#### Edit Profile

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.1 |
| **Use Case Name:** | Edit Profile |
| **Actors:** | Primary Actors: Patient |
| **Description:** | Patient log into his/her account and clicks on edit profile option to enter his/her profile information. |
| **Trigger:** | Patient clicks on the edit profile button. |
| **Pre-conditions:** | PRE-1. Patient has an active internet connection.  PRE-2. Patient is logged in into their account. |
| **Post-conditions:** | POST-2: Patient edits the account information.  POST-2: Changes in student profile are saved. |
| **Normal Flow:** | * 1. Edit Profile   1. Patient logs into the system.  2. Patient clicks on edit profile button.  3. Patient profile information will be displayed where all the fields will be editable.  4. Patient makes changes.  5. Patients clicks on save changes button.  6. Confirm changes dialog box appear.  7. Patient clicks on yes option.  8. The system saves the changes and a profile updated message is displayed. |
| **Alternative Flows:** | In step 1 of normal flow if login details entered by the patient are incorrect:  1. System prompts the error message.  2. Patient corrects the details.  3. Patient is logged in to the system successfully.  4. Patient edits account information |
| **Exceptions:** | 1. E1 Doctor/Student enters invalid information and clicks on submit. 2. Invalid credentials please enter again dialogue box will be displayed. 3. Doctor/Student enters valid information and clicks on submit button. 4. Resume form step 6 of normal flow. |
| **Business Rules** | 1. Only those patients who have a registered account should be allowed to edit their account information.  2. Patient cannot edit his/her username. |
| **Assumptions:** | N/A |

#### 3.1.1.2 COVID Detection

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.4 |
| **Use Case Name:** | COVID Detection |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient logs into his/her account, clicks on the COVID detection option to check if they have COVID symptoms. |
| **Trigger:** | Patient has clicked on COVID detection option from dashboard. |
| **Preconditions:** | PRE-1: Patient is logged in.  PRE-2: Patient has clicked the COVID detection option. |
| **Postconditions:** | POST-1. System will display result of COVID detection along with report to patient and send one copy of report to doctor. |
| **Normal Flow:** | 1.0 COVID Detection  1. Patient clicks on the COVID detection option.  2. Patient provide his/her image and x-ray report by uploading.  3. Patient clicks on the detect disease option.  4. System analyzes the patient’s data and determines if they are at risk for COVID through ML.  5. System displays a message showing the probability of COVID in patient. |
| **Alternative Flows:** | 1.1 if the patient is identified as being at risk for COVID  1.System displays then a recommendation for the patient to seek professional medicine advice.  2. Patient can choose to follow the recommendation or ignore it and continue using the system. |
| **Exceptions:** | 1.0. E1 In step 4 of normal flow ,if the system encounters an error while analyzing the patient’s responses:  1. System displays an error message and prompts user to try again.  2.0 E2 In step 2 of normal flow, if the patient image is not matched with the image in the dataset stored in database of system:  1. System displays error message and prompts the user to try again. |
| **Business Rules** | BR-1: Patient must upload image and x-ray report.  BR-2: Patient’s risk level is determined based on their response.  BR-3: The symptom checker is not a substitute for professional medical advice.  BR-4: Patient can only have one account at a time. |
| **Assumptions:** | 1. Patient is using the symptom checker for informational purpose only. 2. Patient understands that the symptom checker is not a medical diagnosis. 3. System is able to produce optimal result of detection. |

#### 3.1.1.3 Tuberculosis(TB) Detection

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.3 |
| **Use Case Name:** | Tuberculosis(TB) Detection |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient logs into his/her account, clicks on the TB detection option to check if they have TB symptoms. |
| **Trigger:** | Patient has clicked on TB detection option from dashboard. |
| **Preconditions:** | PRE-1: Patient is logged in.  PRE-2: Patient has clicked the TB detection option. |
| **Postconditions:** | POST-1. System will display result of TB detection along with report to patient and send one copy of report to doctor. |
| **Normal Flow:** | 1.0 Tuberculosis Detection  1. Patient clicks on the TB detection option.  2. Patient provide his/her image and x-ray report by uploading.  3. Patient clicks on the detect disease option.  4. System analyzes the patient’s data and determines if they are at risk for TB through ML.  5. System displays a message showing the probability of TB in patient. |
| **Alternative Flows:** | 1.1 If the patient is identified as being at risk for TB  1.System displays a recommendation for the patient to seek professional medicine advice.  2. Patient can choose to follow the recommendation or ignore it and continue using the system. |
| **Exceptions:** | 1.0. E1 In step 4 of normal flow ,if the system encounters an error while analyzing the patient’s responses:  1. System displays an error message and prompts user to try again.  2.0 E2 In step 2 of normal flow, if the patient image is not matched with the image in the dataset stored in database of system:  1. System displays error message and prompts the user to try again. |
| **Business Rules** | BR-1:Patient must upload image and x-ray report.  BR-2: Patient’s risk level is determined based on their response.  BR-3: The symptom checker is not a substitute for professional medical advice.  BR-4: Patient can only have one account at a time. |
| **Assumptions:** | 1. Patient is using the symptom checker for informational purpose only. 2. Patient understands that the symptom checker is not a medical diagnosis. 3. System is able to produce optimal result of detection. |

#### 3.1.1.4 Pneumonia Detection

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.6 |
| **Use Case Name:** | Pneumonia Detection |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient logs into his/her account, clicks on the pneumonia detection option to check if they have pneumonia symptoms. |
| **Trigger:** | Patient has clicked on pneumonia detection option from dashboard. |
| **Preconditions:** | PRE-1: Patient is logged in.  PRE-2: Patient has clicked the pneumonia detection option. |
| **Postconditions:** | POST-1. System will display result of pneumonia detection along with report to patient and send one copy of report to doctor. |
| **Normal Flow:** | 1.0 Pneumonia Detection  1. Patient clicks on the pneumonia detection option.  2. Patient provide his/her image and x-ray report by uploading.  3. Patient clicks on the detect disease option.  4. System analyzes the patient’s data and determines if they are at risk for TB through ML.  5. System displays a message showing the probability of pneumonia in patient. |
| **Alternative Flows:** | 1.1 If the patient is identified as being at risk for pneumonia  1.System displays a recommendation for the patient to seek professional medicine advice.  2. Patient can choose to follow the recommendation or ignore it and continue using the system. |
| **Exceptions:** | 1.0. E1 In step 4 of normal flow ,if the system encounters an error while analyzing the patient’s responses:  1. System displays an error message and prompts user to try again.  2.0 E2 In step 2 of normal flow, if the patient image is not matched with the image in the dataset stored in database of system:  1. System displays error message and prompts the user to try again. |
| **Business Rules** | BR-1:Patient must upload image and x-ray report.  BR-2: Patient’s risk level is determined based on their response.  BR-3: The symptom checker is not a substitute for professional medical advice.  BR-4: Patient can only have one account at a time. |
| **Assumptions:** | 1. Patient is using the symptom checker for informational purpose only. 2. Patient understands that the symptom checker is not a medical diagnosis. 3. System is able to produce optimal result of detection. |

#### 3.1.1.4 Medicine Reminder

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.5 |
| **Use Case Name:** | Medicine Reminder |
| **Actors:** | Primary Actors: Patient, System   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient logs into his/her account, clicks on the medicine reminder option to set reminders for taking medications at specified times . |
| **Trigger:** | Patient has clicked on medicine reminder option from dashboard. |
| **Preconditions:** | PRE-1: Patient is logged in.  PRE-2: Patient has a valid account and has added medication information to their profile.  PRE-3: Patient has clicked the medicine reminder option. |
| **Postconditions:** | POST-1: Patient receives reminders at specified times to take their medication. |
| **Normal Flow:** | 1.0 Medicine Reminder  1. Patient opens the Medicine reminder option.  2. System displays a list of medication previously entered by the patient.  3. Patient selects a medication to set reminder for taking medicine at specified times.  4. System prompts patient to enter a reminder time for the selected medication.  5. Patient enters a reminder time.  6. System confirms the reminder has been set. |
| **Alternative Flows:** | 1.1 If user decides not to set a reminder for medication  1.Patient can click the on the “Cancel” button and return to the medication list without setting a reminder.  2.System displays a confirmation message before cancelling reminder. |
| **Exceptions:** | 1.0. E1 In step 5 of normal flow ,if the patient enter an invalid reminder time:  1. System displays an error message and prompts patient to enter a valid time.  2. System resumes form step 3 of normal flow. |
| **Business Rules** | BR-1: System must provide accurate medication information.  BR-2: Patient must set reminder times for each medication.  BR-3: System must accurately set reminders at specified times. |
| **Assumptions:** | 1. User has valid account. 2. System is able to send reminders accurately. |

#### 3.1.1.5 View Prescription

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.6 |
| **Use Case Name:** | View Prescription |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient logs into his/her account to view the prescription which he/she receives from doctor. |
| **Trigger:** | Patient has clicked on view prescription option. |
| **Preconditions:** | PRE-1: Patient has active internet connection.  PRE-2: Patient has already registered an account.  PRE-3: Patient is logged in to the system. |
| **Postconditions:** | POST-1: Patient can view the prescription. |
| **Normal Flow:** | 1.0 View Prescription  1. Patient logs into the system.  2. Patient receives notification of prescription sent by the doctor.  3. Patient selects the “view prescription” option.  4. System displays the prescription to the patient. |
| **Exceptions:** | N/A |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### 3.1.1.10 Register

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.7 |
| **Use Case Name:** | Register |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | For creating an account, the patient will enter the information requested by the system. |
| **Trigger:** | Patient enters the required credentials and clicks on the “Register” button so process can activate. |
| **Preconditions:** | PRE-1: Patient has active internet connection.  PRE-2: Patient has a active email/patient\_id and password. |
| **Postconditions:** | POST-1: Patient’s information will be verified.  POST-2: Patent receives confirmation message and access to the account. |
| **Normal Flow:** | 1.0 Register  1. Patient enters name.  2. Patient enters email address.  3. Patient enters the phone number.  4. Patient enters the username.  5. Patient enters a password.  6. Patient re-enters the password to confirm.  7. System checks availability of username.  8. System authenticates.  9. Account registered successfully. |
| **Alternative Flows:** | a) In step 2 of normal flow if email/patient\_id entered by the patient is invalid then:  1. System checks the email.  2. System checks the email.  3. System will prompt patient to correct email.  4. Patient corrects the email.  b) In step 5 of normal flow if the password entered by the patient is invalid then:  1. System will prompt patient to correct password.  2. System will prompt patient to enter a unique password.  3. Patient re-enters the password. |
| **Exceptions:** | N/A |
| **Business Rules** | BR-1: Patient’s information should be kept strictly confidential and secure. |
| **Assumptions:** | N/A |

#### Login

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.8 |
| **Use Case Name:** | Login |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient login and accesses the system features. |
| **Trigger:** | Patient enters the login credentials i.e. patient\_id and password and press enter. |
| **Preconditions:** | PRE-1: Patient has active internet connection.  PRE-2: Patient has already a registered account. |
| **Postconditions:** | POST-1: Patient logs into the system successfully.  POST-2: Patient accesses the different app functionalities. |
| **Normal Flow:** | 1.0 Login  1. Patient enters patient\_id and password.  2. System checks for detail of patient.  3. Patient is logged in successfully. |
| **Alternative Flows:** | a) In step 1 of normal flow if login details entered by the patient are invalid:  1. System prompts the error message.  2. Patient corrects the details.  3. Patient is logged into the system successfully. |
| **Exceptions:** | 1. System checks for an email in first step of the normal flow  2. Password authentication in the system's database.  E1 If the email address is accurate but the password is incorrect then:  1. System will prompt the patient to enter the password again.  E2 If the password entered by the patient is correct but the email address then:  1. System asks the patient to provide a valid email address.  E3 If the system does not recognize both the email address and the password,then: 1. Patient is required to re-enter both. |
| **Business Rules** | BR-1: Only those patients who have a registered account should be allowed to use the system's features. |
| **Assumptions:** | N/A |

#### Chatbot

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.9 |
| **Use Case Name:** | Chatbot |
| **Actors:** | Primary Actors: Patient, System   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient gets instant medical consultation through chatbot. |
| **Trigger:** | Patient opens up the chat box and chat with virtual agent. |
| **Preconditions:** | PRE-1: Patient has active internet connection.  PRE-2: Patient has already a registered account.  PRE-3: Patient is logged in into the system.  PRE-4: Patient needs medication in emergency. |
| **Postconditions:** | POST-1: Patient has accessed the chatbot. |
| **Normal Flow:** | 1.0 Chatbot  1. Patient enters his/her username.  2. Patient enters his/her password.  3. System authenticates the details entered by the patient.  4. Patient gets logged in.  5. Patient clicks on chatbot.  6. Patient interacts with the system through chatbot. |
| **Alternative Flows:** | a) In the step 3 of the normal flow  1. System prompts an error message “User is not registered”.  2. Patient registers his/her account by entering his/her personal information.  3. Patient gets logged in.  4. Patient clicks on chatbot.  5. Patient interacts with the system through chatbot. |
| **Exceptions:** | N/A |
| **Business Rules** | BR-1: Patient can interact with the system through chatbot only when he/she has registered account. |
| **Assumptions:** | N/A |

#### Upload X-ray Image

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.10 |
| **Use Case Name:** | Upload x-ray image |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | The patient uploads the x-ray image of patient through the system to detect the disease. |
| **Trigger:** | Patient clicks on “Upload image” option. |
| **Preconditions:** | PRE-1: Patient is logged into the system.  PRE-2: Patient has active internet connection. |
| **Postconditions:** | POST-1: Patient’s x-ray image is uploaded to the system. |
| **Normal Flow:** | 1.0 Chatbot  1. Patient logs into the system.  2. Patient clicks on “Upload image” option.  3. System will enable patient to choose file to upload.  4. Patient clicks and chooses the file.  5. File is uploaded successfully.  6. System prompts the confirmation message. |
| **Alternative Flows:** | 1. Patient logs into the system.  2. Patient clicks on “Upload image” option.  3. System will enable patient to choose file to upload.  4. Doctor clicks and chooses wrong file.  5. File is uploaded successfully.  6. Patient removes the image file.  7. System continuous from the second step of normal flow. |
| **Exceptions:** | E0 In the second step of normal flow if patient chooses incompatible image file type, then :   1. System displays the error message |
| **Business Rules** | BR-1: System shall be able to upload jpg,jpeg and png image formats. |
| **Assumptions:** | N/A |

#### View Detection Results

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.11 |
| **Use Case Name:** | View Detection Results |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | The patient uploads the x-ray image and view the results generated by the system. |
| **Trigger:** | Patient clicks on view detection results option. |
| **Preconditions:** | PRE-1: Patient is logged into the system.  PRE-2: Patient has active internet connection.  PRE-3: X-ray mage is successfully uploaded into the system. |
| **Postconditions:** | POST-1: Patient can view the result report of detection. |
| **Normal Flow:** | 1.0 View Detection results  1. Patient logs into the system.  2. System authenticates the patient.  3. Patient uploads the x-ray image.  4. Patient clicks on “view detection-results”.  5. System displays detection result. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### Give Feedback

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.12 |
| **Use Case Name:** | Give Feedback |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient logs into his/her account and click on give feedback option to give feeback about application. |
| **Trigger:** | Patient clicks on “Give Feedback” option. |
| **Preconditions:** | PRE-1: Patient has active internet connection.  PRE-2: Patient is logged into the system.  PRE-3: Patient must have an active application to provide feedback on |
| **Postconditions:** | POST-1:  The patient's feedback is recorded in the system and can be viewed by the application owner.  POST-2: The patient will receive a confirmation message that their feedback was received. |
| **Normal Flow:** | 1.0 Give Feedback  1. Patient logs into the system.  2. Patient write feedback about application performance.  3. The patient's feedback is recorded in the system and can be viewed by the application owner.  4. The patient will receive a confirmation message that their feedback was received. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | E0 In step 2 of normal flow if the patient has already submitted the feedback then:   1. System will display an error message. 2. System will prompt patient to provide feedback relevant to the application.   E1 In step 2 of normal flow if the feedback contain profanity and offensive language then:   1. System will display error message. 2. System will prompt patient to edit the feedback.   E2 In step 2 of normal flow if the feedback is unrelated to application then:   1. System will display error message. 2. System will prompt patient to provide relevant feedback to application. |
| **Business Rules** | BR-1: Feedback can only be submitted once per user per application.  BR-2: Feedback must be at least 50 characters long.  BR-3: Profanity and offensive language will not be tolerated in the feedback.  BR-4: Feedback must relate to the application only. |
| **Assumptions:** | 1. It is assumed that the patient has provided honest and accurate feedback. 2. It is assumed that the patient will provide feedback that is relevant to the application only. 3. It is assumed that the patient will enter feedback that is constructive and helpful. |

#### View Feedback

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.13 |
| **Use Case Name:** | View Feedback |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient will log in into his/her account and clicks on view feedback option to view feedback. |
| **Trigger:** | Patient clicks on view feedback option. |
| **Preconditions:** | PRE-1: Patient has a registered account.  PRE-2: Patient is logged in. |
| **Postconditions:** | POST-1: Patient can view the feeback which he/she gives about application. |
| **Normal Flow:** | 1.0 View Feedback  1. Patient logs into his/her account.  2. Patient clicks on view feedback option.  3. System displays a feedback.  5. Patient can view the feedback he/she provided |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Business Rules** | N/A |
| **Assumptions:** | Patient is satisfied with the service and leaves good review/feedback about the system. |

#### Logout

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.14 |
| **Use Case Name:** | Logout |
| **Actors:** | Primary Actors: Patient   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient can logout the system. |
| **Trigger:** | Patient clicks on “Logout” option. |
| **Preconditions:** | PRE-1: Patient is logged into the system.  PRE-2: Patient has active internet connection. |
| **Postconditions:** | POST-1: Changes made by patient in his/her account are saved.  POST-2: Patient is logged out from the system. |
| **Normal Flow:** | 1.0 Logout  1. Patient clicks on “Logout” option.  2. System prompts the message of confirmation to log out.  3. Patient clicks on “Yes” option.  4. Patient is logged out successfully. |
| **Alternative Flows:** | 1. Patient clicks on “Logout” option.  2. System prompts the message that the changes made by the patient should be saved or not.  3. Patient clicks on “Yes” option.  4. Changes are saved  5. Patient is logged out successfully. |
| **Exceptions:** | E0 In the step 3 of alternate flow:  1. Patient clicks on “No” option.  2. Changes are not saved by the system.  3. Patient logs out. |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### View Prescription

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.15 |
| **Use Case Name:** | View Prescription |
| **Actors:** | Primary Actors: Patient,System   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Patient login inti his/her account to view prescription. |
| **Trigger:** | Patient clicks on view prescription option. |
| **Preconditions:** | PRE-1: Patient is logged into the system.  PRE-2: Patient has active internet connection. |
| **Postconditions:** | POST-1: Patient has received the prescription sent by the doctor.  POST-2: Patient can view the prescription. |
| **Normal Flow:** | 1.0 View Prescription  1. Patient logs into the system.  2. Patient receives notification of prescription sent by the doctor.  3. Patient clicks on view prescription button.  4. System display prescription to patient. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

**Doctor Usecase discriptions:**

#### Doctor Profile

#### Register

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.1 |
| **Use Case Name:** | Register |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | For create an account, the doctor will enter the information requested by the system. |
| **Trigger:** | Doctor enters the required credentials and clicks onto the “Register” button so process can activate. |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor has active email address and password. |
| **Postconditions:** | POST-1: Doctor’s information will be verified.  POST-2: Doctor receives confirmation message and access to the account. |
| **Normal Flow:** | 1.0 Register  1. Doctor enters name.  2. Doctor enters the email address.  3. Doctor enters his/her clinic address.  4. Doctor enters the phone number.  5. Doctor enters username.  6. Doctor enters the password.  7. Doctor re-enters the password to confirm.  8. System checks availability of username.  9. System authenticates.  10. Account Registered Successfully. |
| **Alternative Flows:** | In step 2 of normal flow if email entered by the doctor is invalid then:  1. The System checks the email.  2. System will prompt doctor to correct the email.  3. Doctor corrects the email.  In step 4 of normal flow if the username entered by the doctor is already existing then:  1. The system checks the username.  2. System will prompt doctor to enter a unique username.  3. Doctor re-enters the username. |
| **Exceptions:** | N/A |
| **Business Rules** | The Doctor's information should be kept strictly confidential and secure |
| **Assumptions:** | N/A |

#### Login

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.2 |
| **Use Case Name:** | Login |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor login and accesses the system. |
| **Trigger:** | Doctor enters login credentials i.e., username/email and password etc. and presses enter. |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor has already a registered account. |
| **Postconditions:** | POST-1: Doctor logs into the system successfully.  POST-2: Doctor accesses the different app functionalities. |
| **Normal Flow:** | 1.0 Login  1. Doctor enters the email/username and password.  2. System checks for details of doctor.  3. Doctor is logged in successfully. |
| **Alternative Flows:** | In step 1 of normal flow if login details entered by the Doctor are incorrect:  1. System prompts the error message.  2. Doctor corrects the details.  3. Doctor is logged in to the system successfully |
| **Exceptions:** | 1. System checks for an email in first step of the normal flow.  2. Password authentication in the system's database.  E1 If the email address is accurate but the password is incorrect, then:  1. System will prompt the doctor to enter the password again.  E2 If the password entered by the doctor is correct but the email address, then:  1. System asks the doctor to provide a valid email address.  E3 If the system does not recognize both the email address and the password, then: 1. Doctor is required to re-enter both. |
| **Business Rules** | Only those doctors who have a registered account should be allowed to use the system's features. |
| **Assumptions:** | N/A |

#### Edit Profile

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.3 |
| **Use Case Name:** | Edit Profile |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor logs into his/her account and edit his/her profile information. |
| **Trigger:** | Doctor enters login credentials i.e., username/email and password etc. and presses enter. |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor has already a registered account. |
| **Postconditions:** | POST-1: Doctor logs into the system successfully.  POST-2: Doctor edit his/her account information. |
| **Normal Flow:** | * 1. Edit Profile   1. Doctor is logged into his/her profile successfully.  1. Doctor enters the email/username and password.  2. System validates the details of doctor.  4. Doctor edits his/her account information. |
| **Alternative Flows:** | In step 1 of normal flow if login details entered by the doctor are incorrect:  1. System prompts the error message.  2. Doctor corrects the details.  3. Doctor is logged in to the system successfully.  4. Doctor edits account information. |
| **Exceptions:** | System validates the changes that are being made and updates the database. System authenticates the valid information is being entered by the doctor. |
| **Business Rules** | BR-1: Only those who have a registered account should be allowed to edit their account information.  BR-2: User can not edit his/her username. |
| **Assumptions:** | N/A |

#### View Patient Profile

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.4 |
| **Use Case Name:** | View Patient Profile |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor log in into his/her account and can view the profile of patient. |
| **Trigger:** | Doctor wants to view the patient’s profile and clicks on it. |
| **Preconditions:** | PRE-1: Doctor is logged into the system.  PRE-2: Doctor has active internet connection.  PRE-3: Patient’s account must be registered in the system |
| **Postconditions:** | POST-1: Doctor can see the profile of patient. |
| **Normal Flow:** | 1.0 View Patient Profile  1. Doctor logs in to the system.  2. Doctor’s profile is authenticated by system.  3. Doctor clicks on the “view patient profile”.  4. Patient’s profile information is visible to the doctor |
| **Alternative Flows:** | 1.1. In step 2 of normal flow if the doctor is already logged in:  1. Doctor can view the profile of patient by searching his/her name. |
| **Exceptions:** | N/A. |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### View Detection Results

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.5 |
| **Use Case Name:** | View Detection Results |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor uploads the x-ray of patient and view the results generated by system. |
| **Trigger:** | Doctor clicks on view detection result option |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor is logged into the system.  PRE-3: X-ray image is successfully uploaded to the system. |
| **Postconditions:** | POST-1: Doctor can view the result report of patient. |
| **Normal Flow:** | 1.0 View Detection Result  1. Doctor logs into the system.  2. System authenticates the doctor.  3. Doctor uploads the x-ray image of the patient.  4. Doctor clicks on view detection results  5. System displays the detection results.  6. Doctor uploads the report which is visible to the patient |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A. |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### Create Prescription

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.6 |
| **Use Case Name:** | Create Prescription |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor creates prescription for the patient. |
| **Trigger:** | Doctor clicks on create prescription option. |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor is logged into the system.  PRE-3: Patient has send the x-ray report to doctor as a result of detection. |
| **Postconditions:** | POST-1: Prescription is created for the patient. |
| **Normal Flow:** | 1.0 Create Prescription  1. Doctor logs into the system.  2. Doctor clicks on “Create prescription” and creates the prescription.  3. Doctor scripts the medicine name, its dosage, and suggestions for patient.  4. Doctor saves the data. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A. |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### Upload Prescription

|  |  |
| --- | --- |
| **Use Case ID:** | DUC-1.7 |
| **Use Case Name:** | Upload Prescription |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor logs in into his/her account uploads prescription for the patient. |
| **Trigger:** | Doctor clicks on upload prescription option. |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor is logged into the system.  PRE-3: Patient has send the x-ray report to doctor as a result of detection. |
| **Postconditions:** | POST-1: Prescription is sent to the patient.  POST-2: Patient is notified. |
| **Normal Flow:** | 1.0 Upload Prescription  1. Doctor logs into the system.  2. Doctor creates prescription.  3. Doctor saves the data.  4. Doctor uploads it to the patient’s profile.  5. Doctor is notified by the confirmation message.  6. Patient is notified about the prescription.  7. Doctor redirects to the home display. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A. |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |

#### Give Feedback

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.1 |
| **Use Case Name:** | Give Feedback |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor logs in into his/her account and provide feedback about application. |
| **Trigger:** | Doctor clicks on give feedback option. |
| **Preconditions:** | PRE-1: Doctor has active internet connection.  PRE-2: Doctor is logged into the system.  PRE-3: Doctor must have an active application to provide feedback on |
| **Postconditions:** | POST-1:  The doctor's feedback is recorded in the system and can be viewed by the application owner.  POST-2: The doctor will receive a confirmation message that their feedback was received |
| **Normal Flow:** | 1.0 Give Feedback  1. Doctor logs into the system.  2. Doctor write feedback about application performance.  3. The doctor's feedback is recorded in the system and can be viewed by the application owner.  4. The doctor will receive a confirmation message that their feedback was received. |
| **Alternative Flows:** | N/A |
| **Exceptions:** | E0 In step 2 of normal flow if the doctor has already submitted the feedback then:   1. System will display an error message. 2. System will prompt doctor to provide feedback relevant to the application.   E1 In step 2 of normal flow if the feedback contain profanity and offensive language then:   1. System will display error message. 2. System will prompt doctor to edit the feedback.   E2 In step 2 of normal flow if the feedback is unrelated to application then:  1. System will display error message.   1. System will prompt doctor to provide relevant feedback to application. |
| **Business Rules** | BR-1: Feedback can only be submitted once per user per application.  BR-2: Feedback must be at least 50 characters long.  BR-3: Profanity and offensive language will not be tolerated in the feedback.  BR-4:  Feedback must relate to the application only. |
| **Assumptions:** | 1. It is assumed that the doctor has provided honest and accurate feedback. 2. It is assumed that the doctor will provide feedback that is relevant to the application only. 3. It is assumed that the doctor will enter feedback that is constructive and helpful. |

#### View Feedback

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.1 |
| **Use Case Name:** | View Feedback |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor logs in into his/her account and can view feedback about the system. |
| **Trigger:** | Doctor clicks on view feedback option. |
| **Preconditions:** | PRE-1: Doctor has a registered account.  PRE-2: Doctor is logged in. |
| **Postconditions:** | POST-1: Doctor view feedback about the system |
| **Normal Flow:** | 1.0 View Feedback  1. Doctor logs into his/her account.  2. Doctor clicks on feedback option.  3. System displays a text filed.  4. Doctor types his/her reviews.  5. Doctor submits the reviews.  6. Doctor can view the feedback he/she provided |
| **Alternative Flows:** | N/A |
| **Exceptions:** | N/A |
| **Business Rules** | N/A |
| **Assumptions:** | Doctor is satisfied with the service and leaves good review/feedback about the system. |

#### Logout

|  |  |
| --- | --- |
| **Use Case ID:** | PUC-1.1 |
| **Use Case Name:** | Logout |
| **Actors:** | Primary Actors: Doctor   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | |
| **Description:** | Doctor can logout the system. |
| **Trigger:** | Doctor clicks on “Logout” option. |
| **Preconditions:** | PRE-1: Doctor is logged into the system.  PRE-2: Doctor has active internet connection. |
| **Postconditions:** | POST-1: Changes made by doctor in his/her account are saved.  POST-2: Doctor is logged out from the system |
| **Normal Flow:** | 1.0 Logout  1. Doctor clicks on “Logout” option.  2. System prompts the message of confirmation to log out.  3. Doctor clicks on “Yes” option.  4. Doctor is logged out successfully. |
| **Alternative Flows:** | 1. Doctor clicks on “Logout” option.  2. System prompts the message that the changes made by the patient should be saved or not.  3. Doctor clicks on “Yes” option.  4. Changes are saved  5. Doctor is logged out successfully. |
| **Exceptions:** | E0 In the step 3 of alternate flow:  1. Doctor clicks on “No” option.  2. Changes are not saved by the system.  3. Doctor logs out. |
| **Business Rules** | N/A |
| **Assumptions:** | N/A |