

Modern Topics in IT

IT4020

Assignment 02

Group Id : MTIT-099

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Submitted to

Sri Lanka Institute of Information Technology

In partial fulfillment of the requirements for the

Bachelor of Science Special Honors Degree in Information Technology

23.04.2021

# Declaration

We declare that this is our own work, and this report does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other university or Institute of higher learning and to the best of our knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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# 1 Introduction to the Scenario

Union Healthcare is a healthcare provider that operates a variety of healthcare facilities. The main objective of this system is to cure patients by providing them with the safest and most accurate dosage of medication. But there are some problematic situations here. That is, some of its doctors have to face the challenge of over-prescribing certain drugs. This puts the patient's health at risk and leads to regulatory complications. We have created a more flexible system to deal with these problematic situations correctly. In this system the doctor prescribes a series of drugs to the patient and the patient goes to a Union Healthcare pharmacy to get their prescription. The pharmacist then inserts the prescription items into the recording system.

Here prescriptions that are considered high risk are flagged for attention. A case is then filed with the case handler to determine where to deal with the over-prescribing physician. The case handler advises the doctor by email and makes sure that such incidents do not happen again. If they are thus satisfied, the case will eventually be closed by the case handler. Ultimately, the system provides services that improve patient care, reduce risk, reduce regulatory costs. The main objective of this system is to cure patients by providing them with the safest and most accurate dosage of medication.

Graphical user interface, website

Description automatically generated

# 2. ER Diagram for the System

Diagram, schematic

Description automatically generated

# 3. Use Case Diagram

Diagram

Description automatically generated

# 4. Use Case Scenarios

Login – Admin :

|  |  |
| --- | --- |
| **Use case** | **Admin Login** |
| Use case ID |  |
| Pre-condition | Admin should have correct credentials |
| Scenario steps | 1. Visit login GUI |
|  | 1. Insert username and password |
|  | 1. Successfully login to the system |
| Extension | 1. If the admin inserts invalid username and password system generate an error message and ask to re-enter. |

Login - Pharmacist :

|  |  |
| --- | --- |
| **Use case** | **Pharmacist Login** |
| Use case ID |  |
| Pre-condition | Pharmacist should have correct credentials |
| Scenario steps | 1. Visit login GUI |
|  | 1. Insert username and password |
|  | 1. Successfully login to the system |
| Extension | 1. If the pharmacist inserts invalid username and password system generate an error message and ask to re-enter. |

Drug Management - Admin remove drugs from the system :

|  |  |
| --- | --- |
| **Use case** | **Admin remove drugs from the system** |
| Use case ID |  |
| Pre-condition | Admin should know the Drug name |
| Scenario steps | 1. Login to the system using username & password |
|  | 1. The admin get access to the Main GUI |
|  | 1. Admin select delete drug management option |
|  | 1. After that admin select delete drug option |
|  | 1. Then system display Delete drug window |
|  | 1. Then the system checks the current available user and meanwhile system retrieve drug records from the database |
|  | 1. Then system display all available drugs |
|  | 1. Then admin determine which drug to remove |
|  | 1. After that admin click remove button & save. Meantime ones the administrator has been clicked the remove button, that drug will automatically delete for the database. |
|  | 1. At last a conformation message will appear & display “Drug successfully removed” |
| Extension | 1. If the admin inserts invalid username or password, system generate an error message & ask to re-enter. |
|  | 1. If the drug still in the database, admin has to repeat 8-10 steps again. |

Report Management - Admin Generate reports :

|  |  |
| --- | --- |
| **Use Case** | **Admin generate report** |
| Use case ID |  |
| Pre-condition | Admin should know the time period or other parameters |
| Scenario steps | 1. Login to the system using username & password |
|  | 1. The admin get access to the Main GUI |
|  | 1. Admin select report generate option |
|  | 1. After that admin select reporting type |
|  | 1. Then system display reporting GUI |
|  | 1. By inserting time period choose the report |
|  | 6.1 Admin can choose another related parameter |
|  | 1. Request a report |
|  | 7.1 The system itself run generate report query |
|  | 1. Then system generate a report |
|  | 1. The system displays the report |
| Extension | 1. If the admin inserts invalid username or password, system generate an error message & ask to re-enter. |

User Management – Admin remove Users :

|  |  |
| --- | --- |
| **Use case** | **Remove user** |
| Use case ID |  |
| Pre-condition | Admin should know the member to delete |
| Scenario steps | 1. Login to the system using username & password |
|  | 1. Then admin get access to the Admin main UI |
|  | 1. Administrator select user management option |
|  | 1. After that admin select delete Account option |
|  | 1. Then App display Delete Account window |
|  | 1. Then the system checks the current available users and meanwhile system Retrieve user records from the database. |
|  | 1. Then system display All available users |
|  | 1. Then admin determine which user to delete. |
|  | 1. After that admin click remove button & submit. Meantime ones the administrator has been clicked the remove button, that user will automatically delete for the data base |
|  | 1. At last a confirmation message will appear & display “user successfully removed” |
| Extension | 1. if admin enter incorrect password or username, system generate error message & ask to re-enter |
|  | 9) If the user still in the database, admin has to repeat 8-10 steps again. |

User Management – Admin add Users :

|  |  |
| --- | --- |
| **Use case** | **Add user** |
| Use case ID |  |
| Pre-condition | Admin should know the Account type |
| Scenario steps | 1. Login to the system using username & password |
|  | 1. Then admin get access to the Admin main UI |
|  | 1. Administrator select user management option |
|  | 1. After that admin select new Account option |
|  | 1. Then App display new Account window |
|  | 1. Then admin determine which user to Create |
|  | 1. Admin enter the username and password. |
|  | 1. After that admin click create button & submit. Then the system checks the current available users and check is there any same username in the database. |
|  | 1. Meantime ones the administrator has been clicked the create button, that user will automatically create in the data base |
|  | 1. At last a confirmation message will appear & display “user successfully created” |
| Extension | 1. if admin enter incorrect password or username, system generate error message & ask to re-enter |
|  | 8) If that entered username is existing in the data base, Admin has to repeat 8-10 steps again give new username. |

# 5. Sequence Diagrams

Diagram

Description automatically generatedAdmin Login :

Diagram

Description automatically generatedPharmacist Login :

Drug Management – Remove drug from the system :

Diagram

Description automatically generated with medium confidence

Report Management – Generate report :

Diagram

Description automatically generated

Stock Management – Order stock items :

Diagram

Description automatically generated

User Management – Remove User from the system :

Diagram

Description automatically generated

# 6. Activity Diagram

Diagram

Description automatically generatedUser Management – Remove User :

Diagram

Description automatically generatedUser Management – Add user :

Drug Management – Remove and Update Drugs from the system :

Diagram

Description automatically generated

Diagram, schematic

Description automatically generatedDrug Management – Add drug to the system :

Diagram

Description automatically generatedReport Management – Generate report :

# 7. Class Diagram

Diagram

Description automatically generated

# 8. User Interfaces

Graphical user interface

Description automatically generatedLogin page :

Graphical user interface

Description automatically generated with medium confidenceAdmin – Dashboard :

Graphical user interface, table

Description automatically generatedAdmin – Patient Management page :

Admin – View patients :

Graphical user interface

Description automatically generated

Graphical user interface, application

Description automatically generatedAdmin – Delete patients :

Graphical user interface, text, application

Description automatically generatedAdmin – Add drugs :

Graphical user interface, text, application

Description automatically generatedAdmin – Edit drugs :

Graphical user interface, text, application, email

Description automatically generatedAdmin – Add rules and regulations :

Graphical user interface, text, application, email

Description automatically generatedAdmin – Edit rules and regulations :

Graphical user interface, text, application

Description automatically generatedAdmin – Delete rules and regulations :

Graphical user interface, application, table

Description automatically generatedAdmin – Stock Management :

Graphical user interface, text, application, email

Description automatically generatedAdmin – Add suppliers :

Graphical user interface, text, application, email

Description automatically generatedAdmin – Edit suppliers :

Table

Description automatically generatedAdmin – Report List :

Admin / User – Create patient :

Graphical user interface, text, application

Description automatically generated

Admin / User – Edit patient :

Graphical user interface

Description automatically generated

Graphical user interface, text, application

Description automatically generatedAdmin / User – Add prescription step 1:

Graphical user interface, text, application

Description automatically generatedAdmin / User – Add prescription step 2 :

Graphical user interface

Description automatically generatedUser – View patient :

User – Stock Management :

Table

Description automatically generated