Yes	Account Status

DH_DOC_LIST_1			
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Column Name	Data Type	Nullable	Description
NAME	VARCHAR2(50 BYTE)	Yes	Doctor's Name
ADDRESS	VARCHAR2(50 BYTE)	Yes	Doctors Address
CITY	VARCHAR2(50 BYTE)	Yes	Doctor's City
COUNTY	VARCHAR2(50 BYTE)	Yes	Doctor's County
STATE	VARCHAR2(2 BYTE)	Yes	Doctor's State
ZIP	VARCHAR2(5 BYTE)	Yes	Zip Code
MOBILE	VARCHAR2(12 BYTE)	Yes	Doctor's Mobile Number
EMAIL_ID	VARCHAR2(50 BYTE)	No	Doctor's Email-Id
DATE_OF_JOIN	DATE	Yes	Date joined
CATEGORY	NUMBER(38,0)	Yes	Category Registered
SALARY	NUMBER(10,2)	Yes	Doctor's Salary
RATING	NUMBER(38,0)	Yes	Doctor's Performance Rating
ACTIVE	VARCHAR2(1 BYTE)	Yes	Active or not

DH_APPOINTMENT			
Column Name	Data Type	Nullable	Description
AID	NUMBER(38,0)	Yes	Appointment ID
H_ID	NUMBER	No	Hospital Id
HOSPITAL_NAME	VARCHAR2(100 BYTE)	No	Hospital Name
DATE_SCHEDULED	VARCHAR2(20 BYTE)	No	Date of Appointment
TIME_SLOT	VARCHAR2(20 BYTE)	No	Time Slot registered
U_EMAIL_ID	VARCHAR2(100 BYTE)	Yes	User Email-Id
D_EMAIL_ID	VARCHAR2(100 BYTE)	Yes	Doctor Email-Id
CATEGORY	NUMBER(38,0)	Yes	Issue Category
DIAGONSIS	VARCHAR2(4000 BYTE)	Yes	Diagnosis prescribed
DRUG_PRESCRIBED	VARCHAR2(4000 BYTE)	Yes	Drugs prescribed
NEXT_VISIT	VARCHAR2(20 BYTE)	Yes	Next appointment
REFER_TO	VARCHAR2(100 BYTE)	Yes	Refer to another doctor
COMMENTS	VARCHAR2(4000 BYTE)	Yes	General comments

DH_HOSPLIST_1			
Column Name	Data Type	Nullable	Description
H_ID	NUMBER	No	Hospital ID
HOSPITAL_NAME	VARCHAR2(100 BYTE)	Yes	Hospital Name
ADDRESS	VARCHAR2(100 BYTE)	Yes	Hospital Address
CITY	VARCHAR2(20 BYTE)	Yes	Hospital City
STATE	VARCHAR2(2 BYTE)	Yes	Hospital State
ZIPCODE	VARCHAR2(5 BYTE)	Yes	Hospital ZipCode
PHONE_NUMBER	NUMBER	Yes	Hospital Phone Number

HOSPITAL_OWNERSHIP	VARCHAR2(50 BYTE)	Yes	Govt or Private Owned
MEDICAL_INSURANCE	NUMBER	Yes	Does it cover Medical Insurance
CATEGORY	NUMBER	Yes	Which category hospital
DOCTOR_NAME	VARCHAR2(50 BYTE)	Yes	Doctor Assigned
DOCTOR_EMAIL_ID	VARCHAR2(50 BYTE)	Yes	Doctor's Email ID

DH_HOSP_VENTURE			
Column Name	Data Type	Nullable	Description
H_ID	NUMBER	No	Hospital ID
HOSPITAL_NAME	VARCHAR2(100 BYTE)	Yes	Hospital Name
ADDRESS	VARCHAR2(100 BYTE)	Yes	Hospital Address
CITY	VARCHAR2(20 BYTE)	Yes	Hospital City
STATE	VARCHAR2(2 BYTE)	Yes	Hospital State
ZIPCODE	VARCHAR2(5 BYTE)	Yes	Hospital ZipCode
PHONE_NUMBER	NUMBER	Yes	Hospital Phone Number
HOSPITAL_OWNERSHIP	VARCHAR2(50 BYTE)	Yes	Govt or Private Owned
MEDICAL_INSURANCE	NUMBER	Yes	Does it cover Medical Insurance
CATEGORY	NUMBER	Yes	Which category hospital
DATE_OF_VENTURE	DATE	Yes	Date of Venture with Dr. Help

DH_MANAGEMENTS_1			
Column Name	Data Type	Nullable	Description
M_ID	NUMBER(38,0)	Yes	Manager ID
NAME	VARCHAR2(50 BYTE)	Yes	Manager Name
PASSWORD	VARCHAR2(64 BYTE)	Yes	Doctor Password Encrypted
GENDER	VARCHAR2(6 BYTE)	Yes	Manager Gender
EMAIL_ID	VARCHAR2(50 BYTE)	No	Manager Email-Id
DATE_OF_REGISTRATION	DATE	Yes	Manager Registered Date
LAST_LOGIN	TIMESTAMP(6)	Yes	Manager Last Login
LAST_LOGOUT	TIMESTAMP(6)	Yes	Manager Last Logout
ACCOUNT_LOCKED	VARCHAR2(1 BYTE)	Yes	Account Status

DH_EMAIL_DOMAIN			
Column Name	Data Type	Nullable	Description
DOMAIN_NAME	VARCHAR2(50 BYTE)	No	Email-ID Domain

DH_EMPTY_FIELDS_1			
Column Name	Data Type	Nullable	Description
UNIQUE_ID	NUMBER(38,0)	Yes	Unique ID
DESCRIPTION	VARCHAR2(50 BYTE)	Yes	Empty Field Description

SCREEN_NAME	VARCHAR2(50 BYTE)	Yes	From which screen
ERROR_DATE	DATE	Yes	Error Date

DH_FEEDBACK			
Column Name	Data Type	Nullable	Description
DATE_PROVIDED	DATE	Yes	Date
COMMENTS	VARCHAR2(4000 BYTE)	Yes	Comments

DH_SQL_ERRORS_1			
Column Name	Data Type	Nullable	Description
UNIQUE_ID	NUMBER(38,0)	Yes	Error ID
DESCRIPTION	VARCHAR2(3000 BYTE)	Yes	SQL Error Code with description
SYNTAX	VARCHAR2(200 BYTE)	Yes	Syntax Entered
ERROR_FROM	VARCHAR2(100 BYTE)	Yes	Error from which screen
ERROR_DATE	DATE	Yes	Error Date

12. FUTURE SCOPE

- Implement Machine Learning techniques for the error handlings to improve the application.
- Enable additional email domain for Login.
- Lock your account after three (3) wrong attempts.
- Provide predictive analysis of diagnosis without medical consultation.
- Introduce additional time slots for appointment scheduling.
- Implement charts for Management reports, Users diagnosis, Admin tickets.
- Export Reports in a .csv, pdf format