# COMSATS University, Islamabad Pakistan

**Spatial Neglect**

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***Bachelor of Science in Computer Science (2018-2022)***

### The candidate confirms that the work submitted is their own and appropriate credit has been given where reference has been made to the work of others.

# Logo, company name Description automatically generatedCOMSATS University, Islamabad Pakistan

**Spatial Neglect**

**A project presented to**

**COMSATS University, Islamabad**

**In partial fulfillment**

**of the requirement for the degree of**

***Bachelors of Science in Computer Science (2018-2022)***

**By**

**Danish Ali CUI/FA18-BCS-017/ISB**

**Malaika Atiq CUI/FA18-BCS-040/ISB**

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We hereby declare that this software, neither whole nor as a part has been copied out from any source. It is further declared that we have developed this software and accompanied report entirely on the basis of our personal efforts. If any part of this project is proved to be copied out from any source or found to be reproduction of some other, we will stand by the consequences. No Portion of the work presented has been submitted of any application for any other degree or qualification of this or any other university or institute of learning.

Danish Ali Malaika Atiq

**CERTIFICATE OF APPROVAL**

It is to certify that the final year project of BS (CS) “Spatial Neglect” was developed by

### DANISH ALI (CUI/FA18-BCS-017) and MALAIKA ATIQ (CUI/FA18-BCS-040) under the

supervision of “Mr. Khurram Iqbal” and that in his opinion; it is fully adequate, in scope and quality for the degree of Bachelor of Science in Computer Sciences.

**Supervisor**

**External Examiner**

**Head of Department**

**(Department of Computer Science)**

**Executive Summary**

To diagnose spatial neglect, doctors usually ask the patient to draw something. And for their rehabilitation, there’s many kinds of visual scanning exercises, that help patients’ brain to improve spatial awareness. All of this is currently being performed on papers. In this scenario, the doctors will have to keep a pile of papers to keep track of each patient’s record. And estimating a patient’s improvement will become a big task for doctors. Going through so much paper for all the previous exercises to track each patient’s progress is tiresome and just not practical nowadays.

To prevent all these problems from prevailing, the Neglect App is developed. It is a detection and rehabilitation system, which provides solution to these problems. It facilitates doctors to their patients with this disorder more efficiently. The detection is performed on a drawing board where the patient draws, and our system determines if the patient has left or right neglect. For rehabilitation we have a visuo-spatial exercise where the patient is encouraged to scan both sides of the screen.

With all the record now stored in a database, keeping track of a patient’s history to determine current performance is only a button click away. The system uses graphical reports to visualize the patients’ progress. It also sets milestones, which the patient is expected to reach. Reaching a milestone will help doctor know that the patient is getting better than before and at the same time instill hope into the patient to get better.

The patient draws and the drawn image is passed to the trained classification model. The model after processing the image, determines if the patient has left or right neglect. For rehabilitation exercise, object detection & counting will be used.

**Acknowledgement**

All praise is to Almighty Allah who bestowed upon us a minute portion of His boundless knowledge by virtue of which we were able to accomplish this challenging task.

We are greatly indebted to our project supervisor “Mr. Khurram Iqbal”. Without their personal supervision, advice and valuable guidance, completion of this project would have been doubtful. We are grateful to them for their encouragement and continual help during this work.

And we are also thankful to our parents and family who have been a constant source of encouragement for us and brought us with the values of honesty & hard work.

Danish Ali Malaika Atiq

**Abbreviations**

|  |  |
| --- | --- |
| **SRS** | Software Require Specification |
| **PC** | Personal Computer |
| App/app | Application |
| UI | User Interface |
| ML | Machine Learning |
| DL | Deep Learning |
| CNN | Convolutional Neural Network |
| TCP | Transmission Control Protocol |
| UDP | User Datagram Protocol |
| MB | Megabytes |

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**Revision History:**

**Scope and SRS:**

|  |  |
| --- | --- |
| **Comments** | **Action Taken** |
| **Ms. Isma ul Hassan 's comments**  Overall idea of the project is interesting. Good presentation.  Patient or his/her guardian should also be able to view the reports. Revise the use case diagram. | Guardian Role is added in the Project who will add patient and will view the improvement reports of Patient. Guardian will be able to Contact doctor for patient rehabilitation. Use case diagrams are revised accordingly for Guardian. |
| **Mr. Basharat Mehmood 's comments**  Overall idea is interesting and scope is ok. Students were well prepared. However, it is suggested that enrich the patient module by adding features such as registration, view progress reports. Use-case diagram needs minor changes (as suggested during the presentation). Revise the SRS document after adding features. | Guardian Role is added in the Project who will add patient and will view the improvement reports of Patient. Guardian will be able to Contact doctor for patient rehabilitation. Srs document has been updated and features related to Guardian has been added. Use case Diagrams are updated accordingly also. |
| **Mr. Zaheer ul Hussain Sani 's comments**  Suggested to have parents account to see the progress.  App should be HIPAA compliant. | Guardian Role is added. Guardian will be able to view progress also for Encryption now we are using bcrypt which is node module for data encryption after discussion with Sir zaheer ul Hussain Sani. |

|  |  |
| --- | --- |
| **Comments** | **Action Taken** |
| **Ms. Isma ul Hassan 's comments**  State diagrams need to be justified (no need if not required) Classes which are in class diagram should be shown in next implementation. Improve UI. Implementation OK | UI has been improved using Material UI. State Diagram has been removed. Class diagram is recreated and now visible in document. |
| **Mr. Zaheer ul Hussain Sani 's comments**  Use of State diagram is not justified. Implementation demonstration should be ready next time. | UI has been improved using Material UI. State Diagram has been removed. Class diagram is recreated and now visible in document. |

**SDS and 40% Implementation:**

**60% Implementation:**

|  |  |
| --- | --- |
| **Comments** | **Action Taken** |
| **Ms. Hafiza Sundus Farooq comments** implementation is ok, up to 60%. document is fine, focus on text alignment, print the report on single side of page. | Text Alignment is set to Justified. |
| **Ms. Isma ul Hassan 's comments** Implementation OK | Nil. |

# Introduction

Neglect App is a platform for Neglect Patients where they will perform activities like copying pictures, scratching specific objects in image and then our ML model will classify the activity result as Left or right or No neglect. Rehabilitation plan for Neglect removal will be also consisted of such activities and Neglect will be measured. Graphical and statistical Reports about patient improvements will be also generated helping doctor in better decision making for future rehabilitation plan activities and guiding guardians towards improvement in related patient performance with each appointment.

## Vision Statement

For Spatial Neglect patients and doctor who wants to detect and rehabilitate spatial neglect, the Neglect app is a web application that will allow detection of left and right spatial neglect through copying exercise and rehabilitation through scratching exercises, doctors will be able to keep track of improvement in patient condition through viewing reports, milestone, analysis and will be able to made payments easily through credit card for using the app services unlike the Visual therapy app that only allows detection of left neglect and does not provide the rehabilitation exercises and do not help doctors in keeping track of performances.

Our neglect app will be helpful for doctors to easily schedule appointments and manage the rehabilitation plan for patients and will help them in better decision making for the future. Our app will set milestones for each upcoming appointments so performance of patients will be judged easily and graphs, statistical reports will help doctors and guardians to easily visualize the performance and improvement in patient condition.

## Related System Analysis/Literature Review

**Table 1: Related System Analysis with Targeted Neglect Solution.**

|  |  |  |
| --- | --- | --- |
| **Application Name** | **Weakness** | **Proposed Project Solution** |
| * Visual Attention Therapy Lite | * Provides no detection for the disorder. * Rehabilitation only provided for left neglect.   Image copying exercises not available.   * No Future predictions and trend setting involved on basis of reports. | * Our application will detect both Left and Right Neglect. * Rehabilitation tasks can be useful for both left and right neglect patients.   Image copying activities will be available also.   * Future predictions and trend setting will be involved on basis of reports generated from patient performance. |

## System Limitations/Constraints

* + - The Neglect Detector and rehabilitator cannot replace itself with doctors, it helps doctor for better decision-making regarding treatment.
    - The copying accuracy measured can vary so doctors need to analyze and make decision accordingly.
    - Future trends generated from reports can vary in accuracy.
    - This application will be Doctor driven.
    - Doctor needs to have knowledge about graphs.
    - Guardians needs to understand the instructions related to detection exercise performed for better detection of patient neglect.\
    - Doctors should understand instructions related to rehabilitation exercises.
    - Doctor should keep track whether patient is violating rules of exercise or not and should stop him from doing this.

## Tools and Technologies

**Table 2: Tools and Technologies for the Neglect App.**

|  |  |  |
| --- | --- | --- |
| **Tools** | **Version** | **Rationale** |
| MS Visual Studio Code | 2019 | IDE |
| MongoDB | 4.3.0 | NoSQL DB |
| Adobe Photoshop | 22.3.1 | Design Work |
| MS Visio | 2019 | Design Work |
| MS Word | 2019 | Documentation |
| MS Power Point | 2019 | Presentation |
| Balsamiq Wireframes | 4.0.48 | Mockups Creation |
| Postman | 8.5.1 | API Testing |
| Google Collaborator | - | ML model training |
| **Technology** | **Version** | **Rationale** |
| Python | 3.8.3 | Programming language |
| Flask | 2.0.3 | Python web framework |
| Node.js | 14.6. 1 | Backend Programming |
| CSS | 3 | Web Development |
| JavaScript | 1.8.5 | Web Development |
| HTML | 5 | Web Development |
| React.js | 17.0.2 / 22 March  2021 | JavaScript Frontend Library |
| Express | 4.17.1 | Node Framework |
| TensorFlow.js | 3.0 | Python library for ML and DL |
| Open CV | 4.5.5 | Computer vision Library |
| JavaScript | ES6 | Programming Language |
| AOS | 2.0.0 | Scroll Animations Library |
| Material UI | V*5.4.4* | React Component Library |
| Cloudinary | V3 | API for media management |

## Relevance to Course Modules

Neglect app is related to all major courses we studied in BS-CS. It involves the Deep learning Image classification, object recognition models which are related to Artificial intelligence and Machine learning course we studied in BS-CS. It involves the data science concepts of data visualization etc. which will be used in report generator module to show the performance and improvement in patient condition with respect to every appointment.

# Problem Definition

## Problem Statement

There is no platform exists for Spatial neglect doctors and patients where doctors can detect the neglect and patients will be rehabilitated. So, it is very difficult for spatial neglect patients to visit doctor office and then perform detection test and the get rehabilitation also its very difficult and time consuming for doctors to keep track of spatial neglect patients rehabilitation plan and improvements in them etc. Our application will solve this issue through providing a platform where doctors will rehabilitate patients and will easily visualize the performance and improvements in patient situation.

## Problem Solution

Neglect app will allow guardians to register patient, detect neglect and contact doctor for patient rehabilitation. Doctors will be able to schedule appointments, monitor the drawing and scratching rehabilitation exercises and then visualize the improvements in patients through Graphs, charts and Statistical reports. Milestones will be set for every upcoming appointment to set target for next improvement in patients. Doctors can easily keep track of patient performance and improvement with each appointment completed.

## Objectives of the Proposed System

* + - Neglect Application shall provide a utility to guardians to register patients and detect the Neglect disability in patients using neglect detector.
    - Guardians will be able to request doctors for patient rehabilitation.
    - Neglect Application will provide a rehabilitation plan consisting visual search exercises performed by patients will be measured accordingly.
    - Reports will be generated based on result of exercises performed in appointments.
    - Performance of Patients will be compared, and comparison will be visualized through graph and Statistical table.
    - Future Milestones for appointments will also be updated after completion of each appointment.
    - Application will make easier for doctors to keep track of patient improvements.
    - Application will provide doctor a facility of reporting problems and providing feedback, reviews.

## Scope

The proposed system is a web application designed for doctors to assess and rehabilitate patients suffering from Spatial neglect. The doctor will be able to keep a log of his patients and schedule appointments, where in each appointment, the patient will perform the required exercises. The doctor will be able to generate reports and visualize them to understand the severity of the disorder of his/her patient and make better decision regarding rehabilitation plan.

Proposed Application will be doctor driven. Future milestones values can vary in accuracy. Neglect detector and rehabilitator cannot replace the doctor, it can only help doctor for better decision-making regarding treatment in future.

### Module 1: Account Manager

* + - * Doctors can Sign up and then login.
      * Doctors can manage their profile information.
      * Guardians can add Patients and update and delete patients record.
      * Guardians can Sign up and then login
      * Guardian can manage their profile
      * Admin can login.
      * Admin can delete or block doctor.
      * Admin can verify payments.
      * Admin can add images in training set

### Module 2: Neglect detector with whiteboard

Neglect detector will be an entry point to the way of patient treatment. Neglect detector will determine whether a neglect issue exists in a patient or not.

* + - * Provides patient with an image to copy.
      * Whiteboard will be provided with marker to copy the given image on whiteboard.
      * Timer will start when exercise begins.
      * After finishing exercise our CNN classifier will determine while copying patient neglected left side or right side of an image.
      * Neglect will be detected.

### Module 3: Neglect Rehabilitator

After successful detection of neglect, Patient will be provided with Rehabilitation exercises to measure accuracy and in this way, patient will be able to help himself in rehabilitating from neglect through performing exercises in different appointments. Rehabilitation program will consist of a series of rounds and each round will be consisted of exercises.

* + - * Patients will be need to scratch circles in an image through marker provided.
      * After finishing exercise our trained Model will generate report giving information about how many circles he found and correctly scratched.
      * Report will also tell how many circles he/she missed to scratch hence accuracy will be measured.
      * After finishing a round graph will be shown representing performance exercises wise.

### Module 4: Report Generator and Milestone

For better understanding of patient recovery and improvement in exercise performance, graphs will be generated that will clearly express where rehabilitation plan of patient is reached and in comparison, with other patients where he stands according to improvements?

* + - * Doctor will be able to generate report of patients based on his performance in exercises during appointments
      * Comparison between recovery of patient with other patients will be represented in form of graph through ML models with respect to performance in each appointment.
      * Statistical data about recovery during each appointment will be also shown in table form.
      * Doctor will be able to create and save his observations about reports for future use.
      * Guardians will be able to view reports of their related patients.
      * They can get better idea of improvement in patient situation.

Based on performance of exercises performed during previous appointments, new milestone points will be awarded to reach in next appointment. Milestone point will be basically a performance measure that will tell doctor about where rehabilitation program reached and what is next goal of improvement for patient.

* + - * Milestone point for next appointment will be generated for current patient.
      * Doctor will be able to create and save text note about milestones for future use.

### Module 5: Patient and appointment Logging

Doctors need to maintain log of patients so appointments related work will be done. It will make easier for doctor to view schedule appointments and manage appointments accordingly Guardian can add patient

* + - * Guardians will be able to add patient record and manage it.
      * Guardians will be able to send request to doctor for patient rehabilitation.
      * Guardians can also send query to doctor.
      * Doctors will be able to accept or reject guardian request for rehabilitation.
      * Allow doctors to keep log of his patients and schedule appointments for them.
      * Allow doctors to start or finish appointments.
      * Allow doctors to reset appointments if needed
      * Doctors will be able to see brief record of patients.

### Module 6: Reviews and Feedback

It will be platform where Doctors, Guardians can post his queries or report a problem or provided feedback about app. Admin will reply to posted queries or feedback

* + - * Doctor will be able to post a query or feedback.
      * Doctor will be able to review his query if he finds any mistake.
      * Guardians will be able to post a review also.
      * Admin will be replying to queries posted.

### Module 7: Payments

Doctor will be able to pay charges for using the application services through credit card.

* + - * Doctor will be able to pay charges through credit card.
      * Doctor will be able to pay charges through Providing bank account information also.
      * Admin will verify the payment information.

# Requirement Analysis

## User classes and characteristics

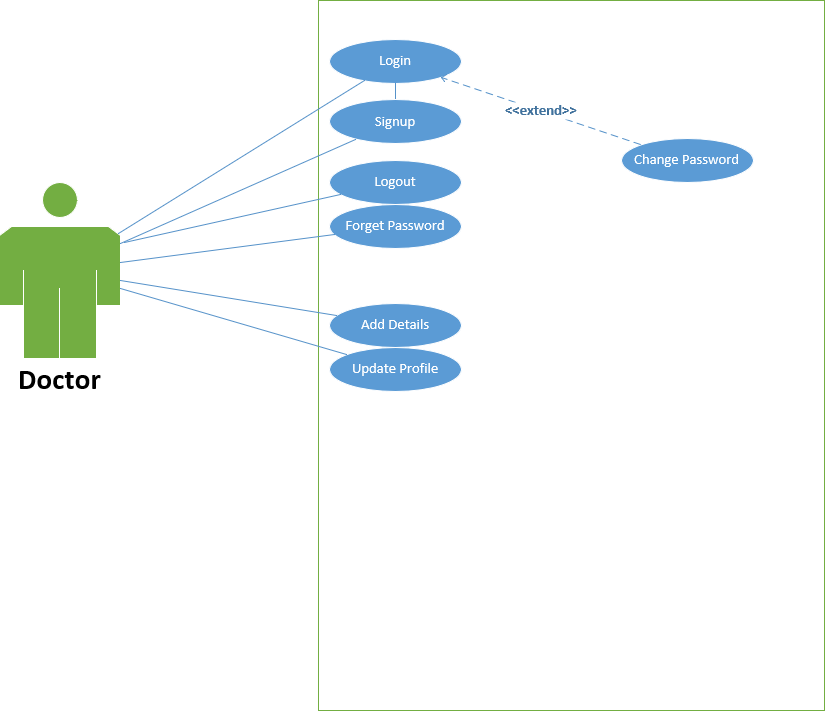
|  |  |
| --- | --- |
| **User class** | **Description** |
| **Doctor** | The doctor will be able to register himself and create a log of all his patients. The doctor will be responsible for maintaining each patient’s profile and will maintain appointments. The doctor can generate milestones and reports for each of the patients and compare patients’ performances. The doctor will also have to pay to use the application. The doctor will have control of the application. Since it may be hard for the patient to navigate through the application, having lost the sense of left/right perception. |
| **Patient** | Patient will draw on the whiteboard so that the doctor can assess him/her for neglect. During an appointment, the patient will perform exercises specified and started by the doctor. At the end of the appointment, the patient will be awarded points based on his/her performance. |
| **Admin** | The admin will maintain records of all the doctors and their patients. Admin will also respond to feedback and reviews. Admin is also responsible to keep a check on the payments. |
| **Guardian** | Guardian will be able to register patient for neglect treatment. Guardian will use free detector exercise tool to detect neglect in patient and then contact doctor for setting appointment for Patient. Guardian will be able to see reports of Rehabilitation plan for patient. |

### Table 3: User classes and characteristics

## Requirement Identifying Technique

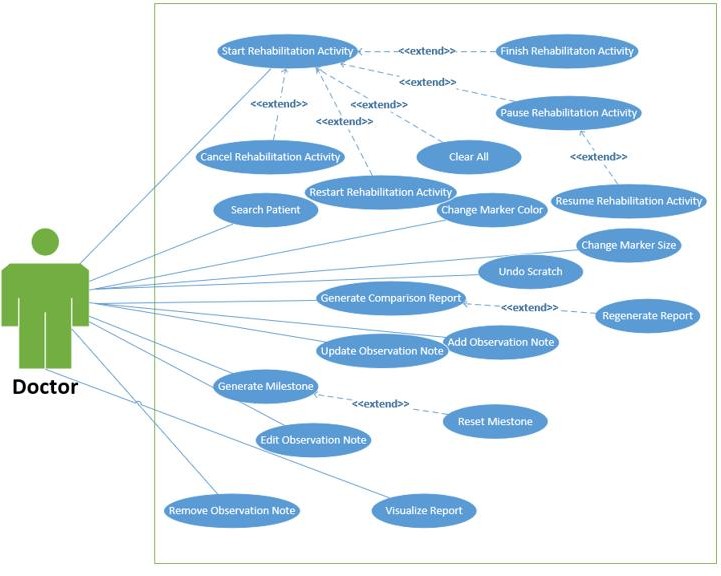
### Use case diagrams

#### UC-diagram 1



**Figure 1: Use Case Diagram-1 for doctor**

#### UC-diagram 2



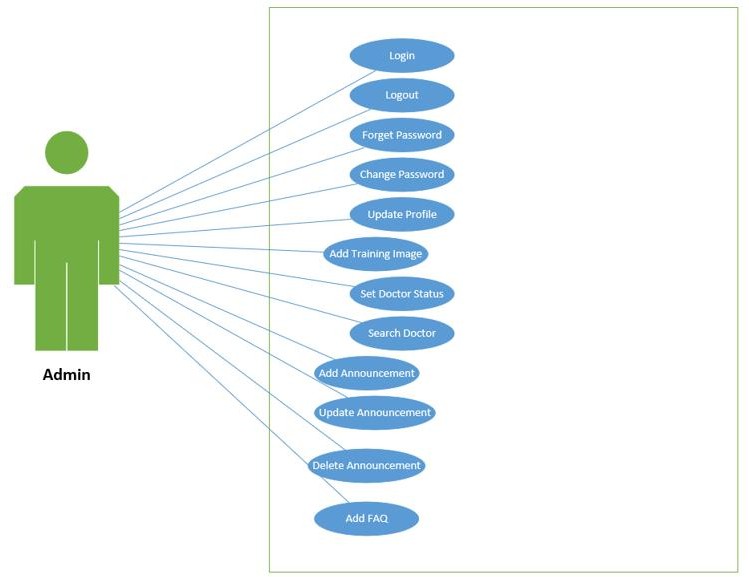
**Figure 2: Use Case Diagram-2 for doctor**

#### UC-Diagram 3



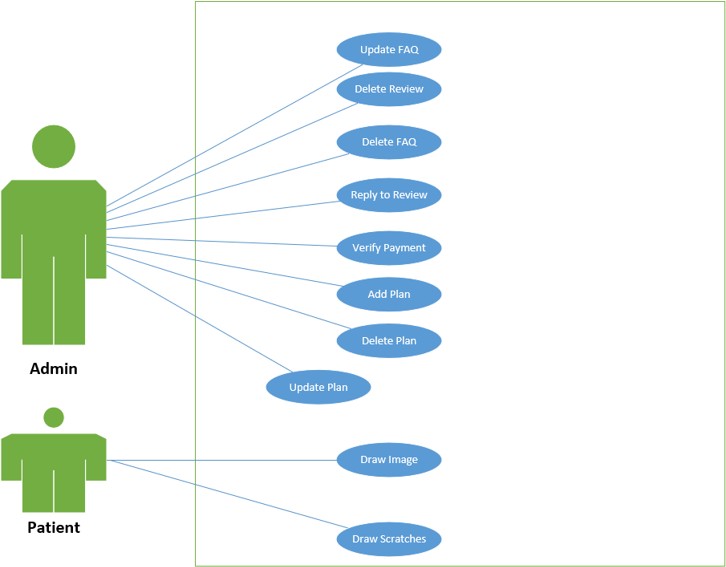
**Figure 3: Use Case Diagram-3 for doctor**

#### UC-Diagram 4



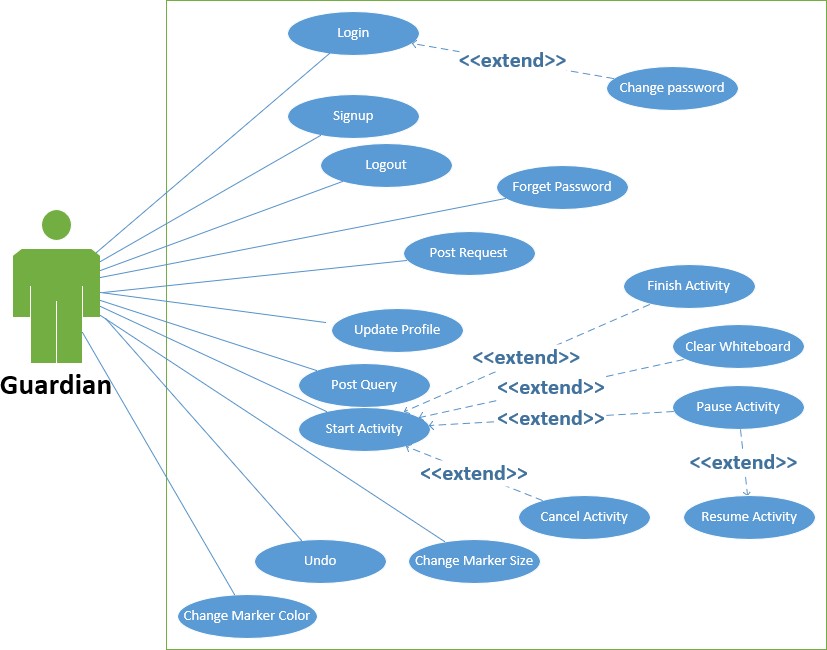
**Figure 4: Use Case Diagram-1 for Admin**

#### UC-Diagram 5



**Figure 5: Use Case Diagram-2 for Admin, Patient**

#### UC-Diagram 6



**Figure 6: Use Case Diagram-2 for Guardian**

### Descriptive use cases

* + - 1. **Module 1: Account Manger**
         1. **UC-1.1 Login**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.1 |
| **Use Case Name:** | Login |
| **Actors:** | Primary Actors: Doctor, Admin, Guardian |
| **Description:** | User will login to account for using services provided by Application |
| **Trigger:** | User Click Login Button |
| **Preconditions:** | User must be registered |
| **Postconditions:** | User is logged into system.  Dashboard page will be shown. |
| **Normal Flow:** | 1. User enters Email 2. User enters Password 3. User clicks Login Button 4. User gets Login to system 5. User is redirected to Dashboard page |
| **Alternative Flows:** | 1a. In normal flow step 1, if user enters incorrect email Login is disapproved  Error message about re-enter Email appears User enters correct Email  Use Case resumes from Step 1 of Normal flow  2a. In normal flow step 2, if user enters incorrect password Login is disapproved  Error message about re-enter Password appears |

|  |  |
| --- | --- |
|  | User enters correct password  Use Case resumes from Step 2 of Normal flow |
| **Exceptions:** | Account does not exist  Internet connection loses |
| **Business Rules:** | Password must be at least five characters long |
| **Assumptions:** | User understands English  User has stable internet connection |

* + - * 1. **UC-1.2 Signup**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.2 |
| **Use Case Name:** | Sign up |
| **Actors:** | Primary Actors: Doctor, Guardian |
| **Description:** | Doctor will create Account |
| **Trigger:** | Doctors click Signup Button |
| **Preconditions:** | Doctor has an active email |
| **Postconditions:** | Doctor Account will be created Successfully |
| **Normal Flow:** | 1. Doctor enters name 2. Doctors enter Email 3. Doctors enter age 4. Doctors enter phone number 5. Doctors enter password 6. Doctor clicks send Verification code 7. Doctor enters Verification code 8. Doctor clicks Signup Button |
| **Alternative Flows:** | 2a. Doctor entered incorrect email Error message will be shown  Use case will continue from step 2 of normal flow 2a. Doctor entered age less than 22  Error message will be shown |

|  |  |
| --- | --- |
|  | Use case will continue from step 3 of normal flow  5a. Doctor entered password of length less than 5 Error message will be shown  Use case will continue from step 5 of Normal flow 7a. Doctor enters incorrect verification code  Error message will be shown User click resend code  Use case will continue from step 7 of Normal flow |
| **Exceptions:** | Verification code email not arrived in email  Internet connections lose |
| **Business Rules:** | There will be only one account associated with each email Password length shall be at least 5  Verification code shall be of length 4  Age should be at least 22 |
| **Assumptions:** | Doctor have all necessary information required by Application |

* + - * 1. **UC-1.3 Logout**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.3 |
| **Use Case Name:** | Logout |
| **Actors:** | Primary Actors: Doctor, Admin, Guardian |
| **Description:** | User will be logout of an account and cannot until gets login again |
| **Trigger:** | User Click Logout Button |
| **Preconditions:** | User must be logged in already |
| **Postconditions:** | User Account will be logged off. |
| **Normal Flow:** | User clicks Logout  Users click Ok in warning console |
| **Alternative Flows:** | NIL |

|  |  |
| --- | --- |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | User is aware that unsaved changes will be lost when account is logout |

* + - * 1. **UC-1.4 Forget Password**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.4 |
| **Use Case Name:** | Forget Password |
| **Actors:** | Primary Actors: Doctor, Admin, Guardian |
| **Description:** | Users forget password and wants to reset password |
| **Trigger:** | User Click Forget password |
| **Preconditions:** | User must be registered |
| **Postconditions:** | User Account password will be updated |
| **Normal Flow:** | 1. User enters email 2. User clicks forget password 3. User enters verification code 4. Users enter new password 5. User enter confirm password 6. User click reset password 7. User password updated |
| **Alternative Flows:** | 1a. User enters incorrect email Error will be shown  Use case will resume from step 1 of Normal flow 3a. Users enter incorrect verification code  Error will be shown  Use case will resume from step 3 of Normal flow 4a. User enters new password of length less than 5  Error will be shown  Use case will resume from step 2 of Normal flow |

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| --- | --- |
|  | 5a. User enter Confirm password that does not match with new password Error will be shown  User case will resume from step 3 of Normal flow |
| **Exceptions:** | NIL |
| **Business Rules:** | Verification code must be 4-digit code  New password length must be at least 5 |
| **Assumptions:** | User remembers email |

* + - * 1. **UC-1.5 Change Password**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.5 |
| **Use Case Name:** | Change Password |
| **Actors:** | Primary Actors: Doctor, Admin, Guardian |
| **Description:** | User wants to reset password |
| **Trigger:** | User Click change password |
| **Preconditions:** | User must be logged in |
| **Postconditions:** | User Account password will be updated |
| **Normal Flow:** | 1. User enters old password 2. Users enter new password 3. User enter confirm password 4. User click reset password 5. User password updated |
| **Alternative Flows:** | 1a. User enters incorrect old password Error will be shown  Use case will resume from step 1 of Normal flow 2a. User enters new password of length less than 5  Error will be shown  Use case will resume from step 2 of Normal flow  3a. User enter Confirm password that does not match with new password Error will be shown  User case will resume from step 3 of Normal flow |

|  |  |
| --- | --- |
| **Exceptions:** | NIL |
| **Business Rules:** | Verification code must be 4-digit code  New password length must be at least 5 |
| **Assumptions:** | User remembers email |

* + - * 1. **UC-1.6 Update Profile**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.6 |
| **Use Case Name:** | Update Profile |
| **Actors:** | Primary Actors: Doctor, Admin, Guardian |
| **Description:** | User Profile details will be updated |
| **Trigger:** | User Click Edit Profile |
| **Preconditions:** | User must be logged in already |
| **Postconditions:** | User Account details will be updated |
| **Normal Flow:** | 1. User click View profile 2. Users select Profile section 3. User click edit details 4. User updates fields 5. User profile details will be updated |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | Password and other sensitive fields should appear in code form and not in readable text form |
| **Assumptions:** | NIL |

* + - * 1. **Add training image**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.7 |
| **Use Case Name:** | Add training mage |
| **Actors:** | Primary Actors: admin |

|  |  |
| --- | --- |
| **Description:** | Admin want to add training image to database |
| **Trigger:** | Admin clicks add image |
| **Preconditions:** | Admin must be Logged in. |
| **Postconditions:** | Image will be uploaded to database |
| **Normal Flow:** | 1. Admin clicks chose image 2. Admin select image from device 3. Admin click upload 4. Image will be uploaded to database |
| **Alternative Flows:** | 2a. Admin select an image of format other than PNG,JPG, JPEG Error message will be displayed  Use case will continue from step 1 of Normal flow 2b. Admin select an image of size greater than 5MB Error message will be displayed  Use case will continue from step 1 of Normal flow |
| **Exceptions:** | Internet connections lose during uploading image  Image sizes were greater than 5MB |
| **Business Rules:** | Image size should be less than 5Mb |
| **Assumptions:** | User is logged in  Users know about PNG, JPEG format |

* + - * 1. **UC-1.8 Set doctor status**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.8 |
| **Use Case Name:** | Set Doctor status |
| **Actors:** | Primary Actors: admin |
| **Description:** | Admin want to manage doctor usage through blocking or unblocking account |
| **Trigger:** | Admin clicks Manage doctor |
| **Preconditions:** | Admin must be Logged in. |

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| --- | --- |
| **Postconditions:** | Doctor account status will be set |
| **Normal Flow:** | 1. Admin clicks Doctor status 2. Admin View doctor record 3. Admin search doctor by name 4. Admin click record area 5. Admin set account status as blocked on unblocked |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-1.9 Search Doctor**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.9 |
| **Use Case Name:** | Search Doctor |
| **Actors:** | Primary Actors: admin |
| **Description:** | Admin want to search specific doctor account within list, so he enters name of doctor |
| **Trigger:** | Admin type doctor name |
| **Preconditions:** | Admin must be Logged in. |
| **Postconditions:** | Specific doctor record will be shown on screen |
| **Normal Flow:** | 1. Admin clicks in search field area. 2. Admin types of doctor name 3. Record will appear on screen |
| **Alternative Flows:** | NIL |
| **Exceptions:** | Internet connections lose during searching record  No doctor exists with name enter by Admin |
| **Business Rules:** | Doctor must type only text in search field |
| **Assumptions:** | NIL |

* + - * 1. **UC-1.10 Add Announcements**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.10 |
| **Use Case Name:** | Add Announcements |
| **Actors:** | Primary Actors: admin |
| **Description:** | Admin want to announce some Information for user so he will Post announcement or made changes to previously made announcement |
| **Trigger:** | Admin click Announcement |
| **Preconditions:** | Admin must be Logged in. |
| **Postconditions:** | Announcement will be posted |
| **Normal Flow:** | 1. Admin enters subject 2. Admins enter Description 3. Admin click Post |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-1.11 Update Announcements**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.11 |
| **Use Case Name:** | Update Announcements |
| **Actors:** | Primary Actors: admin |
| **Description:** | Admin want to made changes to previously made announcement |
| **Trigger:** | Admin click Edit Announcement |
| **Preconditions:** | Admin must be Logged in. |
| **Postconditions:** | Announcement will be updated |
| **Normal Flow:** | 1. Admin enters subject 2. Admins enter Description 3. Admin click Update |
| **Alternative Flows:** | NIL |

|  |  |
| --- | --- |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-1.12 Delete Announcements**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-1.12 |
| **Use Case Name:** | Delete Announcements |
| **Actors:** | Primary Actors: admin |
| **Description:** | Admin want to delete previously made announcement |
| **Trigger:** | Admin click delete Announcement |
| **Preconditions:** | Admin must be Logged in. |
| **Postconditions:** | Announcement will be deleted |
| **Normal Flow:** | 1. Admin view announcement 2. Admin click delete announcement 3. Announcement will be deleted |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - 1. **Module 2: Neglect Detector with Whiteboard**
         1. **UC-2.1 Draw image**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.1 |
| **Use Case Name:** | Draw image |
| **Actors:** | Guardian, Patient. |
| **Description:** | Patient will be able to draw image for assessment by the detector. |
| **Trigger:** | Mouse click and drag. |

|  |  |
| --- | --- |
| **Preconditions:** | Guardian should open whiteboard detector. |
| **Postconditions:** | Image will be ready to be downloaded. |
| **Normal Flow:** | 1. Guardian clicks on detector button. 2. The whiteboard is displayed with an image provided. 3. A default marker is selected. 4. Patient copies the given image. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | **BR-1:**  Patient should use the limited whiteboard area for drawing. |
| **Assumptions:** | Patient is comfortable using a mouse. |

* + - * 1. **UC-2.2 Start Activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.2 |
| **Use Case Name:** | Start activity |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to start the whiteboard activity. |
| **Trigger:** | Mouse click on detector button. |
| **Preconditions:** | The guardian should have logged in. |
| **Postconditions:** | Whiteboard will open. |
| **Normal Flow:** | 1. Whiteboard will be displayed. 2. Guardian will click on detector button. 3. Whiteboard will be displayed. 4. Activity will be started. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Patient must be assessed through whiteboard activity. |

* + - * 1. **UC-2.3 Finish Activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.3 |
| **Use Case Name:** | Finish activity. |
| **Actors:** | Guardian. |
| **Description:** | Guardian will be able to finish the whiteboard activity. |
| **Trigger:** | Mouse click on finish icon. |
| **Preconditions:** | The patient should have drawn final image. |
| **Postconditions:** | Neglect will be detected. |
| **Normal Flow:** | 1. Guardian will start detector. 2. Guardian will select marker. 3. Patient will draw image on whiteboard. 4. Guardian will click on finish icon. 5. A results page will be displayed. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Nothing is drawn on the whiteboard. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Patient has drawn final drawing. |

* + - * 1. **UC-2.4 Clear whiteboard**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.4 |
| **Use Case Name:** | Clear whiteboard |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to clear the whiteboard. |
| **Trigger:** | Mouse click on clear whiteboard icon. |
| **Preconditions:** | There should be something drawn on the whiteboard. |
| **Postconditions:** | Whiteboard will be cleared. |
| **Normal Flow:** | 1. Patient will copy image on whiteboard. |

|  |  |
| --- | --- |
|  | 1. Guardian will click on clear whiteboard icon. 2. The whiteboard will be empty. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | The whiteboard is already empty. |
| **Business Rules:** | NIL |
| **Assumptions:** | Patient wants to reset the drawing. |

* + - * 1. **UC-2.5 Change marker color**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.5 |
| **Use Case Name:** | Change marker color |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to change the color of marker while drawing. |
| **Trigger:** | Mouse-click on the desired color. |
| **Preconditions:** | Patient should be in the detection whiteboard. |
| **Postconditions:** | Marker color will be changed to the color selected. |
| **Normal Flow:** | 1. Guardian will start the activity. 2. Guardian will click on the desired color. 3. Marker color will change. 4. Patient will draw with the new color. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | The guardian clicks on the color that is currently selected. |
| **Business Rules:** | NIL |
| **Assumptions:** | Guardian wants a different marker color. |

* + - * 1. **UC-2.6 Pause Activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.6 |

|  |  |
| --- | --- |
| **Use Case Name:** | Pause activity |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to pause the drawing activity. |
| **Trigger:** | Mouse click on pause icon. |
| **Preconditions:** | The neglect whiteboard should be opened. |
| **Postconditions:** | Activity will be paused. |
| **Normal Flow:** | 1. Guardian will start the whiteboard activity. 2. Guardian will click on pause icon. 3. The activity will be paused as well as the timer. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:**  Timer should pause.  **BR-2:**  The guardian should no longer be able to draw on the whiteboard. |
| **Assumptions:** | The activity needs to be paused due to some interruption. |

* + - * 1. **UC-2.7 Resume activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.7 |
| **Use Case Name:** | Resume activity |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to resume the drawing activity. |
| **Trigger:** | Mouse click on resume icon. |
| **Preconditions:** | The whiteboard activity should be paused. |
| **Postconditions:** | Activity will be resumed from where it was paused. |
| **Normal Flow:** | 1. Guardian will start the activity. 2. Guardian will pause the activity. 3. The activity will be paused as well as the timer. |

|  |  |
| --- | --- |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:**  Timer should start from where it was paused.  **BR-2:**  The patient should now be able to draw on the whiteboard. |
| **Assumptions:** | The activity needs to be resumed after being paused. |

* + - * 1. **UC-2.8 Cancel Activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.8 |
| **Use Case Name:** | Cancel activity |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to cancel the drawing activity. |
| **Trigger:** | Mouse-click on cancel icon. |
| **Preconditions:** | The whiteboard activity should be terminated. |
| **Postconditions:** | Activity will be terminated. |
| **Normal Flow:** | 1. Guardian will start the activity. 2. Guardian will cancel the whiteboard activity. 3. The activity will be terminated, and all user data will be lost. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | The activity needs to terminate for some reason. |

* + - * 1. **UC-2.9 Undo**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.9 |

|  |  |
| --- | --- |
| **Use Case Name:** | Undo |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to undo last action. |
| **Trigger:** | Mouse click on undo icon. |
| **Preconditions:** | Patient should at least make one stroke before clicking on the button. |
| **Postconditions:** | Last stroke on the whiteboard will be removed. |
| **Normal Flow:** | 1. Guardian will start the activity. 2. Patient will draw something on whiteboard. 3. Guardian will click on undo icon. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | No strokes were made on the whiteboard. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Patient has made an error. |

* + - * 1. **UC-2.10 Change marker color size**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-2.10 |
| **Use Case Name:** | Change marker size |
| **Actors:** | Guardian |
| **Description:** | Guardian will be able to change the size of marker while drawing. |
| **Trigger:** | Mouse-click on the desired size. |
| **Preconditions:** | Guardian should be in the detection whiteboard. |
| **Postconditions:** | Marker color will be changed to the color selected. |
| **Normal Flow:** | 1. Guardian will start the activity. 2. Guardian will click on the desired size. 3. Marker size will change. 4. Patient will draw with the new marker size. |
| **Alternative Flows:** | NIL |

|  |  |
| --- | --- |
|  |  |
| **Exceptions:** | The guardian clicks on the size that is currently selected. |
| **Business Rules:** | NIL |
| **Assumptions:** | Guardian wants a different marker size. |

* + - 1. **Module 3: Neglect Rehabilitator**
         1. **UC-3.1 Scratch Circle**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.1 |
| **Use Case Name:** | Scratch Circle |
| **Actors:** | Patient |
| **Description:** | Patient will be able to scratch circle in image through marker. |
| **Trigger:** | Mouse click and drag. |
| **Preconditions:** | Appointment must be started already Doctor must be login |
| **Postconditions:** | Circle identification will lose. |
| **Normal Flow:** | 1. Doctor clicks on Rehabilitation button. 2. The image appears. 3. A default marker is selected. 4. Patients scratch the circles. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | **BR-1:**  Patient should use the limited image area for scratching. |
| **Assumptions:** | Patient should be comfortable with using a mouse. |

* + - * 1. **UC-3.2 Start Rehabilitation activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.2 |
| **Use Case Name:** | Start Rehabilitation activity. |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to start the Rehabilitation activity. |
| **Trigger:** | Mouse click on Start Activity button. |
| **Preconditions:** | The doctor should have logged in. |

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| --- | --- |
| **Postconditions:** | Image will become editable. |
| **Normal Flow:** | 1. Doctor will click Rehabilitator 2. Image will be shown 3. Doctor click start activity 4. Image will become editable 5. Marker will be selected automatically 6. Activity will be started |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Patient must be assessed through image scratching activity. |

* + - * 1. **UC-3.3 Finish Rehabilitation activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.3 |
| **Use Case Name:** | Finish Rehabilitation activity. |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to finish the rehabilitation activity. |
| **Trigger:** | Mouse click on finish icon. |
| **Preconditions:** | The patient should have scratch circles. |
| **Postconditions:** | Neglect will be detected. |
| **Normal Flow:** | 1. Doctor will start Rehabilitation Activity. 2. Doctor will select marker. 3. Patient will scratch circles of image. 4. Doctor will click on finish icon. 5. A results page will be displayed. |
| **Alternative Flows:** | NIL. |

|  |  |
| --- | --- |
| **Exceptions:** | No scratching done by patient |
| **Business Rules:** | NIL. |
| **Assumptions:** | Patient has scratch circles. |

* + - * 1. **UC-3.4 Clear All**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.4 |
| **Use Case Name:** | Clear All |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to clear the scratches. |
| **Trigger:** | Mouse click on clear Scratch icon. |
| **Preconditions:** | There should be some scratches on the image. |
| **Postconditions:** | All scratches in the image will be clear. |
| **Normal Flow:** | 1. Patient will scratch circles in image. 2. Doctor will click on clear scratch icon. 3. The scratches will be clear |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | There is no scratch in the image. |
| **Business Rules:** | NIL |
| **Assumptions:** | Patient wants to clear all scratches. |

* + - * 1. **UC-3.5 Change marker color**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.5 |
| **Use Case Name:** | Change marker color |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to change the color of marker while scratching. |

|  |  |
| --- | --- |
| **Trigger:** | Mouse-click on the desired color. |
| **Preconditions:** | Patient should be in the Rehabilitation image edit area. |
| **Postconditions:** | Marker color will be changed to the color selected. |
| **Normal Flow:** | 1. Doctor will start the activity. 2. Doctor will click on the desired color. 3. Marker color will change. 4. Patient will draw scratches with color selected. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | The doctor clicks on the color that is currently selected. |
| **Business Rules:** | NIL |
| **Assumptions:** | Doctor wants a different marker color. |

* + - * 1. **UC-3.6 Pause Rehabilitation activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.6 |
| **Use Case Name:** | Pause Rehabilitation activity |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to pause the rehabilitation activity. |
| **Trigger:** | Mouse click on pause icon. |
| **Preconditions:** | The neglect rehabilitation exercise should be started already. |
| **Postconditions:** | Activity will be paused. |
| **Normal Flow:** | 1. Doctor will start the rehabilitation activity. 2. Doctor will click on pause icon. 3. The activity will be paused as well as the timer. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL. |

|  |  |
| --- | --- |
| **Business Rules:** | **BR-1:**  Timer should pause.  **BR-2:**  The patient should no longer be able to draw scratches on circles in image. |
| **Assumptions:** | The activity needs to be paused due to some interruption. |

* + - * 1. **UC-3.7 Resume Rehabilitation activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.7 |
| **Use Case Name:** | Resume Rehabilitation activity |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to resume the rehabilitation activity. |
| **Trigger:** | Mouse click on resume icon. |
| **Preconditions:** | The rehabilitation activity should be paused. |
| **Postconditions:** | Activity will be resumed from where it will be paused. |
| **Normal Flow:** | 1. Doctor will start the activity. 2. Doctor will pause the activity. 3. The activity will be paused as well as the timer. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:**  Timer should start from where it was paused.  **BR-2:**  The patient should now be able to draw scratches on the image area. |
| **Assumptions:** | The activity needs to be resumed after being paused. |

* + - * 1. **UC-3.8 Cancel Rehabilitation activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.8 |
| **Use Case Name:** | Cancel Rehabilitation activity |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to cancel the rehabilitation activity. |
| **Trigger:** | Mouse-click on back icon. |
| **Preconditions:** | The rehabilitation activity should be terminated. |
| **Postconditions:** | Activity will be terminated. |
| **Normal Flow:** | 1. Doctor will start the activity. 2. Doctor will cancel the rehabilitation activity. 3. The activity will be terminated, and all scratches will be lost. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | The activity needs to terminate for some reason. |

* + - * 1. **UC-3.9 Undo scratch**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.9 |
| **Use Case Name:** | Undo scratch |
| **Actors:** | Primary actor: Doctor Secondary actor: Patient. |
| **Description:** | Doctor will be able to undo last scratch. |
| **Trigger:** | Mouse click on undo icon. |
| **Preconditions:** | Patient should at least make one scratch before clicking on the button. |
| **Postconditions:** | Most recent scratch will be removed. |
| **Normal Flow:** | 1. Doctor will start the activity. 2. Patient will draw scratch on image. 3. Doctor will click on undo icon. |
| **Alternative** | NIL |

|  |  |
| --- | --- |
| **Flows:** |  |
| **Exceptions:** | No scratch was draw on the image. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Patient has made an error. |

* + - * 1. **UC-3.10 Change marker color**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.10 |
| **Use Case Name:** | Change marker size |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to change the size of marker while scratching. |
| **Trigger:** | Mouse-click on the desired size. |
| **Preconditions:** | Patient should be in rehabilitation Activity. |
| **Postconditions:** | Marker color will be changed to the color selected. |
| **Normal Flow:** | 1. Doctor will start the activity. 2. Doctor will click on the desired size. 3. Marker size will change. 4. Patient will draw scratch with the new marker size. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | The doctor clicks on the size that is currently selected. |
| **Business Rules:** | NIL |
| **Assumptions:** | Doctor wants a different marker size. |

* + - * 1. **UC-3.11 Restart Activity**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-3.11 |

|  |  |
| --- | --- |
| **Use Case Name:** | Restart Activity |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to restart the activity. |
| **Trigger:** | Mouse-click on the restart icon. |
| **Preconditions:** | Appointment should be started already.  Patient should be in the Rehabilitation activity. |
| **Postconditions:** | Rehabilitation activity will be restarted  Scratches will be lost |
| **Normal Flow:** | 1. Doctor will start the activity 2. Patient will draw scratch. 3. Patient click restart Activity icon 4. Activity will be restarted 5. All scratches will be lost. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | Patient made too many mistakes, so doctor want to restart Activity. |

* + - 1. **Module 4: Report and Milestone Generator**
         1. **UC-4.1 Generate milestone**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.1 |
| **Use Case Name:** | Generate milestone |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to generate milestone of a specific patient. |
| **Trigger:** | Mouse click on generate milestone button. |
| **Preconditions:** | Doctor should be on the dashboard. |
| **Postconditions:** | A milestone status will be displayed. |

|  |  |
| --- | --- |
| **Normal Flow:** | 1. Doctor will login 2. Doctor will click on Milestone button. 3. Doctor will select a patient from the dropdown. 4. Doctor will click on generate milestone button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:**  System should provide this option for all registered patients. |
| **Assumptions:** | Doctor needs to see where his/her patient stands. |

* + - * 1. **UC-4.2 Reset Milestone**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.2 |
| **Use Case Name:** | Reset milestone |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to reset milestone status of a patient. |
| **Trigger:** | Mouse click on reset milestone button. |
| **Preconditions:** | Doctor should have generated milestone status of a patient. |
| **Postconditions:** | Milestone status will be reset. |
| **Normal Flow:** | 1. Doctor will open dashboard. 2. Doctor will click on Milestone button. 3. Doctor will select a patient from the dropdown. 4. Doctor will click on generate milestone button. 5. Doctor will click on reset button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | The milestone status is already the default values. |
| **Business Rules:** | **BR-1:**  The system should set all data to their default values. |
| **Assumptions:** | Doctor needs to start rehabilitating a patient from the beginning. |

* + - * 1. **UC-4.3 Add observation note**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.3 |
| **Use Case Name:** | Add observation note |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to add a note regarding patient. |
| **Trigger:** | Mouse click on add note icon. |
| **Preconditions:** | Doctor should have generated milestone status of a patient. |
| **Postconditions:** | A note will be added. |
| **Normal Flow:** | 1. Doctor will login. 2. Doctor will click on Milestone button. 3. Doctor will select a patient from the dropdown. 4. Doctor will click on generate milestone button. 5. Milestone status will be displayed. 6. Doctor will click on add note icon. 7. A box will appear. 8. Doctor will enter some textual note. 9. Doctor will click on save. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Clicking on the cancel button. |
| **Business Rules:** | **BR-1:**  The system should provide an option to cancel adding a note. |
| **Assumptions:** | Doctor needs to remember something about a patient next time while he views the milestone status. |

* + - * 1. **UC-4.4 Remove observation note**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.4 |
| **Use Case Name:** | Remove observation note |
| **Actors:** | Doctor. |

|  |  |
| --- | --- |
| **Description:** | Doctor will be able to delete note of a patient. |
| **Trigger:** | Mouse click on delete note icon. |
| **Preconditions:** | Doctor should have generated milestone status of a patient. |
| **Postconditions:** | Specific note will be deleted. |
| **Normal Flow:** | 1. Doctor will login. 2. Doctor will click on Milestone button. 3. Doctor will select a patient from the dropdown. 4. Doctor will click on generate milestone button. 5. Milestone status will be displayed. 6. Doctor will click on notes icon. 7. A list of all notes will appear. 8. Doctor will click on delete icon. 9. Note will be deleted. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Doctor may no longer need a saved note. |

* + - * 1. **UC-4.5 Edit observation note**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.5 |
| **Use Case Name:** | Edit observation note |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to edit note of a patient. |
| **Trigger:** | Mouse click on edit note icon. |
| **Preconditions:** | Doctor should have generated milestone status of a patient. |
| **Postconditions:** | Specific note will be updated. |
| **Normal Flow:** | 1. Doctor will login. 2. Doctor will click on Milestone button. |

|  |  |
| --- | --- |
|  | 1. Doctor will select a patient from the dropdown. 2. Doctor will click on generate milestone button. 3. Milestone status will be displayed. 4. Doctor will click on notes icon. 5. A list of all notes will appear. 6. Doctor will click on update icon. 7. Doctor will add updated note. 8. Doctor will click on save. |
| **Alternative Flows:** | If the doctor clicks on cancel, resume from step 7. |
| **Exceptions:** | Doctor clicks on cancel. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Doctor needs to update a saved note. |

* + - * 1. **UC-4.6 Generate comparison report**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.6 |
| **Use Case Name:** | Generate Comparison Report |
| **Actors:** | Primary Actors: Doctor |
| **Description:** | Doctor wants to generate report showing comparison of performance by current appointment patient with all other patients doing exercises. |
| **Trigger:** | Doctor click Generate Report |
| **Preconditions:** | Doctor must be logged in  Appointment must be already started |
| **Postconditions:** | Doctor will be able to visualize Graphical as well as statistical report |
| **Normal Flow:** | 1. Doctor click generate Report 2. Graphical, Statistical report tab will be generated |
| **Alternative Flows:** | NIL |
| **Exceptions:** | Connection with server loses |

|  |  |
| --- | --- |
| **Business Rules:** | There should be at least one round completed by patient of rehabilitation plan |
| **Assumptions:** | Patient completed at least 1 round of Rehabilitation plan |

* + - * 1. **UC-4.7 Reset comparison report**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.7 |
| **Use Case Name:** | Reset Comparison Report |
| **Actors:** | Primary Actors: Doctor |
| **Description:** | Doctor wants to refresh report showing comparison of performance by current appointment patient with all other patients doing exercises. |
| **Trigger:** | Doctor click Generate Report |
| **Preconditions:** | Doctor must be logged in  Appointment must be already started |
| **Postconditions:** | Doctor will be able to visualize Graphical as well as statistical report |
| **Normal Flow:** | 1. Doctor clicks generate Report 2. Graphical, Statistical report tab will be generated |
| **Alternative Flows:** | NIL |
| **Exceptions:** | Connection with server loses. |
| **Business Rules:** | There should be at least 1 round completed by patient of rehabilitation plan |
| **Assumptions:** | Patient completed at least 1 round of Rehabilitation plan |

* + - * 1. **UC-4.8 Search patient**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-4.8 |
| **Use Case Name:** | Search Patient |
| **Actors:** | Primary Actors: Doctor |
| **Description:** | Doctor wants to Search Patient for whom he wants to generate Report. Doctor will select either a current Patient if appointment us going on otherwise he will select through searching in list. |
| **Trigger:** | Doctor click Search Patient |

|  |  |
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| **Preconditions:** | Doctor must be logged in |
| **Postconditions:** | Doctor will be able to select Patient whose comparison report needed to be generated. |
| **Normal Flow:** | 1. Doctor click Search Patient 2. Doctors enter Patient name 3. Patient record appears 4. Doctor click select patient 5. Patient is selected |
| **Alternative Flows:** | NIL |
| **Exceptions:** | Patient not found  Patient does not complete even a single round. |
| **Business Rules:** | There should be at least one round completed by patient of rehabilitation plan |
| **Assumptions:** | Patient completed at least 1 round of Rehabilitation plan.  Patient record exists. |

* + - 1. **Module 5: Patient and appointments Logging**
         1. **UC-5.1 Accept request**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.1 |
| **Use Case Name:** | Accept request |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to accept request sent by guardian. |
| **Trigger:** | Mouse click on “Add” button. |
| **Preconditions:** | The patient should be neglect detected. |
| **Postconditions:** | A new patient will be added to the doctor’s patients list. |
| **Normal Flow:** | 1. The doctor will open dashboard. 2. The doctor will click on notifications icon. |

|  |  |
| --- | --- |
|  | 1. Requests sent will open. 2. The doctor will click on “Add”. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | Doctor wants to add a patient. |

* + - * 1. **UC-5.2 Delete patient**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.2 |
| **Use Case Name:** | Delete patient |
| **Actors:** | Doctor, Guardian. |
| **Description:** | Doctor and guardian will be able to delete patients from his patients list. |
| **Trigger:** | Mouse click on delete icon. |
| **Preconditions:** | Patient record should be opened. |
| **Postconditions:** | Selected patient will be deleted. |
| **Normal Flow:** | 1. Actor will open dashboard. 2. Actor will click on patient manager button. 3. All patients will be displayed. 4. Actor will click on delete patient icon. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | There are no patients registered. |
| **Business Rules:** | **BR-1:**  All existing data associated with the deleted patient should also be deleted. |
| **Assumptions:** | Doctor is no longer seeing the patient. Guardian is no longer associated to the patient. |

* + - * 1. **UC-5.3 Post request**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.3 |
| **Use Case Name:** | Post Request |
| **Actors:** | Guardian. |
| **Description:** | Guardian will be able to send doctor requests. |
| **Trigger:** | Mouse click on send request. |
| **Preconditions:** | Doctor profile should be opened. |
| **Postconditions:** | Request notification will be sent to the doctor. |
| **Normal Flow:** | 1. Guardian will open dashboard. 2. Guardian will click on doctors. 3. List of doctors will be displayed. 4. Guardian will click on a doctor’s record. 5. Guardian will click on send request button. |
| **Alternative Flows:** | NIL |
| **Exceptions:** | The patient is not neglect detected. |
| **Business Rules:** | **BR-1:**  The patient should be neglect detected. |
| **Assumptions:** | NIL |

* + - * 1. **UC-5.4 Search patient**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.4 |
| **Use Case Name:** | Search Patient |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to search a specific patient. |
| **Trigger:** | Mouse click on Search button. |
| **Preconditions:** | Patient record should be opened. |
| **Postconditions:** | Patient will be found. |
| **Normal Flow:** | 1. Doctor will open dashboard. 2. Doctor will click on patient manager button. 3. All patients will be displayed. |

|  |  |
| --- | --- |
|  | 1. Doctor will enter user’s name in the search bar. 2. User will be found. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | No user found. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Will provide faster filtering of patient records to the doctor. |

* + - * 1. **UC-5.5 Schedule appointment**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.5 |
| **Use Case Name:** | Schedule appointment |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to schedule appointment for a patient. |
| **Trigger:** | Mouse click on Schedule button. |
| **Preconditions:** | Patient record should be opened. |
| **Postconditions:** | A schedule will be set. |
| **Normal Flow:** | 1. Doctor will open dashboard. 2. Doctor will click on patient manager button. 3. All patients will be displayed, each record followed by a schedule appointment button. 4. Doctor will click on schedule appointment button. 5. Doctor will enter all the fields. 6. Doctor will click on Schedule button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | There are no patients registered.  Invalid patient details entered. |

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| --- | --- |
| **Business Rules:** | **BR-1:**  Appointment should not be scheduled unless details entered are correct.  **BR-2:**  If there is a clash of timings among appointments, that appointment should not be scheduled. An error message should be displayed. |
| **Assumptions:** | Doctor wants to have an appointment with the patient. |

* + - * 1. **UC-5.6 Delete appointment**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.6 |
| **Use Case Name:** | Delete appointment |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to delete scheduled appointments. |
| **Trigger:** | Mouse click on delete appointment icon. |
| **Preconditions:** | Scheduled appointments record should be opened. |
| **Postconditions:** | Specific scheduled appointment will be deleted. |
| **Normal Flow:** | 1. Doctor will open dashboard. 2. Doctor will click on patient manager button. 3. All scheduled appointments will be displayed. 4. Doctor will click on delete appointment icon. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | There are no scheduled appointments. |
| **Business Rules:** | **BR-1:**  All existing data associated with the deleted appointment should also be deleted. |
| **Assumptions:** | A scheduled appointment needs to be canceled. |

* + - * 1. **UC-5.7 Edit appointment**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.7 |

|  |  |
| --- | --- |
| **Use Case Name:** | Edit appointment |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to edit scheduled appointments. |
| **Trigger:** | Mouse click on edit appointment button. |
| **Preconditions:** | Scheduled appointments should be opened. |
| **Postconditions:** | Specific appointment will be updated. |
| **Normal Flow:** | 1. Doctor will open dashboard. 2. Doctor will click on patient manager button. 3. All appointments will be displayed. 4. Doctor will click on edit appointment button. 5. Doctor will re-enter the fields to update. 6. Doctor will click on Update button. |
| **Alternative Flows:** | If invalid appointment details are entered in step 5 of the normal flow:  1. Resume from step 5 of the normal flow. |
| **Exceptions:** | There are no appointments scheduled.  Invalid appointment details entered. |
| **Business Rules:** | **BR-1:**  Record should not be updated unless appointment details entered are valid. |
| **Assumptions:** | Appointment date and time has changed. |

* + - * 1. **UC-5.8 Start appointment**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.8 |
| **Use Case Name:** | Start appointment |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to start a scheduled appointment. |
| **Trigger:** | Mouse click on start appointment button. |
| **Preconditions:** | List of scheduled appointments should be opened. |
| **Postconditions:** | Specific appointment will be initiated. |
| **Normal Flow:** | 1. Doctor will open dashboard. |

|  |  |
| --- | --- |
|  | 1. Doctor will click on patient manager button. 2. All appointments will be displayed. 3. Doctor will click on start appointment button. 4. An appointment session will be initiated. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Appointment has expired. |
| **Business Rules:** | **BR-1:**  If time for an appointment has passed, it should be expired. Such records should be deleted by the doctor. |
| **Assumptions:** | Patient has come for rehabilitation. |

* + - * 1. **UC-5.9 End appointment**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.9 |
| **Use Case Name:** | End appointment |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to end a started appointment. |
| **Trigger:** | Mouse click on end appointment button. |
| **Preconditions:** | List of scheduled appointments should be opened. |
| **Postconditions:** | Specific appointment will be terminated. |
| **Normal Flow:** | 1. Doctor will open dashboard. 2. Doctor will click on patient manager button. 3. All appointments will be displayed. 4. Doctor will click on end appointment button. 5. An appointment session will be terminated. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:** |

|  |  |
| --- | --- |
|  | The appointment should automatically be ended after 40 minutes. |
| **Assumptions:** | A registered patient details are changed. |

* + - * 1. **UC-5.10 Add patient**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.10 |
| **Use Case Name:** | Add patient |
| **Actors:** | Guardian. |
| **Description:** | Guardian will be able to add patient. |
| **Trigger:** | Mouse click on “Add” button. |
| **Preconditions:** | The guardian should assess the patient through whiteboard detector. |
| **Postconditions:** | A new patient record will be created. |
| **Normal Flow:** | **Normal flow 1:**   1. The guardian will submit image for evaluation. 2. The guardian will be displayed results. 3. The guardian will click on Add patient. 4. The guardian will enter patient name, age, email, phone, Right/Left neglect. 5. The guardian will click on Add.   **Normal flow 2:**   1. The guardian will open dashboard. 2. The guardian will click on patient manager button. 3. The guardian will click on “Add New”. 4. The guardian will enter patient name, age, email, phone, Right/Left neglect. 5. The guardian will click on Add. |
| **Alternative Flows:** | If invalid patient details are entered in step 4 of the normal flow:  1. Resume from step 4 of the normal flow. |
| **Exceptions:** | Invalid patient details. |

|  |  |
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| **Business Rules:** | **BR-1:**  The system will not allow guardian to add a patient after assessment if the drawing results show no neglect. |
| **Assumptions:** | Guardian wants to add a patient. |

* + - * 1. **UC-5.11 Edit patient**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-5.11 |
| **Use Case Name:** | Edit patient |
| **Actors:** | Guardian. |
| **Description:** | Guardian will be able to edit registered patients’ records. |
| **Trigger:** | Mouse click on edit patient button. |
| **Preconditions:** | Patient record should be opened. |
| **Postconditions:** | Selected patient will be updated. |
| **Normal Flow:** | 1. Guardian will open dashboard. 2. Guardian will click on patient manager button. 3. All patients will be displayed. 4. Guardian will click on edit patient button. 5. Guardian will update name/phone/age/email. 6. Guardian will click on Update button. |
| **Alternative Flows:** | If invalid patient details are entered in step 5 of the normal flow:  1. Resume from step 5 of the normal flow. |
| **Exceptions:** | There are no patients registered.  Invalid patient details entered. |
| **Business Rules:** | **BR-1:**  Record should not be updated unless patient details entered are correct. |
| **Assumptions:** | A registered patient details are changed. |

* + - 1. **Module 6: Reviews and Feedback**
         1. **UC-6.1 Post Reviews**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.1 |
| **Use Case Name:** | Post Reviews |
| **Actors:** | Doctor, Admin, Guardian |
| **Description:** | Actor wants to post Reviews |
| **Trigger:** | Actor clicks Post Review |
| **Preconditions:** | Actor must be logged in |
| **Postconditions:** | Review will be added |
| **Normal Flow:** | 1. Actor click Post Review 2. Actor enters Subject 3. Actor writes description in Text box 4. Actor Click submit |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | Actor knows English language |

* + - * 1. **UC-6.2 Update reviews**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.2 |
| **Use Case Name:** | Update Review |
| **Actors:** | Doctor, Admin, Guardian |
| **Description:** | Actor wants to Update Review posted |
| **Trigger:** | Actor clicks edit Review Button |
| **Preconditions:** | Actor must be logged in |
| **Postconditions:** | Actor will be updated |
| **Normal Flow:** | 1. Actor click Review Manager 2. Actor click edit button of specific review |

|  |  |
| --- | --- |
|  | 1. Actor update Review through entering text 2. Actor click update 3. Review will be updated |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | Actor knows English language.  Actor’s review was already posted. |

* + - * 1. **UC-6.3 Add FAQ**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.3 |
| **Use Case Name:** | Add FAQ |
| **Actors:** | Primary Actors: Admin |
| **Description:** | Admin wants to Post FAQ |
| **Trigger:** | Admin click FAQ button |
| **Preconditions:** | Admin must be logged in |
| **Postconditions:** | Admin will be able to post FAQ |
| **Normal Flow:** | 1. Admin click Add FAQ 2. Admin enters Title 3. Admins enter Question 4. Admins enter answers 5. Admin click Post |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-6.4 Update FAQ**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.4 |
| **Use Case Name:** | Update FAQ |
| **Actors:** | Primary Actors: Admin |
| **Description:** | Admin wants to Update FAQ |
| **Trigger:** | Admin click Update FAQ button |
| **Preconditions:** | Admin must be logged in |
| **Postconditions:** | Admin will be able to update FAQ |
| **Normal Flow:** | 1. Admin select FAQ 2. Admin enters Title 3. Admins enter Question 4. Admins enter answers 5. Admin click Update |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-6.5 Delete review**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.5 |
| **Use Case Name:** | Delete review |
| **Actors:** | Doctor, Admin, Guardian |
| **Description:** | User wants to delete reviews about Application |
| **Trigger:** | User click delete review |
| **Preconditions:** | User must be logged in |
| **Postconditions:** | Review will be deleted |
| **Normal Flow:** | 1. User click View reviews 2. Users view all reviews 3. Doctor click deleted review |

|  |  |
| --- | --- |
|  | 4. Review will be deleted |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-6.6 Reply to Review**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.6 |
| **Use Case Name:** | Reply to Review |
| **Actors:** | Admin, Doctor, Guardian |
| **Description:** | User wants to reply to Review posted by doctor |
| **Trigger:** | User click Reply button |
| **Preconditions:** | User must be logged in  User must be on Review page User writes reply to query |
| **Postconditions:** | User will be able to post reply of Review posted by doctor |
| **Normal Flow:** | 1. User click View Reviews 2. User view all Reviews posted by different Doctor 3. User click Review area of any specific review 4. Review details will be shown 5. User click Reply 6. User writes reply text 7. User click Post 8. Reply will be posted |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - * 1. **UC-6.7 Delete FAQs**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-6.7 |
| **Use Case Name:** | Delete FAQs |
| **Actors:** | Primary Actors: Admin |
| **Description:** | Admin wants to delete FAQ. |
| **Trigger:** | Admin click delete FAQ |
| **Preconditions:** | Admin must be logged in |
| **Postconditions:** | FAQ will be deleted |
| **Normal Flow:** | 1. Admin click View FAQ 2. Admin view all FAQ 3. Doctor click deleted FAQ 4. FAQ will be deleted |
| **Alternative Flows:** | NIL |
| **Exceptions:** | NIL |
| **Business Rules:** | NIL |
| **Assumptions:** | NIL |

* + - 1. **Module 7: Payments**
         1. **UC-7.1 Make a payment**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.1 |
| **Use Case Name:** | Make a payment |
| **Actors:** | Doctor. |
| **Description:** | Doctor will be able to pay for additional features. |
| **Trigger:** | Mouse click on Checkout button. |
| **Preconditions:** | Doctor should have signed up and logged in. |
| **Postconditions:** | Doctor will have bought a plan. |
| **Normal Flow:** | 1. Doctor will open dashboard. |

|  |  |
| --- | --- |
|  | 1. Doctor will click on Add additional features. 2. Doctor will select a plan. 3. Doctor will enter card details. 4. Doctor will checkout. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Invalid card information. |
| **Business Rules:** | **BR-1:**  The rehabilitation exercises should become available after the doctor has paid for a plan. |
| **Assumptions:** | Doctor needs to rehabilitate patients. |

* + - * 1. **UC-7.2 Verify payments**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.2 |
| **Use Case Name:** | Verify payments |
| **Actors:** | Admin |
| **Description:** | Admin will be able to verify payments made by the doctor. |
| **Trigger:** | Mouse click on verify button. |
| **Preconditions:** | Admin should be in payments record. |
| **Postconditions:** | Doctor payment status will be updated. |
| **Normal Flow:** | 1. Admin will click on Payments tab. 2. Admin will view all payments made. 3. Admin will click on verify button. 4. Payment will be verified. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:**  A “No payments made” message should be displayed in case of no payment record found. |

|  |  |
| --- | --- |
|  | **BR-2:**  The doctor should see payment status as “verified” after the admin approved it.  **BR-3:**  The doctor should receive a mail after admin has verified his/her payment. |
| **Assumptions:** | Doctor should be informed about payment verification. |

* + - * 1. **UC-7.3 Update payment plan**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.3 |
| **Use Case Name:** | Update payment plan |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to update payment plan. |
| **Trigger:** | Mouse click on update plan button. |
| **Preconditions:** | Doctor should have selected a plan. |
| **Postconditions:** | Doctor’s payment plan will be updated. |
| **Normal Flow:** | 1. Doctor will click on Payments tab. 2. Doctor will click on update plan button. 3. Doctor will select a payment plan. 4. Doctor will click on update button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Doctor may want to change plans. |

* + - * 1. **UC-7.4 Download invoice**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.4 |
| **Use Case Name:** | Download invoice |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to download invoice. |

|  |  |
| --- | --- |
| **Trigger:** | Mouse click on download icon. |
| **Preconditions:** | Doctor should have selected a plan. |
| **Postconditions:** | Doctor’s payment plan will be updated. |
| **Normal Flow:** | 1. Admin will click on Payments tab. 2. Doctor will click on update plan button. 3. Doctor will select a payment plan. 4. Doctor will click on update button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Doctor may want to change plans. |

* + - * 1. **UC-7.5 Update credit card details**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.5 |
| **Use Case Name:** | Update credit card details |
| **Actors:** | Doctor |
| **Description:** | Doctor will be able to update payment details. |
| **Trigger:** | Mouse click on update button. |
| **Preconditions:** | Doctor should have logged in. |
| **Postconditions:** | Doctor credit card details will be updated. |
| **Normal Flow:** | 1. Admin will click on Payments tab. 2. Doctor will click on update credit card details. 3. Doctor will enter in the fields. 4. Doctor will click on update button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |

|  |  |
| --- | --- |
| **Business Rules:** | NIL. |
| **Assumptions:** | Doctor can have multiple credit cards. |

* + - * 1. **UC-7.6 Add payment plan**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.6 |
| **Use Case Name:** | Add payment plan |
| **Actors:** | Admin |
| **Description:** | Admin will be able to add payment plan. |
| **Trigger:** | Mouse click on add plan button. |
| **Preconditions:** | Admin should have logged in. |
| **Postconditions:** | A new payment plan will be added. |
| **Normal Flow:** | 1. Admin will click on Payments tab. 2. Admin will click on add payment plan button. 3. Admin will enter plan name, price, duration. 4. Admin will click on add. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Incorrect input fields. |
| **Business Rules:** | **BR-1:**  The plan should have a unique name. |
| **Assumptions:** | Admin may have to add a new payment plan. |

* + - * 1. **UC-7.7 Update payment plan**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.7 |
| **Use Case Name:** | Update payment plan |
| **Actors:** | Admin |
| **Description:** | Admin will be able to Update payment plan. |
| **Trigger:** | Mouse click on update plan button. |
| **Preconditions:** | Admin should have logged in. |

|  |  |
| --- | --- |
| **Postconditions:** | A payment plan will be updated. |
| **Normal Flow:** | 1. Admin will click on Payments tab. 2. A list of all plans will be displayed. 3. Admin will click on update payment plan button. 4. Admin will enter updated plan name, price, duration. 5. Admin will click on update button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Incorrect input fields. |
| **Business Rules:** | **BR-1:**  The plan should have a unique name. |
| **Assumptions:** | Admin may have to update an existing payment plan. |

* + - * 1. **UC-7.8 Delete payment plan**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.8 |
| **Use Case Name:** | Delete payment plan |
| **Actors:** | Admin |
| **Description:** | Admin will be able to delete payment plan. |
| **Trigger:** | Mouse click on delete plan button. |
| **Preconditions:** | Admin should have logged in. |
| **Postconditions:** | A payment plan will be deleted. |
| **Normal Flow:** | 1. Admin will click on Payments tab. 2. A list of all plans will be displayed. 3. Admin will click on delete payment plan button. 4. Payment plan will be deleted. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | Incorrect input fields. |
| **Business Rules:** | **BR-1:** |

|  |  |
| --- | --- |
|  | The plan should have a unique name. |
| **Assumptions:** | Admin may have to remove a new payment plan. |

* + - * 1. **UC-7.9 Add terms and conditions**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.9 |
| **Use Case Name:** | Add terms and conditions |
| **Actors:** | Admin |
| **Description:** | Admin will be able to add terms and conditions |
| **Trigger:** | Mouse click on add terms and conditions button. |
| **Preconditions:** | Admin should have logged in. |
| **Postconditions:** | A new terms and conditions will be added. |
| **Normal Flow:** | 1. Admin will click on Policies tab. 2. Admin will click on add policy button. 3. Admin will enter text. 4. Admin will click on add. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | **BR-1:**  System should allow only one plan at a time. |
| **Assumptions:** | Admin may have to add new terms and conditions. |

* + - * 1. **UC-7.10 Update terms and conditions**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.10 |
| **Use Case Name:** | Update terms and conditions |
| **Actors:** | Admin |
| **Description:** | Admin will be able to Update terms and conditions. |
| **Trigger:** | Mouse click on update terms and conditions button. |
| **Preconditions:** | Admin should have logged in. |

|  |  |
| --- | --- |
| **Postconditions:** | Terms and conditions will be updated. |
| **Normal Flow:** | 1. Admin will click on Policies tab. 2. Admin will click on update policy button. 3. Admin will edit the terms and conditions text. 4. Admin will click on update button. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | Admin may have to update existing terms and conditions |

* + - * 1. **UC-7.11 Delete terms and conditions**

|  |  |
| --- | --- |
| **Use Case ID:** | UC-7.11 |
| **Use Case Name:** | Delete terms and conditions |
| **Actors:** | Admin |
| **Description:** | Admin will be able to delete terms and conditions |
| **Trigger:** | Mouse click on delete terms and conditions button. |
| **Preconditions:** | Admin should have logged in. |
| **Postconditions:** | Terms and conditions will be deleted. |
| **Normal Flow:** | 1. Admin will click on Policies tab. 2. Admin will click on delete terms and conditions button. 3. Terms and conditions will be deleted. |
| **Alternative Flows:** | NIL. |
| **Exceptions:** | NIL. |
| **Business Rules:** | NIL. |
| **Assumptions:** | The terms may not be applicable anymore. |

## Functional Requirements

### Module 1: Accounts Manager

* + - 1. **FR-1.1.1 Enter Email**

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.1 |
| **Title** | Enter Email |
| **Requirement** | The user will be able to enter the email so user can get login to system |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without Email user cannot login |
| **Business Rule (if**  **required)** | User email must be an active |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.1.2 Enter Password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.2 |
| **Title** | Enter Password |
| **Requirement** | User will be able to enter the account password, so user gets login to system |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without entering Password user cannot login |
| **Business Rule (if required)** | Password length should be at least 5.  User must enter correct password for login. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.1.3 Sign in button**

|  |  |
| --- | --- |
| **Identifier** | FR-1.1.3 |
| **Title** | Sign in button |
| **Requirement** | The User will be able to click sign in button to login into the system. |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without login User cannot use System services |
| **Business Rule (if**  **required)** | User must enter correct credentials |
| **Dependencies** | FR-1.1.1, FR-1.1.2 |
| **Priority** | High. |

* + - 1. **FR-1.2.1 Enter name**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.1 |
| **Title** | Enter Name |
| **Requirement** | The Doctor, Guardian will be able to enter the name to register |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without entering name Doctor, Guardian cannot signup |
| **Business Rule (if**  **required)** | Doctor email must be an active |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.2 Email**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.2 |
| **Title** | Email |
| **Requirement** | The doctor, Guardian will be able to enter the email to register |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without entering email User cannot create Account |
| **Business Rule (if**  **required)** | doctor email must be an active |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.3 Phone number**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.3 |
| **Title** | Phone number |
| **Requirement** | Doctor, Guardian will be able to enter the phone number to register |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without entering Phone number user cannot register |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.4 Select Gender**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.4 |
| **Title** | Select Gender |
| **Requirement** | Doctor, Guardian will be able to select the gender to register |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without selecting gender User cannot register |
| **Business Rule (if**  **required)** | Users need to select gender from given options only. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.5 Enter age**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.5 |
| **Title** | Enter age |
| **Requirement** | Doctor, Guardian will be able to enter age to register |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without selecting age, User cannot register |
| **Business Rule (if**  **required)** | User age should be at least 22. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.6 Enter password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.6 |
| **Title** | Enter Password |
| **Requirement** | Doctor, Guardian will be able to enter password to register |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Without entering password, User cannot register, and Password keeps account secure |
| **Business Rule (if**  **required)** | Password must be at least of length 5. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.7 Confirm password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.7 |
| **Title** | Confirm Password |
| **Requirement** | Doctor, Guardian will be able to enter same password as in previous password field so that password match |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Confirming the password makes User to clearly understand that he entered password correctly. |
| **Business Rule (if**  **required)** | Confirm password must match password entered in Password field |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.8 Send code button**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.8 |
| **Title** | Send Code button |
| **Requirement** | Doctor, Guardian will be able to click send code button so system will send verification code as email |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Verification codes verify the identity of user so doctor can register |
| **Business Rule (if**  **required)** | Code must be of 4 digits. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.9 Enter verification code**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.9 |
| **Title** | Enter Verification code |
| **Requirement** | Doctor, Guardian must enter same verification code as he received in email to confirm identity |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Entering correct Verification code verify the identity of user so doctor can register |
| **Business Rule (if required)** | Code must be of 4 digits.  Code must be same as code received in email |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.2.10 Click Sign up button**

|  |  |
| --- | --- |
| **Identifier** | FR-1.2.10 |
| **Title** | Click Sign up button |
| **Requirement** | Doctor, Guardian will be able to click the sign-up button after entering credentials so account will be registered |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking the signup button verify credentials enter so user account will be created. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-1.2.1, FR-1.2.2, FR-1.2.3, FR-1.2.4, FR-1.2.5, FR-1.2.6, FR-1.2.7, FR- 1.2.8, FR-1.2.9 |
| **Priority** | High. |

* + - 1. **FR-1.3.1 Click logout button**

|  |  |
| --- | --- |
| **Identifier** | FR-1.3.1 |
| **Title** | Click Logout button |
| **Requirement** | Doctor, Guardian, Admin will be able to click the logout button to get logout from account |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking the logout button ends the session and account is logged off. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-1.1.3 |
| **Priority** | High. |

* + - 1. **FR-1.4.1 Click Forget Password button**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.1 |
| **Title** | Click Forget Password button |
| **Requirement** | Doctor, Guardian, Admin will be able to click forget password button to reset password |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Users need to click the forget button to reset password through entering some credentials when he forgets password. |
| **Business Rule (if**  **required)** | Password must be at least of length 5. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.4.1 Enter Email**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.2 |
| **Title** | Enter Email |
| **Requirement** | The user will be able to enter the email to receive code there |
| **Source** | Team Member 1 (Danish Ali) |

|  |  |
| --- | --- |
| **Rationale** | System will send the verification code in email |
| **Business Rule (if**  **required)** | User email must be an active |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.4.3 Click send code button**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.3 |
| **Title** | Click send Code button |
| **Requirement** | User will be able to click send code button to reset password |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User needs to click send code button to receive code in email |
| **Business Rule (if**  **required)** | Password must be at least of length 5. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.4.4 Enter Verification code**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.4 |
| **Title** | Enter Verification code |
| **Requirement** | User will be able to enter verification code to reset password |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User needs to enter verification code to confirm identity |
| **Business Rule (if required)** | Verification code should be four digits number and should be same as received in email |
| **Dependencies** | FR-1.4.2 |
| **Priority** | High. |

* + - 1. **FR-1.4.5 Enter new password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.5 |
| **Title** | Enter new Password |
| **Requirement** | User will be able to enter new password to reset password |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Users need to enter new password to set it as updated password for login |
| **Business Rule (if**  **required)** | Password must be at least of length 5. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.4.6 Confirm Password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.6 |
| **Title** | Confirm Password |
| **Requirement** | User will be able to enter same password as in previous password field so that password match |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Confirming the password makes doctor to clearly understand that he entered password correctly. |
| **Business Rule (if**  **required)** | Confirm password must match password entered in Password field |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.4.7 Click update password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.4.7 |
| **Title** | Click Update Password |
| **Requirement** | User will be able to click Update password to verify credentials for password |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking the update password allow verification of credentials entered and then updates password for login. |

|  |  |
| --- | --- |
| **Business Rule (if**  **required)** | Users need to remember password |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.5.1 Click change password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.1 |
| **Title** | Click change Password |
| **Requirement** | User will be able to click change password button so password will be updated |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking the change password provide user an interface to put credentials for password update. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 1.1.3 |
| **Priority** | High |

* + - 1. **FR-1.5.2 Enter current password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.2 |
| **Title** | Enter current password |
| **Requirement** | User will be able to enter current password to verify identity |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Users need to enter current password to verify identity |
| **Business Rule (if**  **required)** | Password must be at least of length 5. |
| **Dependencies** | 1.1.3 |
| **Priority** | High. |

* + - 1. **FR-1.5.3 Enter new password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.3 |
| **Title** | Enter new Password |

|  |  |
| --- | --- |
| **Requirement** | User will be able to enter new password to reset password |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Users need to enter new password to set it as updated password for login |
| **Business Rule (if**  **required)** | Password must be at least of length 5. |
| **Dependencies** | 1.1.3 |
| **Priority** | High. |

* + - 1. **FR-1.5.4 Confirm password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.4 |
| **Title** | Confirm Password |
| **Requirement** | User will be able to enter same password as in previous password field so that password match |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Confirming the password makes doctor to clearly understand that he entered password correctly. |
| **Business Rule (if**  **required)** | Confirm password must match password entered in Password field |
| **Dependencies** | 1.1.3 |
| **Priority** | High. |

* + - 1. **FR-1.5.5 Click update password**

|  |  |
| --- | --- |
| **Identifier** | FR-1.5.5 |
| **Title** | Click update Password |
| **Requirement** | User will be able to enter click change so password will be updated |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking the change password provide user an interface to put credentials for password update. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High |

* + - 1. **FR-1.6.1 View profile**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.1 |
| **Title** | View Profile |
| **Requirement** | The user will be able to view all Profile details. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | The user may want to decide or observe the details needed to be changed |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low. |

* + - 1. **FR-1.6.2 Edit name**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.2 |
| **Title** | Edit name |
| **Requirement** | The user will be able to edit username. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | user needs to edit a username. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium |

* + - 1. **FR-1.6.3 Edit email**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.3 |
| **Title** | Edit email |
| **Requirement** | The user will be able to edit patient’s email. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User needs to edit an email. |
| **Business Rule (if**  **required)** | New email should be an active email |

|  |  |
| --- | --- |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **UC-1.6.4 Edit phone number**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.4 |
| **Title** | Edit phone number |
| **Requirement** | The user will be able to edit phone number. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User needs to update phone number for future contacts and verifications |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **FR-1.6.5 Edit age**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.5 |
| **Title** | Edit age |
| **Requirement** | The user will be able to edit age. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User needs to edit age. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-1.6.6 Edit gender**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.6 |
| **Title** | Edit Gender |
| **Requirement** | The user will be able to edit gender. |
| **Source** | Team Member 1 (Danish Ali) |

|  |  |
| --- | --- |
| **Rationale** | User needs to edit an age. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **FR-1.6.7 Edit profile picture**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.7 |
| **Title** | Edit Profile picture |
| **Requirement** | The user will be able to edit profile picture |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Users want to upload a better profile picture. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.6.8 Click update profile**

|  |  |
| --- | --- |
| **Identifier** | FR-1.6.8 |
| **Title** | Click update Profile |
| **Requirement** | User will be able to click Update profile so profile details will be updated |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking the update profile button updates profile details |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 1.6.1, 1.6.2, 1.6.3, 1.6.4, 1.6.5, 1.6.6, 1.6.7 |
| **Priority** | Low |

* + - 1. **FR-1.7.1 Click upload image**

|  |  |
| --- | --- |
| **Identifier** | FR-1.7.1 |

|  |  |
| --- | --- |
| **Title** | Click upload Image |
| **Requirement** | Admin will be able to click Upload image to add image to training data set |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to add new training image in data sets due to its high accuracy in testing. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 1.6.1, 1.6.2, 1.6.3, 1.6.4, 1.6.5, 1.6.6 |
| **Priority** | High |

* + - 1. **FR-1.7.2 Select image**

|  |  |
| --- | --- |
| **Identifier** | FR-1.7.2 |
| **Title** | Select Image |
| **Requirement** | Admin will be able to select image to add image to training data set |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to select training image for uploading in data sets due to its high accuracy in testing. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 1.7.1 |
| **Priority** | High |

* + - 1. **FR-1.8.1 Click block user**

|  |  |
| --- | --- |
| **Identifier** | FR-1.8.1 |
| **Title** | Click block user |
| **Requirement** | The admin will be able to click block user to block doctor from using services. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to block doctor due to violation of policies or fraud in payment. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |

|  |  |
| --- | --- |
| **Priority** | High. |

* + - 1. **FR-1.8.2 Click unblock**

|  |  |
| --- | --- |
| **Identifier** | FR-1.8.2 |
| **Title** | Click Unblock |
| **Requirement** | The admin will be able to click Unblock user to allow doctor using services again. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to unblock doctor after discussion with doctor about violation of policy. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | 1.8.1 |
| **Priority** | High. |

* + - 1. **FR-1.9.1 View doctor details**

|  |  |
| --- | --- |
| **Identifier** | FR-1.9.1 |
| **Title** | View doctor details |
| **Requirement** | The admin will be able to View all doctor details |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User wants to view all doctor records. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.9.2 Enter doctor name**

|  |  |
| --- | --- |
| **Identifier** | FR-1.9.2 |
| **Title** | Enter doctor name |
| **Requirement** | The admin will be able to enter name of doctor to view his record and record will be displayed on screen |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to view specific doctor record |
| **Business Rule (if**  **required)** | Admin must enter only text |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.10.1 View announcements**

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.1 |
| **Title** | View Announcements |
| **Requirement** | The admin will be able to View all announcements made in History |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to view all announcements to keep track of history. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **FR-1.10.2 Click Add Record**

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.2 |
| **Title** | Click Add Record |
| **Requirement** | The admin will be able to click add record button to provide details about Announcement to be post |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to Post an important announcement related to Policy updates etc. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.10.3 Enter Subject**

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.3 |
| **Title** | Enter Subject |
| **Requirement** | The admin will be able to enter subject about announcement to be added |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to define a meaningful subject for announcement to be post |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.10.4 Enter description**

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.4 |
| **Title** | Enter Description |
| **Requirement** | The admin will be able to enter details about announcement to be added |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to enter details about announcement to give clear message to Doctors about Policy statements etc. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.10.5 Click Post Announcement**

|  |  |
| --- | --- |
| **Identifier** | FR-1.10.5 |
| **Title** | Click Post Announcement |
| **Requirement** | The admin will be able to click Post button to post new Announcement |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking post button will post announcement subject and description |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | 1.10.1, 1.10.2, 1.10.3, 1.10.4 |

|  |  |
| --- | --- |
| **Priority** | High. |

* + - 1. **FR-1.11.1 View announcement details**

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.1 |
| **Title** | View Announcements details |
| **Requirement** | The admin will be able to View all announcements to select announcement to be updated |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to view all announcements to keep track of history. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **FR-1.11.2 Click Announcement details area**

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.2 |
| **Title** | Click Announcement details area |
| **Requirement** | The admin will be able to click the desired announcement details area to update fields |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to update announcement details related to Policy updates etc. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.11.3 Edit subject**

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.3 |
| **Title** | Edit Subject |
| **Requirement** | The admin will be able to edit subject about announcement to be updated |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to define a new or more precise subject for announcement to be updated |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.11.4 Edit description**

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.4 |
| **Title** | Edit Description |
| **Requirement** | The admin will be able to edit details about announcement to be added |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to edit details about announcement to announce more precise and clear statement. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL. |
| **Priority** | Low |

* + - 1. **FR-1.11.5 Click update announcement**

|  |  |
| --- | --- |
| **Identifier** | FR-1.11.5 |
| **Title** | Click Update Announcement |
| **Requirement** | The admin will be able to click Update button to update Announcement |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Clicking update button will update announcement subject and description |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | 1.11.1, 1.11.2, 1.11.3, 1.11.4 |
| **Priority** | High. |

* + - 1. **FR-1.12.1 Enter subjects**

|  |  |
| --- | --- |
| **Identifier** | FR-1.12.1 |
| **Title** | Enter subject |
| **Requirement** | The admin will be able to View announcement needed to be deleted |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to search specific announcement to be deleted. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **FR-1.12.2 Click delete announcement**

|  |  |
| --- | --- |
| **Identifier** | FR-1.12.2 |
| **Title** | Click delete Announcement |
| **Requirement** | The admin will be able to click the delete announcement button for required announcement to be deleted |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to deleted announcement details. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-1.12.3 Click confirm deletion**

|  |  |
| --- | --- |
| **Identifier** | FR-1.12.3 |
| **Title** | Click confirm deletion |
| **Requirement** | The admin will be able to click the confirm deletion button for required announcement to be deleted when warning will be displayed. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to respond to warning options displayed. |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | 1.12.1, 1.12.2 |

|  |  |
| --- | --- |
| **Priority** | High. |

### Module 2: Neglect detector with whiteboard

* + - 1. **FR-2.1.1 Detector button**

|  |  |
| --- | --- |
| **Identifier** | FR-2.1.1 |
| **Title** | Detector button |
| **Requirement** | The guardian will be able to start the neglect detector. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Detector should open for the patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-2.2.1 Draw image activity**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.1 |
| **Title** | Draw image activity |
| **Requirement** | The patient will be able to draw on the whiteboard. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Right/Left neglect detection. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.1.1 |
| **Priority** | High. |

* + - 1. **FR-2.2.2 Pause activity icon**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.2 |
| **Title** | Pause activity icon |
| **Requirement** | The guardian will be able to pause detection. |
| **Source** | Team Member 2 (Malaika Atiq) |

|  |  |
| --- | --- |
| **Rationale** | The patient can pause drawing. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.1.1 |
| **Priority** | Medium. |

* + - 1. **FR-2.2.3 Resume activity icon**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.3 |
| **Title** | Resume activity icon |
| **Requirement** | The guardian will be able to resume detection. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The patient can resume paused activity. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.1.1 |
| **Priority** | Medium. |

* + - 1. **FR-2.2.4 Cancel activity icon**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.4 |
| **Title** | Cancel activity icon |
| **Requirement** | The guardian will be able to cancel detection. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The patient can cancel started activity. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.1.1 |
| **Priority** | Medium. |

* + - 1. **FR-2.2.5 Clear Whiteboard icon**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.5 |

|  |  |
| --- | --- |
| **Title** | Clear whiteboard icon |
| **Requirement** | The guardian will be able to clear the whiteboard. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The patient can start over. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.2.1 |
| **Priority** | High. |

* + - 1. **FR-2.2.6 Undo icon**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.6 |
| **Title** | Undo icon |
| **Requirement** | The guardian will be able to undo patient’s mistake during drawing. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The patient can make a mistake. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.2.1 |
| **Priority** | High. |

* + - 1. **FR-2.2.7 Change marker color buttons**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.7 |
| **Title** | Change marker color buttons. |
| **Requirement** | The guardian will be able to change the marker color. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The patient can draw with different colors. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.2.1 |
| **Priority** | High. |

* + - 1. **FR-2.2.8 Change marker size buttons**

|  |  |
| --- | --- |
| **Identifier** | FR-2.2.8 |
| **Title** | Change marker size buttons. |
| **Requirement** | The guardian will be able to change the marker size. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The patient can draw with different sized markers. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.2.1 |
| **Priority** | High. |

* + - 1. **FR-2.3.1 View Detector results**

|  |  |
| --- | --- |
| **Identifier** | FR-2.3.1 |
| **Title** | View detector results |
| **Requirement** | The guardian will view if the patient has left or right or no neglect through drawing results. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The guardian needs to assess the patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-2.1.1 |
| **Priority** | High. |

### Module 3: Neglect Rehabilitator

* + - 1. **FR-3.1.1 View original image**

|  |  |
| --- | --- |
| **Identifier** | FR-3.1.1 |
| **Title** | View original Image |
| **Requirement** | The patient will be able to view original image containing circles and |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Patient wants to draw scratches on circle to make them lose identity |

|  |  |
| --- | --- |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-3.1.2 Draw scratch activity**

|  |  |
| --- | --- |
| **Identifier** | FR-3.1.2 |
| **Title** | Draw scratch activity |
| **Requirement** | The patient will be able to draw scratch on the circles object in an image. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Patient wants to draw scratches on circle to make them lose identity |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | 3.2.1 |
| **Priority** | High. |

* + - 1. **FR-3.2.1 Click start activity button**

|  |  |
| --- | --- |
| **Identifier** | FR-3.2.1 |
| **Title** | click start activity button |
| **Requirement** | The doctor will be able to click start activity button to start Timer |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to start activity for Patient Rehabilitation |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-3.3.1 Click finish activity button**

|  |  |
| --- | --- |
| **Identifier** | FR-3.3.1 |
| **Title** | click finish activity button |
| **Requirement** | The doctor will be able to click finish activity button to send edited image for evaluation |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to finish activity for evaluation |
| **Business Rule (if**  **required)** | NIL. |
| **Dependencies** | 3.2.1 |
| **Priority** | High. |

* + - 1. **FR-3.3.2 View evaluation report**

|  |  |
| --- | --- |
| **Identifier** | FR-3.3.2 |
| **Title** | View evaluation report |
| **Requirement** | The doctor will be able to view evaluation report about activity performed by patient |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to finish activity for evaluation |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 3.3.1 |
| **Priority** | High. |

* + - 1. **FR-3.4.1 Click clear all button**

|  |  |
| --- | --- |
| **Identifier** | FR-3.4.1 |
| **Title** | click clear All button |
| **Requirement** | The doctor will be able to click all button to clear scratches draw in Image |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to clear All scratches as patient did violations of activity rules |
| **Business Rule (if**  **required)** | There should be at least one scratch in the Image |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-3.5.1 Click color icon**

|  |  |
| --- | --- |
| **Identifier** | FR-3.5.1 |
| **Title** | click color icon |
| **Requirement** | The doctor will be able to click color icon to select color or marker |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to change color of marker for drawing scratches |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 3.2.1 |
| **Priority** | High. |

* + - 1. **FR-3.6.1 Click pause icon**

|  |  |
| --- | --- |
| **Identifier** | FR-3.6.1 |
| **Title** | click Pause Icon |
| **Requirement** | The doctor will be able to click Pause icon to pause Activity timer and make image noneditable. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to pause activity when patient will be unable to follow guidelines or not ready to perform activity |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 3.2.1 |
| **Priority** | High. |

* + - 1. **FR-3.7.1 Click resume icon**

|  |  |
| --- | --- |
| **Identifier** | FR-3.7.1 |
| **Title** | click Resume Icon |
| **Requirement** | The doctor will be able to click Resume icon to resume Activity timer and make image editable. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to resume activity when patient is again ready to perform activity from where activity was left |

|  |  |
| --- | --- |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 3.6.1 |
| **Priority** | High. |

* + - 1. **FR-3.8.1 Click cancel icon**

|  |  |
| --- | --- |
| **Identifier** | FR-3.8.1 |
| **Title** | click cancel Icon |
| **Requirement** | The doctor will be able to click cancel icon to cancel activity. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to cancel activity when patient wants to quit activity or needs much time to understand guidelines. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 3.6.1 |
| **Priority** | High. |

* + - 1. **FR-3.9.1 Click undo icon**

|  |  |
| --- | --- |
| **Identifier** | FR-3.9.1 |
| **Title** | click undo Icon |
| **Requirement** | The doctor will be able to click undo icon to remove most recent scratch. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to remove most recent scratch in image as that touches other shapes as well. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 3.6.1 |
| **Priority** | High. |

* + - 1. **FR-3.10.1 Drag marker size bar**

|  |  |
| --- | --- |
| **Identifier** | FR-3.10.1 |
| **Title** | Drag Marker size bar |

|  |  |
| --- | --- |
| **Requirement** | The doctor will be able to drag marker size bar to change marker size |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to increase marker size for scratches to cover more area. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | Medium |

* + - 1. **FR-3.11.1 Click restart icon**

|  |  |
| --- | --- |
| **Identifier** | FR-3.11.1 |
| **Title** | Click Restart Icon |
| **Requirement** | The doctor will be able to click restart icon to restart activity |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to restart activity as patient made too many mistakes and wasted too much time. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

### Module 4: Report and Milestone Generator

* + - 1. **FR-4.1.1 Select patient**

|  |  |
| --- | --- |
| **Identifier** | FR-4.1.1 |
| **Title** | Select patient |
| **Requirement** | The doctor and guardian will be able to select a patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor and guardian should generate milestone for a specific patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low. |

* + - 1. **FR-4.1.2 Generate milestone button**

|  |  |
| --- | --- |
| **Identifier** | FR-4.1.2 |
| **Title** | Generate milestone button |
| **Requirement** | The doctor will be able to generate a milestone. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor should ably generate a milestone for the selected patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.1.1 |
| **Priority** | Low. |

* + - 1. **FR-4.2.1 View next target**

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.1 |
| **Title** | View next target. |
| **Requirement** | The doctor and guardian will be able to view next target for a patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor and guardian should be able to see what next target the patient should achieve. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.1.2 |
| **Priority** | Low. |

* + - 1. **FR-4.2.2 View maximum target reached**

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.2 |
| **Title** | View Maximum target reached. |
| **Requirement** | The doctor and guardian will be able to view maximum target reached of a patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor and guardian should be able to see the maximum target reached by the patient. |
| **Business Rule** | NIL. |

|  |  |
| --- | --- |
| **(if required)** |  |
| **Dependencies** | FR-4.1.2 |
| **Priority** | Low. |

* + - 1. **FR-4.2.3 Viewpoints**

|  |  |
| --- | --- |
| **Identifier** | FR-4.2.3 |
| **Title** | View patient’s current points. |
| **Requirement** | The doctor and guardian will be able to view patient’s current points. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor and guardian should be able to see the points of a patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.1.2 |
| **Priority** | Low. |

* + - 1. **FR-4.3.1 Reset points**

|  |  |
| --- | --- |
| **Identifier** | FR-4.3.1 |
| **Title** | Reset patient’s current points. |
| **Requirement** | The doctor will be able to reset patient’s current points. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to reset points of a patient to start the rehabilitation from scratch. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.1.2 |
| **Priority** | Low. |

* + - 1. **FR-4.3.2 Reset maximum target reached**

|  |  |
| --- | --- |
| **Identifier** | FR-4.3.2 |
| **Title** | Reset patient’s maximum target reached. |

|  |  |
| --- | --- |
| **Requirement** | The doctor will be able to reset patient’s maximum target. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to reset points of a patient to start the rehabilitation from scratch. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.1.2 |
| **Priority** | Low. |

* + - 1. **FR-4.3.3 Reset next target**

|  |  |
| --- | --- |
| **Identifier** | FR-4.3.3 |
| **Title** | Reset patient’s current points. |
| **Requirement** | The doctor will be able to reset patient’s next target |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to reset points of a patient to start the rehabilitation from scratch. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.1.2 |
| **Priority** | Low. |

* + - 1. **FR-4.3.4 Reset milestone button**

|  |  |
| --- | --- |
| **Identifier** | FR-4.3.4 |
| **Title** | Reset milestone button. |
| **Requirement** | The doctor will be able to reset patient’s milestone status. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to reset milestone status of a patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.3.1, FR-4.3.2, FR-4.3.3 |
| **Priority** | Low. |

* + - 1. **FR-4.4.1 Type note**

|  |  |
| --- | --- |
| **Identifier** | FR-4.4.1 |
| **Title** | Type note |
| **Requirement** | The doctor will be able to type a textual note. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to recall something in the next appointment through a note. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low. |

* + - 1. **FR-4.4.2 Save note button**

|  |  |
| --- | --- |
| **Identifier** | FR-4.4.2 |
| **Title** | Save note button |
| **Requirement** | The doctor will be able to save a note. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to remember something in the next appointment. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-4.4.1 |
| **Priority** | Low. |

* + - 1. **FR-4.5.1 View notes data**

|  |  |
| --- | --- |
| **Identifier** | FR-4.5.1 |
| **Title** | View notes data |
| **Requirement** | The doctor, Guardian will be able to read all saved notes. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to remember something in the next appointment.  Guardian may want to check the progress of rehabilitation plan for patient. |
| **Business Rule**  **(if required)** | NIL. |

|  |  |
| --- | --- |
| **Dependencies** | NIL. |
| **Priority** | Low. |

* + - 1. **FR-4.6.1 Delete note icon**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.1 |
| **Title** | Delete note icon |
| **Requirement** | The doctor will be able to delete a specific note. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to remove a note. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low. |

* + - 1. **FR-4.7.1 Edit note text**

|  |  |
| --- | --- |
| **Identifier** | FR-4.7.1 |
| **Title** | Edit note text |
| **Requirement** | The doctor will be able to edit a specific note. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The doctor may want to update a note. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Low. |
| **Identifier** | FR-4.6.1 |
| **Title** | View patient List |
| **Requirement** | The doctor will be able to view patient list to decide about report generation |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to select patient after viewing patient detail for report generation. |

|  |  |
| --- | --- |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-4.6.2 Click current patient tab**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.2 |
| **Title** | Click current patient tab |
| **Requirement** | The doctor will be able to click current patient tab to select current patient as |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to select current Patient whose appointment going on as target Patient for comparison report |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-4.6.2 Search patient**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.3 |
| **Title** | Search Patient |
| **Requirement** | The doctor will be able to search Patient by name to select as target patient |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to select Patient as target Patient for comparison report |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-4.6.4 Search patient**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.4 |
| **Title** | Search Patient |
| **Requirement** | The doctor will be able to search Patient by name to select as target patient |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to select Patient as target Patient for comparison report |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-4.6.5 Click select patient**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.5 |
| **Title** | Click Select patient |
| **Requirement** | The doctor will be able to click select Patient to set patient as target patient |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to select Patient as target Patient for comparison report |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-4.6.6 Click generate report**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.6 |
| **Title** | Click generate report |
| **Requirement** | The doctor will be able to click generate report to Generate both graphical and statistical report. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to generate both statistical and Graphical report for patient performance comparison |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-4.6.5, FR-4.6.2 |
| **Priority** | High. |

* + - 1. **FR-4.6.7 Click view graphical report button**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.7 |
| **Title** | Click View Graphical report button |

|  |  |
| --- | --- |
| **Requirement** | The doctor, Guardian will be able to click view graphical report button to visualize Graphical Comparison report. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to Visualize Graphical Performance report to observe trends and make decision for final rehabilitation plans.  Guardian wants to see where rehabilitation plan for patient is reached. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-4.6.5, FR-4.6.2, FR-4.6.6 |
| **Priority** | High. |

* + - 1. **FR-4.6.8 Click view statistical report button**

|  |  |
| --- | --- |
| **Identifier** | FR-4.6.8 |
| **Title** | Click View Statistical report button |
| **Requirement** | The doctor will be able to click view statistical report button to visualize statistics-based Comparison report  The Guardian will be able to click view statistical report button to visualize statistics-based Comparison report |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to Visualize statistical Performance report to observe trends and make decision for final rehabilitation plans.  Guardian wants to see report of patient performance |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-4.6.5, FR-4.6.2, FR-4.6.6 |
| **Priority** | High. |

* + - 1. **FR-4.7.1 Click generate report**

|  |  |
| --- | --- |
| **Identifier** | FR-4.7.1 |
| **Title** | Click regenerate report |
| **Requirement** | The doctor will be able to click regenerate report to refresh both graphical and statistical report. |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to generate both updated statistical and Graphical report for patient performance comparison based upon updated data. |

|  |  |
| --- | --- |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-4.6.5, FR-4.6.2 |
| **Priority** | High. |

* + - 1. **FR-4.8.1 Enter patient name**

|  |  |
| --- | --- |
| **Identifier** | FR-4.8.1 |
| **Title** | Enter patient name |
| **Requirement** | The doctor will be able to enter patient name to be selected |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to enter patient name to select patient as target |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-4.8.2 Click select patient button**

|  |  |
| --- | --- |
| **Identifier** | FR-4.8.2 |
| **Title** | Click select Patient button |
| **Requirement** | The doctor will be able to click select Patient button to select patient as target patient |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to select Patient as target Patient for comparison report |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-4.8.1 |
| **Priority** | High. |

### Module 5: Patient and appointments Logging

* + - 1. **FR-5.1.1 Enter name**

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.1 |

|  |  |
| --- | --- |
| **Title** | Enter name |
| **Requirement** | The guardian will be able to enter name of the patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Patient record should have a name. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.1.2 Enter email**

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.2 |
| **Title** | Enter email |
| **Requirement** | The guardian will be able to enter email of the patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Patient record should have the patient’s contact info. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.1.3 Enter age for Add patient**

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.3 |
| **Title** | Enter age |
| **Requirement** | The guardian will be able to enter age of the patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Patient record should have the patient’s age. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.1.4 Enter neglect**

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.4 |
| **Title** | Enter neglect |
| **Requirement** | The guardian will be able to enter neglect status of a patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Patient’s record should show which neglect does the patient have? (Left or right) |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.1.5 Enter phone**

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.5 |
| **Title** | Enter phone |
| **Requirement** | The guardian will be able to enter contact number of the patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Patient record should have the patient’s contact information. |
| **Business Rule (if required)** | **BR-1:**  Phone number should be 11 digits long. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.1.6 Add patient button**

|  |  |
| --- | --- |
| **Identifier** | FR-5.1.6 |
| **Title** | Add patient button |
| **Requirement** | The guardian will be able to click on Add patient button. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Guardian will be able to add a patient’s record. |
| **Business Rule**  **(if required)** | NIL. |

|  |  |
| --- | --- |
| **Dependencies** | FR-5.1.1, FR-5.1.2, FR-5.1.3, FR-5.1.4 |
| **Priority** | High. |

* + - 1. **FR-5.2.1 Edit patient name**

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.1 |
| **Title** | Edit name |
| **Requirement** | The guardian will be able to edit patient’s name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Guardian needs to edit a patient’s name. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.2.2 Edit patient email**

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.2 |
| **Title** | Edit email |
| **Requirement** | The guardian will be able to edit patient’s email. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Guardian needs to edit a patient’s email. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High |

* + - 1. **FR-5.2.3 Edit patient age**

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.3 |
| **Title** | Edit age |
| **Requirement** | The guardian will be able to edit patient’s age. |
| **Source** | Team Member 2 (Malaika Atiq) |

|  |  |
| --- | --- |
| **Rationale** | Guardian needs to edit a patient’s age. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.2.5 Edit patient phone**

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.5 |
| **Title** | Edit patient phone |
| **Requirement** | The guardian will be able to edit patient’s phone number. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Guardian needs to edit a patient’s phone number. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.2.6 Update patient button**

|  |  |
| --- | --- |
| **Identifier** | FR-5.2.6 |
| **Title** | Update patient button |
| **Requirement** | The guardian will be able to update patient’s record. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Guardian needs to edit a patient’s record. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-5.2.1, FR-5.2.2, FR-5.2.3, FR-5.2.4, FR-5.2.5 |
| **Priority** | High. |

* + - 1. **FR-5.3.1 View patient’s name**

|  |  |
| --- | --- |
| **Identifier** | FR-5.3.1 |

|  |  |
| --- | --- |
| **Title** | View patient’s name |
| **Requirement** | The doctor, guardian will be able to view patient’s name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor, guardian needs to view a patient’s name. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.3.2 View patient’s age**

|  |  |
| --- | --- |
| **Identifier** | FR-5.3.2 |
| **Title** | View patient’s age |
| **Requirement** | The doctor, guardian will be able to view patient’s age. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor and guardian needs to view a patient’s age. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.3.3 View patient’s email**

|  |  |
| --- | --- |
| **Identifier** | FR-5.3.3 |
| **Title** | View patient’s email |
| **Requirement** | The doctor, guardian will be able to view patient’s email. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor, guardian needs to view a patient’s email. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.3.4 View patient’s neglect side**

|  |  |
| --- | --- |
| **Identifier** | FR-5.3.4 |
| **Title** | View patient’s neglect side |
| **Requirement** | The doctor, guardian will be able to view patient’s neglect side. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor, guardian needs to view a patient’s name. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.3.5 View patient’s phone**

|  |  |
| --- | --- |
| **Identifier** | FR-5.3.5 |
| **Title** | View patient’s phone number |
| **Requirement** | The doctor, guardian will be able to view patient’s phone number. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor, guardian needs to view a patient’s phone number. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.4.1 Enter name for search**

|  |  |
| --- | --- |
| **Identifier** | FR-5.4.1 |
| **Title** | Enter name for searching |
| **Requirement** | The doctor will be able to search a patient from name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to search a patient’s record. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |

|  |  |
| --- | --- |
| **Priority** | High. |

* + - 1. **FR-5.4.2 Search button**

|  |  |
| --- | --- |
| **Identifier** | FR-5.4.2 |
| **Title** | Search button |
| **Requirement** | The doctor will be able to search a patient from name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to search a patient’s record based on the name entered. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-5.4.1 |
| **Priority** | High. |

* + - 1. **FR-5.5.1 Delete patient icon**

|  |  |
| --- | --- |
| **Identifier** | FR-5.5.1 |
| **Title** | Delete patient icon |
| **Requirement** | The doctor will be able to delete a patient from his list. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor may not be helping a patient anymore. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.6.1 Enter Date for scheduling appointment**

|  |  |
| --- | --- |
| **Identifier** | FR-5.6.1 |
| **Title** | Enter date |
| **Requirement** | The doctor will be able to enter the date for an appointment. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor will be able to schedule an appointment on the desired day. |

|  |  |
| --- | --- |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.6.2 Enter Time for scheduling appointment**

|  |  |
| --- | --- |
| **Identifier** | FR-5.6.2 |
| **Title** | Enter Time. |
| **Requirement** | The doctor will be able to enter time for an appointment. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor will be able to schedule an appointment on the desired time. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.6.3 Schedule button for scheduling appointment**

|  |  |
| --- | --- |
| **Identifier** | FR-5.6.3 |
| **Title** | Schedule button. |
| **Requirement** | The doctor will be able to click on schedule button. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor will be able to schedule an appointment on the desired time. |
| **Business Rule (if required)** | **BR-1:**  If there is a clash of timings among appointments, the button should be disabled. |
| **Dependencies** | FR-5.6.1, FR-5.6.2 |
| **Priority** | High. |

* + - 1. **FR-5.7.1 Start appointment button**

|  |  |
| --- | --- |
| **Identifier** | FR-5.7.1 |

|  |  |
| --- | --- |
| **Title** | Start appointment button. |
| **Requirement** | The doctor will be able to click on start appointment button. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor will be able to start an appointment on set time. |
| **Business Rule (if required)** | **BR-1:**  If there is a clash of timings among appointments, the button should be disabled. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.7.2 End appointment button**

|  |  |
| --- | --- |
| **Identifier** | FR-5.7.2 |
| **Title** | End appointment button. |
| **Requirement** | The doctor will be able to click on end appointment button. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor will be able to end an appointment on before the default appointment time is completed. |
| **Business Rule**  **(if required)** | **BR-1:**  Button should be disabled when appointment is not yet started. |
| **Dependencies** | FR-5.7.1 |
| **Priority** | High. |

* + - 1. **FR-5.8.1 View appointment time**

|  |  |
| --- | --- |
| **Identifier** | FR-5.8.1 |
| **Title** | View appointment time |
| **Requirement** | The doctor will be able to view appointment time. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to see the scheduled appointment time. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.8.2 View appointment date**

|  |  |
| --- | --- |
| **Identifier** | FR-5.8.2 |
| **Title** | View appointment date |
| **Requirement** | The doctor will be able to view appointment date. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to see the scheduled appointment date. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.8.3 View appointment patient**

|  |  |
| --- | --- |
| **Identifier** | FR-5.8.3 |
| **Title** | View appointment patient |
| **Requirement** | The doctor will be able to view appointment patient. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to see the scheduled appointment patient. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.9.1 Delete appointment icon**

|  |  |
| --- | --- |
| **Identifier** | FR-5.9.1 |
| **Title** | Delete appointment icon |
| **Requirement** | The doctor will be able to delete a scheduled appointment. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to delete a canceled appointment. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |

|  |  |
| --- | --- |
| **Priority** | High. |

* + - 1. **FR-5.10.1 Edit appointment date**

|  |  |
| --- | --- |
| **Identifier** | FR-5.10.1 |
| **Title** | Edit appointment date |
| **Requirement** | The doctor will be able to edit an appointment’s date. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Appointment date can be changed. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.10.2 Edit appointment time**

|  |  |
| --- | --- |
| **Identifier** | FR-5.10.2 |
| **Title** | Edit appointment time |
| **Requirement** | The doctor will be able to edit an appointment’s time. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Appointment time can be changed. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-5.10.3 Update appointment button**

|  |  |
| --- | --- |
| **Identifier** | FR-5.10.3 |
| **Title** | Update appointment button |
| **Requirement** | The doctor will be able to update an appointment record. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Appointment details can change. |

|  |  |
| --- | --- |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-5.10.1, FR-5.10.2 |
| **Priority** | High. |

### Module 6: Reviews and Feedback

* + - 1. **FR-6.1.1 Enter Subject**

|  |  |
| --- | --- |
| **Identifier** | FR-6.1.1 |
| **Title** | Enter subject |
| **Requirement** | The doctor will be able to enter subject for review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to enter subject for review to be posted to give it meaningful name |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.1.2 Enter Description**

|  |  |
| --- | --- |
| **Identifier** | FR-6.1.2 |
| **Title** | Enter description |
| **Requirement** | The doctor will be able to enter description details for review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to give details about query for better understanding of admin |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.1.3 Click Post button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.1.3 |

|  |  |
| --- | --- |
| **Title** | Click Post button |
| **Requirement** | The doctor will be able to click Post button to add review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to add review after entering necessary fields |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-6.1.1, FR-6.1.2 |
| **Priority** | High. |

* + - 1. **FR-6.2.1 Edit subject**

|  |  |
| --- | --- |
| **Identifier** | FR-6.2.1 |
| **Title** | Edit subject |
| **Requirement** | The doctor will be able to enter subject for review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to edit subject for review to give it more meaningful and self-explanatory subject. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.2.2 Edit description**

|  |  |
| --- | --- |
| **Identifier** | FR-6.2.2 |
| **Title** | Edit description |
| **Requirement** | The doctor will be able to edit description details for review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to edit details about query for better understanding of admin |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.2.3 Click update review button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.2.3 |
| **Title** | Click Update Review button |
| **Requirement** | The doctor will be able to click update review button to update review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to update review after editing necessary fields |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-6.2.1, FR-6.2.2 |
| **Priority** | High. |

* + - 1. **FR-6.3.1 Enter FAQ subject**

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.1 |
| **Title** | Enter FAQ subject |
| **Requirement** | The admin will be able to enter subject for FAQ |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to enter subject for FAQ to be posted to give it meaningful name |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.3.2 Enter Question**

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.2 |
| **Title** | Enter Question |
| **Requirement** | The admin will be able to post Question for FAQ |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to enter Question for FAQ that is meaningful and explanatory |
| **Business Rule (if**  **required)** | NIL |

|  |  |
| --- | --- |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.3.3 Enter Answer**

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.3 |
| **Title** | Enter Answer |
| **Requirement** | The admin will be able to post Answer for Question |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to enter Answer to Question posted |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 6.3.2 |
| **Priority** | High. |

* + - 1. **FR-6.3.4 Click Post button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.3.4 |
| **Title** | Click Post button |
| **Requirement** | The admin will be able to click Post button to add FAQ |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to click Post button to add FAQ after entering necessary fields |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-6.3.1, FR-6.3.2, FR-6.3.3 |
| **Priority** | High. |

* + - 1. **FR-6.4.1 Enter Subject**

|  |  |
| --- | --- |
| **Identifier** | FR-6.4.1 |
| **Title** | Edit subject |
| **Requirement** | The admin will be able to edit subject for FAQ |

|  |  |
| --- | --- |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to edit subject for FAQ to give it more meaningful and self- explanatory subject. |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.4.2 Edit Question**

|  |  |
| --- | --- |
| **Identifier** | FR-6.4.2 |
| **Title** | Edit Question |
| **Requirement** | The admin will be able to edit Question details for FAQ |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to edit details about Answers for better understanding of doctors |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.4.3 Edit Answer**

|  |  |
| --- | --- |
| **Identifier** | FR-6.4.3 |
| **Title** | Edit Answer |
| **Requirement** | The admin will be able to edit Answer for Question |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to edit Answer to Question posted for more meaningful answers for doctor |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | 6.4.2 |
| **Priority** | High. |

* + - 1. **FR-6.4.4 Click update FAQ button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.4.4 |
| **Title** | Click Update FAQ button |
| **Requirement** | The admin will be able to click update FAQ button to update FAQ |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to update FAQ after editing necessary fields |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-6.4.1, FR-6.4.2, FR-6.4.3 |
| **Priority** | High. |

* + - 1. **FR-6.5.1 Click review button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.5.1 |
| **Title** | Click delete review button |
| **Requirement** | The user will be able to click delete review button to delete review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | User wants to delete review |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.5.2 Click confirm deletion button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.5.2 |
| **Title** | Click confirm deletion button |
| **Requirement** | The user will be able to respond to Warning message with clicking confirm button |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to delete review so on warning message click confirm deletion |
| **Business Rule (if**  **required)** | NIL |

|  |  |
| --- | --- |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.6.1 Enter reply subject**

|  |  |
| --- | --- |
| **Identifier** | FR-6.6.1 |
| **Title** | Enter reply subject |
| **Requirement** | The admin will be able to enter reply subject for review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to enter subject for replying to Doctor review |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.6.2 Enter reply**

|  |  |
| --- | --- |
| **Identifier** | FR-6.6.2 |
| **Title** | Enter reply |
| **Requirement** | The admin will be able to enter detail reply for review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to reply query with details for better understanding of doctor |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.6.3 Click post button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.6.3 |
| **Title** | Click Post button |
| **Requirement** | The admin will be able to click Post button to add reply to doctor review |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Doctor wants to add review after entering necessary fields |

|  |  |
| --- | --- |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | FR-6.6.1, FR-6.6.2 |
| **Priority** | High. |

* + - 1. **FR-6.7.1 Click delete FAQ button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.7.1 |
| **Title** | Click delete FAQ button |
| **Requirement** | The admin will be able to click delete FAQ button to delete FAQ |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to delete FAQ |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

* + - 1. **FR-6.7.2 Click confirm deletion button**

|  |  |
| --- | --- |
| **Identifier** | FR-6.7.2 |
| **Title** | Click confirm deletion button |
| **Requirement** | The admin will be able to respond to Warning message with clicking confirm button |
| **Source** | Team Member 1 (Danish Ali) |
| **Rationale** | Admin wants to delete FAQ so on warning message click confirm deletion |
| **Business Rule (if**  **required)** | NIL |
| **Dependencies** | NIL |
| **Priority** | High. |

### Module 7: Payments

* + - 1. **FR-7.1.1 Enter card number**

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.1 |
| **Title** | Enter card number |
| **Requirement** | The doctor will be able to enter card number. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to provide card number to make a successful payment. |
| **Business Rule (if required)** | **BR-1:**  Card number should be 15 digits long. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-7.1.2 Enter expiry date**

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.2 |
| **Title** | Enter expiry date |
| **Requirement** | The doctor will be able to enter card’s expiry date. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to provide valid card expiry date to make a successful payment. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-7.1.3 Enter CVV**

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.3 |
| **Title** | Enter CVV. |
| **Requirement** | The doctor will be able to enter CVV. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to provide CVV to make a successful payment. |

|  |  |
| --- | --- |
| **Business Rule (if required)** | **BR-1:**  CVV should be 3 digits long. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.1.4 Agree to terms and conditions**

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.4 |
| **Title** | Agree to T&Cs checkbox. |
| **Requirement** | The doctor will be able to check agree to T&Cs. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor should agree to our terms of purchase. |
| **Business Rule**  **(if required)** | **BR-1:** |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.1.5 Checkout button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.1.5 |
| **Title** | Checkout button |
| **Requirement** | The doctor will be able to checkout. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs to checkout to make a payment. |
| **Business Rule (if required)** | **BR-1:**  All fields should have valid values. |
| **Dependencies** | FR-8.1.1, FR-8.1.2, FR-8.1.3, FR-8.1.4 |
| **Priority** | Medium. |

* + - 1. **FR-7.2.1 View payment status of a payment**

|  |  |
| --- | --- |
| **Identifier** | FR-7.2.1 |
| **Title** | View payment status. |

|  |  |
| --- | --- |
| **Requirement** | The doctor and admin will be able to view if payment was verified or not. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor and admin to track payment. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.2.2 View payment plan of a payment**

|  |  |
| --- | --- |
| **Identifier** | FR-7.2.2 |
| **Title** | View payment plan. |
| **Requirement** | The doctor and admin will be able to view payment’s plan. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor and admin to track payments. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.2.3 View payment date of a payment**

|  |  |
| --- | --- |
| **Identifier** | FR-7.2.3 |
| **Title** | View payment date |
| **Requirement** | The doctor and admin will be able to view the date the payment was made. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor and admin to track payments. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.3.1 Verify payments button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.3.1 |
| **Title** | Verify payments button |
| **Requirement** | The doctor will be able to verify payments made by the doctor. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow admin to verify a doctor’s payment. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.4.1 View payment plan price**

|  |  |
| --- | --- |
| **Identifier** | FR-7.4.1 |
| **Title** | View payments plan price |
| **Requirement** | The doctor and admin will be able to view a plan’s price. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor and admin to view plans’ price. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.4.2 View payment plan name**

|  |  |
| --- | --- |
| **Identifier** | FR-7.4.2 |
| **Title** | View payments plan name |
| **Requirement** | The doctor and admin will be able to view a plan’s name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor to view plans’ name. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |

|  |  |
| --- | --- |
| **Priority** | Medium. |

* + - 1. **FR-7.4.3 View payment plan duration**

|  |  |
| --- | --- |
| **Identifier** | FR-7.4.3 |
| **Title** | View payments plan duration. |
| **Requirement** | The doctor and admin will be able to view a payment plan’s duration. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor and admin to view plans’ duration. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.4.4 Select payment plan button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.4.4 |
| **Title** | Select payment plan button. |
| **Requirement** | The doctor will be able to select a payment plan. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Will allow doctor to select a plan. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-8.4.1, FR-8.4.2, FR-8.4.3 |
| **Priority** | Medium. |

* + - 1. **FR-7.5.1 Add terms and conditions button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.5.1 |
| **Title** | Add terms and conditions |
| **Requirement** | The admin will be able to add terms and conditions. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Terms and conditions need to be added. |

|  |  |
| --- | --- |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.5.2 View terms and conditions**

|  |  |
| --- | --- |
| **Identifier** | FR-7.5.2 |
| **Title** | View terms and conditions. |
| **Requirement** | The doctor will be able to view terms and conditions. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor and admin need to view with terms and conditions. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.5.3 Update terms and conditions button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.5.3 |
| **Title** | Update terms and conditions |
| **Requirement** | The admin will be able to update terms and conditions. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Terms and conditions may change. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.5.4 Delete terms and conditions button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.5.4 |
| **Title** | Delete terms and conditions |

|  |  |
| --- | --- |
| **Requirement** | The admin will be able to delete terms and conditions. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Terms and conditions may have to be deleted. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.6.1 Download invoice button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.6.1 |
| **Title** | Download invoice button. |
| **Requirement** | The doctor will be able to download invoice. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor needs payment invoice. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.7.1 Update card number**

|  |  |
| --- | --- |
| **Identifier** | FR-7.7.1 |
| **Title** | Update card number |
| **Requirement** | The doctor will be able to update card number. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor can have multiple credit cards. |
| **Business Rule (if required)** | **BR-1:**  Card number should be 15 digits long. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-7.7.2 Update expiry date**

|  |  |
| --- | --- |
| **Identifier** | FR-7.7.2 |
| **Title** | Update expiry date |
| **Requirement** | The doctor will be able to update card’s expiry date. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor can have multiple credit cards. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | High. |

* + - 1. **FR-7.7.3 Update CVV**

|  |  |
| --- | --- |
| **Identifier** | FR-7.7.3 |
| **Title** | Update CVV. |
| **Requirement** | The doctor will be able to update CVV. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor can have multiple credit cards. |
| **Business Rule (if required)** | **BR-1:**  CVV should be 3 digits long. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.7.4 Update details button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.7.4 |
| **Title** | Update details button |
| **Requirement** | The doctor will be able to update credit card details. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | Doctor can have multiple credit cards. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | FR-8.7.1, FR-8.7.2, FR-8.7.3 |

|  |  |
| --- | --- |
| **Priority** | Medium. |

* + - 1. **FR-7.8.1 Add plan name**

|  |  |
| --- | --- |
| **Identifier** | FR-7.8.1 |
| **Title** | Add plan name |
| **Requirement** | The admin will be able to add plan name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The admin may have a new payment plan. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.8.2 Add plan price**

|  |  |
| --- | --- |
| **Identifier** | FR-7.8.2 |
| **Title** | Add plan name |
| **Requirement** | The admin will be able to add plan price. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The admin may have a new payment price. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.8.3 Add plan duration**

|  |  |
| --- | --- |
| **Identifier** | FR-7.8.3 |
| **Title** | Add plan name |
| **Requirement** | The admin will be able to add plan name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The admin may have a new payment plan. |

|  |  |
| --- | --- |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.8.4 Add plan button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.8.4 |
| **Title** | Add plan button |
| **Requirement** | The admin will be able to add plan. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | The admin may have a new payment plan. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.9.1 Update plan name**

|  |  |
| --- | --- |
| **Identifier** | FR-7.9.1 |
| **Title** | Update plan name |
| **Requirement** | The admin will be able to update plan name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | A payment plan may change. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.9.2 Add plan price**

|  |  |
| --- | --- |
| **Identifier** | FR-7.9.2 |
| **Title** | Update plan name |

|  |  |
| --- | --- |
| **Requirement** | The admin will be able to update plan price. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | A payment plan may change. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.9.3 update plan duration**

|  |  |
| --- | --- |
| **Identifier** | FR-7.9.3 |
| **Title** | Update plan name |
| **Requirement** | The admin will be able to update plan name. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | A payment plan may change. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.9.4 Update plan button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.9.4 |
| **Title** | Update plan button |
| **Requirement** | The admin will be able to update plan. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | A payment plan may change. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

* + - 1. **FR-7.10.1 Delete plan button**

|  |  |
| --- | --- |
| **Identifier** | FR-7.10.1 |
| **Title** | Delete plan button |
| **Requirement** | The admin will be able to delete plan. |
| **Source** | Team Member 2 (Malaika Atiq) |
| **Rationale** | A payment plan may have to be removed. |
| **Business Rule**  **(if required)** | NIL. |
| **Dependencies** | NIL. |
| **Priority** | Medium. |

## Non-Functional Requirements

### Reliability

**REL-1:** If an error occurs in network connection, webpage should load in 3 seconds after restart of an application and connection is established.

**REL-2:** MTBF for a year shall be at least 11 months.

**REL-3:** MTTR shall be 3 hours.

### Usability

**USE-1:** The system should autofill fields required in payment form that are common in Account details for better user experience.

**USE-2:** The system shall allow Doctor to view previous appointment details in single interaction.

**USE-3:** The system shall show appointment timer on every page when appointment starts so Doctor will be aware of time passed.

**USE-4:** The system shall allow login authentication through google account so User login experience will be good, and process will be faster.

**USE-5:** The system shall provide all necessary components like Detector, Rehabilitator, Payment on Dashboard so it will be easy for doctor to navigate to each Page easily on single interaction.

**USE-6:** Visual clues on exercise page should be available for better understanding of patient about what to do.

**USE-7:** The system shall provide error details on page for better understanding of error in accounts related task and Payment.

**USE-8:** The system shall be available 24/7 except in case of maintenance, error on server side.

**USE-9:** Report generator graphs should have lines marked with different colors for better understanding of doctor.

### Performance

**PER-1:** Result of detection shall appear on screen within 5 seconds from the time user requested for detection over an internet speed of 4 Mbps.

**PER-2:** Capture image of whiteboard shall download within 3 seconds from the time user clicked download button over an internet speed of 2 Mbps.

**PER-3:** Image for Training shall upload within 6 seconds from the time user selected image and click upload over an internet speed of 2 Mbps.

**PER-4:** Upon successful Login, User dashboard page shall be loaded within 3 seconds over an internet speed of 2 Mbps.

**PER-5:** Evaluation report for Rehabilitation exercise should be loaded on screen with 4 seconds from the time user submitted picture for submission over an internet speed of 2 MPs.

### Security

* + - * The security alert shall be mailed to user within 20 seconds of time when an anonymous attacker is trying to login to account by fulling wrong password more than 1 times.
      * The system shall email an update message to user within 5 seconds when updates are made to User credentials or account Information.
      * The system shall confirm to user that the personal information entered will not be share with nay organization etc.
      * The system shall do transactions including sensitive data using secure sockets only.
      * The system shall logout user after a specified period of inactivity.
      * System shall remove all cookies on customer device containing sensitive information of any user.
      * System backend servers shall be accessible only for Authenticated administrators and not for anyone else.
      * System shall confirm all transactions in the boundary of customer web browser and not outside.

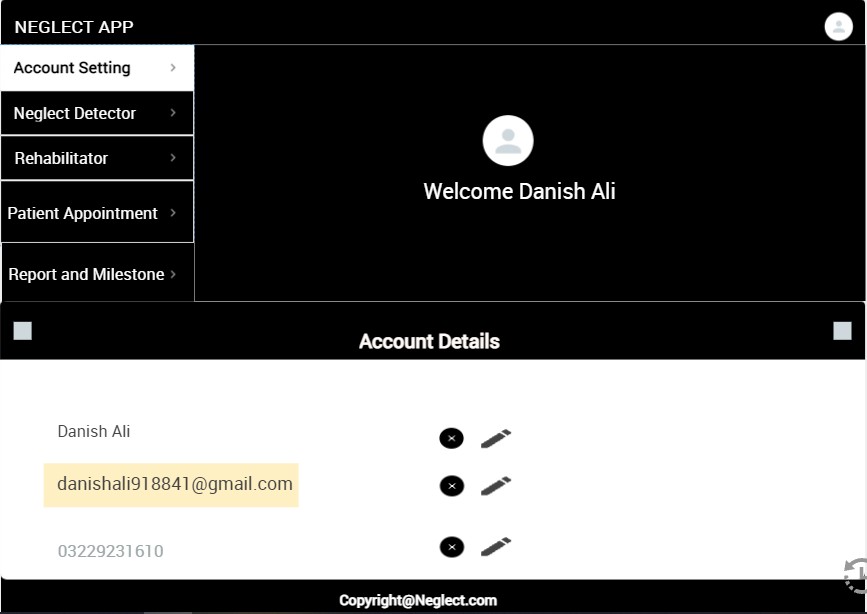
## External Interface Requirements

This section provides information to ensure that the system will communicate properly with users and with external hardware or software elements. A complex system with multiple subcomponents should create a separate interface specification or system architecture specification. The interface documentation could incorporate material from other documents by reference. For instance, it could point to a hardware device manual that lists the error codes that the device could send to the software.

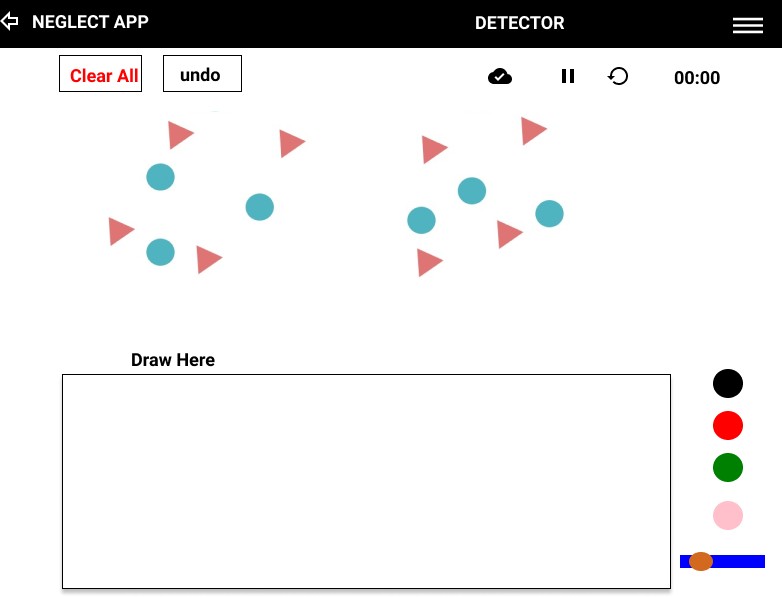
### User Interfaces Requirements

Four the interfaces Material community icons will be used. Labes with fields will be mentioned to give a clear idea to user. Error, Success and Warning messages will be displayed open corresponding actions to notify user about what’s going on. Layout shall be simple and clear and not messy. Keeping in view the Google Disability Alliance guidelines Interfaces will be designed to help disable users for better experience and usability. Use of icons will give clear message for action.

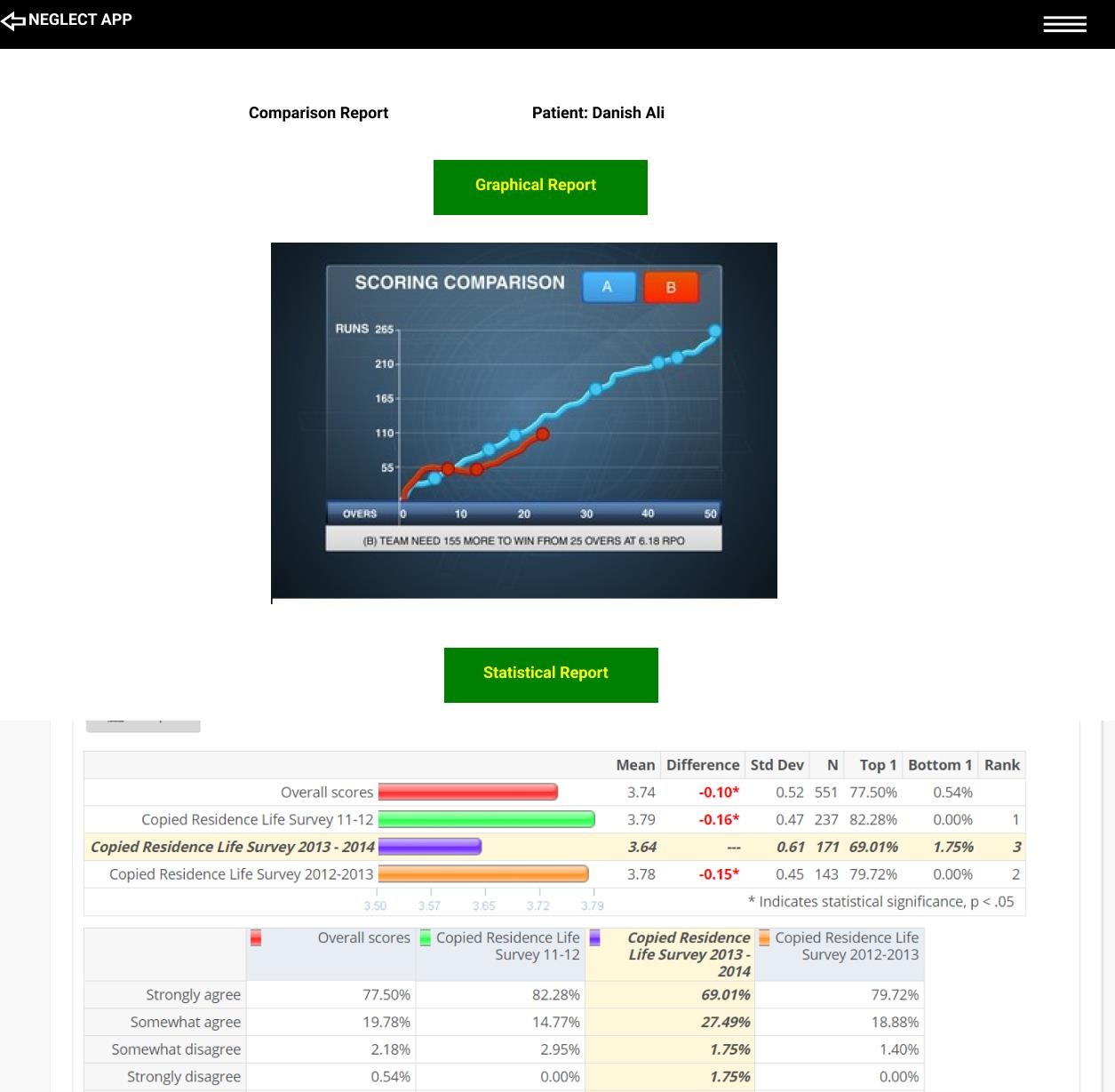
Bootstrap-5 Buttons will be used for better appearance. Some of interface designs are as follows



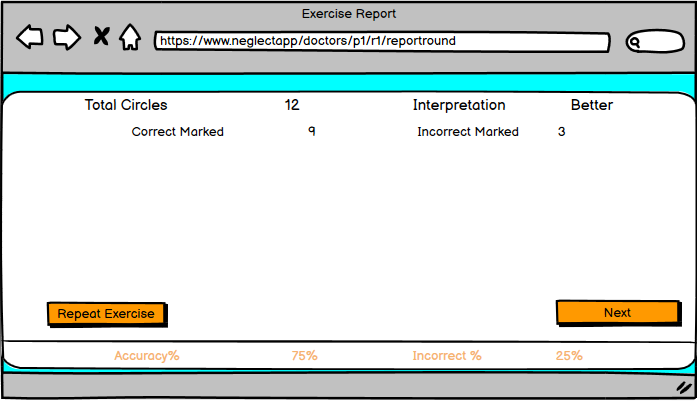
**Figure 7: Interface for Admin Panel Account Manager**



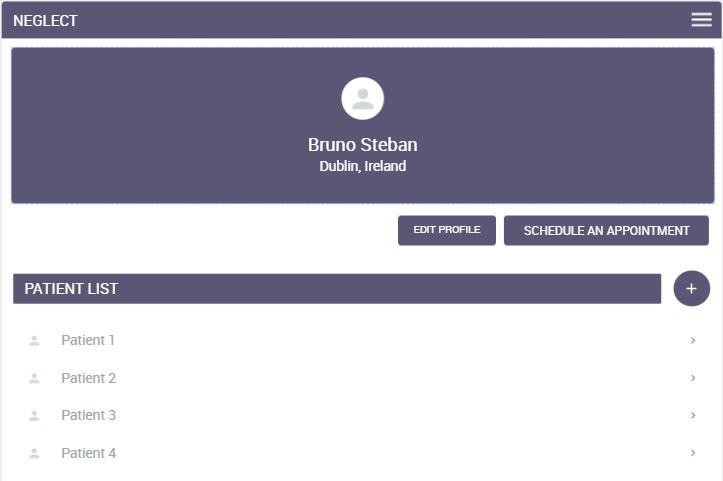
**Figure 8: Interface for Neglect detector with whiteboard**



**Figure 9: Interface for Report Generator**



**Figure 10: Interface for Exercise Report**



**Figure 11: Interface for Patient Panel**

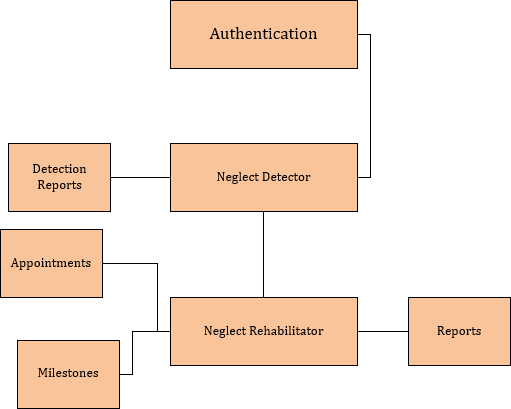
### Communications interfaces

* Gmail will be used for data and identity verification
* Mongo dB will be backend database from where data will be fetched, Post using http methods.
* For intranet communication only TCP-IP protocols should be used
* For communication over internet HTTP protocol should be used

# Design and Architecture

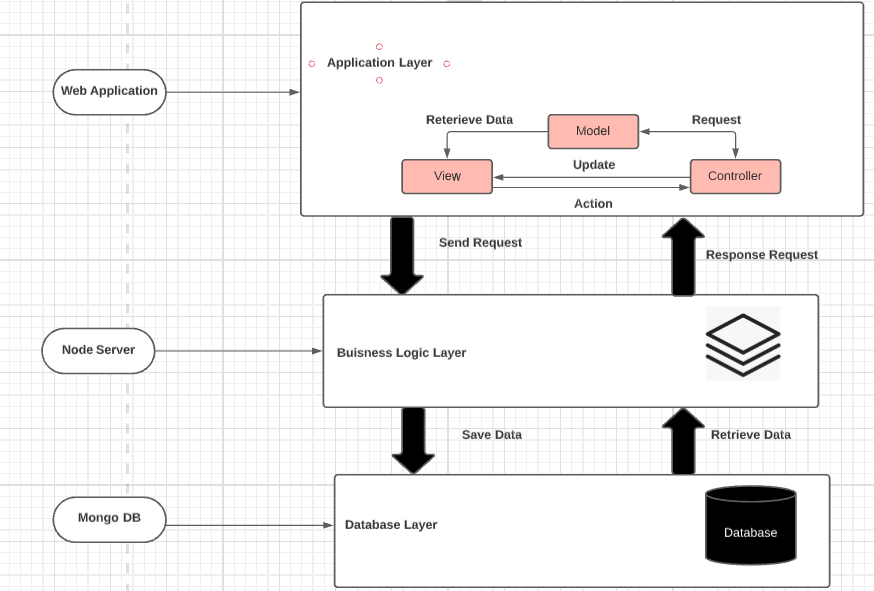
## Architectural Design

### Box and Line Diagram:



**Figure 12: Box and Line Diagram**

### Architecture Diagram:



**Figure 13: Architecture Diagram**

### MVC Components:

* + - 1. **Views*:***

Views are what is visible to the client. Clients interact with Views. Views are controlled by Controllers.

Views are UI of an application. Through View layer, Data is exposed to Client. In our application Views will be related to Guardian, Doctors, Detector, Rehabilitator, Reviews etc.

### Controller:

Controllers basically controls View visibility and interacts with the Models to get State and update State. Controllers are extremely important in dealing with User authentication as it authenticates correct users. Controllers that’s help of utilities like middleware for complex works and break task into sub tasks.

Our application will be consisted of Users controllers.

### Models:

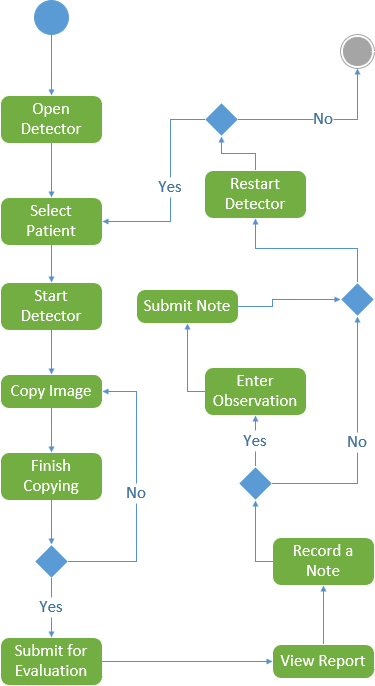
Models hold the state. It basically updates a View. Model also applies set of rules on data to be stored correctly.

Models contain schema to be enforce on Database. Our application will contain models related to Users, Reviews, FAQs, statistics etc.

## Design Models

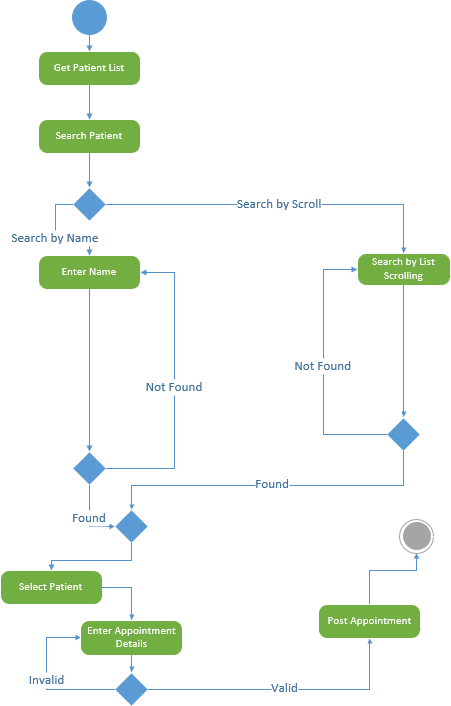
### Activity Diagrams:

#### Activity Diagram for Detector:



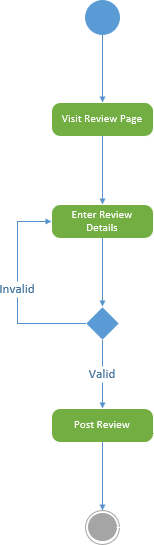
**Figure 14: Activity Diagram for Detector**

#### Activity Diagram for Schedule Appointment:



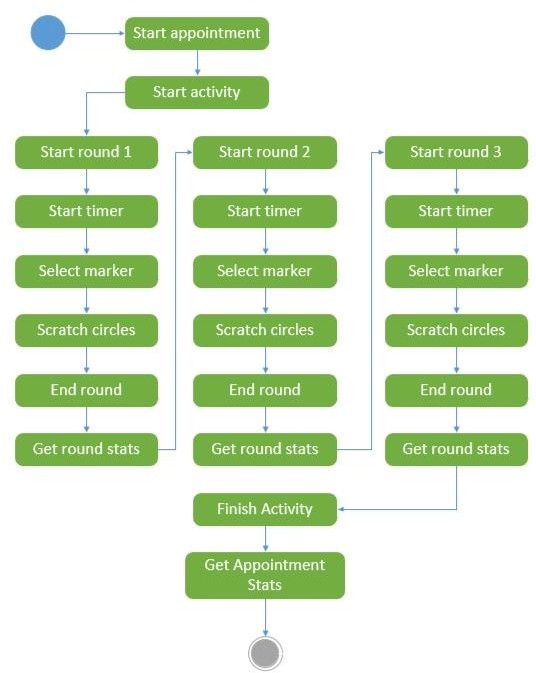
**Figure 15: Activity Diagram for Appointments**

#### Activity Diagram for Review:



**Figure 16: Activity Diagram for Reviews**

#### Activity Diagram for Rehabilitator:



**Figure 17: Activity Diagram for Rehabilitator**

#### Activity Diagram for Post request:

Get doctor list

Search Doctor

Search by name

Search by scroll

Enter name

Scroll

Not found

Found

Skip doctor profile

Doctor profile

Visit doctor profile

Send request

Post Query

Notify doctor

**Figure 18: Activity Diagram for Requests**

#### Activity Diagram for Respond to Request:

Get all requests

Skip patient profile

Patient profile

Visit patient profile

Reject

Accept

Delete request

Add to doctor's

patients list

Notify patient

**Figure 19: Activity Diagram for Requests**

#### Activity Diagram for Payments:

Open payment tab

Select payment

plan

Enter payment

details

Send payment

Show error

message

Invalid Details

Valid Details

Payment unsuccessful

Payment successful

Show success

message

**Figure 20: Activity Diagram for Payments**

#### Activity Diagram for Report Generator:

Open report

generator

Select patient

Generate Report

Statistical Report

Graphical Report

Refresh

Get statistical

report

Get graphical

report

No refresh

**Figure 21: Activity Diagram for Report Generator**

### Sequence Diagrams:

#### Sequence Diagram for Scheduling Appointments:



Lookup patients

**:patient catalog**

**Doctor**

**:appointments**

[patient exists]: Match Appointments

[not matched]: scheduleAppointment()

Appointment Scheduled message

**Figure 22: Sequence Diagram for Appointments**

#### Sequence Diagram for Detector:



Lookup

[if found]: open detector

show image

Copy image

End detector activity

Display Report

**Patient**

**Guardian**

**:detector**

**:patient catalog**

**Figure 23: Sequence Diagram for Detector**

#### Sequence Diagram for Rehabilitator:



**Doctor**

**Patient**

**:appointment**

**:rehabilitator**

Start Appointment

**loop**

i<3

Select Round

Show image

Scratch circles

Submit for evaluation

Display round statistics

Display appointment status

**Figure 24: Sequence Diagram for Rehabilitator**

#### Sequence Diagram for Patient Logging:



**Guardian**

Send query



**Doctor**

**:notifications**

**manager**

**:patient catalog**

Query response

Send request

[if accepted]: add to list

Send notification

**Figure 25: Sequence Diagram for Patient Logging**

#### Sequence Diagram for Report Generator:



**Doctor**

**Guardian**

**:patient catalog**

**:report generator**

**:reports**

Send query

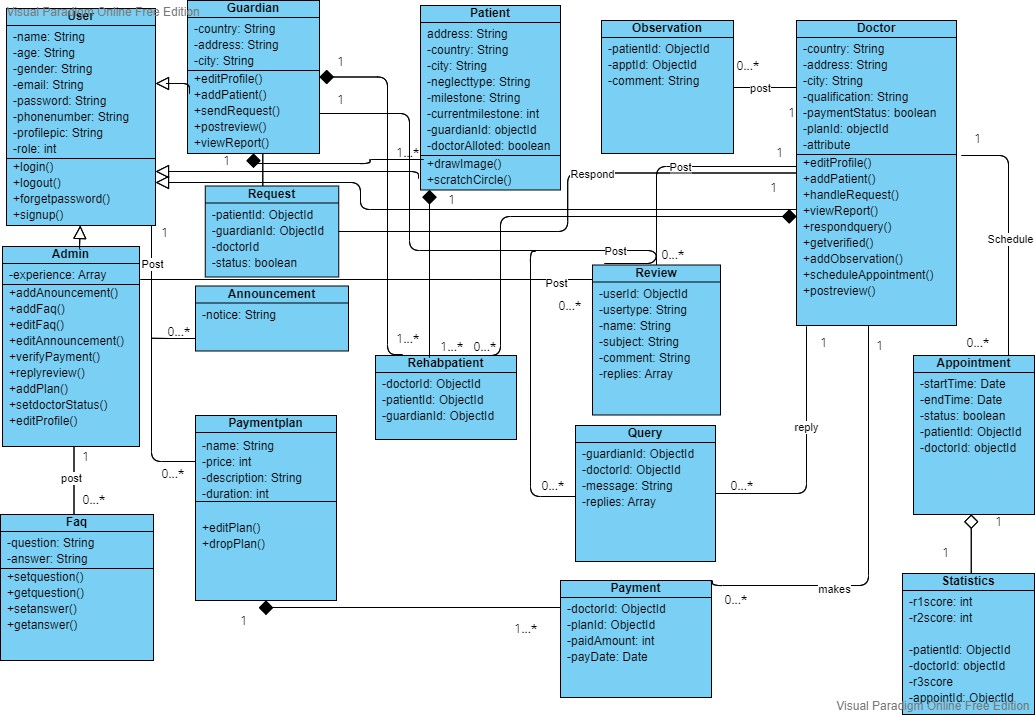
[if found]: generate report Display report

Lookup report

Display report

**Figure 26: Sequence Diagram for Report Generator**

### Class Diagram:

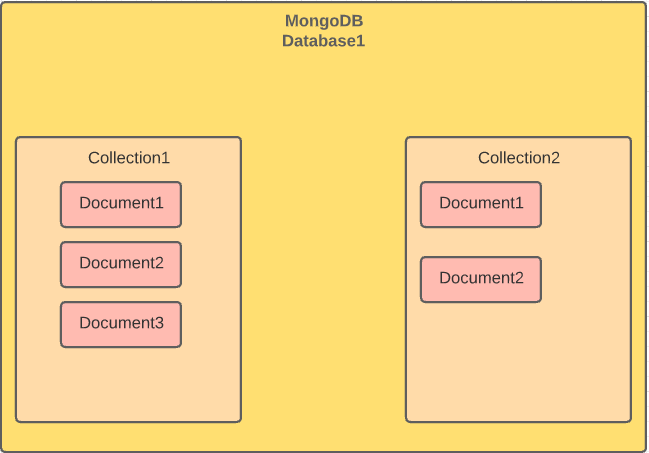


**Figure 27: Class Diagram**

## Data Design

* + - We are using NoSQL Database called MongoDB.
    - So, we have Collections inside our database and each Collection is referred to entity that holds its existence.
    - We are following BSON format for storing our data and Schema will be Mongoose Schema which is library for Object Data Modeling for MongoDB to enforce schema.
    - MongoDB, Mongoose Query will be used to process the data.
    - Data will be organized in BSON documents inside collections and each document is one separate record.

### Data Dictionary



**Figure 28: Data design**

#### Data Dictionary for Guardian Account

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| Address | String | Guardian current Address |
| Age | Number | Guardian Age |
| City | String | City where Guardian Lives |
| Country | String | Country |
| Email | String | Guardian Email for Account |
| Gender | String | Guardian Gender |
| Name | String | Guardian Name |
| Password | String | Guardian Account Password |
| phonenumber | String | Guardian Contact Number |

|  |  |  |
| --- | --- | --- |
| profilepic | String | Profile picture for guardian account. |

**Table 1: Guardian Account**

* + - 1. ***Data Dictionary for Reviews***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| Userid | Schema.Types.objectId | Foreign key references Guardian, Admin, Doctor |
| usertype | String | Type of user posted a review |
| Subject | String | Review Subject as title |
| comment | String | A review description or body |
| Name | String | Name of person posting review |
| Replies | Array[{userid,usertype,reply}] | Array of ReviewsReply |

**Table 2: Reviews**

* + - 1. ***Data Dictionary for Appointment***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| date | Date | Schedule Appointment Date |
| Doctorid | Schema.Types.objectId | Id of Doctor who is scheduling Appointment and it references Doctor collection. |
| endtime | TimeStamp | Ending time for Appointment |
| patientid | Schema.Types.objectId | Patient id for the patient whose appointment will be scheduled. It references Patient collection and patient is also in patient list for |

|  |  |  |
| --- | --- | --- |
|  |  | doctor. |
| starttime | TimeStamp | Ending Time for Appointment |

**Table 4: Appointments**

* + - 1. ***Data Dictionary for Statistics***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| doctorid | Schema.Types.objectId | Doctor id references to Doctor collection. |
| appointmentid | Schema.Types.objectId | Appointment id references to Appointment Collection. |
| patientid | Schema.Types.objectId | Patient id whose Appointment  stats needs to be shown. |
| r1score | Number | Round1 Score |
| r2score | Number | Round2 Score |
| r3score | Number | Round3 Score |
| score | Array | Score array for storing round scores. |
| Scores array is collection of round scores and include round1, round2 and round3 score. | | |

**Table 5: Statistics**

* + - 1. ***Data Dictionary for FAQs***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| answer | String | FAQ answer to be posted |
| question | String | FAQ Question to be posted. |

**Table 6: FAQ**

* + - 1. ***Data Dictionary for Doctor:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| name | String | Doctor’s name |
| age | Number | Doctor’s age |
| email | String | Doctor’s email |
| password | String | Doctor’s account password |
| gender | String | Doctor’s gender |
| phoneNumber | String | Doctor’s contact number |
| address | String | Doctor’s current address |
| qualification | String | Doctor’s qualification |
| country | String | Doctor’s residential country |
| city | String | Doctor’s residential city |
| profilePic | String | Doctor’s profile picture |
| paymentStatus | Number | Doctor’s payment status |
| planID | Schema.Types.objectId | Doctor’s payment plan |
| patients | Array | Doctor’s patients |
| role | Number | User role |

**Table 7: Doctor**

* + - 1. ***Data Dictionary for Patient:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| name | String | Patient’s name |
| age | Number | Patient’s age |
| neglectType | String | Patient’s neglect type |
| gender | String | Patient’s Gender |
| phoneNumber | String | Patient’s Contact Number |
| address | String | Patient’s current Address |

|  |  |  |
| --- | --- | --- |
| currentMilestone | Number | Patient’s milestone reached |
| Milestone | Number | Patient’s milestone |
| lastUpdated | String | Date of milestone reached |
| country | String | Patient’s residential country |
| city | String | Patient’s residential city |

**Table 8: Patients**

* + - 1. ***Data Dictionary for Admin:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| name | String | Admin’s name |
| age | Number | Admin’s age |
| email | String | Admin’s email |
| password | String | Admin’s password |
| gender | String | Admin’s Gender |
| phoneNumber | String | Admin’s Contact Number |
| Experience | Array | Admin’s work experience |
| profilePic | String | Admin’s profile picture |
| Role | Number | User role |

**Table 9: Admin**

* + - 1. ***Data Dictionary for Payment Plan:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| Name | String | Plan’s name |
| Price | Number | Plan’s price |
| Description | String | Plan’s description |
| Duration | String | Plan’s duration |

**Table 10: Payment Plan**

* + - 1. ***Data Dictionary for Payments:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| doctorID | Schema.Types.objectId | Foreign Key |
| payDate | String | Date doctor paid |
| paidAmount | Number | Amount doctor paid |
| plandId | Schema.Types.objectId | Plan Id referring to Payment Plan collection |

**Table 11: Payments**

* + - 1. ***Data Dictionary for Request:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| doctorid | Schema.Types.objectId | Id of Doctor who will receive request |
| patientid | Schema.Types.objectId | Id of Patient for which rehabilitation needed |
| guardianid | Schema.Types.objectId | Request sender id |
| subject | String | Subject of Request |
| guardianname | String | Name of request sender |
| comment | String | Comment of request |
| status | Boolean | Status of Request approve |

**Table 12: Request**

* + - 1. ***Data Dictionary for Query:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| doctorid | Schema.Types.objectId | Id of Doctor who will responds to query |
| guardianid | Schema.Types.objectId | Id of Guardian sender |
| name | String | Name of sender |
| replies | String | Array of Query replies |
| Comment | String | Comment of Query |
|  |  |  |

**Table 13: Query**

* + - 1. ***Data Dictionary for Announcements:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
|  | String | Notice to be posted |
|  |  |  |

**Table 14: Announcements**

* + - 1. ***Data Dictionary for RehabPatients:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| doctorid | Schema.Types.objectId | Id of doctor who will rehabilitate patient. |
| patientid | Schema.Types.objectId | Patient id who will receive rehabilitation. |
| guardianid | Schema.Types.objectId | Id of Guardian to which Patient beolong |

**Table 15: Announcements**

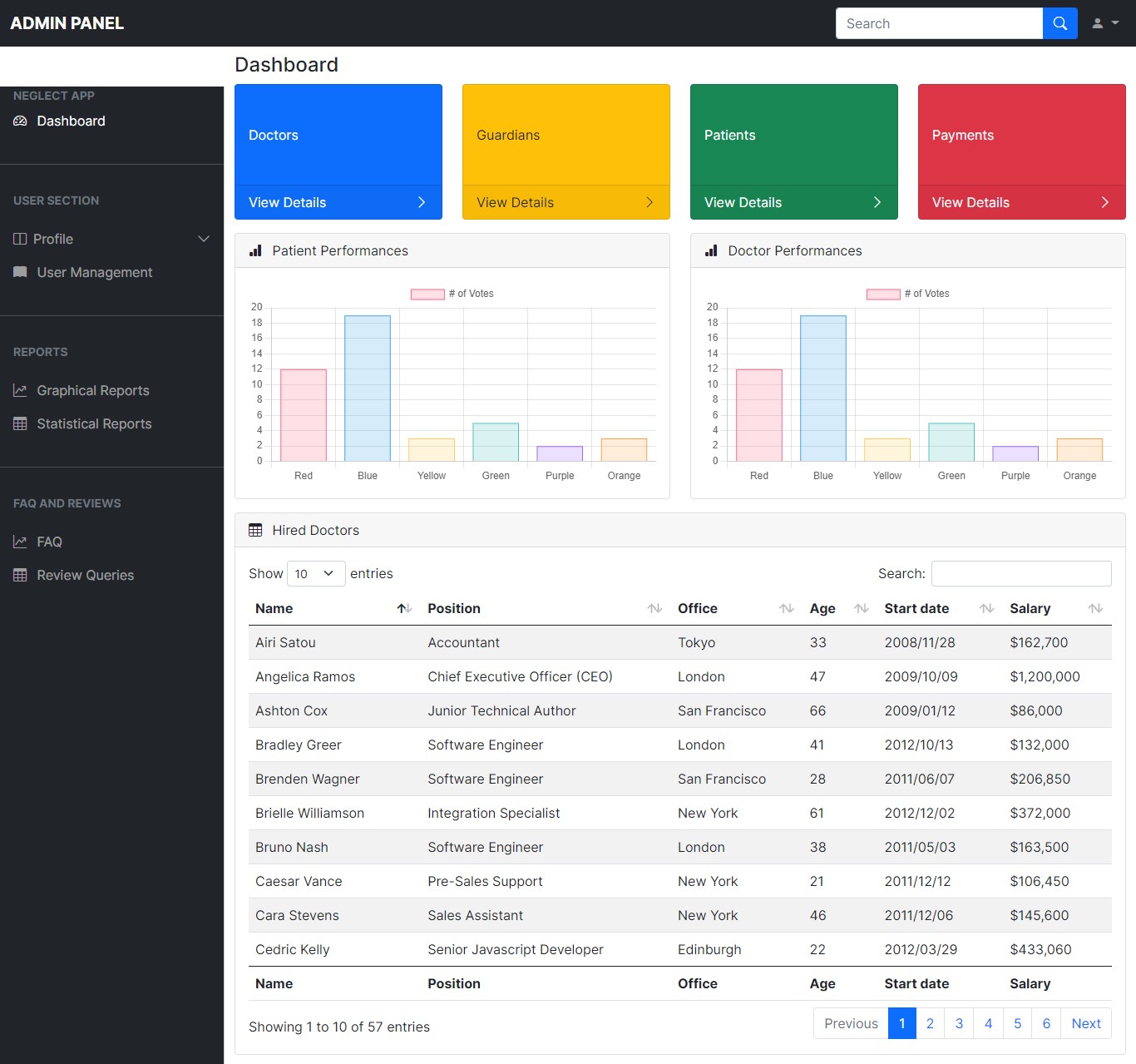
* + - 1. ***Data Dictionary for Observation:***

|  |  |  |
| --- | --- | --- |
| **Field** | **Type** | **Description** |
| \_id | Schema.Types.objectId | Primary key |
| Apptid | Schema.Types.objectId | Id of Appointment to which |
| Patientid | Schema.Types.objectId | Patient id who will receive rehabilitation. |
| Comment | String | Comment of Observation |

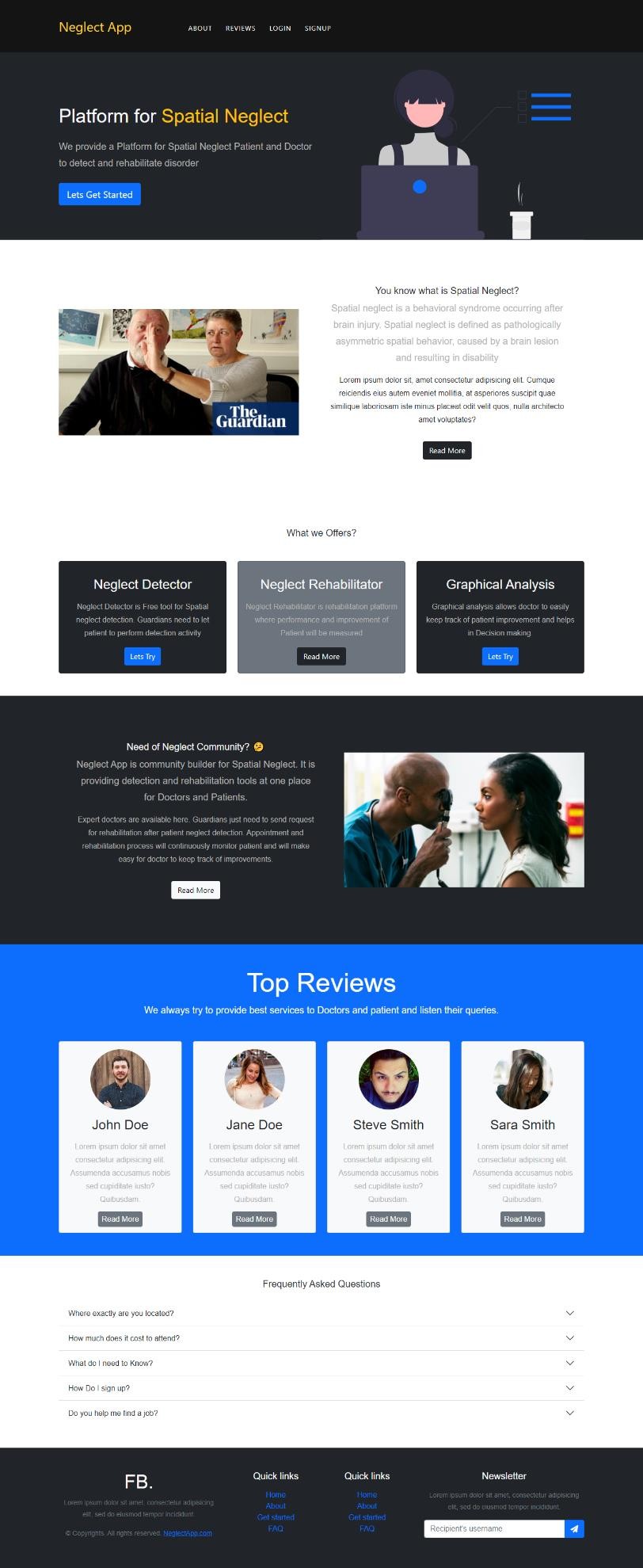
**Table 16: Observations**

## Human Interface Design

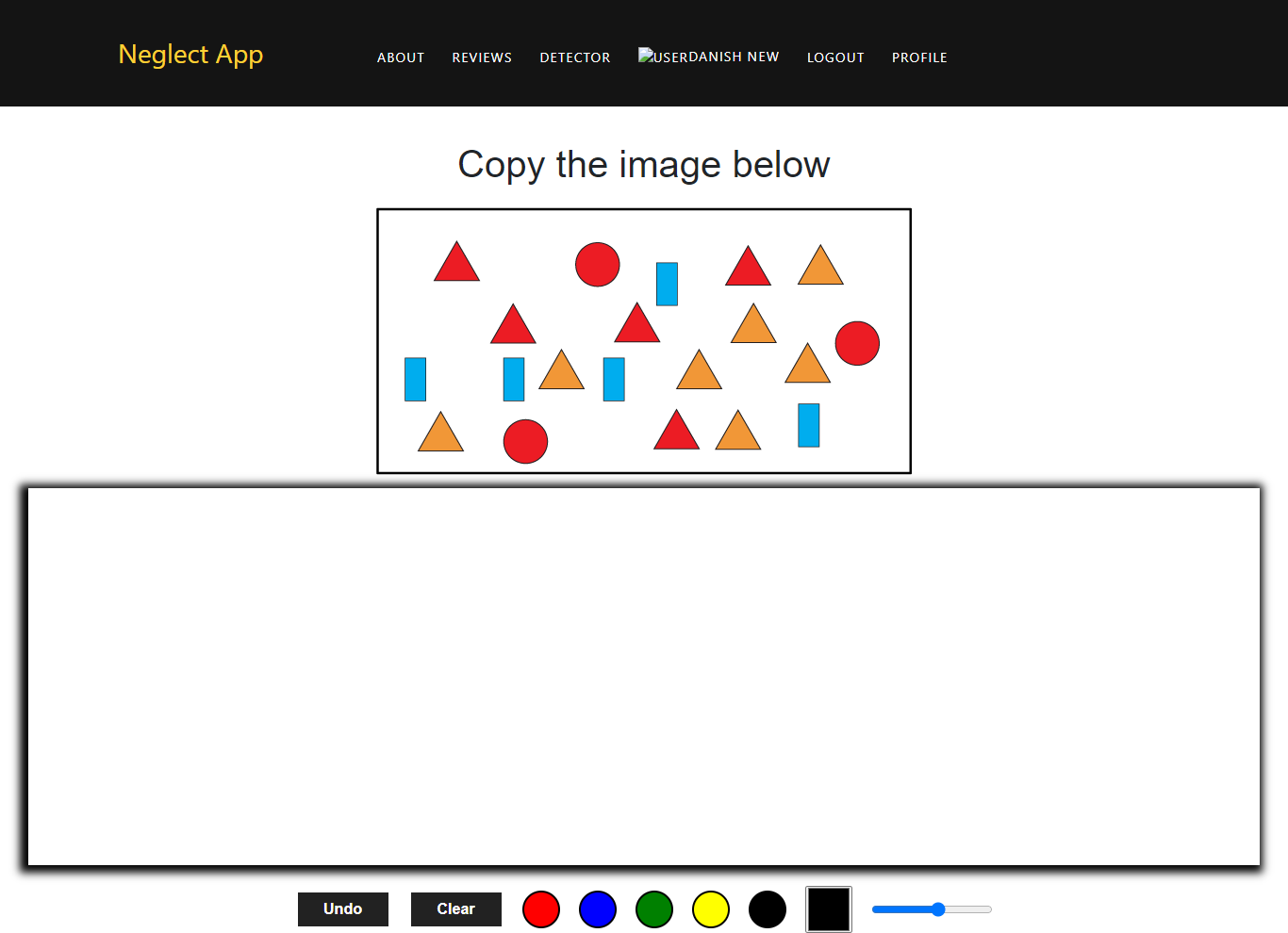
### Screen Images



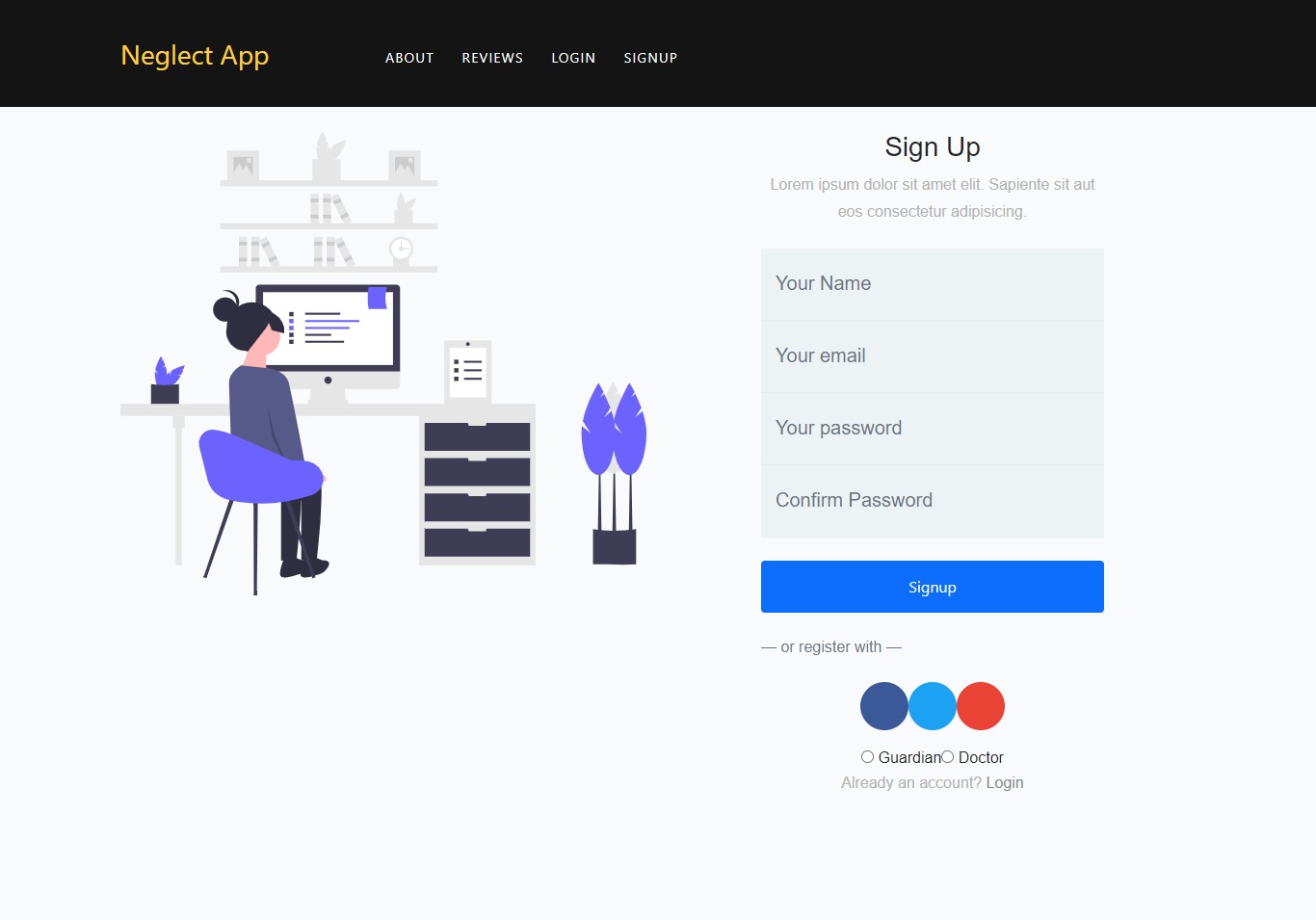
**Figure 29: Admin Dashboard**



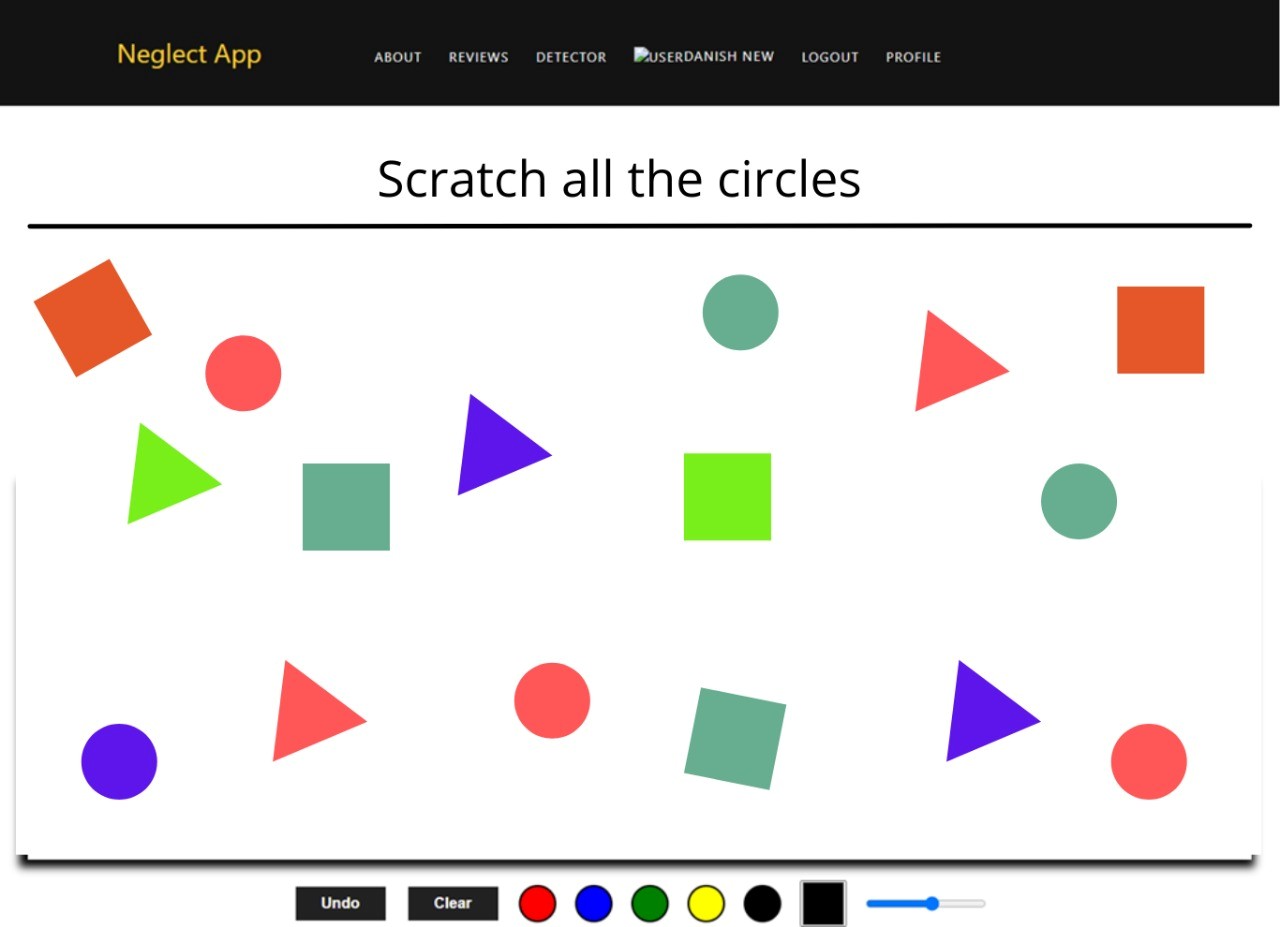
**Figure 30: Homepage**



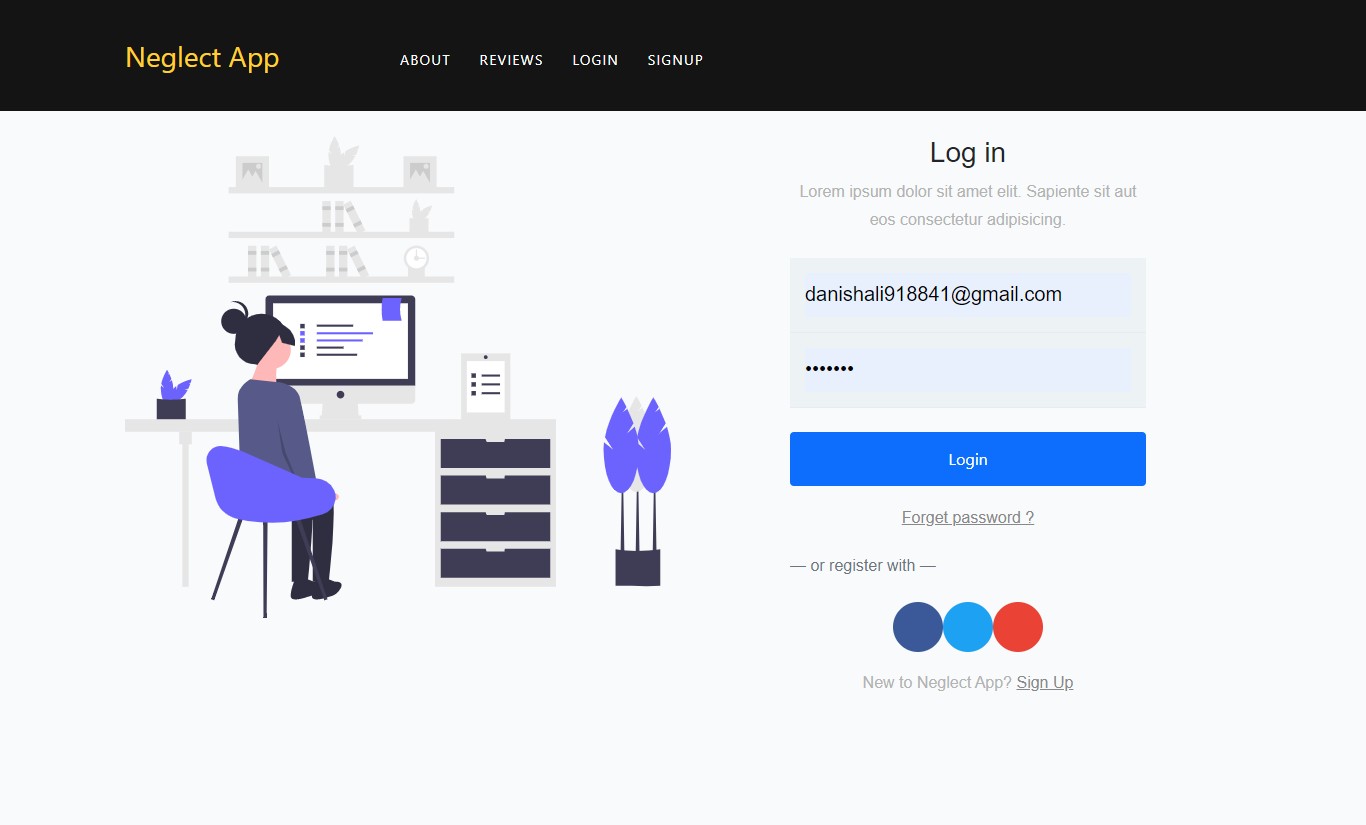
**Figure 31: Detector**



**Figure 32: Signup**



**Figure 33: Rehabilitation**



**Figure 34: Login**

### Screen Objects and Actions

A discussion of screen objects and actions associated with those objects.

# Implementation

## Algorithm

|  |
| --- |
| **Algorithm 1 ImageClassifierTraining** |
| **Input:** trainingds,validationds |
| **Output:** Prediction output as 0 or 1 |
| 1: model ← (traininds,validationds) 2: Epoch ← 30  3: Stepperepoch ←3  4: i←1  3: **While**(i<=Epoch) **do:**  5: **for** j in range (0: Stepperepoch): 6: model.learn← (trainingds)  7: Accuracy←model.validate() |

|  |
| --- |
| 11: **i**←i+1  12: end for  13: end while  15: return model |
| **Algorithm 2 ImageLabelPrediction** |
| **Input:Image** |
| **Output:** Label as 0 or 1 |
| 1: img ← load\_image(Image)  2: ImageArray ← img.toArray()  3: loadmodel←load(ImageClassifierTraining( ))  3: val←loadmodel.predict(ImageArray)  4: predictionobj←{}  5: If(val==0) then:  6: predictionobj← ({prediction:0})  7: end if  8: else then:  9: predictionobj← ({prediction:1})  10: end else  11: return predictionobj |

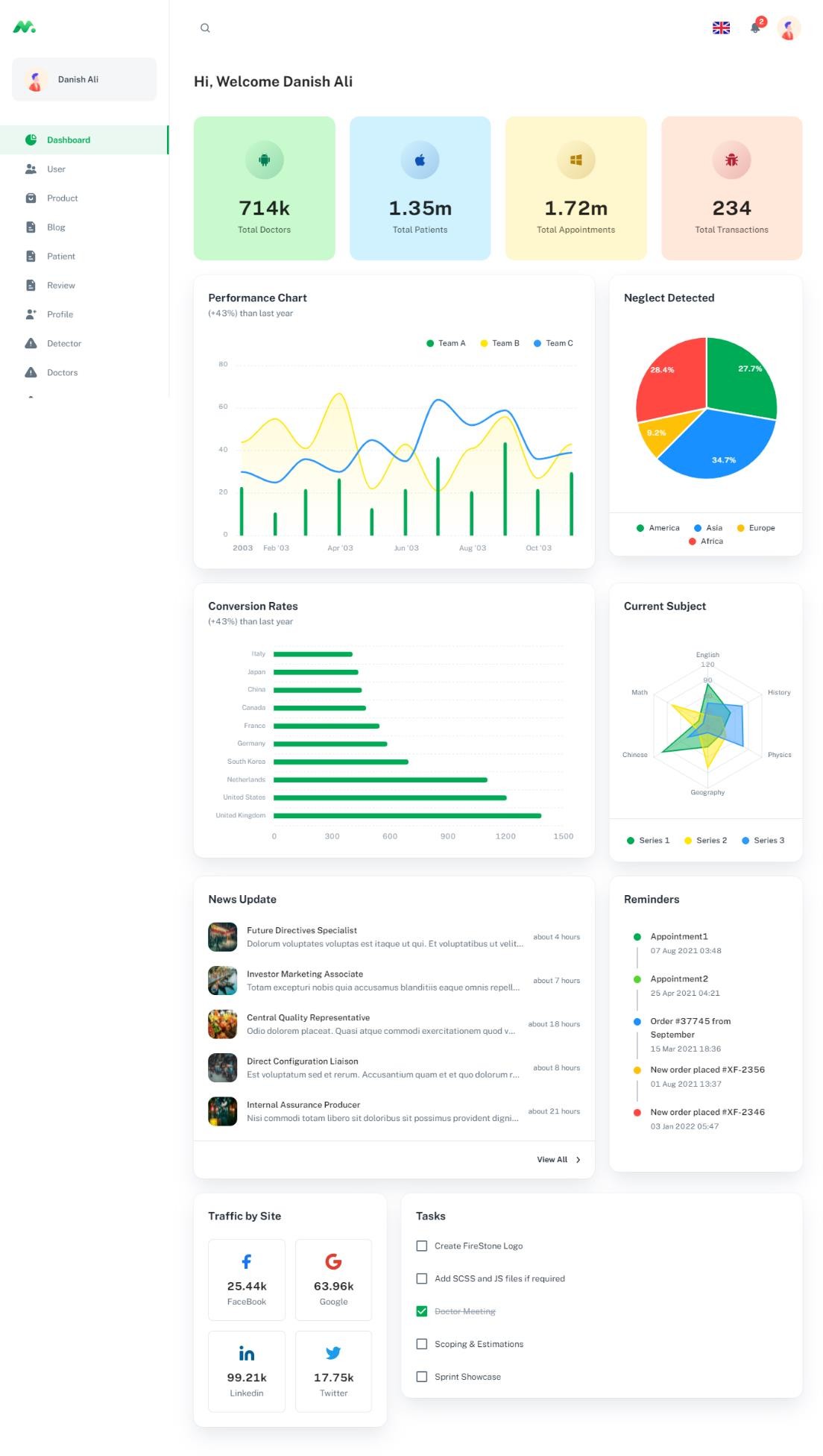
### Table 16 Image Classification Algorithm Pseudocode

## External APIs/SDKs

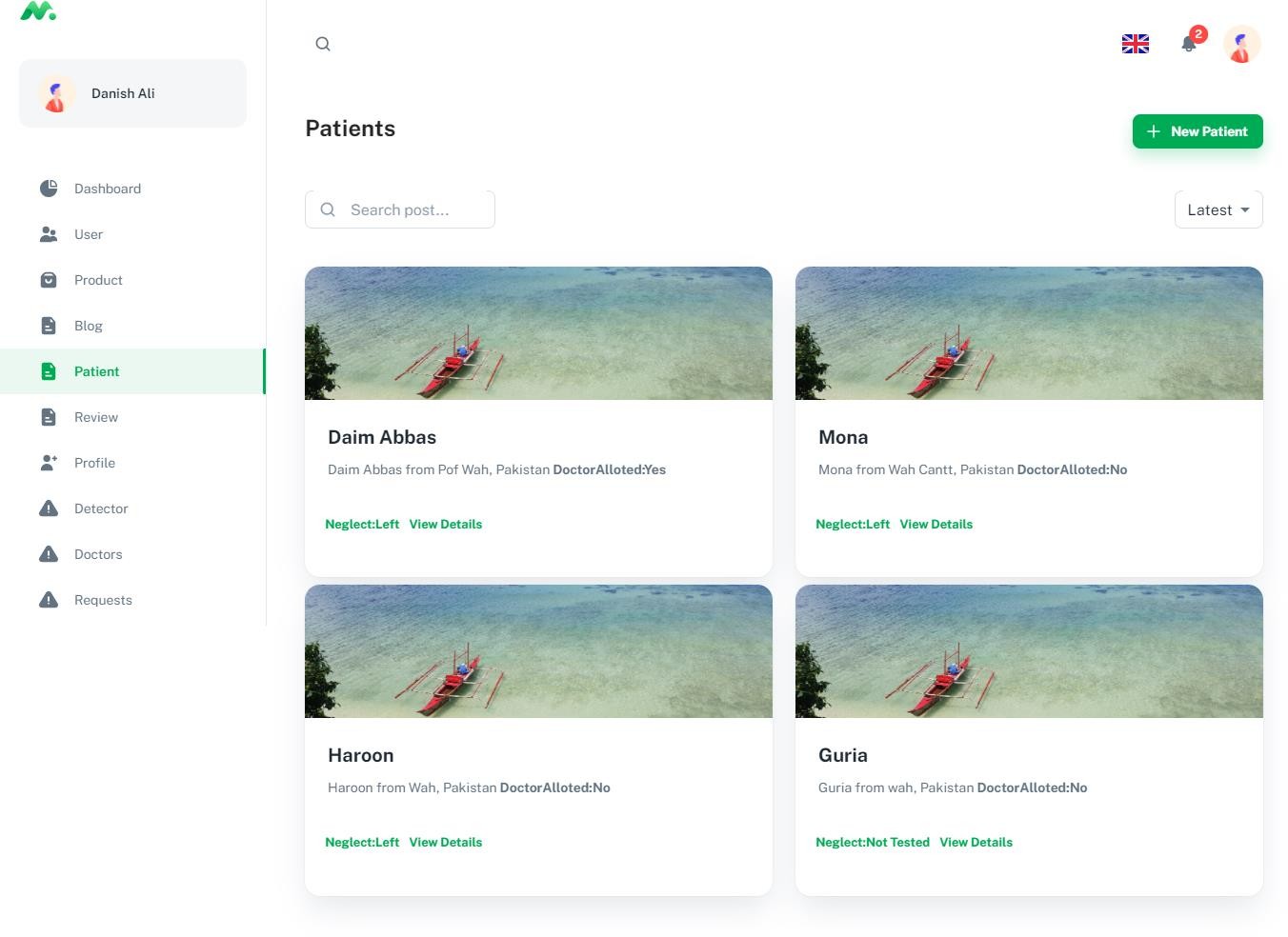
|  |  |  |  |
| --- | --- | --- | --- |
| **Name of API and version** | **Description of API** | **Purpose of usage** | **List down the API**  **endpoint/function/class in which it is used** |
| Stripe (version 2020-08-27) | Credit Card payment integration. | Doctor payment for using Neglect App. | /getverified |
| Cloudinary | Image and Video management solution. | Uploading Detector, Rehabilitation, Patient, Doctor, Guardian Images | https://api.cloudinary.com/v1\_ 1/demo/image/upload |
| Flask 2.0.3 | Python api to be used with web applications. | Providing routes for getting prediction from Image classification and Object counting model  for Neglect images. | /getneglectype  /gettotalobjects |

**Table 17 Details of APIs used in the Neglect App**

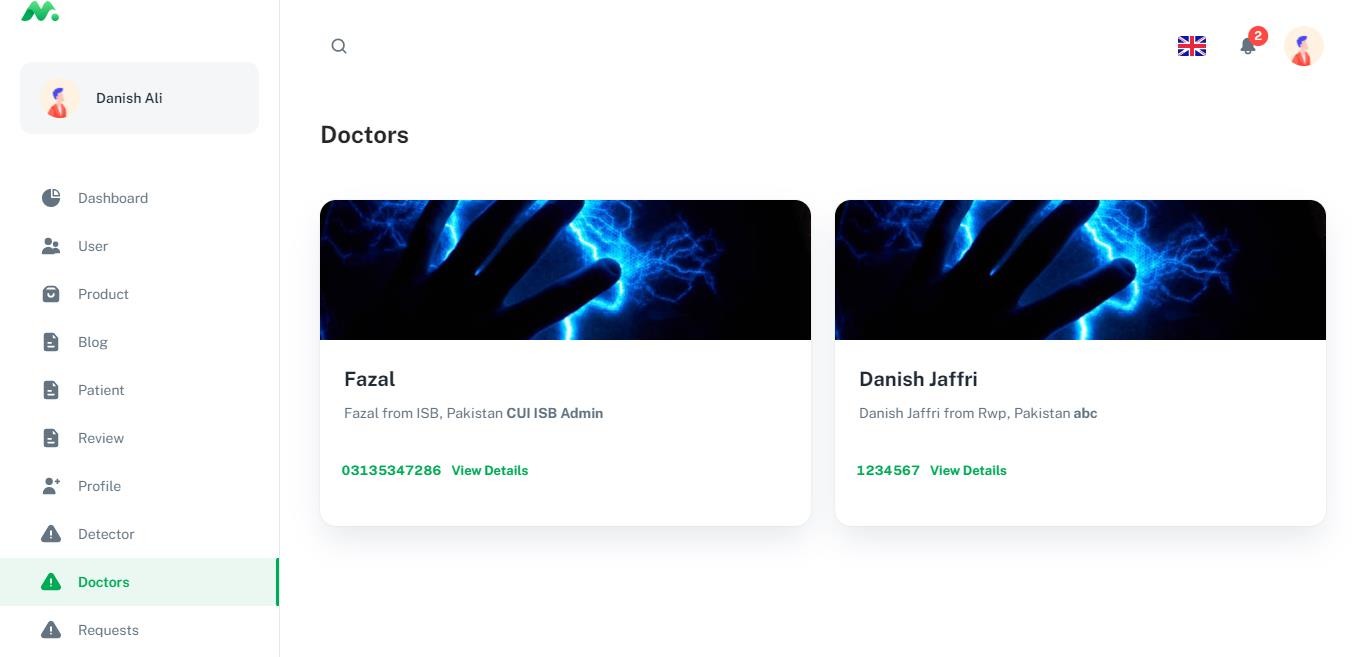
## User Interface



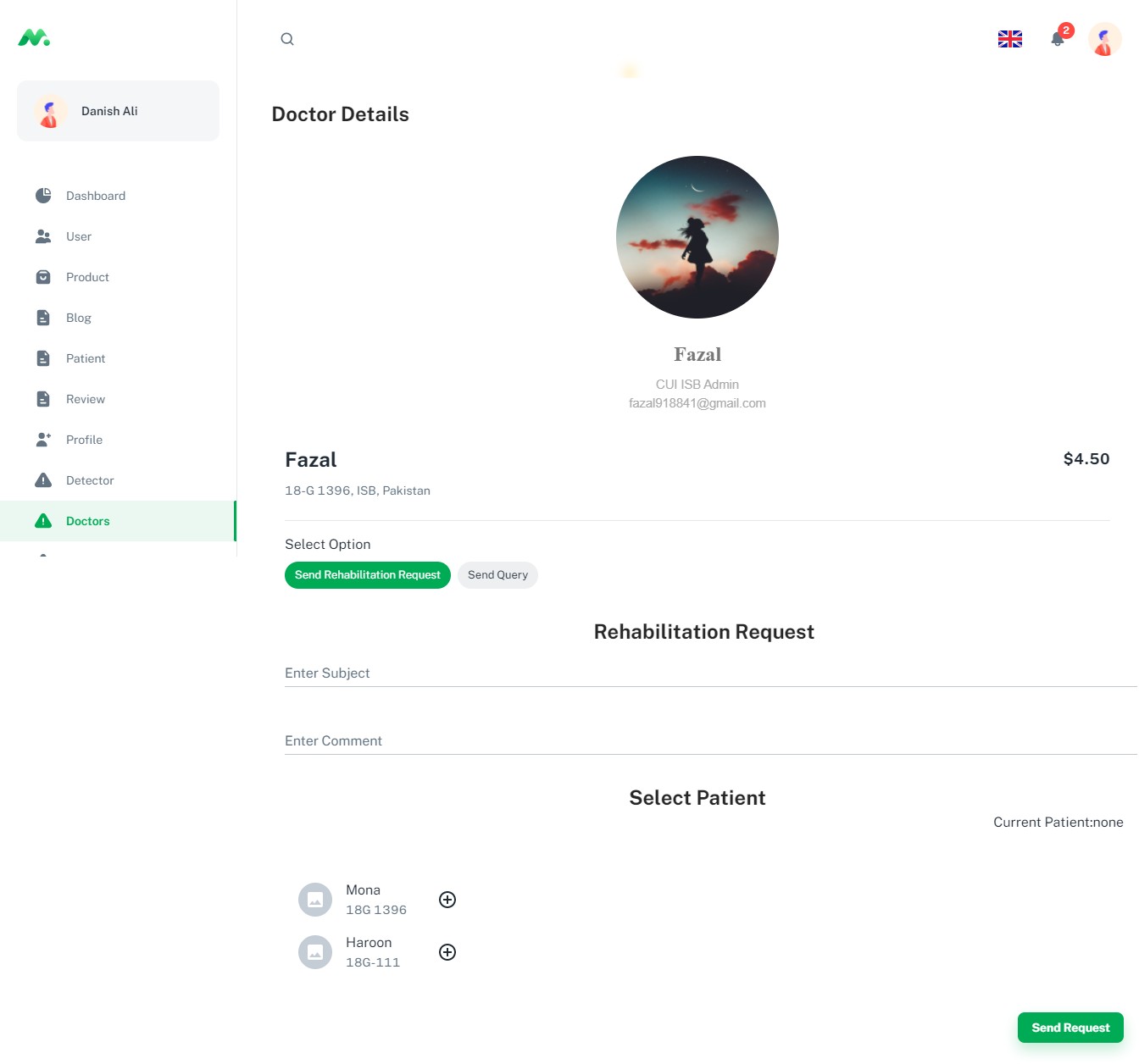
**Figure 35: Guardian Dashboard**



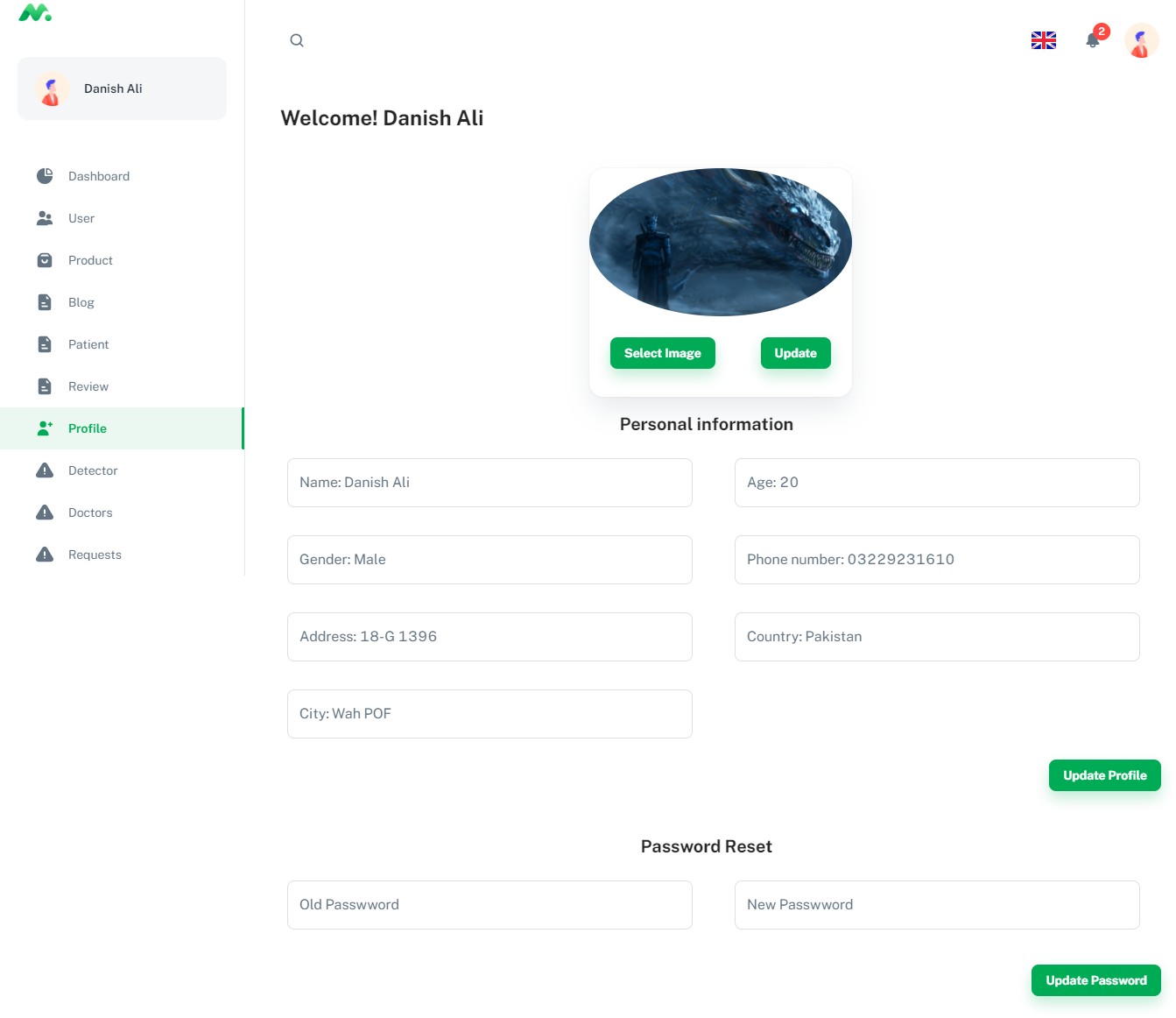
**Figure 36: Guardians Patient Panel**



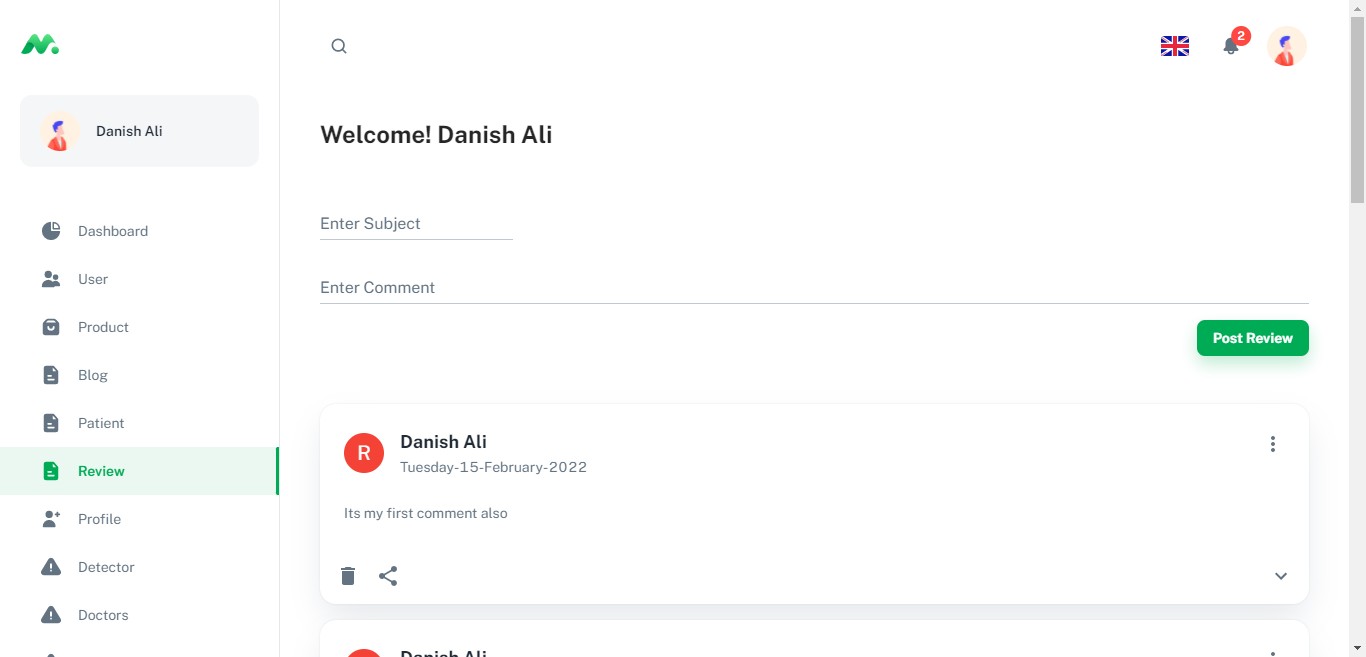
**Figure 37: Doctors Contact Panel**



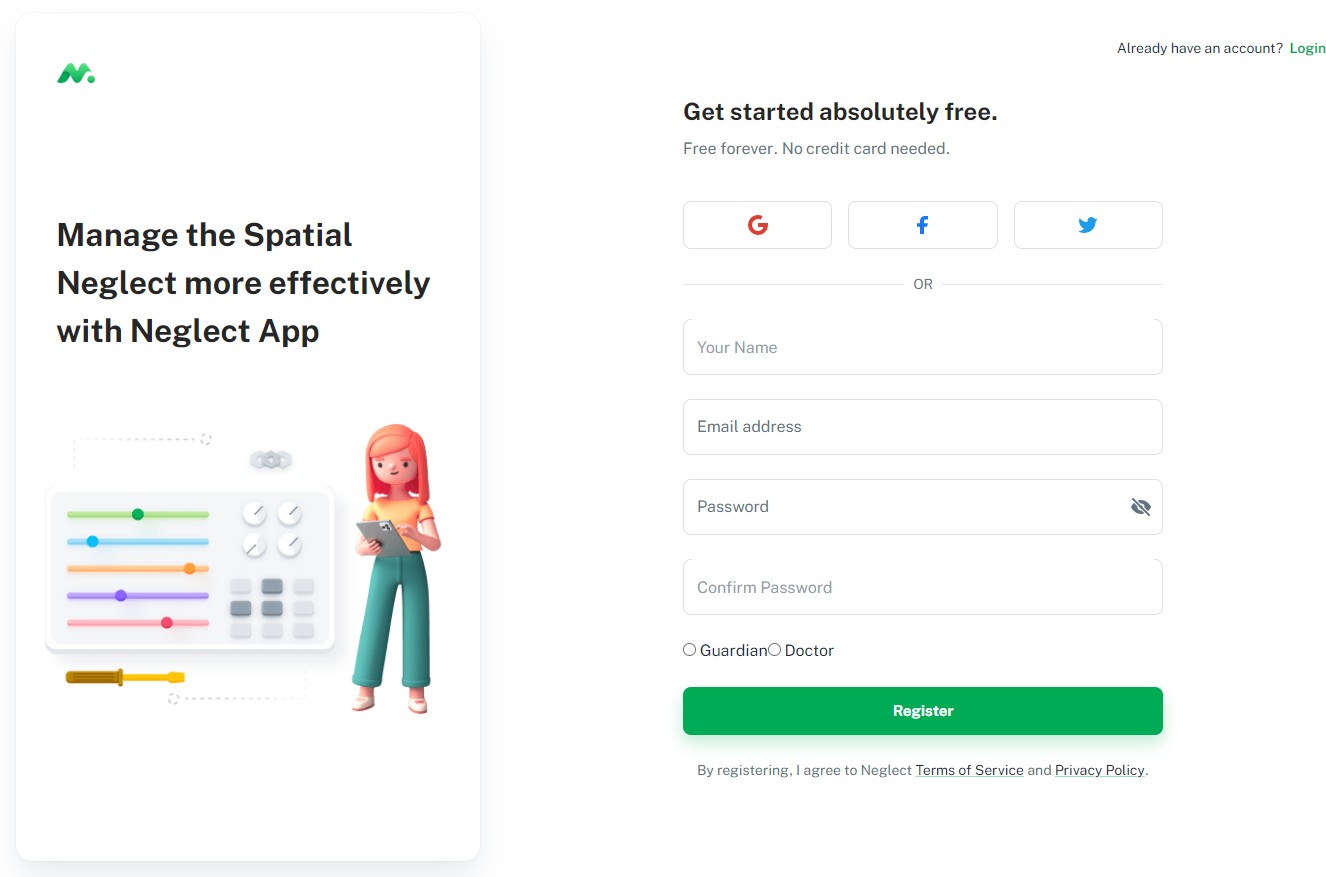
**Figure 38: Query and Rehabilitation Request Panel**



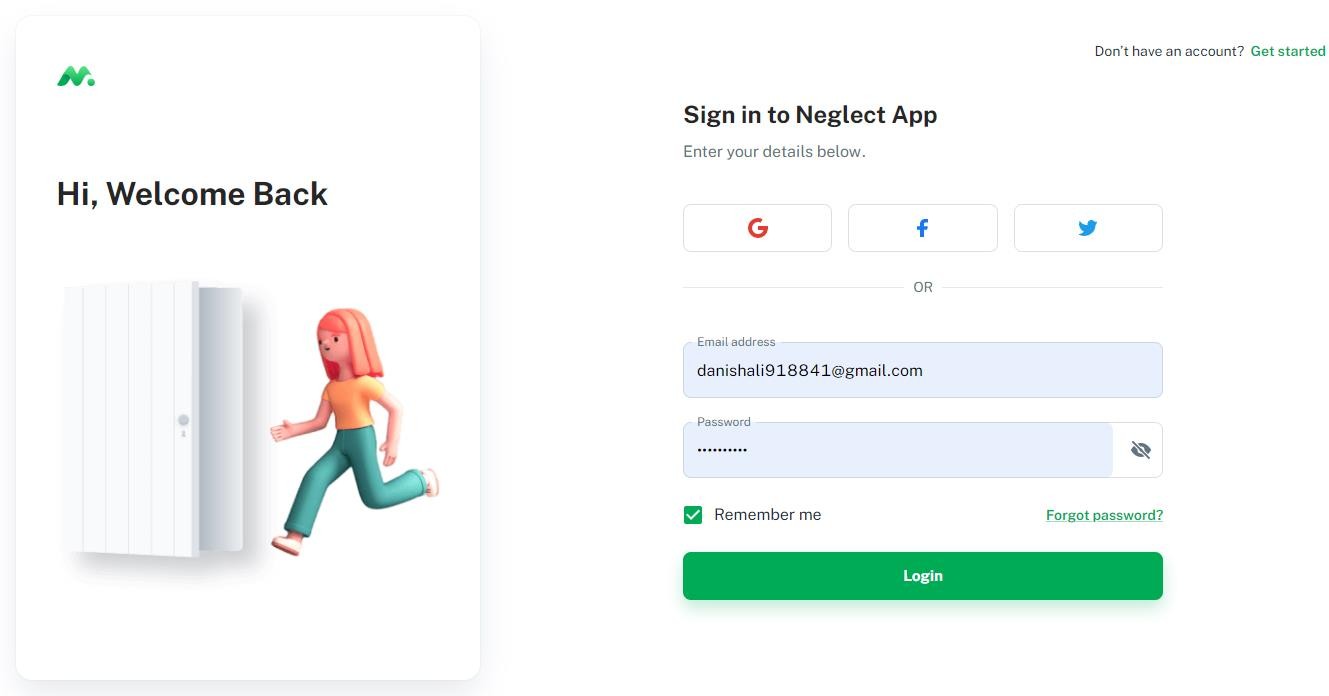
**Figure 39: Guardian Profile Panel**



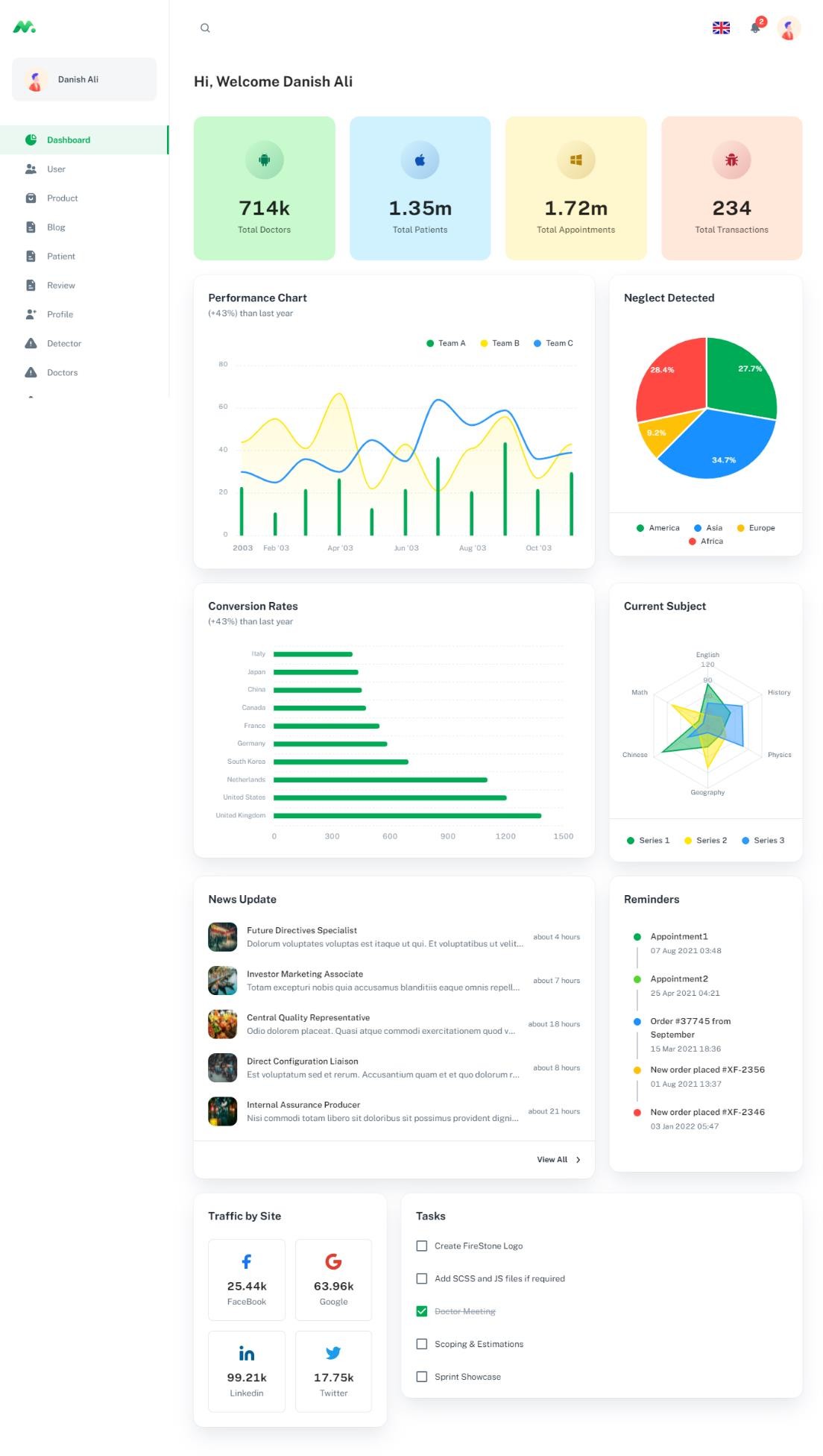
**Figure 40: Review Page**



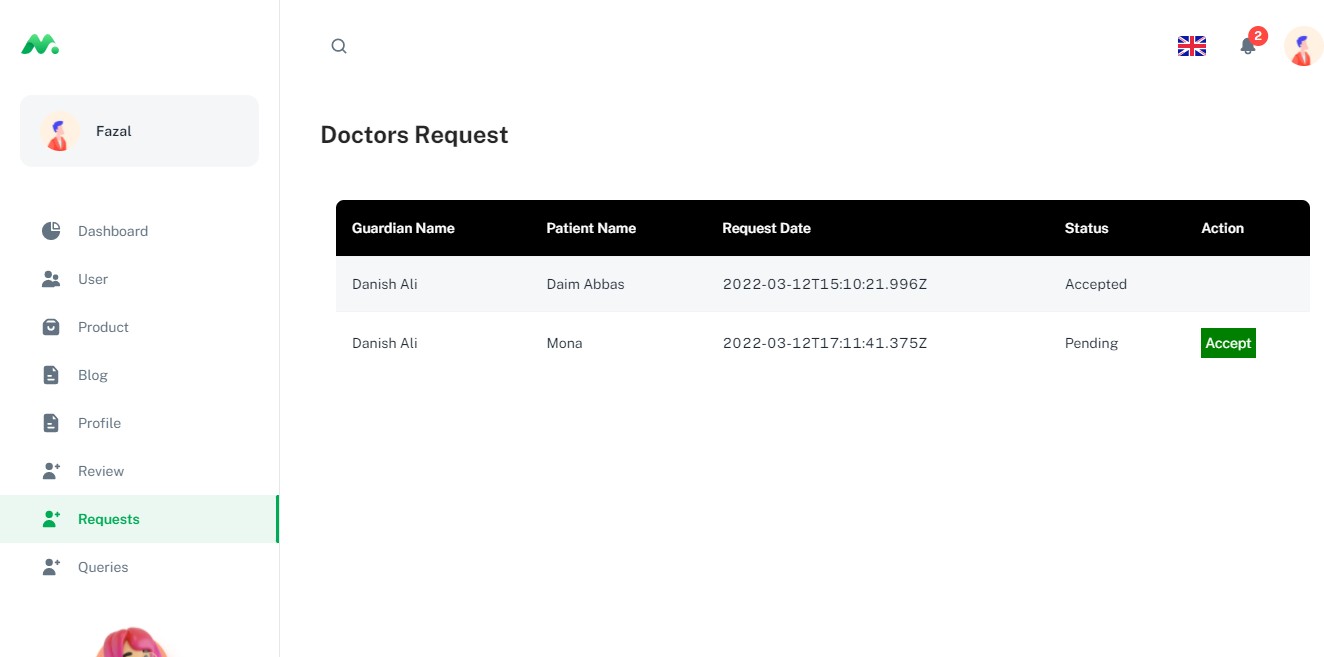
**Figure 41: Sign Up Page**



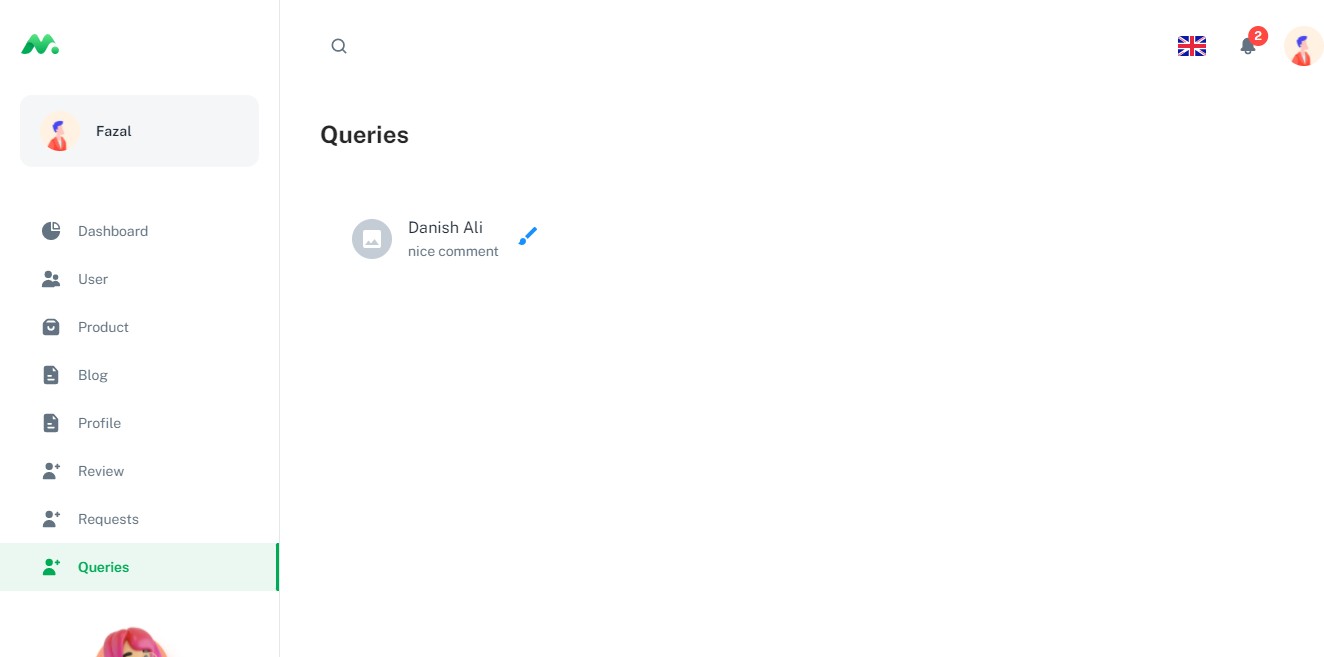
**Figure 42: Sign**i**n Page**



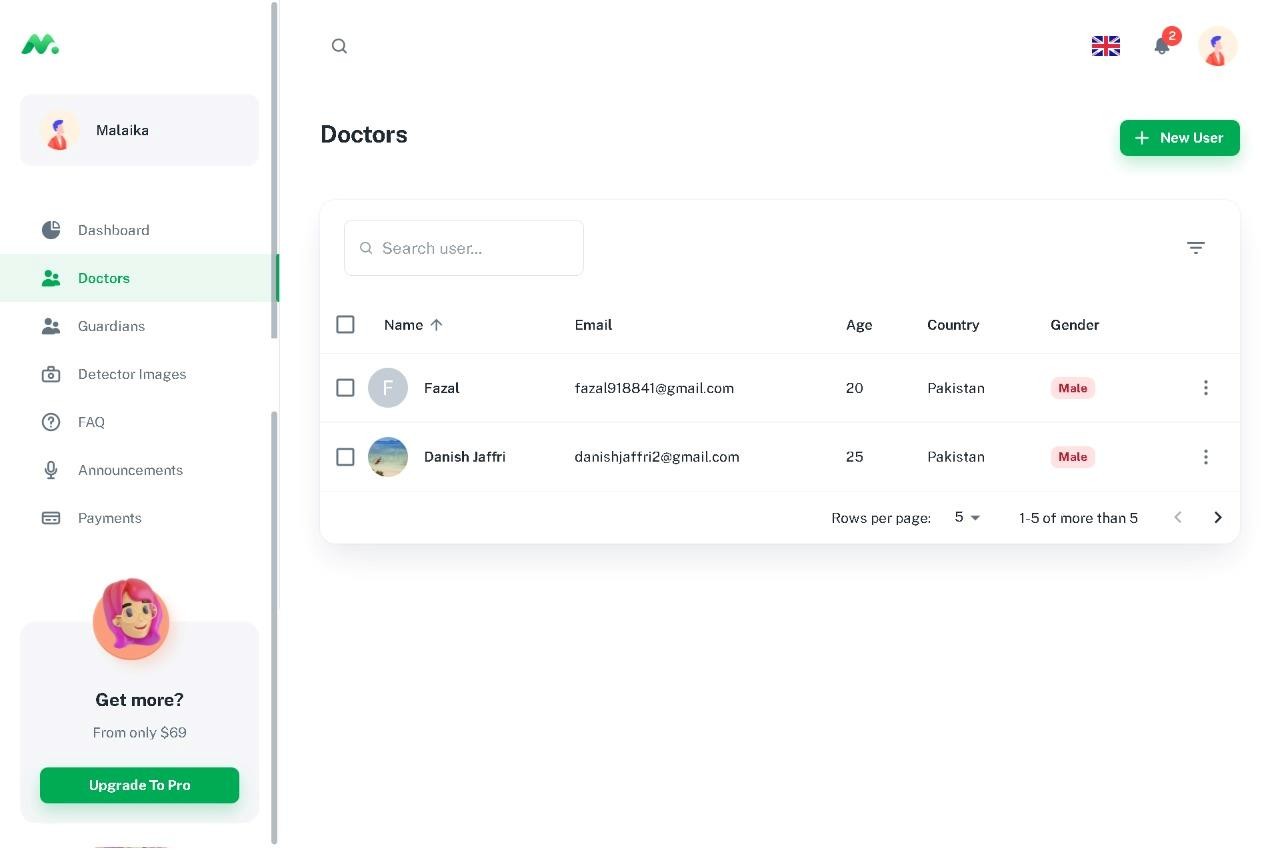
**Figure 43: Doctor Dashboard**



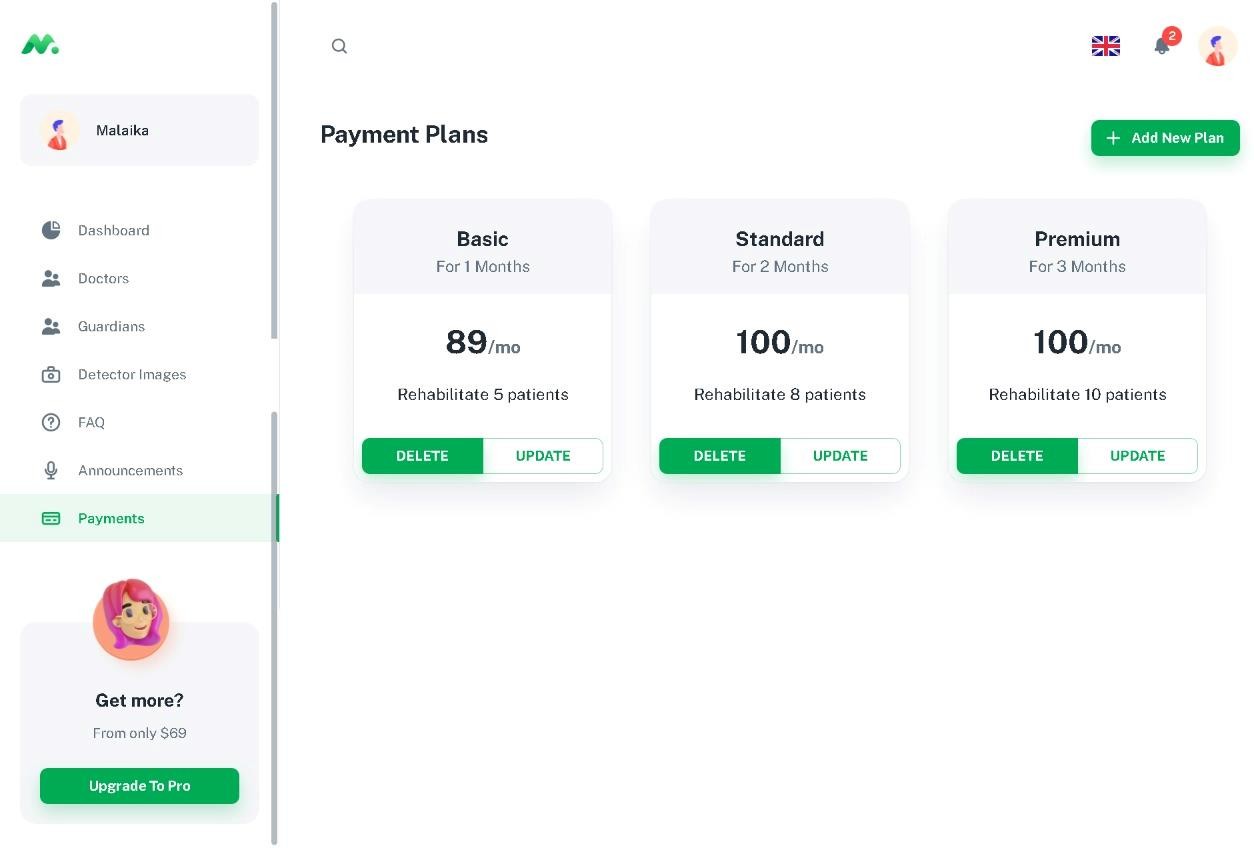
**Figure 44: Doctor Request Handler Timeline**



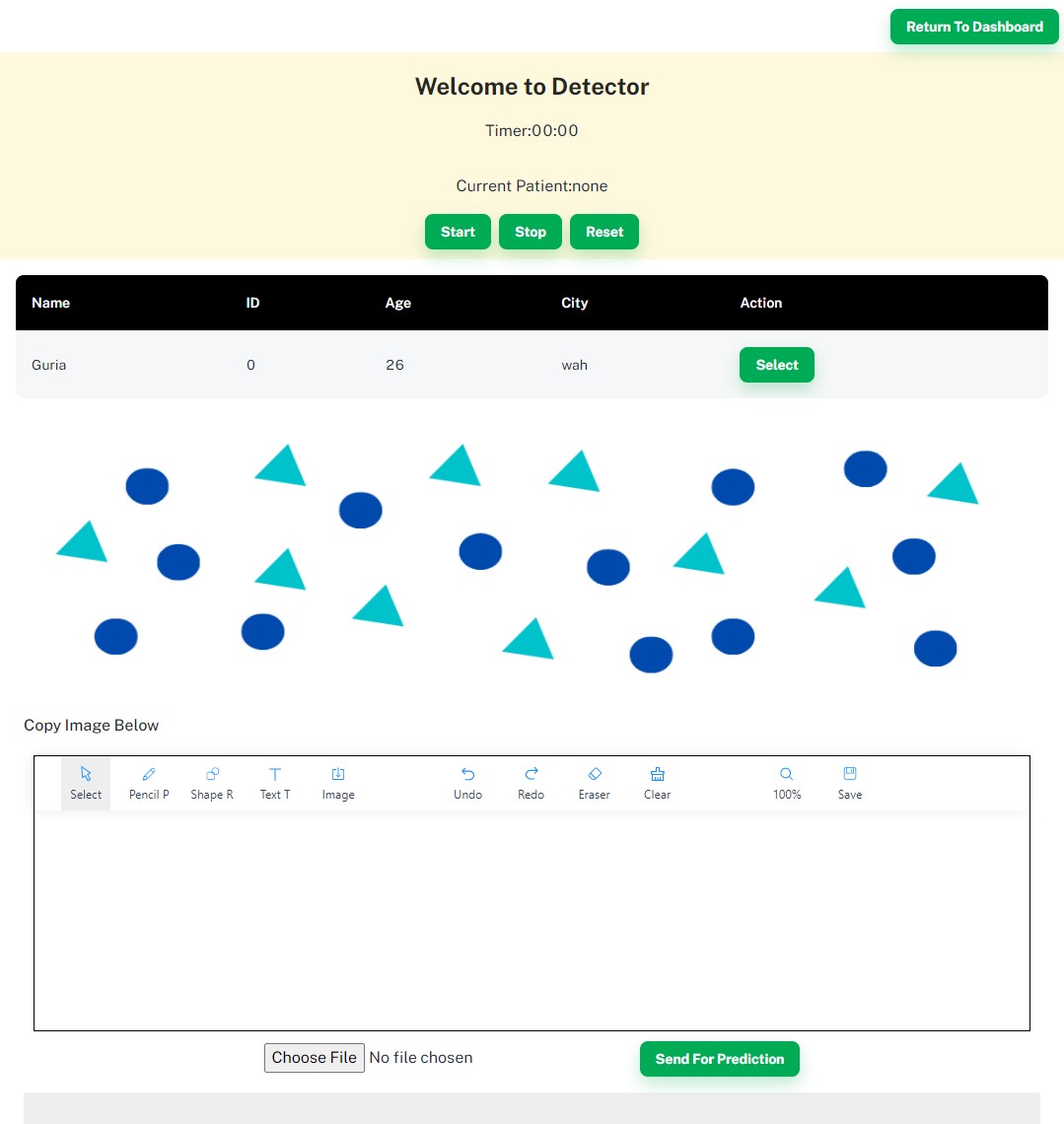
**Figure 45: Doctor Query Handler Timeline**



### Fig 34: Admin Doctor Panel



**Figure 46: Admin Payment Plan Panel**



**Figure 47: Neglect Detector Page**

## Deployment

Heroku which is Platform as a Service (PAAS) is used for hosting our Web application.

Admin Frontend, Server is separately hosted n Heroku also Client-side Frontend and Server is also hosted separately on Heroku.

Flask Server is also hosted on Heroku. Heroku supports Node and other programming languages and provide facility of reading the code from git also. Any code change you push in git repository is also reflected in Heroku app concurrently. Heroku so creates a pipelining environment and provides a maximum of 500MB slug size. Firstly, we need to get login on Heroku and then push our code to Heroku app. It will provide us with unique api link to be used.

# Testing and Evaluation

## Unit Testing

**Unit Testing 1:** Signup as a doctor with valid and invalid inputs.

**Testing Objective:** To ensure that Signup form is working correctly upon providing the valid and invalid inputs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Test case/Test script | Attribute and value | Expected result | Result |
| 1 | Check the email field of Signup to validate it takes a valid email | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Validates email address and  makes the outline of email field green. | Pass |
| 2 | Check the email field of Signup to validate it shows error message | Email: danish.gmail.com | Highlights field with red outline color to show error message. | Pass |
| 3 | Check the password field of Signup to validate it takes a valid password of at least length of 4. | Password: 9188412286 | Validate password and  makes the  outline of password field  green. | Pass |
| 4 | Check the password field of Signup to validate it shows an error message. | Password: 9188 | Highlights field with red outline color to show error message. | Pass |
| 5 | Check the confirm password field of Signup to validate it takes a valid same password as | Cf\_password: 9188412286 | Validate confirm password and  makes the  outline of | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | previously entered in password field. |  | password field green. |  |
| 6 | Check the confirm password field to validate it shows error message when confirm password does not match password entered previously. | Cf\_password: 9188 | Highlight confirm password field with red outline to show error message. | Pass |
|  |  |  |  |  |

**Unit Testing 2:** Signup as a guardian with valid and invalid inputs.

**Testing Objective:** To ensure that Signup form is working correctly upon providing the valid and invalid inputs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Test case/Test script | Attribute and value | Expected result | Result |
| 1 | Check the email field of Signup to validate it takes a valid email | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Validates email address and  makes the outline of email field green. | Pass |
| 2 | Check the email field of Signup to validate it shows  error message | Email: danish.gmail.com | Highlights field with red outline color to show  error message. | Pass |
| 3 | Check the password field of Signup to validate it takes a valid password of at least length of 4. | Password: 9188412286 | Validate password and  makes the  outline of password field green. | Pass |
| 4 | Check the password field of Signup to validate it shows an | Password: 9188 | Highlights field with red outline color to show | Pass |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | error message. |  | error message. | |  |
| 5 | Check the confirm | Cf\_password: | Validate |  | Pass |
|  | password field of | 9188412286 | confirm |  |  |
|  | Signup to validate it |  | password | and |  |
|  | takes a valid same |  | makes | the |  |
|  | password as |  | outline | of |  |
|  | previously entered |  | password | field |  |
|  | in password field. |  | green. |  |  |
| 6 | Check the confirm | Cf\_password: | Highlight | | Pass |
|  | password field to | 9188 | confirm | |  |
|  | validate it shows |  | password field | |  |
|  | error message when |  | with red outline | |  |
|  | confirm password |  | to show error | |  |
|  | does not match |  | message. | |  |
|  | password entered |  |  | |  |
|  | previously. |  |  | |  |
|  |  |  |  | |  |

**Unit Testing 3:** Login as Doctor with valid and invalid credentials

**Testing Objective:** To ensure the login form is working correctly with correct and incorrect data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field of login to validate that it takes proper email | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Validates email address and makes the outline of email field as  green. | Pass |
| 2 | Check the email field of login to validate that it displays error message. | Email: [abc.gmail.com](mailto:abc@gmail.com) | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the login button as it forward user to home page on | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) Password: | Forward the user to home page of Web application. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | successful login. | 918841886 |  |  |
| 4 | Check the login button as it display error message over unsuccessful login. | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) Password:  91884 | Display error  message about credentials not matched. | Pass |

**Unit Testing 4:** Login as Guardian with valid and invalid credentials

**Testing Objective:** To ensure the login form is working correctly with correct and incorrect data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field of login to validate that it takes proper email | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Validates email address and makes the outline of email field as green. | Pass |
| 2 | Check the email field of login to validate that it displays error message. | Email: [abc.gmail.com](mailto:abc@gmail.com) | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the login button as it forward user to home page on successful login. | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) Password:  918841886 | Forward the user to home page of Web application. | Pass |
| 4 | Check the login button as it display error message over unsuccessful login. | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) Password:  91884 | Display error  message about credentials not matched. | Pass |

**Unit Testing 5:** Edit Profile for Doctor with valid and invalid data.

**Testing Objective:** To ensure the edit profile form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the age field of edit profile to validate that it takes proper number. | age: 21 | Validates age  number and makes the outline of age field as green. | Pass |
| 2 | Check the age field of edit profile to validate that it  displays error message. | age: ans | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the country field of edit profile to validate that it takes valid country name. | Country: Pakistan | Validates country and makes the outline of country field as green. | Pass |
| 4 | Check the country field of edit profile to validate that it  displays error message. | Country: A | Display error  message about invalid country | Pass |
| 5 | Check the city field of edit profile to validate that it takes  valid city name. | City:  Wah Cantt | Validates city and makes the outline of city  field as green. | Pass |
| 6 | Check the city field of edit profile to validate that it  displays error message. | City:  A | Display error  message about invalid city | Pass |
| 7 | Check the location field of edit profile to validate that it takes valid location . | location:  Wah Cantt, Pakistan | Validates location and makes the outline of location field as green. | Pass |
| 8 | Check the location field of edit profile to validate that it  displays error message. | location: a | Display error  message about invalid location. | Pass |
| 9 | Check the name field of edit profile to validate that it takes valid name. | name:  Danish | Validates name and makes the outline of name field as green. | Pass |
| 10 | Check the | Qualification: | Validates | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | qualification field of edit Profile to validate that it takes valid qualification. | MBBS from CUI, Islamabad | qualification and makes the outline of qualification field as green. |  |
| 11 | Check the phone number field of edit profile to validate that it takes valid phone number. | Phone number: 03229231610 | Validates location and makes the outline of location field as green. | Pass |
| 12 | Check the phone number field of edit profile to validate that it displays error  message. | Phone number: 0322 | Display error  message about  invalid phone number. | Pass |

**Unit Testing 6:** Edit Profile for Guardian with valid and invalid data.

**Testing Objective:** To ensure the edit profile form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the age field of edit profile to validate that it takes proper number. | age: 21 | Validates age  number and makes the outline of age field as green. | Pass |
| 2 | Check the age field of edit profile to validate that it  displays error message. | age: ans | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the country field of edit profile to validate that it takes valid country name. | Country: Pakistan | Validates country and makes the outline of country field as green. | Pass |
| 4 | Check the country field of edit profile to validate that it  displays error message. | Country: A | Display error  message about invalid country | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | Check the city field of edit profile to validate that it takes valid city name. | City:  Wah Cantt | Validates city and makes the outline of city field as green. | Pass |
| 6 | Check the city field of edit profile to validate that it  displays error message. | City:  A | Display error  message about invalid city | Pass |
| 7 | Check the location field of edit profile to validate that it takes valid location . | location:  Wah Cantt, Pakistan | Validates location and makes the outline of location field  as green. | Pass |
| 8 | Check the location field of edit profile to validate that it  displays error message. | location: a | Display error  message about invalid location. | Pass |
| 9 | Check the name field of edit profile to validate that it takes valid name. | name:  Danish | Validates name and makes the outline of name field as green. | Pass |
| 10 | Check the phone number field of edit profile to validate  that it takes valid phone number. | Phone number: 03229231610 | Validates location and makes the outline  of location field as green. | Pass |
| 11 | Check the phone number field of edit profile to validate that it displays error message. | Phone number: 0322 | Display error  message about  invalid phone number. | Pass |

**Unit Testing 7:** Update Profile picture for doctor with valid and invalid image file.

**Testing Objective:** To ensure the update profile picture is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the chose file button to validate that it takes proper jpg,  .png etc. image file. | imagefile: hello.png | Validates chose file button and show image file name along with button. | Pass |
| 2 | Check the chose file button to validate that it displays error message. | imagefile: hello.txt | Displays error  message along with button. | Pass |

**Unit Testing 8:** Update Profile picture for Guardian with valid and invalid image file.

**Testing Objective:** To ensure the update profile picture is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the chose file button to validate that it takes proper jpg,  .png etc. image file. | imagefile: hello.png | Validates chose file button and show image file  name along with button. | Pass |
| 2 | Check the chose file button to validate that it displays error message. | imagefile: hello.txt | Displays error  message along with button. | Pass |

**Unit Testing 9:** Reset Password for doctor with valid and invalid data.

**Testing Objective:** To ensure the update password is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the old password field to | oldpassword: hello123 | Validates old  password field | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | validate that it takes valid password. |  | and set outline color to green. |  |
| 2 | Check the old password field to validate it displays error message. | oldpassword: 121 | Displays error  message along with field. | Pass |
| 3 | Check the new password field to validate it takes valid password not same as  old password. | Newpassword: 9188412286 | Validate new  password field and set outline color to green | Pass |
| 4 | Check the new password field to validate it show error message | Newpassword:hello123 | Display error  message along with field that newpassword should be different. | Pass |

**Unit Testing 10:** Reset Password for guardian with valid and invalid data.

**Testing Objective:** To ensure the update password is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the old password field to validate that it takes valid password. | oldpassword: hello123 | Validates old  password field and set outline color to green. | Pass |
| 2 | Check the old password field to validate it displays  error message. | oldpassword: 121 | Displays error  message along with field. | Pass |
| 3 | Check the new password field to validate it takes valid password not same as old password. | Newpassword: 9188412286 | Validate new  password field and set outline color to green | Pass |
| 4 | Check the new password field to validate it show error message | Newpassword:hello123 | Display error  message along with field that newpassword | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | should be different. |  |

**Unit Testing 11:** Forget Password for doctor with valid and invalid data.

**Testing Objective:** To ensure the forget password is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field to validate that it takes valid email. | email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Validates email field and set  outline color to green. | Pass |
| 2 | Check the email field to validate that it displays error message. | Email: [abc.gmail.com](mailto:abc@gmail.com) | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the new password field to validate it takes valid password. | Newpassword: 9188412286 | Validate new  password field and set outline color to green | Pass |

**Unit Testing 12:** Forget Password for guardian with valid and invalid data.

**Testing Objective:** To ensure the forget password is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field to validate that it takes valid email. | email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Validates email field and set outline color to green. | Pass |
| 2 | Check the email field to validate that it displays error | Email: [abc.gmail.com](mailto:abc@gmail.com) | Highlights field with red color outline and | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | message. |  | displays error message. |  |
| 3 | Check the new password field to validate it takes valid password. | Newpassword: 9188412286 | Validate new  password field and set outline color to green | Pass |

**Unit Testing 13:** Post review for guardian with valid and invalid data.

**Testing Objective:** To ensure the review form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the subject field to validate that it takes valid subject. | Subject:  Can’t access home page. | Validates subject field and set outline color to green. | Pass |
| 2 | Check the subject field to validate that it displays error message. | Subject: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the comment field to validate it takes valid comment. | Comment:  I am unable to find the homepage kindly help. | Validate Comment field and set outline  color to green | Pass |
| 4 | Check the comment field to validate that it displays error message. | Comment: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 5 | Check the post button to validate that it is posting review on click. | Onclick: handleReview | Post review in database and  refresh the review component to  show result | Pass |

**Unit Testing 14:** Post review for doctor with valid and invalid data.

**Testing Objective:** To ensure the review form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the subject field to validate that it takes valid subject. | Subject:  Can’t access home page. | Validates subject field and set outline color to green. | Pass |
| 2 | Check the subject field to validate that it displays error message. | Subject: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the comment field to validate it takes valid comment. | Comment:  I am unable to find the homepage kindly help. | Validate Comment field  and set outline color to green | Pass |
| 4 | Check the comment field to validate that it displays error message. | Comment: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 5 | Check the post button to validate that it is posting review on click. | Onclick: handleReview | Post review in database and  refresh the review component to  show result | Pass |

**Unit Testing 15:** Post review reply for doctor with valid and invalid data.

**Testing Objective:** To ensure the review reply form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the reply field to validate that it takes valid reply comment. | replyComment:  Kindly contact us on 03222. | Validates reply field and set outline color to green. | Pass |
| 5 | Check the post button to validate that it is posting review reply on click. | Onclick: handleReviewreply | Post review in database and  refresh the review | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | component to show result |  |

**Unit Testing 16:** Post review reply for guardian with valid and invalid data.

**Testing Objective:** To ensure the review reply form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the reply field to validate that it takes valid reply comment. | replyComment:  Kindly contact us on 03222. | Validates reply field and set outline color to green. | Pass |
| 5 | Check the post button to validate that it is posting review reply on click. | Onclick: handleReviewreply | Post review reply in data base and also refresh the review  component to show result | Pass |

**Unit Testing 17:** Post review for admin with valid and invalid data.

**Testing Objective:** To ensure the review form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the subject field to validate that it takes valid subject. | Subject:  Can’t access home page. | Validates subject field and set outline color to green. | Pass |
| 2 | Check the subject field to validate that it displays error message. | Subject: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the comment field to validate it takes valid comment. | Comment:  I am unable to find the homepage kindly help. | Validate Comment field and set outline color to green | Pass |
| 4 | Check the comment | Comment: | Highlights field | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | field to validate that it displays error message. | 123 | with red color outline and  displays error message. |  |
| 5 | Check the post button to validate that it is posting review on click. | Onclick: handleReview | Post review in data base and also refresh the review component to show result | Pass |

**Unit Testing 18:** Post review reply for admin with valid and invalid data.

**Testing Objective:** To ensure the review reply form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the reply field to validate that it takes valid reply comment. | replyComment:  Kindly contact us on 03222. | Validates reply field and set outline color to green. | Pass |
| 5 | Check the post button to validate that it is posting review reply on click. | Onclick: handleReviewreply | Post review reply in data base and also refresh the review component to  show result | Pass |

**Unit Testing 19:** Edit review for guardian with valid and invalid data.

**Testing Objective:** To ensure the review edit form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the subject field to validate that it takes valid subject. | Subject:  Can’t access home page. | Validates subject field and set outline color to green. | Pass |
| 2 | Check the subject field to validate that it displays error message. | Subject: 123 | Highlights field with red color outline and  displays error message. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 | Check the comment field to validate it takes valid comment. | Comment:  I am unable to find the homepage kindly help. | Validate Comment field and set outline color to green | Pass |
| 4 | Check the comment field to validate that it displays error message. | Comment: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 5 | Check the post button to validate that it is posting review on click. | Onclick: handleEditReview | Post edited review in  database and also refresh the review  component to show result | Pass |

**Unit Testing 20:** Edit review for doctor with valid and invalid data.

**Testing Objective:** To ensure the review edit form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the subject field to validate that it takes valid subject. | Subject:  Can’t access home page. | Validates subject field and set outline color to green. | Pass |
| 2 | Check the subject field to validate that it displays error message. | Subject: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the comment field to validate it takes valid comment. | Comment:  I am unable to find the homepage kindly help. | Validate Comment field  and set outline color to green | Pass |
| 4 | Check the comment field to validate that it displays error message. | Comment: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 5 | Check the post button to validate that it is posting review on | Onclick: handleEditReview | Post edited review in  database and also | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | click. |  | refresh the review component to show result |  |

**Unit Testing 21:** Edit review for admin with valid and invalid data.

**Testing Objective:** To ensure the review edit form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the subject field to validate that it takes valid subject. | Subject:  Can’t access home page. | Validates subject field and set outline color to green. | Pass |
| 2 | Check the subject field to validate that it displays error message. | Subject: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the comment field to validate it takes valid comment. | Comment:  I am unable to find the homepage kindly help. | Validate Comment field and set outline  color to green | Pass |
| 4 | Check the comment field to validate that it displays error message. | Comment: 123 | Highlights field with red color outline and  displays error message. | Pass |
| 5 | Check the post button to validate that it is posting review on click. | Onclick: handleEditReview | Post edited review in  database and also refresh the review component to  show result | Pass |

**Unit Testing 22:** Check Timer for detector exercise.

**Testing Objective:** To ensure that the timer is working correctly.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the start timer button to validate it starts the timer correctly. | Time:  00:00 | Validates the starting time and start timer and show time on screen. | Pass |
| 2 | Check the stop timer button to validate it pause the timer correctly. | onclick: pause | Clears the  interval and  pause the  minutes and seconds field of  timer. | Pass |
| 3 | Check the reset timer button to validate it reset the timer time to 00:00. | Time:  00:00. | Set the timer current time to 00:00. | Pass |

**Unit Testing 23:** Check select patient for detector exercise.

**Testing Objective:** To ensure that the select patient button is working correctly.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the select patient button to validate it set the current patient correctly. | Currentpatient:Danish | Set the current patient as Danish | Pass |
| 2 | Check the Unselect patient button to validate it reset current patient to none. | onclick: resetpatient | Set the current patient to none | Pass |

**Unit Testing 24:** Check whiteboard for detector exercise.

**Testing Objective:** To ensure that the whiteboard is working correctly.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the select | Currentmarker:black | Set the current | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | marker button to validate it is selected correctly. |  | marker as black. |  |
| 2 | Check the stroke is drawn on board when marker is dragged on whiteboard. | Isdrag:true | Stroke is drawn on whiteboard. | Pass |
| 3 | Check the reset button to validate it clears the  whiteboard. | Reset:true | Whiteboard is clear and all strokes removed. | Pass |
| 4 | Check the undo button to validate it remove the last  stroke made on whiteboard. | Undo:true | Last stroke made on whiteboard is cleared. | Pass |
| 5 | Check the finish activity button to validate it download screenshot and reset the timer. | finish:true | Screenshot of  whiteboard is  captured and downloaded. | Pass |
| 6 | Check the chose file button to validate it takes valid image of format png, jpeg, jpg  etc as input. | Chosefile:takeinput | Image file of extension jpg, png, jpeg will be selected. | Pass |
| 7 | Check the send for prediction button to validate it send image to flask route and receive prediction. | Sendforprediction:imagefile | Prediction result is received. | True |

**Unit Testing 25:** Login as Admin with valid and invalid credentials

**Testing Objective:** To ensure the login form is working correctly with correct and incorrect data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field of login to validate that it takes proper email | Email: [atiqmalaika@gmail.com](mailto:atiqmalaika@gmail.com) | Validates email address and makes the outline of email field as green. | Pass |
| 2 | Check the email field of login to validate that it displays error | Email: [abc.gmail.com](mailto:abc@gmail.com) | Highlights field with red color outline and | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | message. |  | displays error message. |  |
| 3 | Check the login button as it forward user to home page on successful login. | Email: [atiqmalaika@gmail.com](mailto:atiqmalaika@gmail.com) Password:  admins | Forward the user to admin  dashboard. | Pass |
| 4 | Check the login button as it displays error message over unsuccessful login. | Email: [atiqmalaika@gmail.com](mailto:atiqmalaika@gmail.com) Password:  abc | Display error  message about credentials not matched. | Pass |

**Unit Testing 26:** Edit Profile for Admin with valid and invalid data.

**Testing Objective:** To ensure the edit profile form is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the age field of edit profile to validate that it takes proper number. | age: 22 | Validates age  number and makes the outline of age field as green. | Pass |
| 2 | Check the age field of edit profile to validate that it  displays error message. | age: ans | Highlights field with red color outline and  displays error message. | Pass |
| 3 | Check the name field of edit profile to validate that it takes valid name. | name: Malaika | Validates name and makes the outline of name field as green. | Pass |
| 4 | Check the experience field of edit Profile to validate that it takes valid experience. | Company: Huawei Years:  5 | Validates experience and makes the outline of experience  field as green. | Pass |
| 5 | Check the phone number field of edit profile to validate that it takes valid phone number. | Phone number: 03215878903 | Validates location and makes the outline of location field as green. | Pass |
| 6 | Check the phone number field of edit profile to validate that it displays error | Phone number: 0333 | Display error  message about  invalid phone number. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | message. |  |  |  |

**Unit Testing 27:** Reset Password for admin with valid and invalid data.

**Testing Objective:** To ensure the update password is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the old password field to validate that it takes  valid password. | oldpassword: hello123 | Validates old  password field and set outline  color to green. | Pass |
| 2 | Check the old password field to validate it displays error message. | oldpassword: admins | Displays error  message along with field. | Pass |
| 3 | Check the new password field to validate it takes valid  password not same as old password. | newpassword: 9188412286 | Validate new  password field and set outline color to green | Pass |
| 4 | Check the new password field to validate it show error message | newpassword: hello123 | Display error  message along with field that newpassword  should be different. | Pass |

**Unit Testing 28:** Forget Password for admin with valid and invalid data.

**Testing Objective:** To ensure the forget password is working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field to validate that it takes valid email. | email: [atiqmalaika@gmail.com](mailto:atiqmalaika@gmail.com) | Validates email field and set outline color to  green. | Pass |
| 2 | Check the email field to validate that it displays error message. | Email: [abc.gmail.com](mailto:abc@gmail.com) | Highlights field with red color outline and  displays error message. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 | Check the new password field to validate it takes valid password. | New password: adminss | Validate new  password field and set outline color to green | Pass |

**Unit Testing 29:** Add an announcement for admin with valid and invalid data.

**Testing Objective:** To ensure that announcements are added with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the notice field to validate that  it takes a valid notice. | Notice: Sale! | Validates notice. | Pass |

**Unit Testing 30:** Update an announcement for admin with valid and invalid data.

**Testing Objective:** To ensure that announcements are updated with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the notice field to validate that  it takes valid notice. | Notice: Saleee! | Validates notice. | Pass |

**Unit Testing 31:** Make Payment for doctor with valid and invalid data.

**Testing Objective:** To ensure the payments are working properly with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the email field to validate that it takes valid email. | email: [youtube@lco.dev](mailto:youtube@lco.dev)  Card number:  4242 4242 4242 4242  Date:  12/22  CVC:  123 | Pay button loads, green tick appears, and the payment popup disappears. | Pass |
| 2 | Check the card number field to validate that it doesn’t accept an | Card number: 032164759 | A red outline appears on the car number input field. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | invalid card number. |  |  |  |
| 3 | Check the date field to validate it takes valid date. | Date:  12/21 | A red outline appears on the date input field. | Pass |

**Unit Testing 32:** Add a Payment plan for admin with valid and invalid data.

**Testing Objective:** To ensure the payment plans are added with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the name field of payment  plan to validate that it takes valid name. | Name:  Basic | Validates name. | Pass |
| 2 | Check the  description field of payment plan to validate that it takes valid description. | Description: Rehabilitate 8 patients | Validates description. | Pass |
| 3 | Check the duration field to validate it takes valid  duration. | Duration: 2 | Validates description. | Pass |
| 4 | Check the price field to validate it  takes valid price. | Price: 89 | Validates price. | Pass |
| 5 | Check the price field to validate it takes valid price. | Price: Price | Input field  doesn’t allow alphabets entry | Pass |
| 6 | Check the duration field to validate it takes valid  duration. | Duration: Duration | Input field  doesn’t allow alphabets entry | Pass |

**Unit Testing 33:** Update a Payment plan for admin with valid and invalid data.

**Testing Objective:** To ensure the payment plans are updated with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the name field of payment plan to validate that it takes valid name. | Name:  Basic | Validates name. | Pass |
| 2 | Check the | Description: | Validates | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | description field of payment plan to validate that it takes valid description. | Rehabilitate 8 patients | description. |  |
| 3 | Check the duration field to validate it takes valid  duration. | Duration: 2 | Validates description. | Pass |
| 4 | Check the price field to validate it takes valid price. | Price: 89 | Validates price. | Pass |
| 5 | Check the price  field to validate it takes valid price. | Price: Price | Input field  doesn’t allow alphabets entry | Pass |
| 6 | Check the duration field to validate it takes valid  duration. | Duration: Duration | Input field  doesn’t allow alphabets entry | Pass |

**Unit Testing 34:** Add an appointment for doctor with valid and invalid data.

**Testing Objective:** To ensure the appointments are scheduled with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the start and end time field to validate that it takes valid start and end time. | StartTime: 8:00am  EndDate: 9:00am | Validates times by checking start time is not after the end time. | Pass |
| 2 | Check the start and end time field to validate that it takes valid start and end time. | StartTime: 9:00am  EndDate: 8:00am | Displays an error message. | Pass |

**Unit Testing 35:** Update an appointment for doctor with valid and invalid data.

**Testing Objective:** To ensure the scheduled appointments are updated with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the start and end time field to | StartTime: 8:00am | Validates times by checking | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | validate that it takes valid start and end time. | EndDate: 9:00am | start time is not after the end time and  updates. |  |
| 2 | Check the start and end time field to validate that it takes valid start and end time. | StartTime: 9:00am  EndDate: 8:00am | Displays an error message. | Pass |

**Unit Testing 36:** Add a patient for guardian with valid and invalid data.

**Testing Objective:** To ensure the patient is added with valid data only.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the name field of patient to validate that it takes valid name. | Name: Haroon | Validates name. | Pass |
| 2 | Check the age field of payment plan to  validate that it takes valid age. | Age: 22 | Validates age | Pass |
| 3 | Check the age field  to validate it takes a valid age. | Age Abc | Doesn’t allow alphabets entry | Pass |
| 4 | Check the phone number field of payment plan to validate that it takes valid phone number. | Phone number: 03215878904 | Validates phone number | Pass |
| 5 | Check the phone number field to validate it takes a valid phone  number. | Phone number Abc | Doesn’t allow alphabets entry | Pass |
| 6 | Check the gender field to validate it takes valid gender. | Gender: Male | Validates gender. | Pass |
| 7 | Check the country  field to validate it takes valid country. | Country: Pakistan | Validates Country. | Pass |
| 8 | Check the country field to validate it takes valid country. | City: Pakistan | Validates City. | Pass |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 9 | Check the address field to validate it takes valid address. | Address: House #124 | Validates Address. | Pass |

**Unit Testing 37:** Update a patient for guardian with valid and invalid data.

**Testing Objective:** To ensure the patient information is updated with valid data only.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the name field of patient to validate that it takes  valid name. | Name: Haroon | Validates name. | Pass |
| 2 | Check the age field of payment plan to validate that it takes valid age. | Age: 22 | Validates age | Pass |
| 3 | Check the age field  to validate it takes a valid age. | Age Abc | Doesn’t allow alphabets entry | Pass |
| 4 | Check the phone number field of payment plan to validate that it takes valid phone  number. | Phone number: 03215878904 | Validates phone number | Pass |
| 5 | Check the phone number field to validate it takes a valid phone number. | Phone number Abc | Doesn’t allow alphabets entry | Pass |
| 6 | Check the gender field to validate it takes valid gender. | Gender: Male | Validates gender. | Pass |
| 7 | Check the country field to validate it  takes valid country. | Country: Pakistan | Validates Country. | Pass |
| 8 | Check the country field to validate it takes valid country. | City: Pakistan | Validates City. | Pass |
| 9 | Check the address field to validate it  takes valid address. | Address: House #124 | Validates Address. | Pass |

**Unit Testing 38:** Add a FAQ for admin with valid and invalid data.

**Testing Objective:** To ensure that FAQs are added with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the question field to validate that it takes a valid question. | Question:  Is the app paid? | Validates question. | Pass |
| 2 | Check the answer field to validate that it takes a valid  answer. | Answer: Yes. | Validates answer. | Pass |

**Unit Testing 39:** Update a FAQ for admin with valid and invalid data.

**Testing Objective:** To ensure that FAQs are updated with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the question field to validate that it takes valid a question. | Question:  Is the app paid? | Validates question and updates. | Pass |
| 2 | Check the answer field to validate that it takes a valid answer. | Answer: Yes. | Validates answer and updates. | Pass |

**Unit Testing 40:** Send a Query for Guardian to doctor with valid and invalid data.

**Testing Objective:** To ensure that Query is delivered with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the Querybody field to validate that it takes a valid Query. | Query\_body: Kindly schedule appointment | Validates Querybody | Pass |

**Unit Testing 41:** Reply a Query as Doctor with valid and invalid data.

**Testing Objective:** To ensure that Query reply is delivered with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the Queryreply field to validate that it takes a valid Query. | Query\_reply: Ok I will do that IA. | Validates Queryreply | Pass |

**Unit Testing 42:** Record an observation as doctor with valid and invalid data.

**Testing Objective:** To ensure that observation is posted with valid and invalid data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Result** |
| 1 | Check the Comment field to validate it takes a valid observation comment. | Comment: Nice improvement. | Validates comment field. | Pass |

## Functional Testing

**Functional Testing 1:** Login with different roles (Doctor, Guardian)

**Objective**: To ensure that the correct page with the correct navigation bar is loaded.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Login as a Guardian | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com)  Password: 9188412286 | Home page for the Neglect App is loaded with the Guardian navigation bar. | Logged in and redirected to  Neglect App page. | Pass |
| 2. | Login as a ‘Doctor’ member. | Email: [fazal918841@gmail.com](mailto:fazal918841@gmail.com)  Password: 9188412286 | Home page for the Doctor is loaded with the doctor navigation bar. | Logged in and redirected to  Neglect App Home page. | Pass |

**Functional Testing 2:** Signup with different roles (Doctor, Guardian)

**Objective**: To ensure that the verification email is sent to email entered upon signup.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Signup as a Guardian | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) Password:  9188412286  Confirm Password: 9188412286 | Success Message of “Email send for verification” is sent. | Email sends for verification arrived in email inbox. | Pass |
| 2. | Signup as a Doctor | Email: [fazal918841@gmail.com](mailto:fazal918841@gmail.com) Password:  9188412286  Confirm Password: 9188412286 | Success Message of “Email send for verification” is sent. | Email sends for verification arrived in email inbox. | Pass |

**Functional Testing 3:** Update profile with different roles (Doctor, Guardian)

**Objective**: To ensure that the update profile functionality is working correctly, and data is updated.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update profile as a Guardian | Country: Australia City: Gabba | Profile update message appear on page and fresh data is loaded in fields | Profile updated message displayed and  new data is loaded. | Pass |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2. | Update profile as a doctor | Country: Australia City: Gabba | Profile update message appear on page and fresh data is loaded in fields | Profile updated message displayed and  new data is loaded. | Pass |

**Functional Testing 4:** Update profile picture with different roles (Doctor, Guardian)

**Objective**: To ensure that the update profile picture functionality is working correctly, and profile picture is updated.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update profile picture as a Guardian | Imagefile: profile1.png | Profile update picture appear on page and updated image is loaded in image area. | Profile updated message displayed and  new data is loaded. | Pass |
| 2. | Update profile picture as a doctor | Imagefile: profile2.png | Profile update picture appear on page and updated image is loaded in image area. | Profile updated message displayed and  new data is loaded. | Pass |

**Functional Testing 5:** Update profile picture with different roles (Doctor, Guardian)

**Objective**: To ensure that the update profile picture functionality is working correctly, and profile picture is updated.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update Account Password as a Guardian. | Current\_password: 9188412286  New\_password: 124567 | Password updated message appear on screen. | Account Password is  updated, and update message appear on screen. | Pass |
| 2. | Update | Current\_password: | Password updated | Account | Pass |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Account Password as a doctor. | 9188412286  New\_password: 124567 | message appear on screen. | Password is  updated, and update message appear on screen. |  |

**Functional Testing 6:** Forget password with different roles (Doctor, Guardian)

**Objective**: To ensure that the update forget password functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Forget Account Password as a Guardian. | Email: [danishali918841@gmail.com](mailto:danishali918841@gmail.com) | Verification link is sent to email Account inbox. | Verification email arrived in inbox. | Pass |
| 2. | Forget Account Password as a doctor. | Email: [fazal918841@gmail.com](mailto:fazal918841@gmail.com) | Verification link is sent to email Account inbox. | Verification email arrived in inbox. | Pass |

**Functional Testing 7:** Post review with different roles (Doctor, Guardian)

**Objective**: To ensure that the post review functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Post review  as a  Guardian. | Subject:  Test review Comment:  Hello, it’s my first try. | Review is posted and updated review data is appeared on screen along with review  posted message. | Review posted message appear on screen and update review data is loaded. | Pass |
| 2. | Post review as a doctor. | Subject:  Test review Comment:  Hello, it’s my first try. | Review is posted and updated review data is  appear on screen | Review posted message appear on screen and  update review | Pass |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | along with review posted message. | data is loaded. |  |

**Functional Testing 8:** Post review reply with different roles (Doctor, Guardian)

**Objective**: To ensure that the post review reply functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Post review  reply as a Guardian. | Comment:  Hello, it’s my first try. | Review reply is posted, and update review data appear on screen. | Reply posted message appear on screen is new data is loaded. | Pass |
| 2. | Post review  reply as a doctor. | Comment:  Hello, it’s my first try. | Review reply is posted, and update review data appear  on screen. | Reply posted message appear on screen is new  data is loaded. | Pass |

**Functional Testing 9:** Edit review with different roles (Doctor, Guardian)

**Objective**: To ensure that the Edit review functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Edit review  as a  Guardian. | Comment:  Hello, it’s my first updated try. | Review is updated and updated review data is displayed on screen. | Review updated message appear on screen and updated data is loaded on screen. | Pass |
| 2. | Edit review as a doctor. | Comment:  Hello, it’s my first updated try. | Review is updated and updated review data is displayed on  screen. | Review updated message appear on screen and updated data is  loaded on screen. | Pass |

**Functional Testing 10:** Delete review with different roles (Doctor, Guardian)

**Objective**: To ensure that the Delete review functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete review as a  Guardian. | Deletereview: reviewid | Review is deleted and updated review data is displayed on screen. | Review deleted message appear on screen and updated data is loaded on screen. | Pass |
| 2. | Delete review as a doctor. | Deletereview: reviewid | Review is deleted and updated review data is  displayed on screen. | Review deleted message appear on screen and  updated data is loaded on screen. | Pass |

**Functional Testing 11:** Delete review reply with different roles (Doctor, Guardian)

**Objective**: To ensure that the Delete review reply functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete review reply as a Guardian. | Deletereviewreply: reviewreplyid | Review reply is deleted, and  updated review data is displayed on screen. | Review reply deleted message appear on screen and updated data is loaded on  screen. | Pass |
| 2. | Delete review reply as a doctor. | Deletereviewreply: reviewreplyid | Review reply is deleted and  updated review data is displayed on screen. | Review reply deleted message appear on screen and updated data is loaded on  screen. | Pass |

**Functional Testing 12:** Test detector activity timer

**Objective**: To ensure that the Detector activity timer is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Start timer | Starttimer:true | Timer starts to count-up from 00:00. | Timer starts and start counting-up. | Pass |
| 2. | Pause timer | Pausetimer:true | Timer stops at current timer  minutes and seconds. | Timer pauses and stop counting. | Pass |
| 3. | Reset timer | resettimer:true | Timer is reset to 00:00 | Timer is reset to 00:00 and starts  counting again. | Pass |

**Functional Testing 13:** Test detector activity whiteboard

**Objective**: To ensure that the Detector activity whiteboard is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Draw on whiteboard | Selectmarker: black Drawstroke:true | Stroke is drawn on screen. | Stroke appears on whiteboard area. | Pass |
| 2. | Save whiteboard screen shot | Saveimage:true | Timer stops and activity is finished. Screen shot of whiteboard is  captured and downloaded. | Timer pauses and stop counting  along with activity finished message.  Screenshot of  whiteboard is  captured and downloaded | Pass |

**Functional Testing 14:** Test neglect prediction functionality

**Objective**: To ensure that the Neglect prediction is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Send image  file to  Neglect predictor. | file: myimagefile.png | Image is sent for prediction and prediction result appears on screen. | Neglect type appear in screen. | Pass |

**Functional Testing 15:** Post review with Admin

**Objective**: To ensure that the post review functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Post review as an admin. | Subject:  Test review Comment:  Hello, it’s my first try. | Review is posted and updated review data is appeared on screen  along with review posted message. | Review posted message appear on screen and update review data is loaded. | Pass |

**Functional Testing 16:** Post review reply with Admin.

**Objective**: To ensure that the post review reply functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Post review reply as an admin. | Comment:  Hello, it’s my first try. | Review reply is posted, and update review data appear on screen. | Reply posted message appear on screen is new data is loaded. | Pass |

**Functional Testing 17:** Edit review with Admin.

**Objective**: To ensure that the Edit review functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Edit review as an admin. | Comment:  Hello, it’s my first updated try. | Review is updated and updated review data is displayed on screen. | Review updated message appear on screen and updated data is loaded on screen. | Pass |

**Functional Testing 18:** Delete review with Admin.

**Objective**: To ensure that the Delete review functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete review as an admin. | Deletereview: reviewid | Review is deleted and updated review data is displayed on screen. | Review deleted message appear on screen and updated data is loaded on screen. | Pass |

**Functional Testing 19:** Delete review reply with Admin

**Objective**: To ensure that the Delete review reply functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete review reply as admin. | Deletereviewreply: reviewreplyid | Review reply is deleted, and  updated review data is displayed on screen. | Review’s reply deleted message appear on screen and updated data is loaded on  screen. | Pass |

**Functional Testing 20:** Add FAQ with admin.

**Testing Objective:** To ensure that FAQs are added correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. | Add faq as aadmin. | Question:  Is the app paid?  Answer: No. | FAQ should be added. | FAQ added successfully.  New data loaded. | Pass |

**Functional Testing 21:** Update FAQ with admin.

**Testing Objective:** To ensure that FAQs are updated correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update faq as aadmin. | Answer: Yes | FAQ should be added. | FAQ updated successfully.  New data loaded. | Pass |

**Functional Testing 22:** Delete FAQ with admin.

**Testing Objective:** To ensure that FAQs are deleted correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete faq as aadmin. | faqId: faq.\_id | FAQ should be deleted. | FAQ deleted successfully.  New data loaded. | Pass |

**Functional Testing 23:** Login with Admin

**Objective**: To ensure that the correct page with the correct navigation bar is loaded.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Login as an Admin | Email: [ateeq.malaika@gmail.com](mailto:ateeq.malaika@gmail.com)  Password: Admins | Admin dashboard should open, | Logged in and redirected to  Neglect App Dashboard, | Pass |

**Functional Testing 24:** Update profile with Admin

**Objective**: To ensure that the update profile functionality is working correctly, and data is updated.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update profile as an admin | Age:  53 | Updated data should load in input fields | New data is loaded. | Pass |

**Functional Testing 25:** Change password with Admin

**Objective**: To ensure that the password changing functionality is working correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update Account Password as an Admin. | Old\_password: admins  New\_password: Admins | Password updated message appear on screen. | Account Password is  updated, and update message appear on screen. | Pass |

**Functional Testing 26:** Update profile picture with Admin.

**Objective**: To ensure that the update profile picture functionality is working correctly, and profile picture is updated.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update profile picture as an Admin. | Imagefile: profile1.png | Profile update picture appear on page and updated image is loaded in image area. | Profile updated message displayed and  new data is loaded. | Pass |

**Functional Testing 27:** Add announcement with admin.

**Testing Objective:** To ensure that announcements are added correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. | Add announcement as an admin. | Notice: Sale! | Announcement should be added. | Announcement added successfully.  New data loaded. | Pass |

**Functional Testing 28:** Update announcement with admin.

**Testing Objective:** To ensure that announcements are updated correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update announcement as admin. | Notice:  Sale. Up to 50% off! | Announcement should be added. | Announcement updated successfully.  New data loaded. | Pass |

**Functional Testing 29:** Delete announcement with admin.

**Testing Objective:** To ensure that announcements are deleted correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete announcement as admin. | announcementId: announcement.\_id | Announcement should be deleted. | Announcement deleted successfully.  New data loaded. | Pass |

**Functional Testing 30:** Make Payment with doctor.

**Testing Objective:** To ensure the payments are made correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Make payment as a doctor. | email: [youtube@lco.dev](mailto:youtube@lco.dev)  Card number:  4242 4242 4242 4242  Date:  12/22  CVC:  123 | Pay button loads, green tick appears, and the payment popup disappears. | Payment is successfully made. A green tick appears. | Pass |

**Functional Testing 31:** Add payment plan with admin.

**Testing Objective:** To ensure the payment plans are added correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Add payment plan as an admin. | name:  Basic  Duration:  1  Price:  89  Description: Rehabilitate 8 patients | Payment plan  added and payment modal disappears. | Payment plan added successfully.  New data loaded. | Pass |

**Functional Testing 32:** Delete payment plan with admin.

**Testing Objective:** To ensure the payment plans are deleted successfully.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete payment plan as an admin. | planId: paymentplan.\_id | Payment plan  should be deleted. | Payment plan deleted successfully.  New data loaded. | Pass |

**Functional Testing 33:** Update payment plan with admin.

**Testing Objective:** To ensure the payment plans are updated correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update payment plan as an admin. | Price: 90 | Payment plan  should be updated. | Payment plan updated successfully.  New data loaded. | Pass |

**Functional Testing 34:** Schedule appointments with doctor.

**Testing Objective:** To ensure the appointments are scheduled correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Schedule appointment as a doctor. | Start time: 8:00am  End time: 9:00am | Appointment should be scheduled. | Appointment scheduled successfully. New data loaded. | Pass |

**Functional Testing 35:** Update scheduled appointment with doctor.

**Testing Objective:** To ensure that scheduled appointments are updated correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Update scheduled appointment as a doctor. | Start Time: 7:00am  End Time: 8:00am | Scheduled appointment should be updated. | Appointment scheduled updated successfully. New data loaded. | Pass |

**Functional Testing 36:** Delete scheduled appointment with doctor.

**Testing Objective:** To ensure that scheduled appointments are deleted correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete scheduled appointment as a doctor. | planId: plan.\_id | Scheduled appointment should be deleted. | Appointment scheduled deleted successfully. New data loaded. | Pass |

**Functional Testing 37:** Add patients with guardian.

**Testing Objective:** To ensure that patients are added correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Add patients as a guardian. | Name: Haroon  Age:  53  Country: Pakistan  City: Rawalpindi  Address: House #123  Gender: Male  Phone number: 03215878904 | Patient should be added. | Patient added successfully.  New data loaded. | Pass |

**Functional Testing 38:** Update patients with guardian.

**Testing Objective:** To ensure that patients are updated correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Add patients as a guardian. | Age:  50 | Patient should be updated. | Patient updated successfully.  New data loaded. | Pass |

**Functional Testing 39:** Delete patients with guardian.

**Testing Objective:** To ensure that patients are deleted correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Delete patients as a guardian. | patientId: patient.\_id | Patient should be deleted. | Patient deleted successfully.  New data loaded. | Pass |

**Functional Testing 40:** Send Query with guardian.

**Testing Objective:** To ensure that Queries are delivered correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Send Query as a guardian. | doctorId: doctor.\_id  Querybody: Kindly schedule appointment for Danish Ali | Query should be delivered to Doctor. | Query delivered successfully. Update Query history record loaded. | Pass |

**Functional Testing 41:** Reply to Query with Doctor.

**Testing Objective:** To ensure that Queries replies are delivered correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Send Query reply as a Doctor. | GuardianId: guardian.\_id  Queryreply: I will, soon. | Query reply should be delivered to Guardian. | Query reply delivered successfully. Update Query history record loaded. | Pass |

**Functional Testing 42:** Record Observations about patient condition as a doctor during an appointment.

**Testing Objective:** To ensure that Observations are posted correctly.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Post Observations as a doctor. | PatientId: patient.\_id  apptid: appointment.id  comment: nice improvement | Observation should be posted. | Observation posted successfully. Update Obersvations history record loaded. | Pass |

**Functional Testing 43:** Start appointment

**Testing Objective:** To ensure that appointment starts with a valid patient.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Start appointment of a patient | PatientId: patient.\_id | Appointment should start. | Appointment starts and redux is set. | Pass |

**Functional Testing 44:** Get rehabilitation activity result with doctor.

**Testing Objective:** To ensure that rehabilitation report generated with valid and invalid whiteboard image.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Get Rehabilitation report for patient. | Orgimage: img/test.png  Scratchimage: files[0] | Result of activity should be displayed in report form. | Result of activity is shown on web page containing original number of circles and circles remained after scratching. | Pass |

## Integration Testing

**Integration Testing 1:** Schedule Appointment for Patient rehabilitation

**Testing Objective:** To ensure the scheduling is being done correctly and *the* ***interface*** *between*

module ‘Account Manager’ and module ‘Patients and Appointments’ *is running correctly*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Schedule Appointment | Start time, End time,patientId,doctorId, status. | Successfully create doctor- patient appointment  showing date and time of appointment. | Appointment created successfully | Pass |
| 2. | Change Appointment details | Select Date and time | Final date and time of appointment will be shown. | Appointment time changed successfully | Pass |

**Integration Testing 2:** Post Review on Review Page

**Testing Objective:** To ensure the review is posted correctly and *the* ***interface*** *between* module ‘Account Manager’ and module ‘Reviews’ *is running correctly*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Post Review | Userid, usertype, comment, subject | Successfully posted the  review showing update reviews data on page. | Review posted | Pass |
| 2. | Change Review details | Comment | Review comment is updated, and updated data loaded on page. | Review comment updated  successfully. | Pass |

**Integration Testing 3:** Get Neglect Prediction for whiteboard Image

**Testing Objective:** To ensure the prediction is predicted correctly and *the* ***interface*** *between*

module ‘Account Manager’ and module ‘Neglect Detector’ *is running correctly*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Get Prediction | Imagefile | Successfully get the prediction result of an  Image and updated the neglect type of patient. | Prediction displayed correctly. | Pass |

**Integration Testing 3:** Make payment for doctor

**Testing Objective:** To ensure the prediction is predicted correctly and *the* ***interface*** *between*

module ‘Account Manager’ and module ‘Payments’ *is running correctly*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Make payment | Email, CVV, date, card number. | Payment should be made successfully. DoctorId added in payments. | Payment made successfully. | Pass |

**Integration Testing 4:** Get score for rehabilitator

**Testing Objective:** To ensure the rehabilitation works correctly and *the* ***interface*** *between*

module ‘Patient and appointment Logging’ and module ‘Neglect Rehabilitator’ *is running correctly*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Get Rehabilitation results | Imagefile | Successfully get the Rehabilitation results of an  Image and appointment score stored in database. | Rehabilitation results displayed correctly. | Pass |
| 2 | Post Observation | Comment: good average score | Successfully posted the Observation about appointment |  |  |

**Integration Testing 5:** Get Report and Milestone for Patient

**Testing Objective:** To ensure that report generated correctly and *the* ***interface*** *between*

module ‘Neglect Rehabilitator’ and module ‘Report Generator and Milestone’ *is running correctly*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Test case/Test script** | **Attribute and value** | **Expected result** | **Actual result** | **Result** |
| 1. | Get Rehabilitation Report | statList: res.data.statlist | Successfully get the Rehabilitation report of the image and Milestone. | Rehabilitation report and Milestone displayed correctly. | Pass |

# Conclusion and Future Work

## Conclusion

Neglect App is providing services to Spatial Neglect patients and Doctors. It is the first platform for spatial neglect patients and doctors. Repetitive exercise during appointments is helping patients to get better and better day by day and improve neglect condition. Doctors can view reports of patients and analyze them quickly. Its helping doctors in better decision making for patient’s rehabilitation plan.

## Future Work

More interesting exercises can be introduced to test and rehabilitate patients. In future this application can be implemented on VR or AR. VR oculus can play crucial role here. It will be easier for patients to perform exercise and doctors can analyze accordingly.

# References

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  + Visual Attention Therapy Lite: <https://play.google.com/store/apps/details?id=com.tactustherapy.vat.lite&hl=en&gl=US>
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