**SMART PRESCRIPTION APPLICATION**

Test Plan

By

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**Document History**

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*Acronym*

NAT = Natthakan Kaeokanpai PHI = Phithiwat Sitthitun PROM = Prompong Sugunnasil

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**Chapter One | Introduction**

**1.1 Objectives**

The objective of the Software Design Document for “Smart prescription application” both Android mobile application and web application are to provide a description and explain of the design system including activity following requirements specification and before programming. This document is based on the project proposal, project plan and software requirement specification and help developers to understand how to work for this application.

**1.2 Scope**

Smart prescription application consists of a web application and a mobile application. Smart prescription application requires a web application for creating a patient‘s profile and allergy report by a doctor and the Smart prescription application require a mobile application to generate and scan the QR code on a mobile phone by a pharmacist.

The features of the web application consist of: Feature#1: Prescription system

Feature#2: Account management system

Feature#3: Authentication system

Feature#5: Report allergy system

Feature#6: Allergy drug summary report system

The features of the mobile application consist of: Feature#4: Prescription verification system

**1.3 Acronyms and Definitions**

**1.3.1 Acronyms**

UTC Unit Test Case

STC System Test Case

SRS Software Requirement Specification URS User Requirement Specification SDD Software Design Document

UI User Interface

**1.3.2 Definitions**

**Feature** Transformation of input parameters to output parameters based on a specified algorithm. It describes the functionality of a product in the language of the product. Used for requirements analysis, design, coding, testing or maintenance.

**Unit test** A unit of work is a single logical functional use case in the system that can be invoked by some public interface (in most cases). A unit of work can span a single method, a whole class or multiple classes working together to achieve one single logical purpose that can be verified. [1]

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**Chapter Two | Test Plan and Test Procedure**

**2.1 Test Objectives**

The objectives of testing “Smart Prescription Application” application are:

**·** To detect and fix all bugs and defects.

**·** To cover all requirements that is functional, non-function, or user interface-related.

**·** To gain the acceptance and approval of the stakeholders in the test effort.

**·** To direct, guide and constrain the test effort, focusing the work on the useful and necessary deliverables.

**2.2 Scope of Testing**

“Smart Prescription Application” application will be tested using both white-box testing technique (i.e. unit testing) and black-box testing technique (i.e. system testing). The test results will be documented in the Test Record.

**2.3 Test Duration**

**Perform date:** July, 16th 2016

**Duration:** July, 30th 2016

**2.4 Test Responsibility**

**Date**

|  |  |
| --- | --- |
| **Item** | **Responsibility** |
| Unit test of “Smart Prescription Application”  web application | Natthakan Kaeokanpai,  Phithiwat Sitthitun |
| System test of “Smart Prescription Application”  web application | Natthakan Kaeokanpai,  Phithiwat Sitthitun |
| Unit test of “Smart Prescription Application”  mobile application | Natthakan Kaeokanpai,  Phithiwat Sitthitun |
| System test of “Smart Prescription Application”  mobile application | Natthakan Kaeokanpai,  Phithiwat Sitthitun |

**2.5 Test Strategy**

“Smart Precription Application” application testing is performed in following steps:

**·** Design test case for each feature.

**·** Prepare test data for each feature.

**·** Determine expected results.

**·** Perform testing on individual features.

**·** Record testing result.

**·** Store all test files in the project repository.

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**2.6 Result of Testing**

All the test results will be documented in the Test Record and separated into two parts, which are:

1. Actual output: The actual output that is produced by each test case.

2. Test Pass/Fail criteria:

2.1 Test Pass: The actual result is same as expected result.

2.2 Test Fail: The actual result is not same as expected result.

**2.7 Test Environment**

**2.7.1 Hardware**

**- Internet**

**- Laptops**

1. Dell inspiron 5220

Processor: Intel Core i5 3210M (3.1 GHz) Processor Memory: 8GB DDR3

Memory Hard Disk: 1000GB

Operating System: Window 7 Home Basic

2. Asus X550DP-DS101

AMD A-Series A10-5750M (2.50GHz) 8GB Memory 1TB

HDD AMD Radeon

Windows 8 64-Bit

**- Mobile phone: Android Operating System with camera**

1. Asus zenfone 4.5

Android 4.4.2 (KitKat)

Processor: Intel Atom Z2520DualCore

CPU Speed: 1.2 GHz

Memory 8GB (Internal) RAM 1GB

2. Samsung galaxy J7

OS: Android OS, v5.1 (Lollipop)

Processor: Quad-core 1.4 GHz Cortex-A53 & quad-core 1.0 GHz Cortex-A53

Octa-core 1.5 GHz Memories 16 GB, 1.5 GB RAM 8GB (Internal)

**2.7.2 Software**

1. Php Storm 8.3

2. Google Chrome

3. Android studio 2.1

4. Visual paradigm

5. Xampp

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**Chapter Three | Unit Testing**

**3.1 Class SiteController**

**3.1.1 Unit Test Case (UTC-01): login(String username, String password) : Boolean**

**Description:** Test login(String username, String password) method for checking username and password that are exist in the user table.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input username and  password are exist in the user table. | username = “admin”  password = “admin” | True |
| 2 | Test method by input username and  password do not exist in the user table. | username = “admin12”  password = “admin12” | False |
| 3 | Test method by input only username is  exist in the user table. | username = “admin”  password = “admin12” | False |
| 4 | Test method by input only password is  exist in the user table. | username = “admin12”  password = “admin” | False |
| 5 | Test method by input username without  password. | username = “admin”  password = Null | False |
| 6 | Test method by input password without  username. | username = Null  password = “admin” | False |

**3.1.2 Unit Test Case (UTC-02): logout() : Boolean**

**Description:** Test logout() method for checking web application can action to log out the current user.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test logout is active when logout() is  invoked. | - | True |

|  |  |  |  |  |  |
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**3.2 Class UserController**

**3.2.1 Unit Test Case (UTC-03): getUserList() : ArrayList**

**Description:** Test getUserList() method for checking whether the method get right list of user on the web application. The expected result will be arraylist of user.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | The method should return  the right arraylist of user from the database. | - | ArrayList<User>{  User{  id = 15,  name = “Phithiwat”, surname = “Sitthitun”,  username = “phithi”,  password = “1234”, pssword2 = “1234”,  roleId = 1  } User{ id = 2,  name = “Natthakan”, surname = “Kaeokanpai”,  username = “natthakan”, password = “man”, password2 = “man”,  roleId = 2  } User{  id = 3,  name = “Tony”, surname = “Stark”,  username = “tony”,  password = “tony”, password2 = “tony”, roleId = 3  }  } |

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**3.2.2 Unit Test Case (UTC-04): viewUser(Int userId) : Mixed**

**Description:** Test viewUser(Int userId) method for checking whether the method get right user model object releted to user id. The expected result will be user model object.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by input user id  that exist in the databse. The method should return  the right user object related to user id. | userId = 15 | User{  id = 15,  name = “Phithiwat”, surname = “Sitthitun”,  username = “phithi”,  password = “1234”, pssword2 = “1234”, roleId = 1  } |
| 2 | Test method by input user id  that not exist in the database | userId = 99 | False |
| 3 | Test method by not input  user id. | Null | False |
| 4 | Test method by input user id  with string value. | userId =  “phithiwat” | False |

**3.2.3 Unit Test Case (UTC-05): createUser(User user) : Boolean**

**Description:** Test createUser(User user) method for checking whether the method add the right data into the database. The data is includes name, surname, username, password, password2 and roleId.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input new data. | User{  name = “Steve”,  surname = “Rogers”, username = “steve”,  password = “1234”,  password2 = “1234”,  roleId = 1  } | True |
| 2 | Test method by input the data that  already exist. (username) | User{  name = “Tony”, surname = “Stark”,  username = “steve”,  password = “tony”, password2 = “tony”, roleId = 2  } | False |

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| 3 | Test method by input without  name. | User{  name = Null, surname = “Rogers”, username = “steve”, password = “1234”, password2 = “1234”, roleId = 1  } | False |
| 4 | Test method by input without  surname. | User{  name = “Steve”,  surname = Null,  username = “steve”, password = “1234”, password2 = “1234”, roleId = 1  } | False |
| 5 | Test method by input without  username. | User{  name = “Steve”, surname = “Rogers”,  username = Null,  password = “1234”, password2 = “1234”, roleId = 1  } | False |
| 6 | Test method by input without  password. | User{  name = “Steve”, surname = “Rogers”, username = “steve”, password = Null, password2 = “1234”, roleId = 1  } | False |
| 7 | Test method by input without  password2. | User{  name = “Steve”, surname = “Rogers”,  username = “steve”,  password = “1234”, password2 = Null, roleId = 1  } | False |
| 8 | Test method by input without  roleId. | User{  name = “Steve”, surname = “Rogers”, username = “steve”, password = “1234”, password2 = “1234”, roleId = Null  } | False |

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| 9 | Test method by input string. | “test” | False |
| 10 | Test method by input empty string. | “” | False |
| 11 | Test method by input an integer. | 00 | False |
| 12 | Test method by nothing input data. | Null | False |

**3.2.4 Unit Test Case (UTC-06): updateUser(User user) : Boolean**

**Description:** Test createUser(User user) method for checking whether the method update the right data into the database. The data is includes name, surname, username, password, password2 and roleId.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input new data. | User{  name = “Steve”, surname = “Rogers”,  username = “steve”,  password = “rogers”, password2 = “rogers”,  roleId = 2  } | True |
| 2 | Test method by input the new data  that already exist. (username) | User{  name = “Steve”, surname = “Rogers”, username = “phithi”, password = “rogers”, password2 = “rogers”, roleId = 2  } | False |
| 3 | Test method by input without  name. | User{  name = Null,  surname = “Rogers”,  username = “steve”, password = “rogers”, password2 = “rogers”, roleId = 2  } | False |
| 4 | Test method by input without  surname. | User{  name = “Steve”,  surname = Null, username = “steve”, password = “rogers”, password2 = “rogers”, roleId = 2  } | False |

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| --- | --- | --- | --- |
| 5 | Test method by input without  username. | User{  name = “Steve”, surname = “Rogers”, username = Null, password = “rogers”, password2 = “rogers”, roleId = 2  } | False |
| 6 | Test method by input without  password. | User{  name = “Steve”, surname = “Rogers”,  username = “steve”,  password = Null,  password2 = “rogers”,  roleId = 2  } | False |
| 7 | Test method by input without  password2. | User{  name = “Steve”, surname = “Rogers”,  username = “steve”,  password = “rogers”, password2 = Null, roleId = 2  } | False |
| 8 | Test method by input without  roleId. | User{  name = “Steve”, surname = “Rogers”, username = “steve”, password = “rogers”, password2 = “rogers”, roleId = Null  } | False |
| 9 | Test method by input string. | “test” | False |
| 10 | Test method by input empty string. | “” | False |
| 11 | Test method by input an integer. | 00 | False |
| 12 | Test method by nothing input data. | Null | False |

**3.2.5 Unit Test Case (UTC-07): deleteUser(Int userId) : Boolean**

**Description:** Test deleteUser(Int userId) method for checking whether the method delete the user from the database.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input use id that  exist in the databasw. | userId = 15 | True |
| 2 | Test method by input user id that  not exist in the database. | userId = 99 | False |

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**3.2.6 Unit Test Case (UTC-08): searchUser(String users) : ArrayList**

**Description:** Test searchUser(String users) method for checking whether the method can search the user from the user table in the database by using name, surname ro username. The expected result will be arraylist of user.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by  input name that exist in the user  table. | users = “Phithiwat” | ArrayList<User>{  User{  id = 15  name = “Phithiwat”, surname = “Sitthitun”,  username = “phithi”,  password = “1234”, pssword2 = “1234”,  roleId = 1  }  } |
| 2 | Test method by  input surname that exist in the  user table | users = “Stark” | ArrayList<User>{  User{  id = 3  name = “Tony”, surname = “Stark”, username = “tony”, password = “tony”, password2 = “tony”, roleId = 3  }  } |
| 3 | Test method by  input username that exist in the user table. | users = “natthakan” | ArrayList<User>{  User{  id = 2  name = “Natthakan”,  surname = “Kaeokanpai”, username = “natthakan”, password = “man”, password2 = “man”, roleId = 2  }  } |
| 4 | Test method by  input empty data. | users = “” | ArrayList<User>{  User{  id = 15,  name = “Phithiwat”, surname = “Sitthitun”,  username = “phithi”,  password = “1234”, pssword2 = “1234”, |

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| --- | --- | --- | --- |
|  |  |  | roleId = 1  } User{ id = 2,  name = “Natthakan”, surname = “Kaeokanpai”,  username = “natthakan”, password = “man”, password2 = “man”,  roleId = 2  } User{  id = 3,  name = “Tony”, surname = “Stark”,  username = “tony”,  password = “tony”, password2 = “tony”, roleId = 3  }  } |
| 5 | Test method by  input data does not exist in the  user table. | users = “abcdefg” | Null |

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**3.3 Class PatientController**

**3.3.1 Unit Test Case (UTC-09): getPatientList() : ArrayList**

**Description:** Test getPatientList() method for checking whether the method get right list of patient on the web application. The expected result will be arraylist of patient.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | The method should return  the right arraylist of patient from the database. | - | ArrayList<Patient>{  Patient{  personal\_id = 1719900241047,  name = “Somkiat”, surname = “Warahala”,  prescription = “Paracetamal 500ml.”,  create\_by = 31, username = “somkiat”,  password = “54139”,  create\_at = 2016-07-31 18:36:28, update\_at = 2016-07-31 18:36:28,  }  Patient{  personal\_id = 1769900241047,  name = “Dangdee”, surname = “Rakna”,  prescription = “Vitamin C 90 ml”,  create\_by = 32 username = “dang”, password = “67045”,  create\_at = 2016-07-30 23:55:17, update\_at = 2016-07-30 23:59:23,  } Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Dextrometrophan”,  create\_by = 32,  username = “vikom”, password = “58706”,  create\_at = 2016-08-01 03:39:11,  update\_at = 2016-08-01 03:39:11,  }  } |

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**3.3.2 Unit Test Case (UTC-10): viewPatient(Int personal\_id) : Mixed**

**Description:** Test viewPatient(Int personal\_id) method for checking whether the method get right patient model object releted to personal id. The expected result will be patient model object.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by input  personal id that exist in the databse.  The method should  return the right patient object related to personal id. | personal\_id =  1719900241047 | Patient{  personal\_id = 1719900241047,  name = “Somkiat”, surname = “Warahala”, prescription = “Paracetamal  500ml.”,  create\_by = 31,  username = “somkiat”, password = “54139”, create\_at = 2016-07-31  18:36:28,  update\_at = 2016-07-31  18:36:28  } |
| 2 | Test method by input  personal id that not exist in the database | int personal\_id =  1111111111111 | False |
| 3 | Test method by not  input personal id. | Null | False |
| 4 | Test method by input  personal id with string value. | string personal\_id =  “personal id” | False |

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**3.3.3 Unit Test Case (UTC-11): createPatient(Patient patient) : Boolean**

**Description:** Test createPatient(Patient patient) method for checking whether the method add the right data into the database. The data is includes personal id, name, surname, prescription, and username.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input new  data. | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.”,  username = “vikom”,  } | True |
| 2 | Test method by input the  data that already exist. (personal id) | Patients{  personal\_id = 1660100485726  name = “Mana”, surname = “Sornjai”, prescription = “Aspirin 75ml.”, username = “mana”,  } | False |
| 3 | Test method by input the  data that already exist. (username) | Patients{  personal\_id = 1660100485726,  name = “Mana”, surname = “Sornjai”, prescription = “Aspirin 750ml.”, username = “vikom”,  } | False |
| 4 | Test method by input  without personal id. | Patients{  personal\_id = Null,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.”, username = “vikom”,  } | False |
| 5 | Test method by input  without name. | Patients{  personal\_id = 1660100485726, name = Null,  surname = “Chomjai”,  prescription = “Paracetamal 500ml.”, username = “vikom”,  } | False |

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| 6 | Test method by input  without surname. | Patient{  personal\_id = 1660100485726,  name = “Vikom”,  surname = Null,  prescription = “Paracetamal 500ml.”, username = “vikom”,  } | False |
| 7 | Test method by input  without prescription. | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = Null,  username = “vikom”,  } | Fasle |
| 8 | Test method by input  without username. | Patients{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.”,  username = Null,  } | False |
| 9 | Test method by input  string. | “test” | False |
| 10 | Test method by input  empty string. | “” | Flase |
| 11 | Test method by input an  integer. | 123 | False |
| 12 | Test method by nothing  input data. | Null | False |

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**3.3.4 Unit Test Case (UTC-12): updatePatient(Patient patient) : Boolean**

**Description:** Test updatePatient(Patient patient) method for checking whether the method update the right data into the database. The data is includes personal id, name, surname, prescription, and username.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input new  data. | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml. Multivitamin, B Complex”, username = “vikom”,  } | True |
| 2 | Test method by input the  data that already exist. (personal id) | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.  Multivitamin, B Complex”, username = “vikom”,  } | False |
| 3 | Test method by input the  data that already exist. (username) | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.,  Multivitamin, B Complex”, username = “somkiat”,  } | False |
| 4 | Test method by input  without personal id. | Patient{  personal\_id = Null, name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.,  Multivitamin, B Complex”, username = “vikom”,  } | False |
| 5 | Test method by input  without name. | Patient{  personal\_id = 1660100485726, name = Null,  surname = “Chomjai”,  prescription = “Paracetamal 500ml.,  Multivitamin, B Complex”, username = “vikom”,  } | False |

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| --- | --- | --- | --- |
| 6 | Test method by input  without surname. | Patient{  personal\_id = 1660100485726,  name = “Vikom”,  surname = Null,  prescription = “Paracetamal 500ml., Multivitamin, B Complex”, username = “vikom”,  } | False |
| 7 | Test method by input  without prescription. | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = Null,  username = “vikom”,  } | Fasle |
| 8 | Test method by input  without username. | Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Paracetamal 500ml.,  Multivitamin, B Complex”,  username = Null,  } | False |
| 9 | Test method by input  string. | “test” | False |
| 10 | Test method by input  empty string. | “” | False |
| 11 | Test method by input an  integer. | 123 | False |
| 12 | Test method by nothing  input data. | Null | False |

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**3.3.5 Unit Test Case (UTC-13): deletePatient(Int personal\_id) : Boolean**

**Description:** Test deletePatient(Int personal\_id) method for checking whether the method delete the patient from the database.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input personal id  that exist in the database. | personal\_id =  179900241047 | True |
| 2 | Test method by input user id that  not exist in the database. | personal\_id =  1234567890987 | False |

**3.3.6 Unit Test Case (UTC-14): searchPatient(String patients) : ArrayList**

**Description:** Test searchPatient(String patients) method for checking whether the method can search the patient from the patient table in the database by using personal id, name or surname. The expected result will be arraylist of patient.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by  input personal id that exist in the patient table. | patients =  “1660100485726” | ArrayList<Patient>{  Patient{  personal\_id = 1660100485726  name = “Vikom”, surname = “Chomjai”,  prescription = “Dextrometrophan”,  create\_by = 32 username = “vikom”, password = “58706”,  create\_at = 2016-08-01 03:39:11 update\_at = 2016-08-01 03:39:11  }  } |
| 2 | Test method by  input name that exist in the user  table. | patients =  “Somkiat” | ArrayList<Patient>{  Patient{  personal\_id = 1719900241047  name = “Somkiat”, surname = “Warahala”,  prescription = “Paracetamal  500ml.”,  create\_by = 31 username = “somkiat”, password = “54139”,  create\_at = 2016-07-31 18:36:28 update\_at = 2016-07-31 18:36:28  }  } |

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| 3 | Test method by  input surname that exist in the user table | patients = “Rakna” | ArrayList<Patient>{  Patient{  personal\_id = 1769900241047  name = “Dangdee”, surname = “Rakna”,  prescription = “Vitamin C 90 ml”,  create\_by = 32 username = “dang”, password = “67045”,  create\_at = 2016-07-30 23:55:17 update\_at = 2016-07-30 23:59:23  }  } |
| 4 | Test method by  input empty data. | patiens = “” | ArrayList<Patient>{  Patient{  personal\_id = 1719900241047,  name = “Somkiat”, surname = “Warahala”, prescription = “Paracetamal  500ml.”,  create\_by = 31,  username = “somkiat”,  password = “54139”,  create\_at = 2016-07-31 18:36:28, update\_at = 2016-07-31 18:36:28,  } Patient{  personal\_id = 1769900241047,  name = “Dangdee”, surname = “Rakna”,  prescription = “Vitamin C 90 ml”,  create\_by = 32  username = “dang”, password = “67045”,  create\_at = 2016-07-30 23:55:17,  update\_at = 2016-07-30 23:59:23,  } Patient{  personal\_id = 1660100485726,  name = “Vikom”, surname = “Chomjai”,  prescription = “Dextrometrophan”,  create\_by = 32,  username = “vikom”, password = “58706”,  create\_at = 2016-08-01 03:39:11, update\_at = 2016-08-01 03:39:11,  }  } |

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| 5 | Test method by  input data does not exist in the patient table. | patients = “qwert” | Null |

**3.4 Class AllergyController**

**3.4.1 Unit Test Case (UTC-15): getAllergyList() : ArrayList**

**Description:** Test getAllergyList() method for checking whether the method get right list of allergy report on the web application. The expected result will be arraylist of allergy.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | The method should return  the right arraylist of allergy report from the  database. | - | ArrayList<Allergy>{  Allergy{  allergy\_id = 8,  personal\_id = 1759900241047,  name = “Phithiwat”, surname = “Sitthitun”,  allergy\_drug = “Pyramidone,  co-trimoxazole, aspirin”,  reporter = 32,  create\_at = 2016-07-30 04:15:11, update\_at = 2016-07-31 04:42:21,  }  Allergy{  allergy\_id = 10,  personal\_id = 1600100485726,  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C”,  reporter = 32,  create\_at = 2016-07-31 04:20:43, update\_at = 2016-07-31 04:20:43,  }  Allergy{  allergy\_id = 11,  personal\_id = 1779900241047,  name = “Somjai”, surname = “Ngaila”,  allergy\_drug = “Multivitamins”,  reporter = 31,  create\_at = 2016-07-31 18:47:11, update\_at = 2016-07-31 18:47:11,  }  } |

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**3.4.2 Unit Test Case (UTC-16): viewAllergy(Int allergy\_id) : Mixed**

**Description:** Test viewAllergy(Int allergy\_id) method for checking whether the method get right allergy model object releted to allergy id. The expected result will be allergy model object.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by input  allergy id that exist in the databse.  The method should  return the right allergy object related to allergy id. | int allergy\_id = 11 | Allergy{  allergy\_id = 11,  personal\_id = 1779900241047,  name = “Somjai”, surname = “Ngaila”,  allergy\_drug = “Multivitamins”,  reporter = 31,  create\_at = 2016-07-31 18:47:11, update\_at = 2016-07-31 18:47:11  } |
| 2 | Test method by input  allergy id that not exist in the database | int allergy\_id = 99 | False |
| 3 | Test method by not  input allergy id. | Null | False |
| 4 | Test method by input  allergy id with string value. | string allergy\_id =  “allergyid” | False |

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**3.4.3 Unit Test Case (UTC-17): getAllergyList2() : ArrayList**

**Description:** Test getAllergyList2() method for checking whether the method get right list of allergy report on the web application. The expected result will be arraylist of allergy.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | The method should return  the right arraylist of allergy report from the  database. | - | ArrayList<Allergy>{  Allergy{  allergy\_id = 8,  personal\_id = 1759900241047,  name = “Phithiwat”, surname = “Sitthitun”,  allergy\_drug = “Pyramidone,  co-trimoxazole, aspirin”,  reporter = 32,  create\_at = 2016-07-30 04:15:11, update\_at = 2016-07-31 04:42:21  }  Allergy{  allergy\_id = 10,  personal\_id = 1600100485726,  name = “Natthakan”, surname = “Kaeokanpai”, allergy\_drug = “Vitamin C”, reporter = 32,  create\_at = 2016-07-31 04:20:43, update\_at = 2016-07-31 04:20:43  }  Allergy{  allergy\_id = 11,  personal\_id = 1779900241047,  name = “Somjai”, surname = “Ngaila”, allergy\_drug = “Multivitamins”, reporter = 31,  create\_at = 2016-07-31 18:47:11, update\_at = 2016-07-31 18:47:11,  }  } |

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**3.4.4 Unit Test Case (UTC-18)viewAllergy2(Int allergy\_id) : Mixed**

**Description:** Test viewAllergy2(Int allergy\_id) method for checking whether the method get right allergy model object releted to allergy id. The expected result will be allergy model object.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by input  allergy id that exist in the databse.  The method should  return the right allergy object related to allergy id. | allergy\_id = 8 | Allergy{  allergy\_id = 8,  personal\_id = 1759900241047,  name = “Phithiwat”, surname = “Sitthitun”,  allergy\_drug = “Pyramidone,  co-trimoxazole, aspirin”,  reporter = 32,  create\_at = 2016-07-30 04:15:11, update\_at = 2016-07-31  04:42:21,  } |
| 2 | Test method by input  allergy id that not exist in the database | allergy\_id = 00 | False |
| 3 | Test method by not  input allergy id. | Null | False |
| 4 | Test method by input  allergy id with string value. | allergy\_id =  “allergyreport” | False |

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**3.4.5 Unit Test Case (UTC-19): createAllergy(Allergy allergy) : Boolean**

**Description:** Test createAllergy(Allergy allergy) method for checking whether the method add the right data into the database. The data is includes personal id, name, surname, and allery drugs.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input new  data. | Allergy{  personal\_id = 1600100485726,  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C”,  } | True |
| 2 | Test method by input the  data that already exist. (personal id) | Allergy{  personal\_id = 1600100485726,  name = “Phithiwat”, surname = “Sitthitun”, allergy\_drug = “Pyramidone, Co-Trimoxazole, Aspirin”,  } | False |
| 3 | Test method by input  without personal id. | Allergy{  personal\_id = Null,  name = “Natthakan”, surname = “Kaeokanpai”, allergy\_drug = “Vitamin C”,  } | False |
| 4 | Test method by input  without name. | Allergy{  personal\_id = 1600100485726, name = Null,  surname = “Kaeokanpai”, allergy\_drug = “Vitamin C”,  } | False |
| 5 | Test method by input  without surname. | Allergy{  personal\_id = 1600100485726,  name = “Natthakan”,  surname = Null,  allergy\_drug = “Vitamin C”,  } | False |
| 6 | Test method by input  without allergy drug. | Allergy{  personal\_id = 1600100485726  name = “Natthakan”, surname = “Kaeokanpai”, allergy\_drug = Null  } | False |
| 7 | Test method by input  string. | “Allergy” | False |
| 8 | Test method by input  empty string. | “” | False |

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| 9 | Test method by input an  integer. | 500 | False |
| 10 | Test method by nothing  input data. | Null | False |

**3.4.6 Unit Test Case (UTC-20): updateAllergy(Allergy allergy) : Boolean**

**Description:** Test updateAllergy(Allergy allergy) method for checking whether the method update the right data into the database. The data is includes personal id, name, surname, and allergy drug.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input new  data. | Allergy{  personal\_id = 1600100485726,  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C,  Multivitamins”,  } | True |
| 2 | Test method by input the  data that already exist. (personal id) | Allergy{  personal\_id = 1759900241047,  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C,  Multivitamins”,  } | False |
| 3 | Test method by input  without personal id. | Allergy{  personal\_id = Null,  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C,  Multivitamins”,  } | False |
| 4 | Test method by input  without name. | Allergy{  personal\_id = 1600100485726, name = Null,  surname = “Kaeokanpai”, allergy\_drug = “Vitamin C,  Multivitamins”,  } | False |

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| --- | --- | --- | --- |
| 5 | Test method by input  without surname. | Allergy{  personal\_id = 1600100485726,  name = “Natthakan”,  surname = Null,  allergy\_drug = “Vitamin C”,  } | False |
| 6 | Test method by input  without allergy drug. | Allergy{  personal\_id = 1600100485726  name = “Natthakan”, surname = “Kaeokanpai”, allergy\_drug = Null  } | False |
| 7 | Test method by input  string. | “Allergy” | False |
| 8 | Test method by input  empty string. | “” | False |
| 9 | Test method by input an  integer. | 500 | False |
| 10 | Test method by nothing  input data. | Null | False |

**3.4.7 Unit Test Case (UTC-21): deleteAllergy(Int allergy\_id) : Boolean**

**Description:** Test deleteAllergy(Int allergy\_id) method for checking whether the method delete the allergy from the database.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected**  **Result** |
| 1 | Test method by input allergy id that  exist in the database. | allergy\_id = 8 | True |
| 2 | Test method by input allergy id that  not exist in the database. | allergy\_id = 789 | False |

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**3.4.8 Unit Test Case (UTC-22): searchAllergy(String allergies) : ArrayList**

**Description:** Test searchAllergy(String allergies) method for checking whether the method can search the allergy report from the allergy table in the database by using personal id, name or surname. The expected result will be arraylist of allergy report.

**Prerequisites or Test input:** The test data is available at Appendix A.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method by  input personal id that exist in the allergy table. | allergies =  “1759900241047” | ArrayList<Allergy>{  Allergy{  allergy\_id = 8  personal\_id = 1759900241047  name = “Phithiwat”, surname = “Sitthitun”,  allergy\_drug = “Pyramidone, co-trimoxazole, aspirin”,  reporter = 32  create\_at = 2016-07-30 04:15:11 update\_at = 2016-07-31 04:42:21  }  } |
| 2 | Test method by  input name that exist in the user  table. | allergies = “Somjai” | ArrayList<Allergy>{  Allergy{  allergy\_id = 11  personal\_id = 1779900241047  name = “Somjai”, surname = “Ngaila”,  allergy\_drug = “Multivitamins”,  reporter = 31  create\_at = 2016-07-31 18:47:11 update\_at = 2016-07-31 18:47:11  }  } |
| 3 | Test method by  input surname that exist in the  user table | allergies =  “Kaeokanpai” | ArrayList<Allergy>{  Allergy{  allergy\_id = 10  personal\_id = 1600100485726  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C”,  reporter = 32  create\_at = 2016-07-31 04:20:43 update\_at = 2016-07-31 04:20:43  }  } |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |
| --- | --- | --- | --- |
| 4 | Test method by  input empty data. | allergies = “” | ArrayList<Allergy>{  Allergy{  allergy\_id = 8,  personal\_id = 1759900241047,  name = “Phithiwat”, surname = “Sitthitun”, allergy\_drug = “Pyramidone, co-trimoxazole, aspirin”, reporter = 32,  create\_at = 2016-07-30 04:15:11, update\_at = 2016-07-31 04:42:21,  } Allergy{ allergy\_id = 10,  personal\_id = 1600100485726,  name = “Natthakan”, surname = “Kaeokanpai”,  allergy\_drug = “Vitamin C”,  reporter = 32,  create\_at = 2016-07-31 04:20:43, update\_at = 2016-07-31 04:20:43,  } Allergy{  allergy\_id = 11,  personal\_id = 1779900241047,  name = “Somjai”, surname = “Ngaila”,  allergy\_drug = “Multivitamins”,  reporter = 31,  create\_at = 2016-07-31 18:47:11, update\_at = 2016-07-31 18:47:11,  }  } |
| 5 | Test method by  input data does not exist in the  allergy table. | allergies = “aaaaa” | Null |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**3.5 Class LoginEvenManager**

**3.5.1 Unit Test Case (UTC-23): Login() : void**

**Description:** Test for check evaluation result of procedure when the user login to the system, the system will return ['status'] = 1 when user login by input both username and password in the text field and return ['status'] = 0 when user login only username or password or did not input both of username and password.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method Login() by input a  username and password. | username = "username";  password = "password"; | ['status'] = 1 |
| 2 | Test method Login() by input a  username without password. | username = "username";  password = Null | ['status'] = 0 |
| 3 | Test method Login() by input a  password without username. | username = Null  password = "password"; | ['status'] = 0 |
| 4 | Test method Login() by input a  username and password. | username = Null  password = Null | ['status'] = 0 |

**3.6 Class PreferencesManager**

**3.6.1 Unit Test Case (UTC-24): getUserInformation() : UserInformationModel**

**Description:** Test for check the result of getUserInformation () that can get the information by the result will be not Null.

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test**  **case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method  getUserInformation() that can get the information by input  UserInformationModel. | UserInformationModel | UserInformationM  odel is not Null |

|  |  |  |  |  |  |
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**3.7 Class QRCodeEncoder**

**3.7.1 Unit Test Case (UTC-25): encode(String contents, BarcodeFormat format, int width, int height): BitMatrix**

**Description:** Test for check the method encode() can input the value and then return the same input value by input .

**Test cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test case ID** | **Description** | **Input** | **Expected Result** |
| 1 | Test method encode() that can  return the same value by input the value (String = "contents",  BarcodeFormat = “format”, int  = “9”,int = “9”) | BitMatrix {String =  "contents", BarcodeFormat =  “format”, int =  “9”,int = “9”)} | BitMatrix {contents =  "contents", BarcodeFormat  = “format”, int = “9”,int =  “9”)} |

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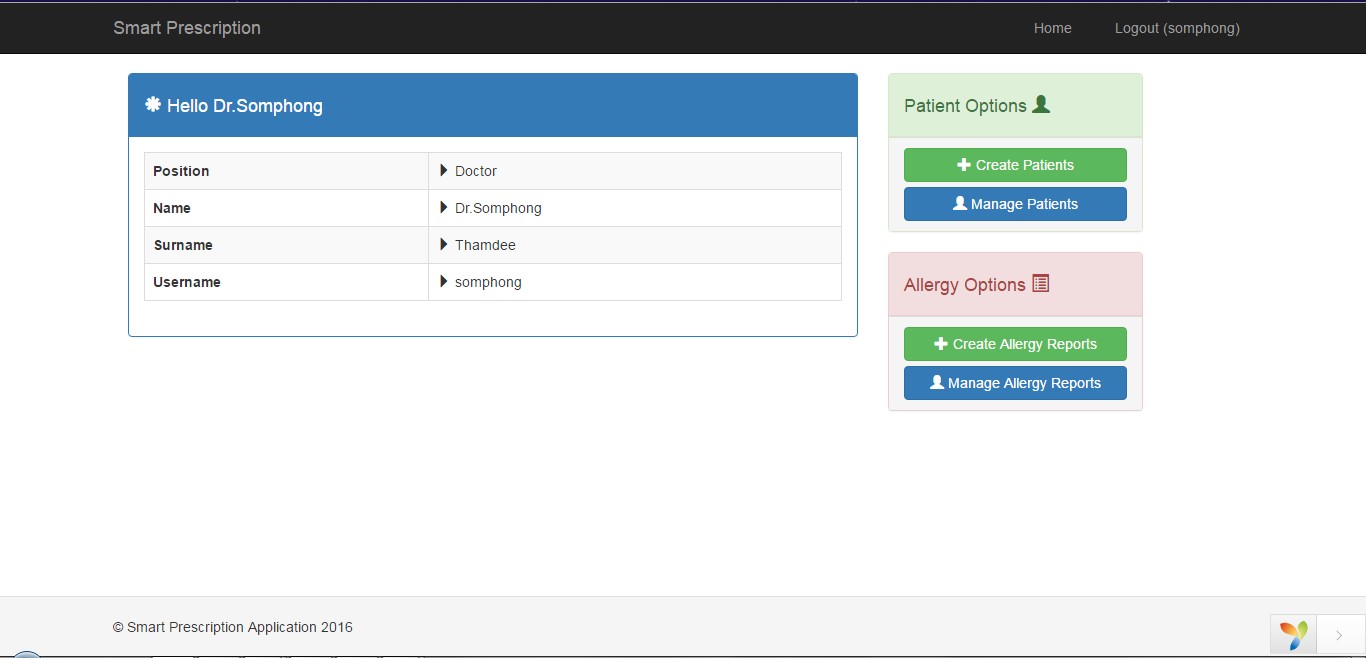
**Chapter Four | System Testing**

**System Test Case (STC-01): Doctors can view a doctor home page on the web application.**

|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-01. Doctors view a doctor home  page on the web application. |
| **Prerequisite** | Doctor must login. |
| **Prepared Data** | The system prepare the information from the database which includes  position, name, surname and username. |
| **Test Steps** | 1. Doctor selects to “Home” on menu bar. |

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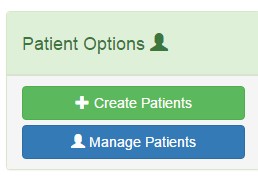
**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 1.1 | Test that doctor login to the web  application successful. | - | The system shall display the doctor home page which includes information of current  doctor, patient options menu box and allergy options menu box. Result : |

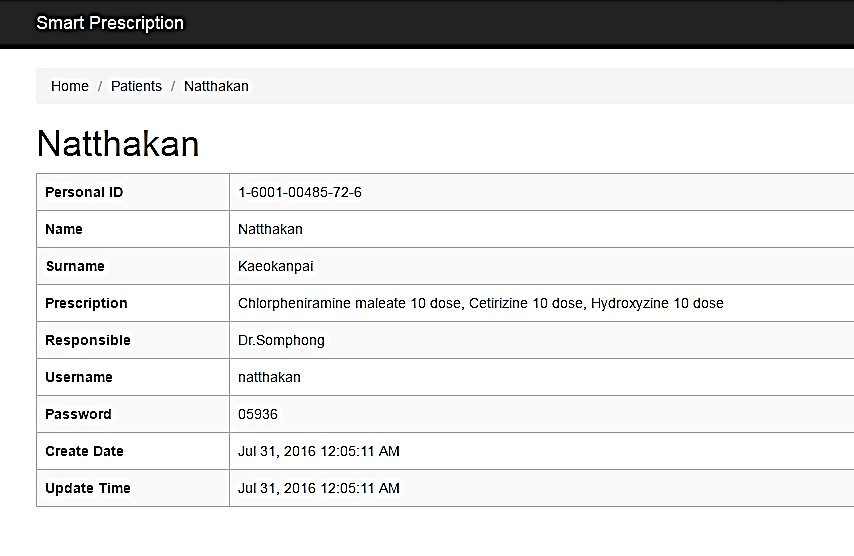
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**System Test Case (STC-02): Doctors can create patient’s profiles on the web application application by inputting personal id, name, surname, prescription or username.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-02. Doctors can create patient’s  profiles on the web application application by inputting personal id, name, surname, prescription or username. |
| **Prerequisite** | Doctor must login. The system shall display a doctor home page. |
| **Prepared Data** | The system prepare the create form which includes personal id, name,  surname, prescription, and username. |
| **Test Steps** | 1. Doctor selects to “Create Patient” on patient options menu box.  2. Input information into the create form for create the patient profile.  3. Doctor clicks on “Create” button. |

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|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 1.1 | Test that doctor inputs personal id  is number 13 digits. Input name, surname, and responsible are  English letters and input prescription. | personal\_id =  “1610010025485”, name = “Natthakan”,  surname = “Kaeokanpai”,  prescription =  “Chlorpheniramine maleate  10 dose, Cetirizine 10 dose,  Hydroxyzine 10 dose”, username = “natthakan” | System saves the patient’s information to the database and also display the  patient’s profile.  Result : |
| 1.2 | Test that doctor inputs personal id  that already exist. | personal\_id =  “1759900241047” | System displays error message “Personal ID has already been exist.”.  Result : |

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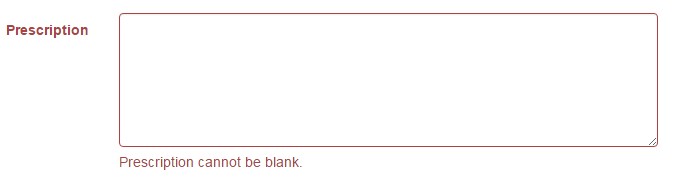
|  |  |  |  |
| --- | --- | --- | --- |
| 1.2 | Test that doctor inputs personal id  is invalid. | personal\_id =  “1111111111111” | System displays error message “Personal ID is Invalid”.  Result : |
| 1.3 | Test that doctor inputs personal id  is number but less than 13 digits. | personal\_id = “16100185” | System displays error message “Personal ID is Invalid”.  Result : |
| 1.4 | Test that doctor do not input  personal id. | 一 | System displays error message “Personal ID cannot be blank”.  Result : |
| 1.5 | Test that doctor do not input  name. | 一 | System displays error message “Name cannot be blank”.  Result : |

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| --- | --- | --- | --- |
| 1.6 | Test that doctor inputs name is  not English letters. | name = “ณฐกานต” | System displays error message “Name is invalid  Result : |
| 1.7 | Test that doctor input name is  number. | name = “1234” | System displays error message “Name is invalid  Result : |
| 1.8 | Test that doctor do not inputs  surname. | 一 | System displays error message “Surname cannot be blank”.  Result : |
| 1.9 | Test that doctor inputs surname is  not English letters. | surname = “แกวกนภย” | System displays error message “Surname is invalid”.  Result : |

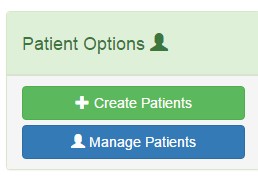
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|  |  |  |  |
| --- | --- | --- | --- |
| 1.10 | Test that doctor inputs surname is  number. | surname = “1113” | System displays error message “Surname is invalid”.  Result : |
| 1.9 | Test that doctor do not input  prescription. | 一 | System displays error message “Prescription cannot be blank”.  Result : |
| 1.12 | Test that doctor do not input  username. | 一 | System displays error message “Username cannot be blank”.  Result : |
| 1.13 | Test that doctor inputs username  that exist on database. | username = “phithi” | System displays error message “Username has already been taken. Please change”.  Result : |

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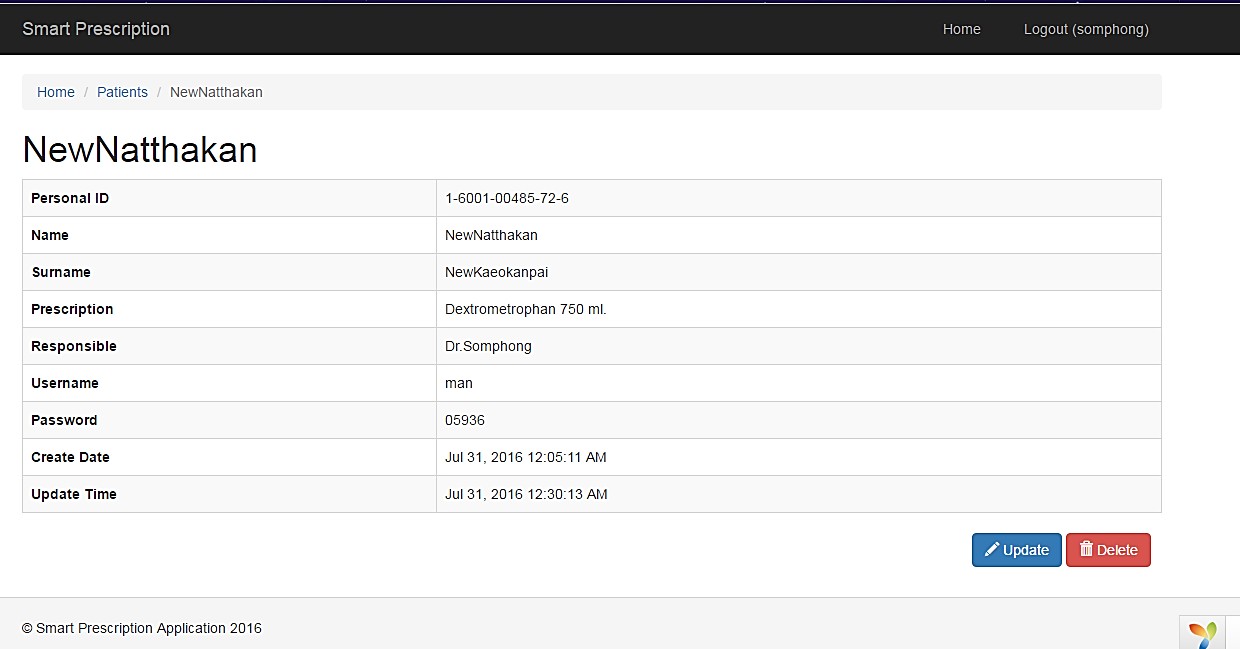
**System Test Case (STC-03): Doctors can update patient’s profiles on the web application application by inputting personal id, name, surname, prescription and username.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-03. Doctors can update  patient’s profiles on the web application application by inputting personal id, name, surname, prescription and username. |
| **Prerequisite** | Doctor has create patient’s profile successfully before. The system shall  display a doctor home page. |
| **Prepared Data** | The system prepare the old information and update form which includes  personal id, name, surname, prescription, and username. |
| **Test Steps** | 1. Doctor selects “Manage Patients” button on patient options menu box.  2. Doctor selects “Update” button () in the options column of table.  3. Input new information into update form for update patient’s profile.  4. Doctor selects “Update” button. |

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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 2.1 | Test that input the new  information to update the defult information. Input personal id  are number 13 digits. Input name, surname in English  language and input prescription, and username. | Personal\_id =  “1610010025485”,  name = “NewNatthakan”,  surname = “NewKaeokanpai”, prescription = “Dextrometrophan 750 ml”,  username = “man” | System saves the new patient’s information to the database and also displays the  patient’s profile. Result : |
| 2.3 | Test that doctor inputs personal  id that already exist. | Personal\_id =  “1759900241047” | System displays error message “Personal ID has already been exist.”.  Result : |

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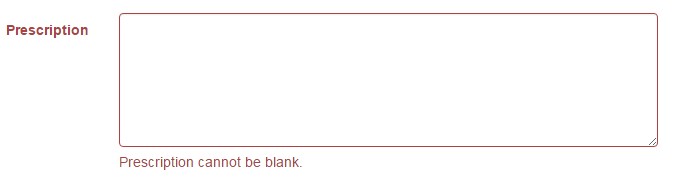
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| --- | --- | --- | --- |
| 2.2 | Test that doctor inputs personal  id is invalid. | Personal\_id =  “1111111111111” | System displays error message “Personal ID is Invalid”.  Result : |
| 2.3 | Test that doctor inputs personal  id is number but less than 13 digits. | Personal\_id = “16100185” | System displays error message “Personal ID is Invalid”.  Result : |
| 2.4 | Test that doctor do not input  personal id. | 一 | System displays error message “Personal ID cannot be blank”.  Result : |
| 2.4 | Test that doctor do not input  name. | 一 | System displays error message “Name cannot be blank”.  Result : |
| 2.5 | Test that doctor inputs name is  not English letters. | Name = “ณฐกานต” | System displays error message “Name is invalid  Result : |

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|  |  |  |  |
| --- | --- | --- | --- |
| 2.6 | Test that doctor input name is  number. | Name = “1234” | System displays error message “Name is invalid  Result : |
| 2.7 | Test that doctor do not inputs  surname. | 一 | System displays error message “Surname cannot be blank”.  Result : |
| 2.8 | Test that doctor inputs surname  is not English letters. | Surname = “แกวกนภย” | System displays error message “Surname is invalid”.  Result : |
| 2.9 | Test that doctor inputs surname  is number. | Surname = “1113” | System displays error message “Surname is invalid”.  Result : |

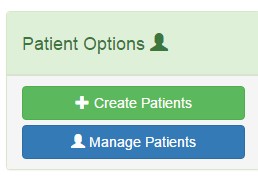
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|  |  |  |  |
| --- | --- | --- | --- |
| 2.10 | Test that doctor do not input  prescription. | 一 | System displays error message “Prescription cannot be blank”.  Result : |
| 2.11 | Test that doctor do not input  username. | 一 | System displays error message “Username cannot be blank”.  Result : |
| 2.12 | Test that doctor inputs username  that exist on database. | Username = “phithi” | System displays error message “Username has already been taken. Please change”.  Result : |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**System Test Case (STC-04): Doctors can delete patient’s profiles on**

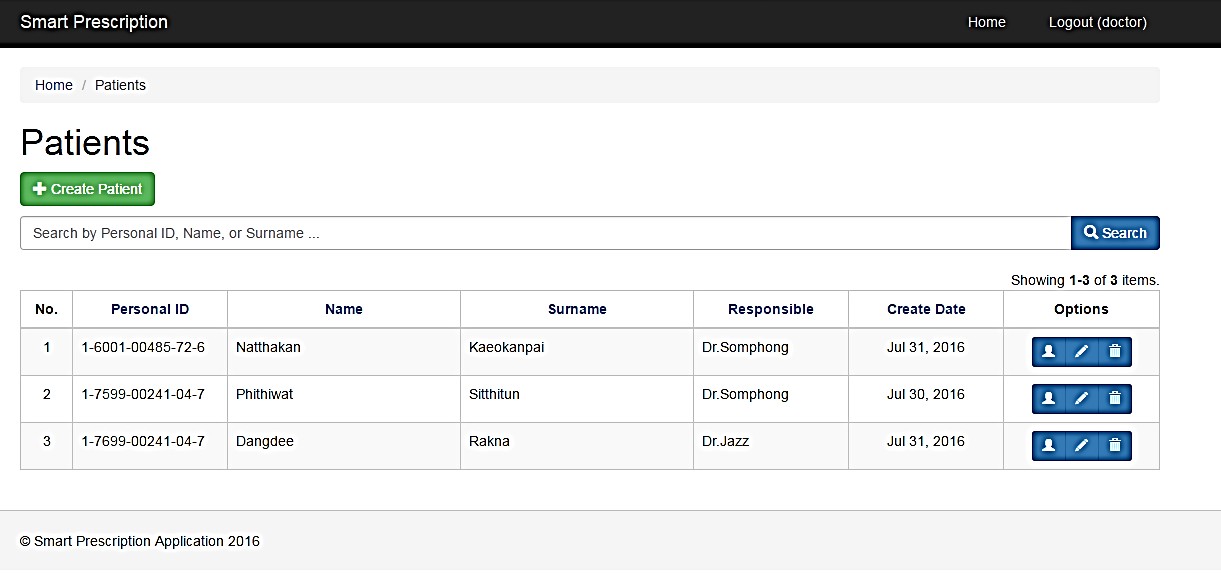
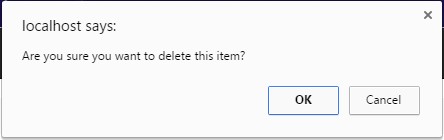


**the web application.**

|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-04. Doctors can delete  patient’s profiles on the web application. |
| **Prerequisite** | Doctor has create patient’s profile successfully before. The system shall  display a doctor home page. |
| **Prepared Data** | The system prepare the patient’s profiles. |
| **Test Steps** | 1. Doctor selects “Manage Patient” button on patient options menu box.  2. Doctor selects “Delete” ( ) button in the options column of table.  3. Doctor select ‘OK’ button on the confirm box. |

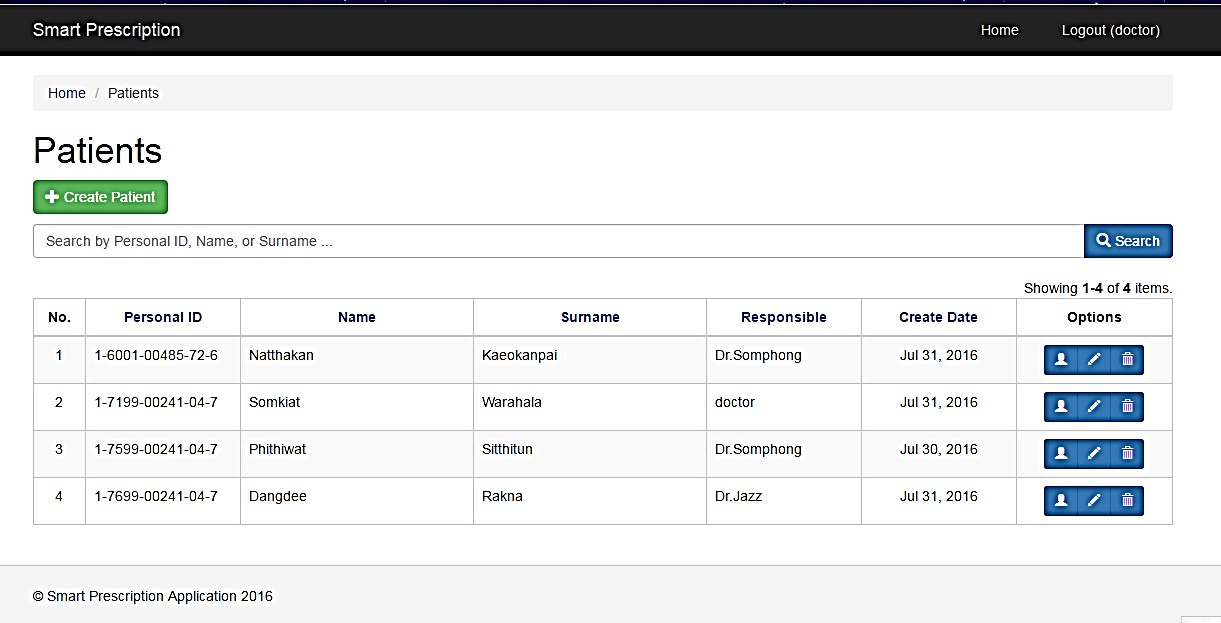
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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 3.1 | Test that doctor clicks on  ‘Delete’ button for delete  patient’s profile from the  database. | Click on ‘Delete’ button. | The system interface to show the confirm box “Are you sure you want to delete this  item?” and delete from database after click button ‘OK’.  Result: |
| 3.2 | Test that doctor click on  ‘OK’ button for confirm  the deleteion. | Click on ‘Ok’ button. | The system display list of patient’s profile without profile that deleted.  Result: |

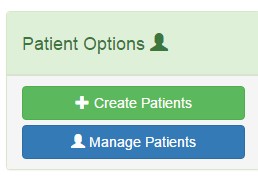
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| --- | --- | --- | --- |
| 3.3 | Test that doctor click on  ‘Cancel’ button for cancel  the deletetion. | Click on ‘Cancel’ button. | The system display list of patient’s profile that any patient’s profile not to deleted.  Result: |

|  |  |  |  |  |  |
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**System Test Case (STC-05): Doctors can search patient’s profiles on**

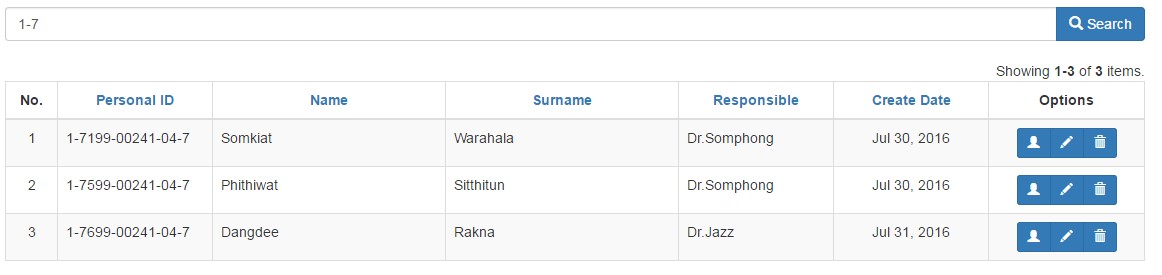


**the web application by using personal id, name or surname.**

|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-05. Doctors can search  patient’s profiles on the web application by using personal id, name, or surname. |
| **Prerequisite** | Doctor has create a patient’s profile successfully. The system shall  display a doctor home page. |
| **Prepared Data** | The system prepare the information from the database to searching about  personal id, name and surname. |
| **Test Steps** | 1. Doctor selects “Manage Patient” button on patient options menu box.  2. Input the data about personal ID, name, or surname for searching.  3. Doctor selects “Seach” button. |

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| --- | --- | --- | --- | --- | --- |
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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 4.1 | Test that input personal ID is  exist in the database. | personal id =  “1-7599-00241-04-7” | System displays patient’s informations.  Result : |
| 4.2 | Test that input some digits of  personal ID are exist in the database. | personal id = “1-7” | System displays patient’s informations.  Result : |
| 4.3 | Test that input personal ID is  not exist in the database. | personal id =  “1-1111-11111-11-1” | System displays message “No results found”.  Result : |

|  |  |  |  |  |  |
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|  |  |  |  |
| --- | --- | --- | --- |
| 4.4 | Test that input name is exist in  the database. | name = “Phithiwat” | System displays patient’s information.  Result : |
| 4.5 | Test that input some letters of  name are exist in the database. | name = “wat” | System displays patient’s information.  Result : |
| 4.6 | Test that input name is not  exist in the database. | name = “Buggy” | System displays message “No results found.”  Result : |
| 4.7 | Test that input surname is exist  in the database. | surname = “Kaeokanpai” | System displays patient’s information.  Result : |

|  |  |  |  |  |  |
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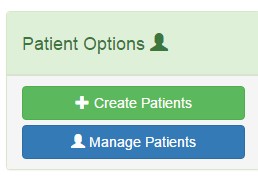


|  |  |  |  |
| --- | --- | --- | --- |
| 4.8 | Test that input some letters of  surname is exist in the database. | surname = “kan” | System displays patient’s information.  Result : |
| 4.9 | Test that input surname is not  exist in the database. | surname = “Madee” | System displays message “No results found”  Result : |

|  |  |  |  |  |  |
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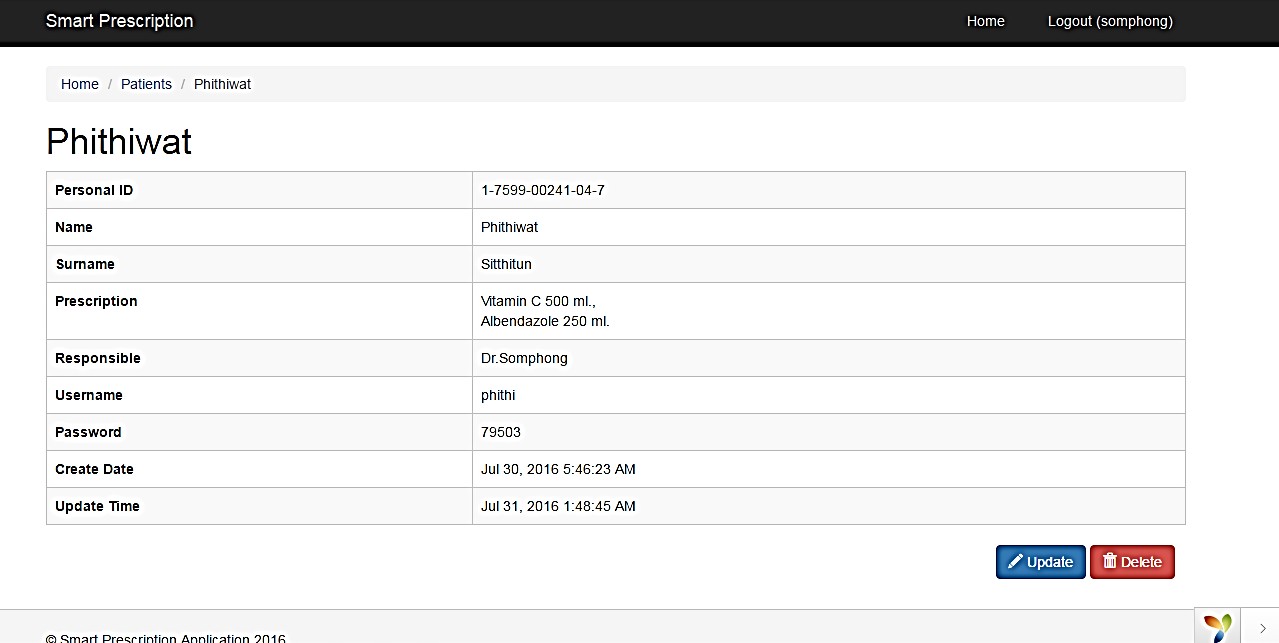
**System Test Case (STC-06): Doctors can view patient’s profiles on the**

**web application.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-05. Doctors can view patient’s  profiles on the web application. |
| **Prerequisite** | Doctor has create patient’s profile successful. The system shall display a  doctor home page. |
| **Prepared Data** | The system prepare the information from the database which includes  personal id, name, surname, prescription, responsible, username, password, create date time and update date time. |
| **Test Steps** | 1. Doctor selects “Manage Patient” button on patient options menu box.  2. Doctor selects “View” button ( ) in the options column of table. |

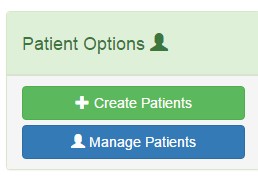
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| Document Name | SMART-PRESCRIPTION-  APPLICATION-[Test-Plan\_ V3.0] | Owner | Natthakan  Kaeokanpai, Phithiwat Sitthitun | Page | 54 |
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|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 5.1 | Test that doctor click on ‘View’  button to view the patient’s  profile. | Click on ( ) ‘View’  button | System displays the patient’s profile, which includes personal ID, name, surname,  prescription, responsible, username, password, create date and update date of  patient’s profiles, update button and delete button also. Result : |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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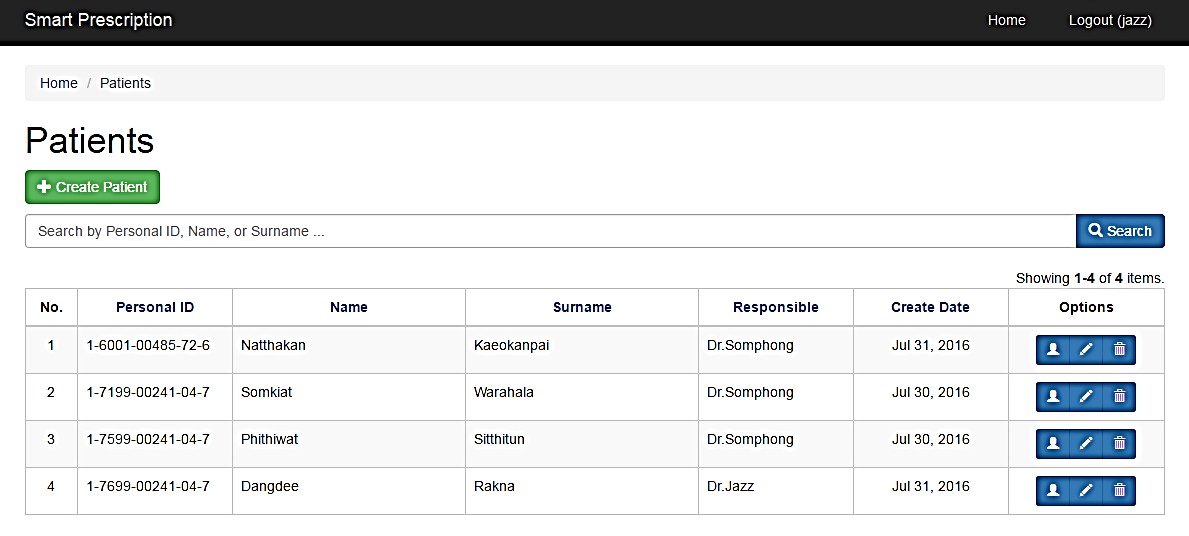
**System Test Case (STC-07): Doctors can view a list of patient’s**



**profiles on the web application.**

|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-06. Doctors can view a list of  patient’s profiles on the web application. |
| **Prerequisite** | Doctor must login and has create patient’s profile successful. The system  shall display a doctor home page. |
| **Prepared Data** | The system prepare the patient’s profiles. |
| **Test Steps** | 1. Doctor selects “Manage Patient” button on patient options menu box. |

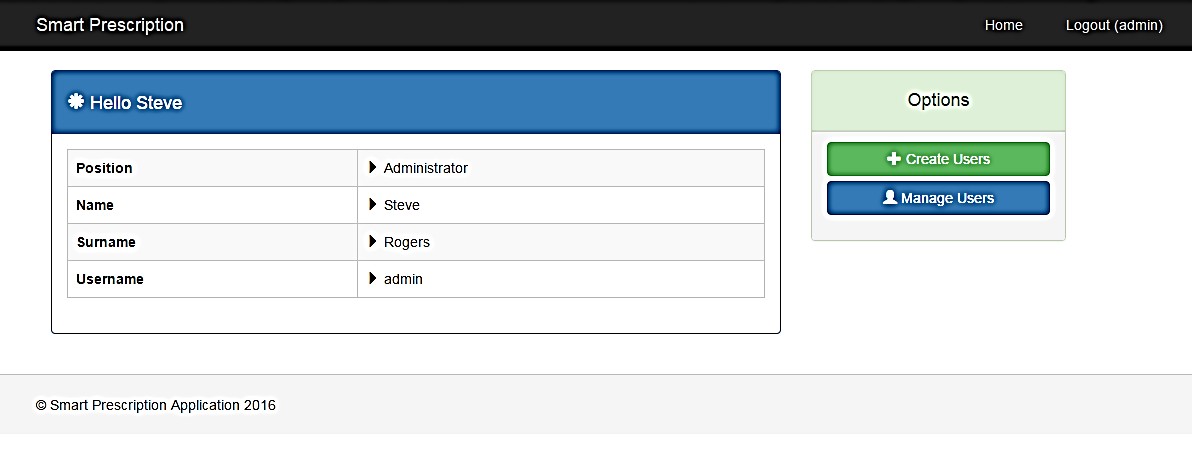
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 6.1 | Test that doctor click  ‘Manage Patients’ in  the patient options menu box to view the  list of patient’s profile. | Click ‘Manage Patient’ on patient  options menu box. | System displays the lists of patient’s profile on the management page..  Result : |

|  |  |  |  |  |  |
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**System Test Case (STC-08): Administrators can view an admin home page on the web application.**



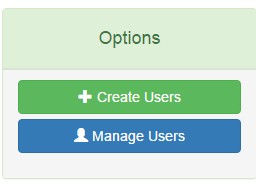
|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-08. Administrators can view a  doctor home page on the web application. |
| **Prerequisite** | Administator must login. |
| **Prepared Data** | The system prepare the information from database which includes position,  name, surname and username. |
| **Test Steps** | 1. Administrator selects to “Home” on menu bar. |

**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 1.1 | Test that admin login to the web  application successful. | - | The system shall display the doctor home page which includes information of current  admin, user options menu box. Result : |

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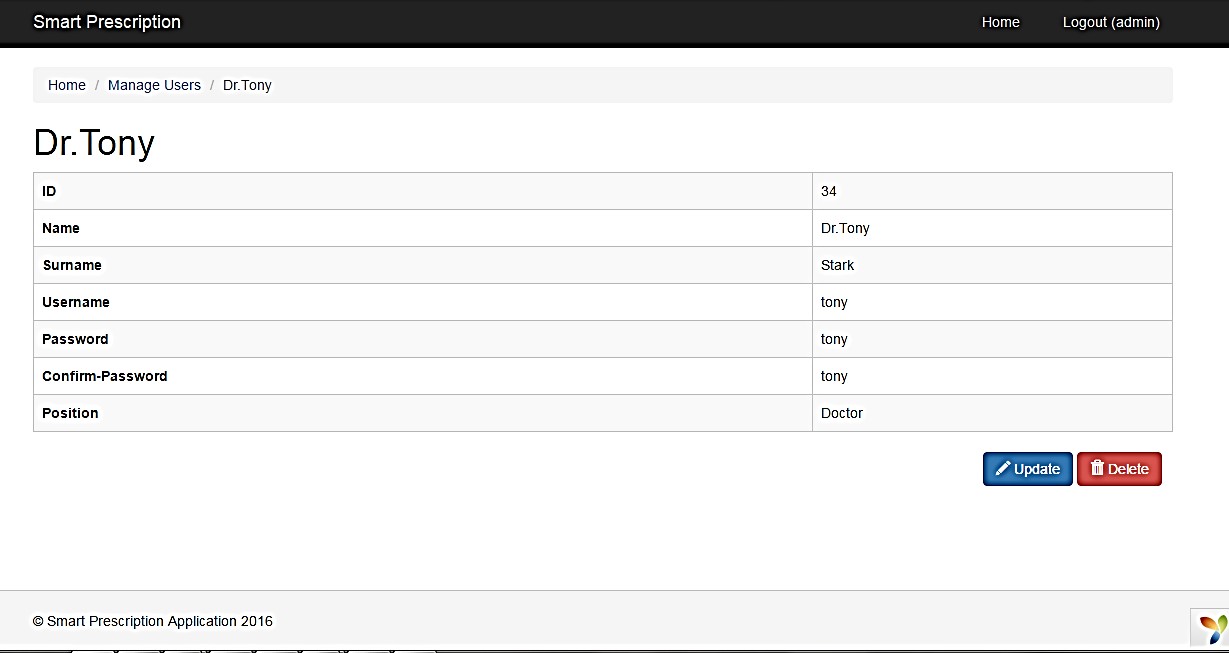
**System Test Case (STC-09): Administrators can add user’s profiles on the web application by inputting name, surname, username, password, confirm-password and position.**



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| --- | --- |
| **Test**  **Description** | This test case is a system testing for URS-09. Administrators can add user’s  profiles on the web application. |
| **Prerequisite** | Administrators must login. The system shall display an admin home page. |
| **Prepared Data** | The system prepare the create form which includes name, surname, username,  password, confirm-password and position. |
| **Test Steps** | 1. Administrator selects “Create User” in options menu box.  2. Input information into the create form for create the user.  3. Administrator clicks on “Create” button. |

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**Test cases**



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| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 7.1 | Test that admin input name and  surname in English language and input username, password,  and password2. Selects position. | name = “Dr.Tony”,  surname = “Stark”  username = “tony”, password = “tony”,  password2 = “tony”  role = 2 | System saves the user’s information to the database and also display the  patient’s profile.  Result : |
| 7.2 | Test that admin do not input  name. | 一 | System displays error message “Name cannot be blank”.  Result : |

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| --- | --- | --- | --- |
| 7.3 | Test that admin do not input  surname. | 一 | System displays error message “Surname cannot be blank.  Result : |
| 7.4 | Test that admin do not input  username. | 一 | System displays error message “Username cannot be blank”.  Result : |
| 7.5 | Test that admin inputs username  that exist in database. | username = “Test” | System displays error message “Username has already been taken. Please change.”  Result : |
| 7.6 | Test that admin inputs name is  not English letters. | name = “โทน” | System displays error message “Name is invalid  Result : |

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|  |  |  |  |
| --- | --- | --- | --- |
| 7.7 | Test that admin inputs surname  is not English letters. | surname = “123” | System displays error message “Surname is invalid”.  Result : |
| 7.8 | Test that admin do not input  password. | 一 | System displays error message “Password cannot be blank”.  Result : |
| 7.9 | Test that admin do not input  confirm-password. | 一 | System displays error message “Confirm-Password cannot be blank”.  Result : |
| 7.10 | Test that admin inputs password  or confirm password are not match. | password = “test”  confirm-password = “test1” | System displays error message “Password and Confirm-Password do not Match, Please  try again.”  Result : |

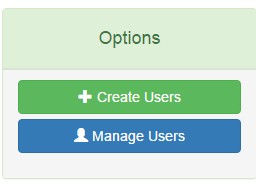
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| --- | --- | --- | --- |
| 7.11 | Test that admin do not select  position. | 一 | System displays error message “Position cannot be blank.”.  Result : |

|  |  |  |  |  |  |
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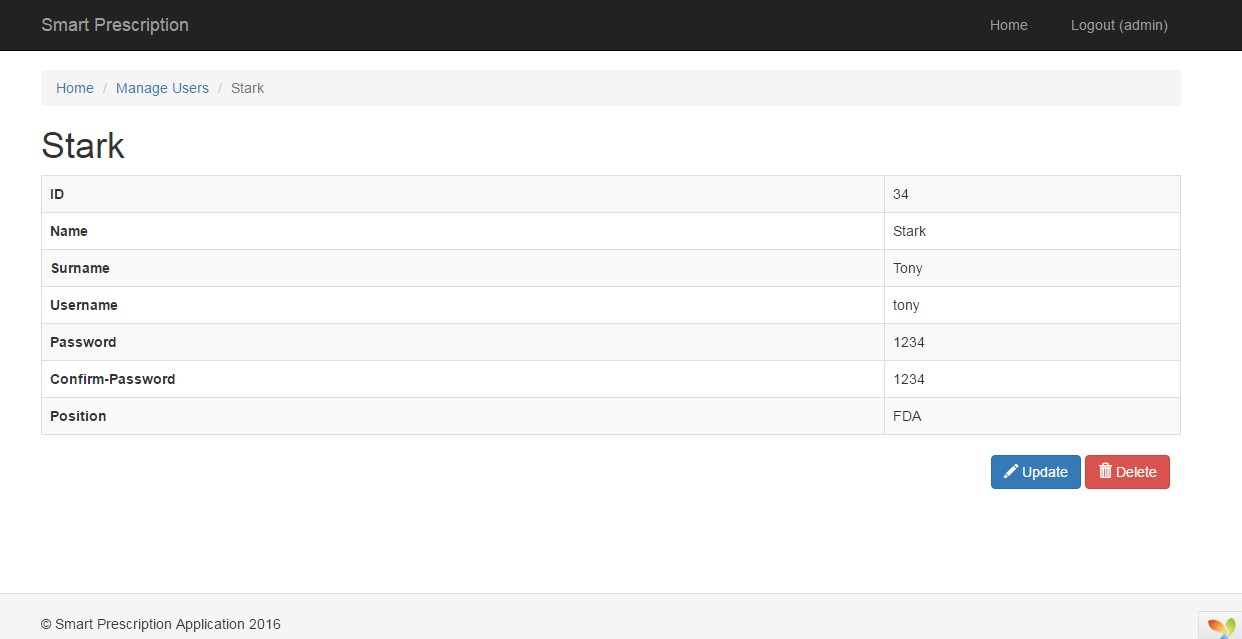
**System Test Case (STC-10): Administrators can update user’s profiles on the web application by inputting name, surname, username, password, confirm-password and position.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-10. Administrators can update  user’s profiles on the web application. |
| **Prerequisite** | Administrator has create user successfully before. The system shall display  an admin home page. |
| **Prepared Data** | The system prepare the old information and update form which includes  name, surname, username, password, confirm-password and position. |
| **Test Steps** | 1. Admin selects “Manage Users” button on options menu box.  2. Admin selects “Update” button () in the options column of table.  3. Input new information into update form for update user information.  4. Admin selects “Update” button. |

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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 8.1 | Test that admin the new  information to update the defult information. Select position and  input name and surname in  English language and input username, password, and  password2. Selects group. | name = “Stark”,  surname = “Tony”  username = “tony”, password = “1234”,  password2 = “1234”  role = 3 | System saves the user’s information to the database and also display the  patient’s profile. Result : |
| 8.2 | Test that admin do not input  name. | 一 | System displays error message “Name cannot be blank”.  Result : |

|  |  |  |  |  |  |
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| --- | --- | --- | --- |
| 8.3 | Test that admin do not input  surname. | 一 | System displays error message “Surname cannot be blank.  Result : |
| 8.4 | Test that admin do not input  username. | 一 | System displays error message “Username cannot be blank”.  Result : |
| 8.5 | Test that admin inputs username  that exist in database. | username = “Test” | System displays error message “Username has already been taken. Please change.”  Result : |
| 8.6 | Test that admin inputs name is  not English letters. | name = “โทน” | System displays error message “Name is invalid  Result : |

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|  |  |  |  |
| --- | --- | --- | --- |
| 8.7 | Test that admin inputs surname  is not English letters. | surname = “123” | System displays error message “Surname is invalid”.  Result : |
| 8.8 | Test that admin do not input  password. | 一 | System displays error message “Password cannot be blank”.  Result : |
| 8.9 | Test that admin do not input  confirm-password. | 一 | System displays error message “Confirm-Password cannot be blank”.  Result : |
| 8.10 | Test that admin inputs password  or confirm password are not match. | password = “test”  confirm-password = “test1” | System displays error message “Password and Confirm-Password do not Match, Please  try again.”  Result : |

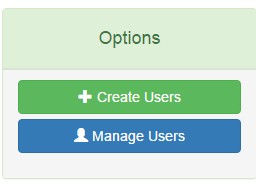
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| --- | --- | --- | --- |
| 8.11 | Test that admin do not select  position. | 一 | System displays error message “Position cannot be blank.”.  Result : |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**System Test Case (STC-11): Administrators can delete user’s profiles**

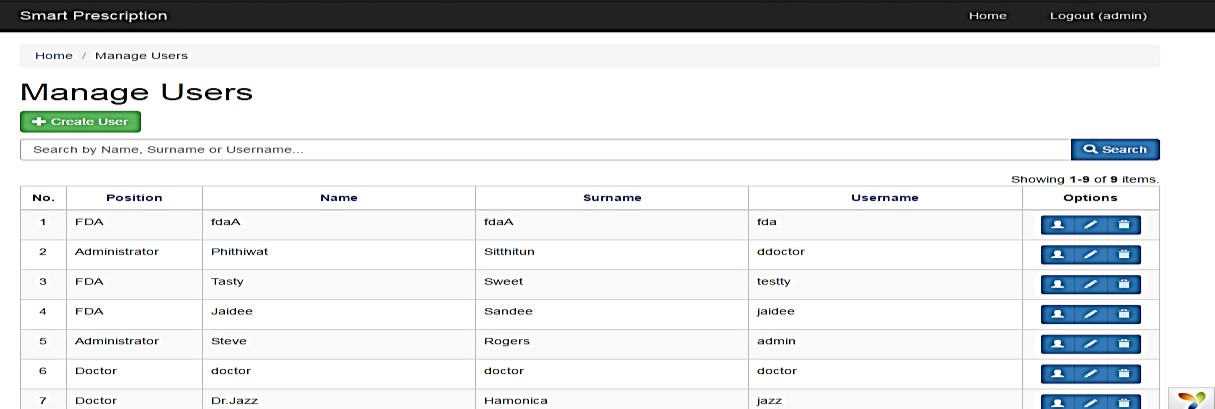
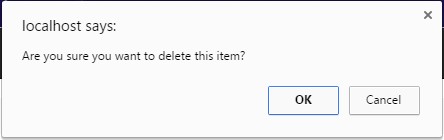


**on the web application.**

|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-11. Administrators can delete  user’s profiles on the web application. |
| **Prerequisite** | Admin has create user account successfully before. The system shall  display an admin home page. |
| **Prepared Data** | The system prepare the user’s profiles. |
| **Test Steps** | 1. Admin selects “Manage User” button on operation menu of Manage  User page.  2. Admin selects “Delete” button () in the options column of table.  3. Admin select ‘OK’ button on the confirm box. |

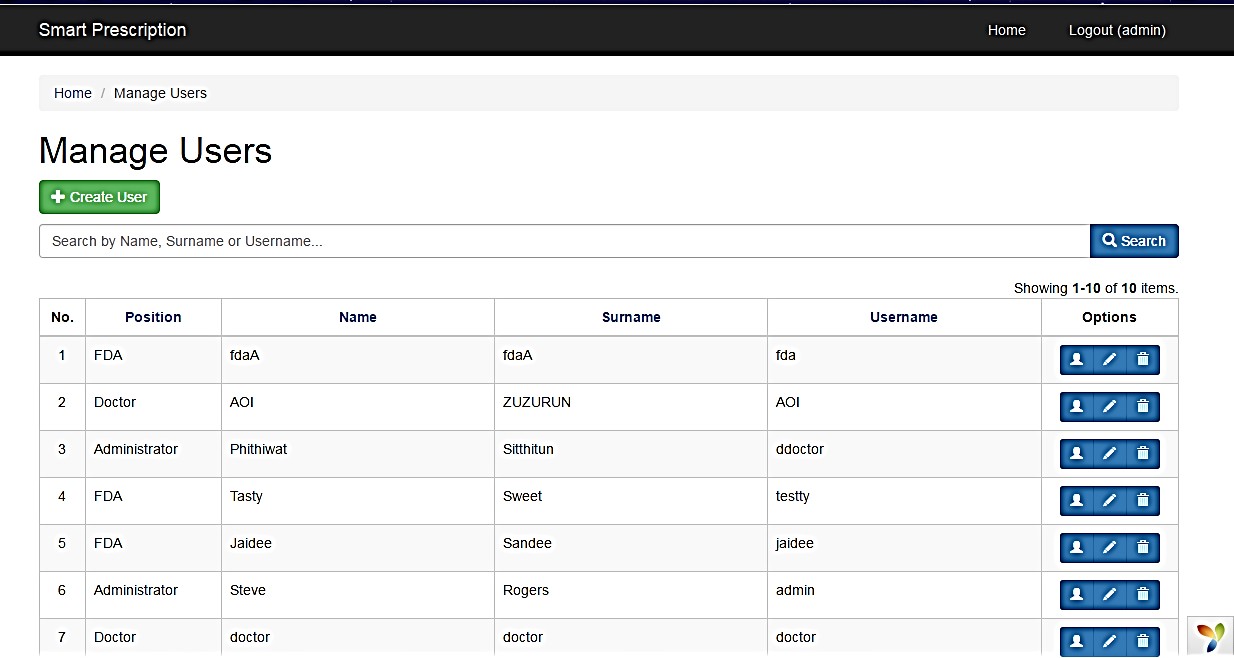
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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 11.1 | Test that admin clicks on  ‘Delete’ button for delete  user from the database. | Click on ‘Delete’ button. | The system interface to show the confirm box “Are you sure you want to delete this  item?” and delete from database after click button ‘OK’.  Result: |
| 11.2 | Test that admin click on  ‘OK’ button for confirm  the deleteion. | Click on ‘Ok’ button. | The system display list of user’s profile without profile that deleted.  Result: |

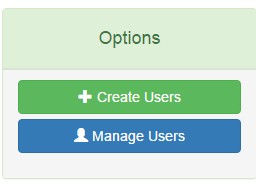
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|  |  |  |  |
| --- | --- | --- | --- |
| 11.3 | Test that admin click on  ‘Cancel’ button for cancel the deletetion. | Click on ‘Cancel’ button. | The system display list of user’s profile that any user’s profile not to deleted.  Result: |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**System Test Case (STC-12): Administrations can search user’s**

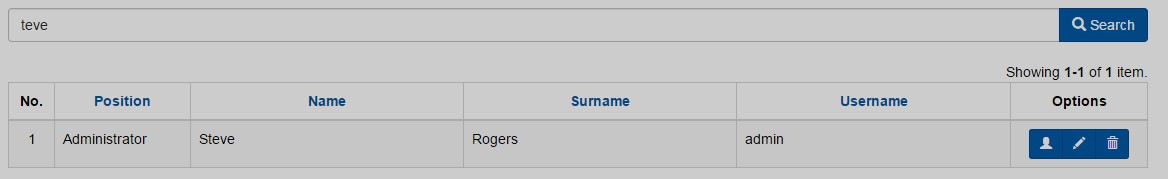
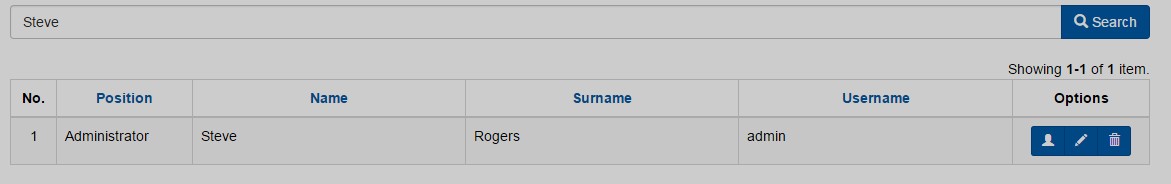


**profiles on the web application by using name, surname or username.**

|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-12. Administrations can search  user’s profiles on the web application by using name, surname or username. |
| **Prerequisite** | Admin has create a user successfully. The system shall display an admin  home page. |
| **Prepared Data** | The system prepare the information from the database to searching about  name, surname and username. |
| **Test Steps** | 1. Admin selects “Manage User” button on operation menu of Manage  User page.  2. Input the data about name, surname or username for searching.  3. Admin selects “Seach” button. |

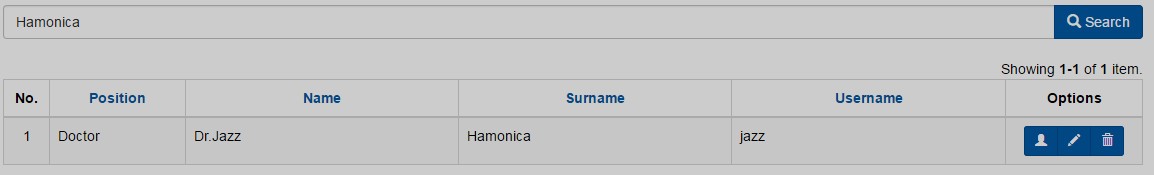
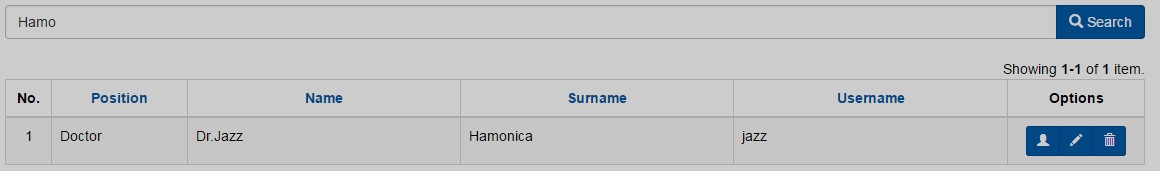
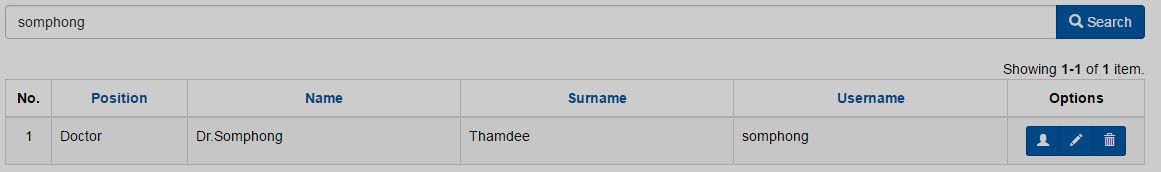
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**Test cases**



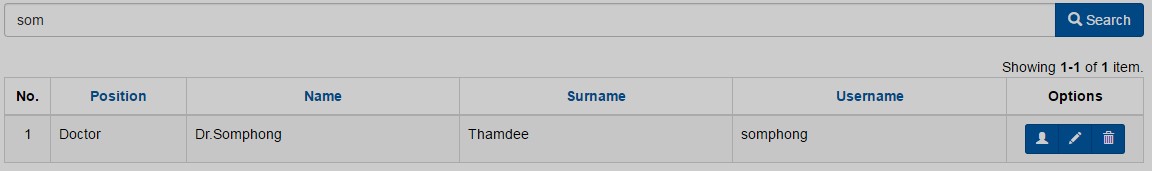
|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 4.1 | Test that input name is exist in  the database. | name = “Steve” | System displays user’s information.  Result : |
| 4.2 | Test that input some letters of  name are exist in the database. | name = “teve” | System displays user’s information.  Result : |
| 4.3 | Test that input name is not  exist in the database. | name = “Somsri” | System displays message “No results found.”  Result : |

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| --- | --- | --- | --- |
| 4.4 | Test that input surname is exist  in the database. | surname = “Hamonica” | System displays user’s information.  Result : |
| 4.5 | Test that input some letters of  surname is exist in the database. | surname = “Hamo” | System displays patient’s information.  Result : |
| 4.6 | Test that input surname is not  exist in the database. | surname = “Metang” | System displays message “No results found”  Result : |
| 4.7 | Test that input username is  exist in the database. | username = “somphong” | System displays patient’s information.  Result : |

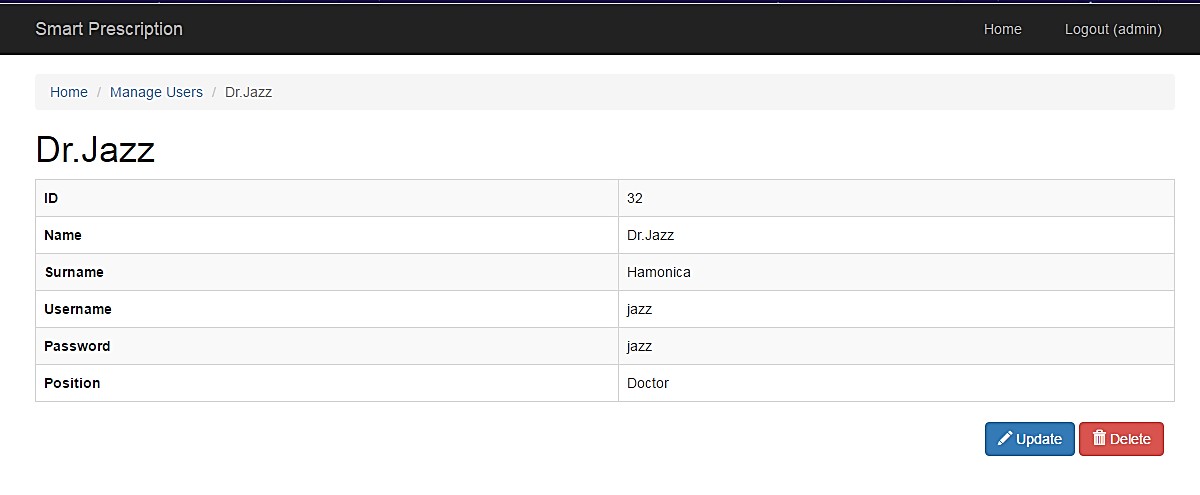
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| --- | --- | --- | --- |
| 4.8 | Test that input some letters of  username is exist in the database. | username = “som” | System displays patient’s information.  Result : |
| 4.9 | Test that input username is not  exist in the database. | username = “hahaha” | System displays message “No results found”  Result : |

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**System Test Case (STC-13): Administrations can view user’s profiles on the web application.**



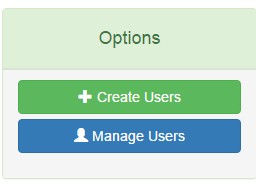
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| **Test Description** | This test case is a system testing for URS-13. Administrations can view  user’s profiles on the web application. |
| **Prerequisite** | Admin has create user successful. The system shall display an admin home  page. |
| **Prepared Data** | The system prepare the information from the database which includes  name, surname, username, password and position. |
| **Test Steps** | 1. Admin selects “Manage User” button on options menu box.  2. Admin selects “View” button () in the options column of table. |

**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 5.1 | Test that admin click on ‘View’  button to view the user. | Click on ‘View’ button | System displays the user’s information, which includes ID, position, name, surname,  username and password of user, update button and delete button also. Result : |

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**System Test Case (STC-14): Administrations can view a list of user’s**

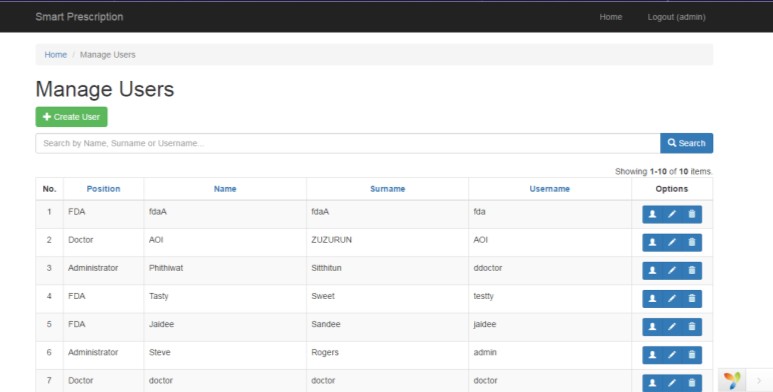


**profiles on the web application.**

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| --- | --- |
| **Test Description** | This test case is a system testing for URS-14. Administrations can view a  list of user’s profiles on the web application. |
| **Prerequisite** | Admin must login and has create user successful. The system shall display  an admin home page. |
| **Prepared Data** | The system prepare the user’s profiles. |
| **Test Steps** | 1. Admin selects to “Manage Users” in options menu box. |

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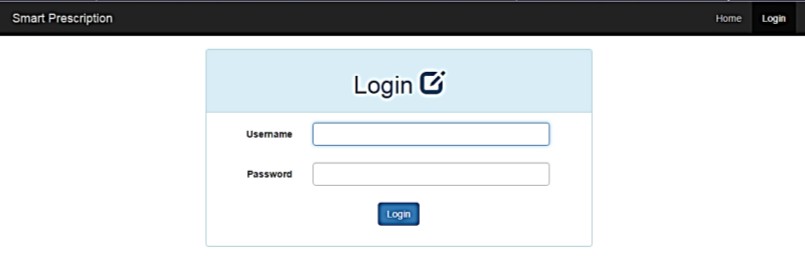
**Test cases**



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| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 14.1 | Test that admin click  ‘Manage Users’ in the options menu box to  view the list of user. | Click ‘Manage Users’ on menu bar. | System displays the lists of user on the manage page.  Result : |

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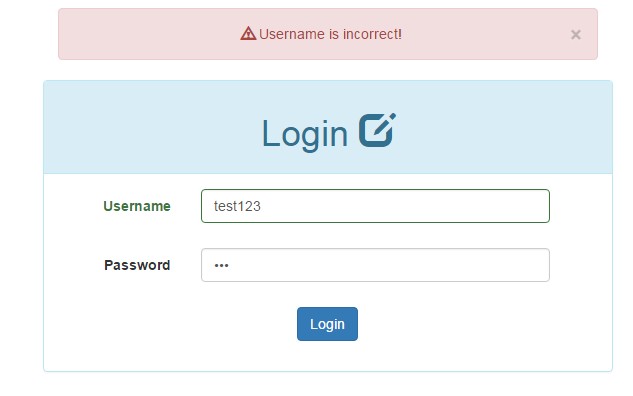
**System Test Case (STC-15): Doctors, Administrations, and FDAs can login to the web application.**



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| --- | --- |
| **Test Description** | This test case is a system testing for URS-15. Doctors, Administrations,  and FDAs can login to the web application. |
| **Prerequisite** | Doctors, Administrations, and FDAs must have the username and  password. |
| **Test Steps** | 1. Doctors, Administrations, and FDAs select to “Login” on menu bar.  2. Doctors, Administrations, and FDAs select to “Login” on login form. |

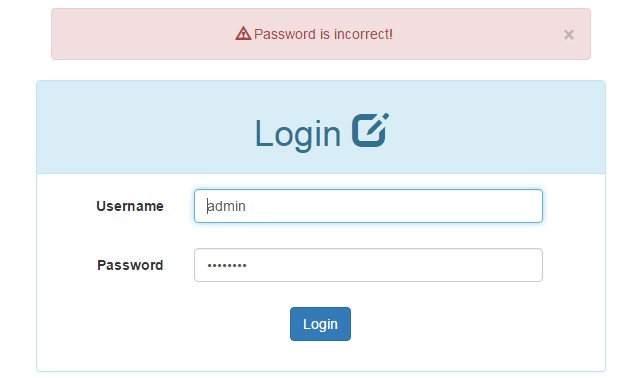
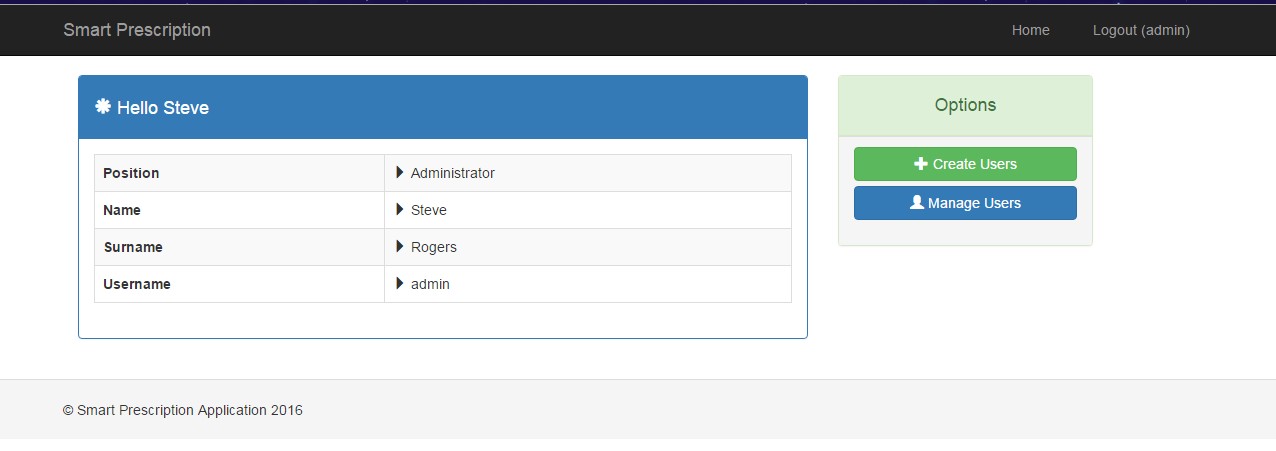
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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 15.1 | Test that do not input  username. | 一 | System displays error message “Username cannot be blank.”  Result : |
| 15.2 | Test that do not input  password. | 一 | System displays error message “Password cannot be blank.”  Result : |
| 15.3 | Test that input  username does not exist in the database. | username = “test123”  password = “admin” | System displays error box message “Username is incorrect!”  Result : |

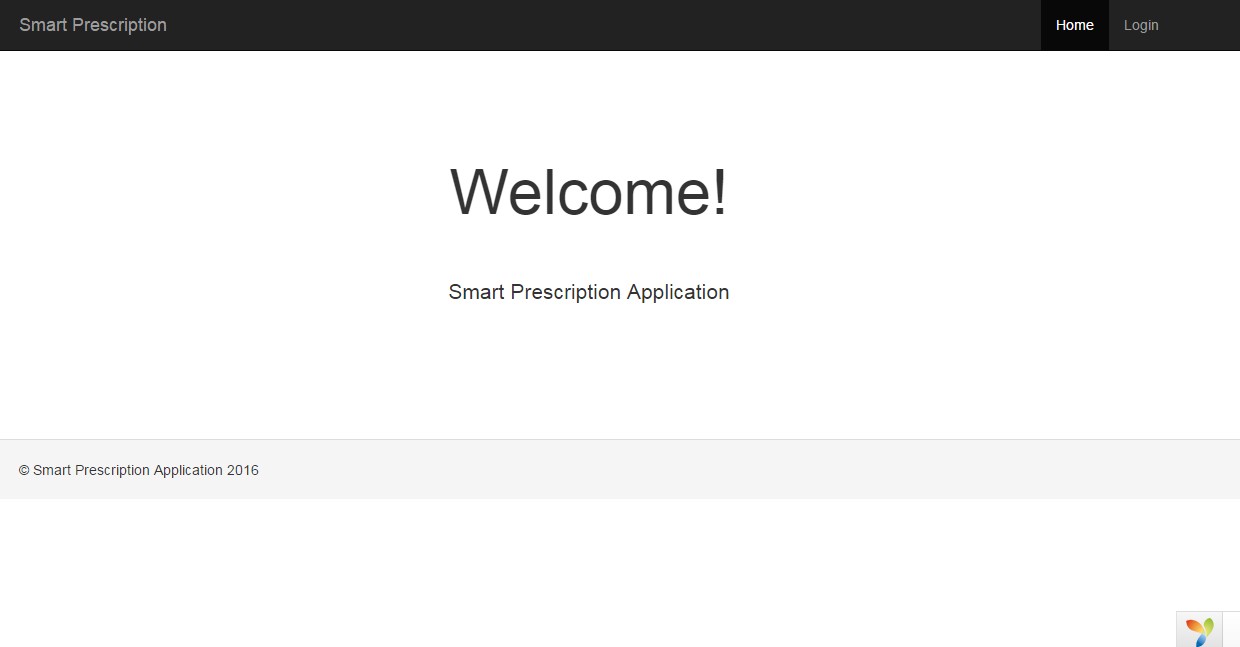
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| --- | --- | --- | --- |
| 15.4 | Test that input  password does not match the username. | username = “admin”  password = “admin123” | System displays error box message “Password is incorrect!”  Result : |
| 15.5 | Test that input  username and password are correct. | username = “admin”  password = “admin” | System redirect to user home page.  Result : |

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**System Test Case (STC-16): Doctors, Administrations, and FDAs can logout from the web application.**



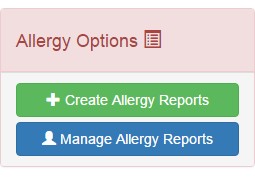
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| **Test Description** | This test case is a system testing for URS-16. Doctors, Administrations,  and FDAs can logout from the web application. |
| **Prerequisite** | Doctors, Administrations, and FDAs must login. |
| **Test Steps** | 1. Doctors, Administrations, and FDAs selects to “Logout” on menu bar. |

**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 6.1 | Test that click “Logout” on  menu bar. | Click “Logout” on menu bar. | System redirect user to index web page.  Result : |

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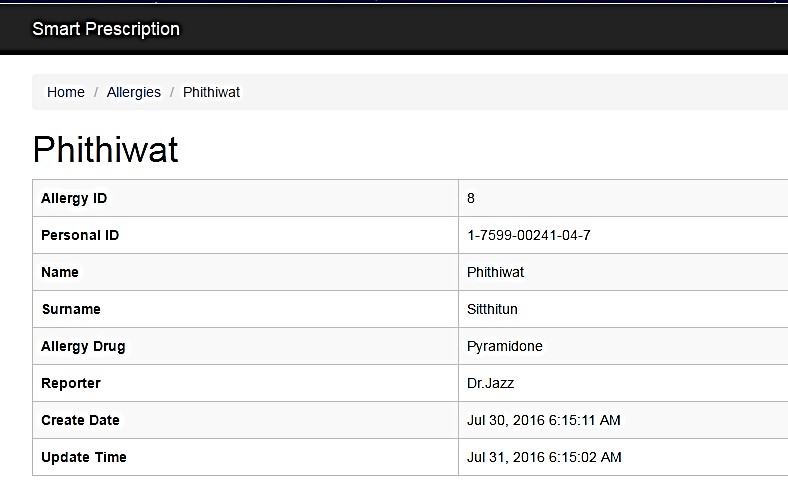
**System Test Case (STC-17): Doctors can create allergy report on the web application by inputting personal id, name, surname, and allergy drug.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-22. Doctors can create allergy  report on the web application. |
| **Prerequisite** | Doctor must login. The system shall display a doctor home page. |
| **Prepared Data** | The system prepare the create form which includes personal id, name,  surname, and allergy drug. |
| **Test Steps** | 1. Doctor selects to “Create Allergy Report” on allergy options menu box.  2. Input information into the create form for create the allergy report.  3. Doctor clicks on “Create” button. |

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**Test cases**



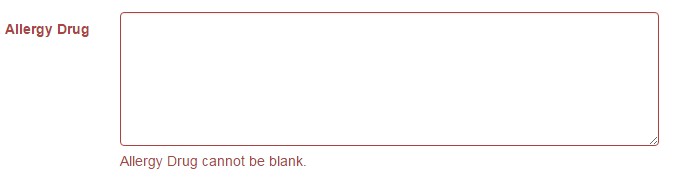
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| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 17.1 | Test that doctor inputs personal id  is number 13 digits. Input name, and surname are English letters  and input allergy drug. | personal\_id =  “1759900241047”, name = “Phithiwat”,  surname = “Sitthitun”,  allergy\_drug =  “Pyramidone” | System saves the allergy report to the database and also display the allergy report.  Result : |
| 17.2 | Test that doctor inputs personal id  that already exist. | personal\_id =  “1600100485726” | System displays error message “Personal ID has already been exist. Please change.”.  Result : |
| 17.3 | Test that doctor inputs personal id  is incorrect. | personal\_id =  “1234567890987” | System displays error message “Personal ID is Invalid”.  Result : |

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| --- | --- | --- | --- |
| 17.4 | Test that doctor inputs personal id  is number but less than 13 digits. | personal\_id = “16100185” | System displays error message “Personal ID is Invalid”.  Result : |
| 17.5 | Test that doctor do not input  personal id. | 一 | System displays error message “Personal ID cannot be blank”.  Result : |
| 17.6 | Test that doctor do not input  name. | 一 | System displays error message “Name cannot be blank”.  Result : |
| 17.7 | Test that doctor inputs name is  not English letters. | name = “พิธวต” | System displays error message “Name is invalid  Result : |
| 17.8 | Test that doctor do not inputs  surname. | 一 | System displays error message “Surname cannot be blank”.  Result : |

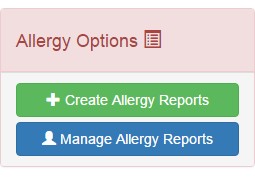
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| --- | --- | --- | --- |
| 17.9 | Test that doctor inputs surname is  not English letters. | surname = “Sitthitun123” | System displays error message “Surname is invalid”.  Result : |
| 17.10 | Test that doctor do not input  allergy drug. | 一 | System displays error message “Allergy drug cannot be blank”.  Result : |

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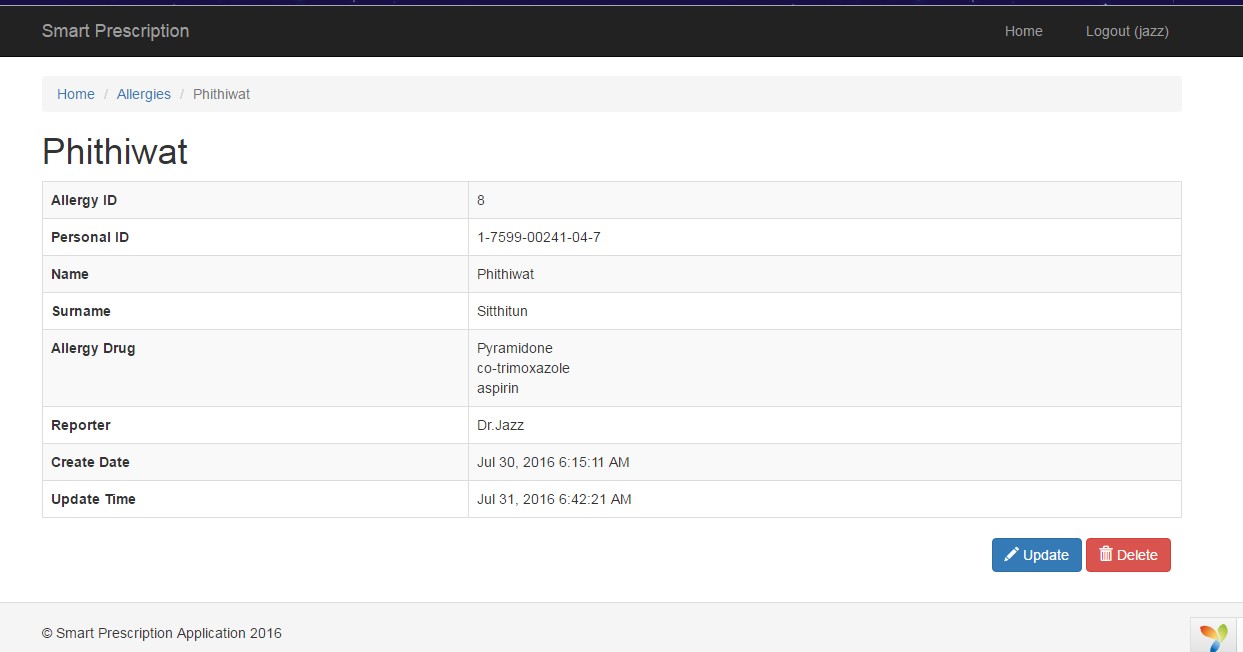
**System Test Case (STC-18): Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-23. Doctors can update an  allergy report on the web application. |
| **Prerequisite** | Doctor has create allergy report successfully before. The system shall  display a doctor home page. |
| **Prepared Data** | The system prepare the old information and update form which includes  personal id, name, surname, and allergy drug. |
| **Test Steps** | 1. Doctor selects “Manage Allergy Reports” button on allergy option  menu box.  2. Doctor selects “Update” button () in the options column of table.  3. Input new information into update form for update allergy report.  4. Doctor selects “Update” button. |

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**Test cases**



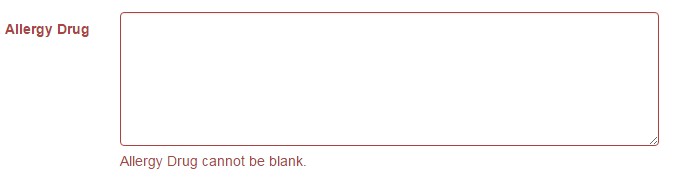
|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 18.1 | Test that input the new  information to update the defult information. Input personal id  are number 13 digits. Input name, surname in English  language and input allergy drug. | personal\_id =  “1759900241047”, name = “Phithiwat”,  surname = “Sitthitun”,  allergy\_drug =  “Pyramidone”, “co-trimoxazole”, “aspirin” | System saves the new allergy report to the database and also displays the allergy report.  Result : |
| 18.2 | Test that doctor inputs personal  id that already exist. | personal\_id =  “1600100485726” | System displays error message “Personal ID has already been exist. Please change.”.  Result : |

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|  |  |  |  |
| --- | --- | --- | --- |
| 18.3 | Test that doctor inputs personal  id is incorrect. | personal\_id =  “1234567890987” | System displays error message “Personal ID is Invalid”.  Result : |
| 18.4 | Test that doctor inputs personal  id is number but less than 13 digits. | personal\_id = “16100185” | System displays error message “Personal ID is Invalid”.  Result : |
| 18.5 | Test that doctor do not input  personal id. | 一 | System displays error message “Personal ID cannot be blank”.  Result : |
| 18.6 | Test that doctor do not input  name. | 一 | System displays error message “Name cannot be blank”.  Result : |
| 18.7 | Test that doctor inputs name is  not English letters. | name = “พิธวต” | System displays error message “Name is invalid  Result : |

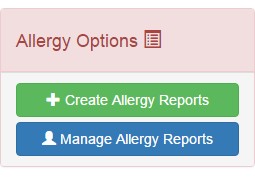
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| --- | --- | --- | --- |
| 18.8 | Test that doctor do not inputs  surname. | 一 | System displays error message “Surname cannot be blank”.  Result : |
| 18.9 | Test that doctor inputs surname  is not English letters. | surname = “Sitthitun123” | System displays error message “Surname is invalid”.  Result : |
| 18.10 | Test that doctor do not input  allergy drug. | 一 | System displays error message “Allergy drug cannot be blank”.  Result : |

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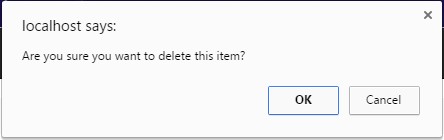
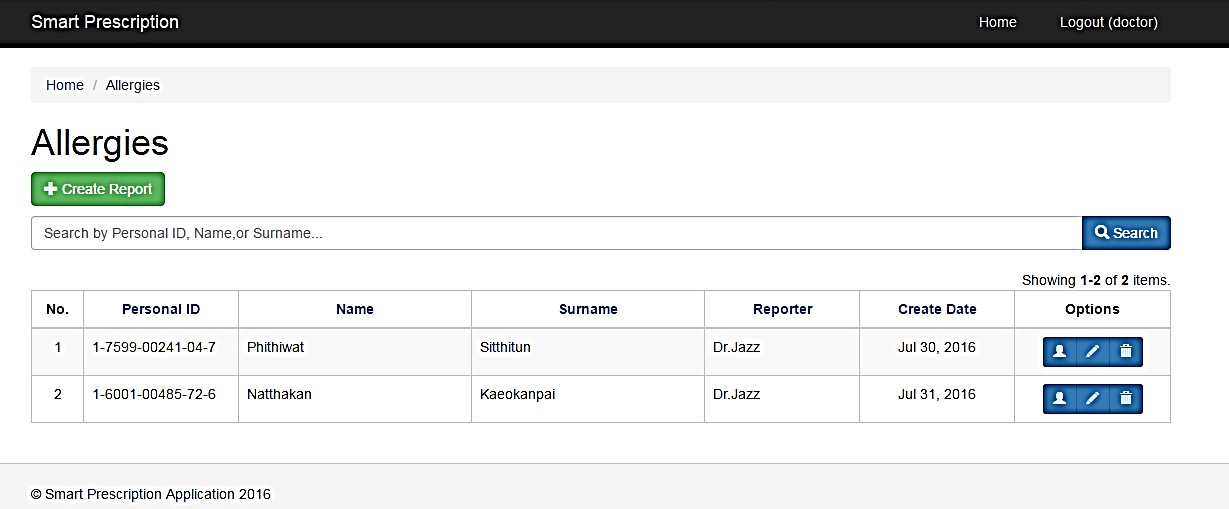
**System Test Case (STC-19): Doctors can delete an allergy report on the web application.**



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| --- | --- |
| **Test Description** | This test case is a system testing for URS-24. Doctors can delete an  allergy report on the web application. |
| **Prerequisite** | Doctor has create allergy report successfully before. The system shall  display a doctor home page. |
| **Prepared Data** | The system prepare the allergy reports. |
| **Test Steps** | 1. Doctor selects “Manage Allergy Reports” button on allergy option  menu box.  2. Doctor selects “Delete” button ( ) in the options column of table.  3. Doctor select ‘OK’ button on the confirm box. |

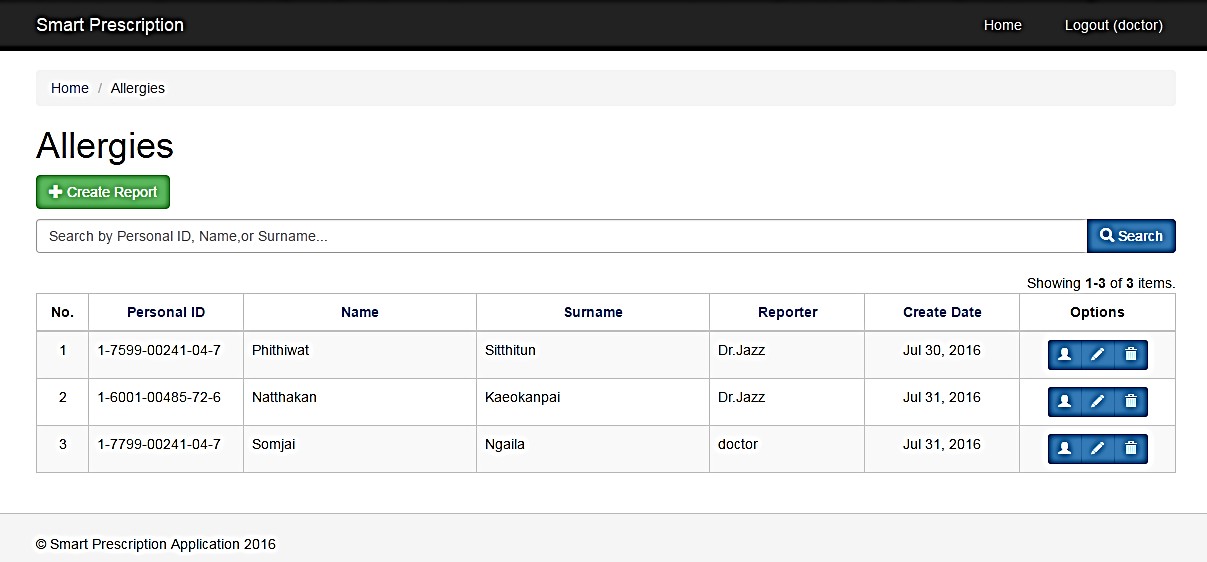
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**Test cases**



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| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 19.1 | Test that doctor clicks on  ‘Delete’ button for delete  allergy report from the database. | Click on ‘Delete’ button. | The system interface to show the confirm box “Are you sure you want to delete this  item?” and delete from database after click button ‘OK’.  Result: |
| 3.2 | Test that doctor click on  ‘OK’ button for confirm  the deleteion. | Click on ‘Ok’ button. | The system display list of allergy reports without report that deleted.  Result: |

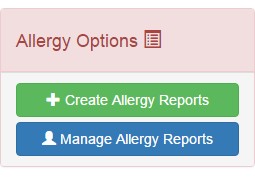
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| --- | --- | --- | --- |
| 3.3 | Test that doctor click on  ‘Cancel’ button for cancel  the deletetion. | Click on ‘Cancel’ button. | The system display list of allergy reports that any allergy report not to deleted.  Result: |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**System Test Case (STC-20): Doctors can search allergy reports on the web application by using personal id, name or surname.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-25. Doctors can search allergy  report on the web application by using personal id, name or surname. |
| **Prerequisite** | Doctor has create an allergy report successfully. The system shall display  a doctor home page. |
| **Prepared Data** | The system prepare the information from the database to searching about  personal id, name and surname. |
| **Test Steps** | 1. Doctor selects “Manage Allergy Reports” button on allergy options  menu box.  2. Input the data about personal ID, name, or surname for searching.  3. Doctor selects “Seach” button. |

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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 20.1 | Test that input personal ID is  exist in the database. | personal id =  “1-7599-00241-04-7” | System displays report’s informations.  Result : |
| 20.2 | Test that input some digits of  personal ID are exist in the database. | personal id = “1-7” | System displays report’s informations.  Result : |
| 20.3 | Test that input personal ID is  not exist in the database. | personal id =  “1-2345-67890-98-7” | System displays message “No results found”.  Result : |
| 20.4 | Test that input name is exist in  the database. | name = “Phithiwat” | System displays report’s information.  Result : |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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| --- | --- | --- | --- |
| 20.5 | Test that input some letters of  name are exist in the database. | name = “wat” | System displays report’s information.  Result : |
| 20.6 | Test that input name is not  exist in the database. | name = “Somchai” | System displays message “No results found.”  Result : |
| 20.7 | Test that input surname is exist  in the database. | surname = “Kaeokanpai” | System displays report’s information.  Result : |
| 20.8 | Test that input some letters of  surname is exist in the database. | surname = “kan” | System displays report’s information.  Result : |

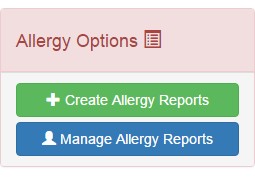
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |
| --- | --- | --- | --- |
| 20.9 | Test that input surname is not  exist in the database. | surname = “Jaidee” | System displays message “No results found”  Result : |

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| --- | --- | --- | --- | --- | --- |
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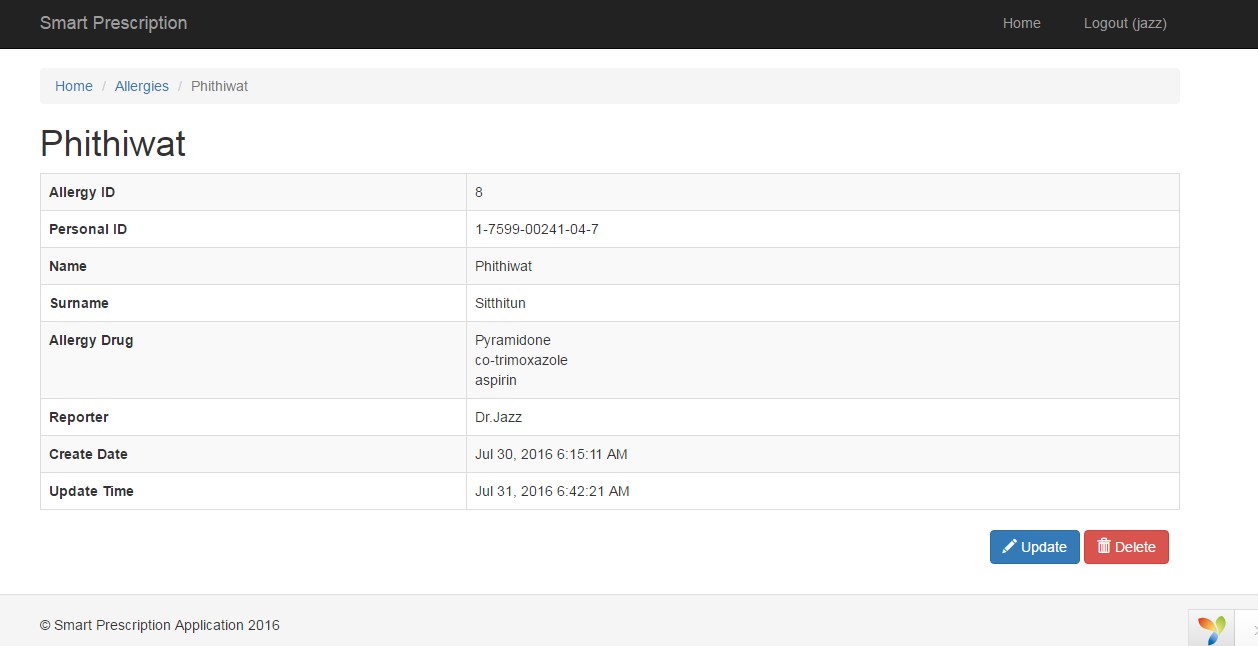
**System Test Case (STC-21): Doctors can view an allergy report on the web application.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-26. Doctors can view an allergy  report on the web application. |
| **Prerequisite** | Doctor has create allergy report successful. The system shall display a  doctor home page. |
| **Prepared Data** | The system prepare the information from the database which includes  allergy id, personal id, name, surname, allergy drug, reporter, create date time and update date time. |
| **Test Steps** | 1. Doctor selects “Manage Allergy Reports” button on allergy options  menu box.  2. Doctor selects “View” button ( ) in the options column of table. |

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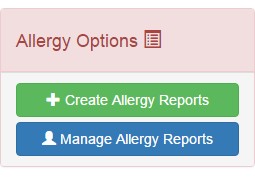
**Test cases**



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | | **Description** | **Input** | **Expected Result** |
| 21.1 | Test that doctor click on  ‘View’ button to view the  allergy report. | | Click on ‘View’ button | System displays the allergy report, which includes allergy Id, personal Id, name,  surname, allergy drug, reporter, create date and update date of allergy report, update button and delete button also.  Result : |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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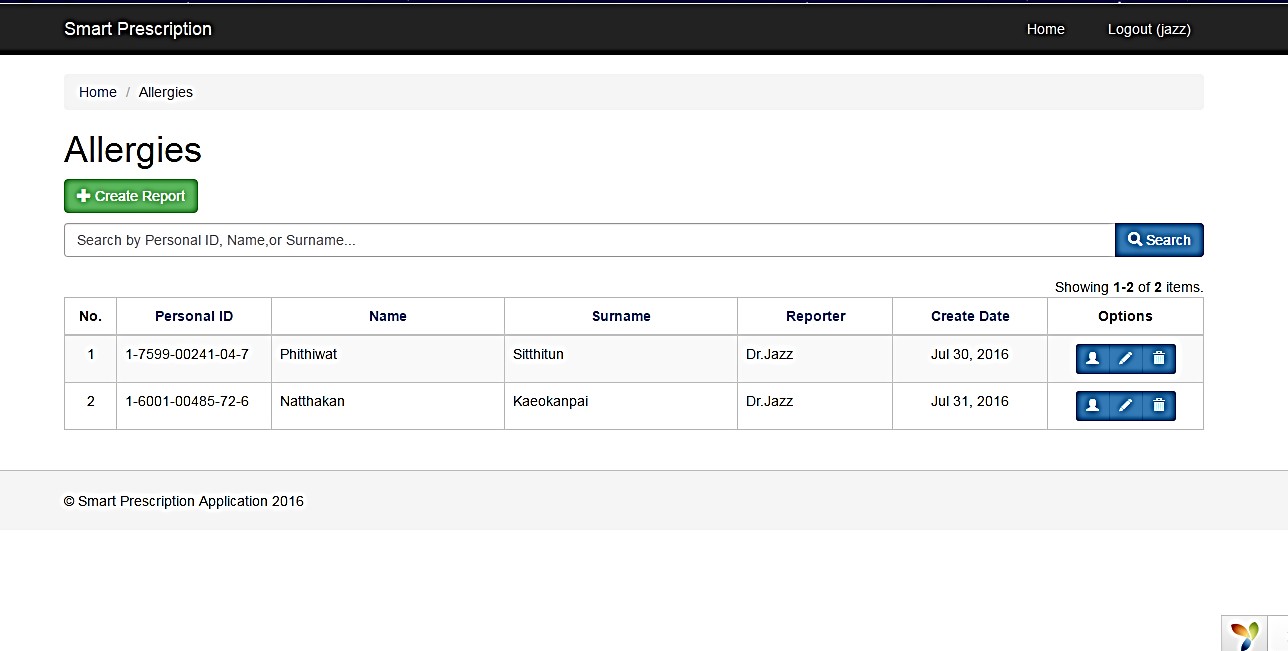
**System Test Case (STC-22): Doctors can view list of allergy reports on the web application.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-27. Doctors can view list of  allergy reports on the web application. |
| **Prerequisite** | Doctor must login and has create allergy report successful. The system  shall display a doctor home page. |
| **Prepared Data** | The system prepare the allergy reports. |
| **Test Steps** | 1. Doctor selects “Manage Allergy Reports” button on allergy options  menu box. |

|  |  |  |  |  |  |
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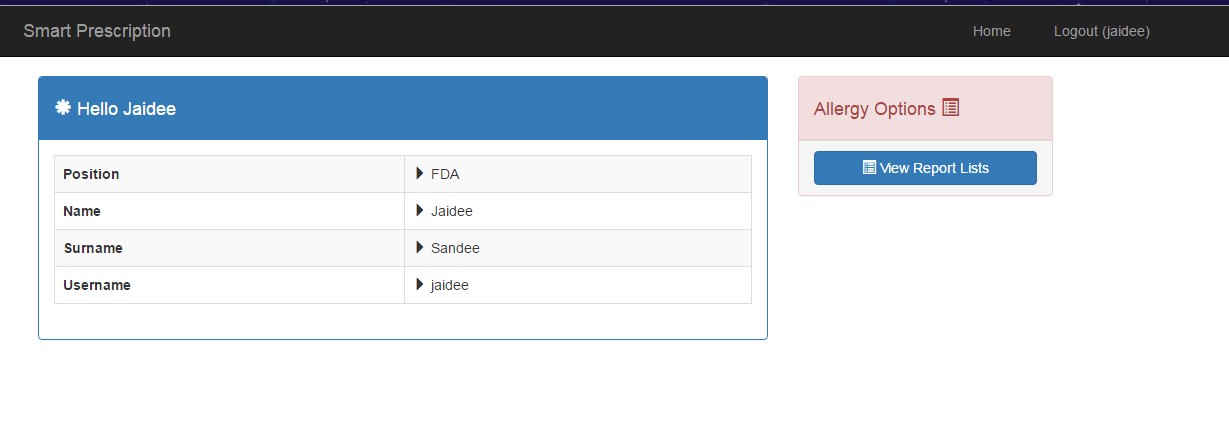
**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 22.1 | Test that doctor click  ‘Manage Allergy  Reports’ in the allergy options menu box to  view the list of allergy  report. | Click ‘Manage Allergy Reports’ on  allergy options menu box. | System displays the lists of allergy report on the management page..  Result :  \ |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**System Test Case (STC-23): FDAs can view a FDA home page on the web application.**



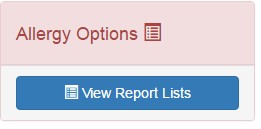
|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-28. FDAs view a FDA home  page on the web application. |
| **Prerequisite** | FDA must login. |
| **Prepared Data** | The system prepare the information from database which includes position,  name, surname and username. |
| **Test Steps** | 1. FDA selects to “Home” on menu bar. |

**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 23.1 | Test that FDA login to the web  application successful. | - | The system shall display the FDA home page which includes information of current  FDA, allergy options menu box. Result : |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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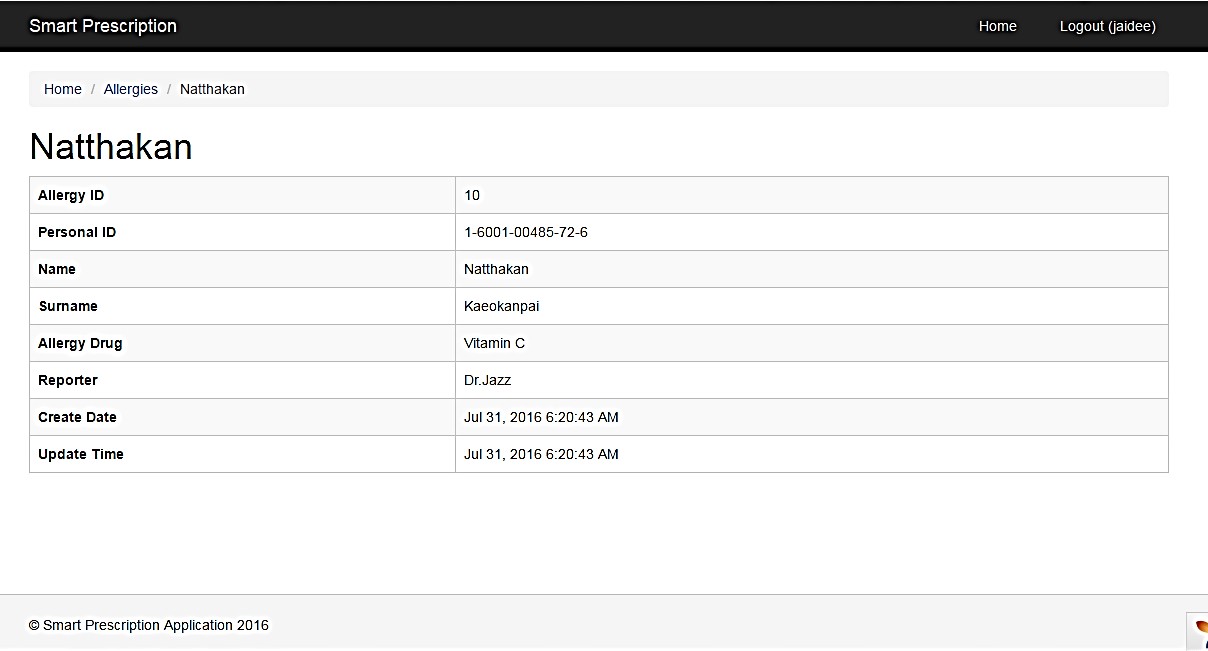
**System Test Case (STC-24): FDAs can view an allergy report on the web application.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-29. FDAs can view an allergy  report on the web application. |
| **Prerequisite** | Doctor has create allergy report successful. The system shall display a FDA  home page. |
| **Prepared Data** | The system prepare the information from the database which includes  allergy id, personal id, name, surname, allergy drug, reporter, create date time and update date time. |
| **Test Steps** | 1. FDA selects “View List Reports” button on allergy options menu box.  2. FDA selects “View” button ( ) in the options column of table. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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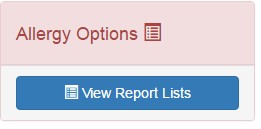
**Test cases**



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | | **Description** | **Input** | **Expected Result** |
| 24.1 | Test that FDA click on  ‘View’ button to view the  allergy report. | | Click on ‘View’ button | System displays the allergy report, which includes allergy Id, personal Id, name,  surname, allergy drug, reporter, create date and update date of allergy report. Result : |

|  |  |  |  |  |  |
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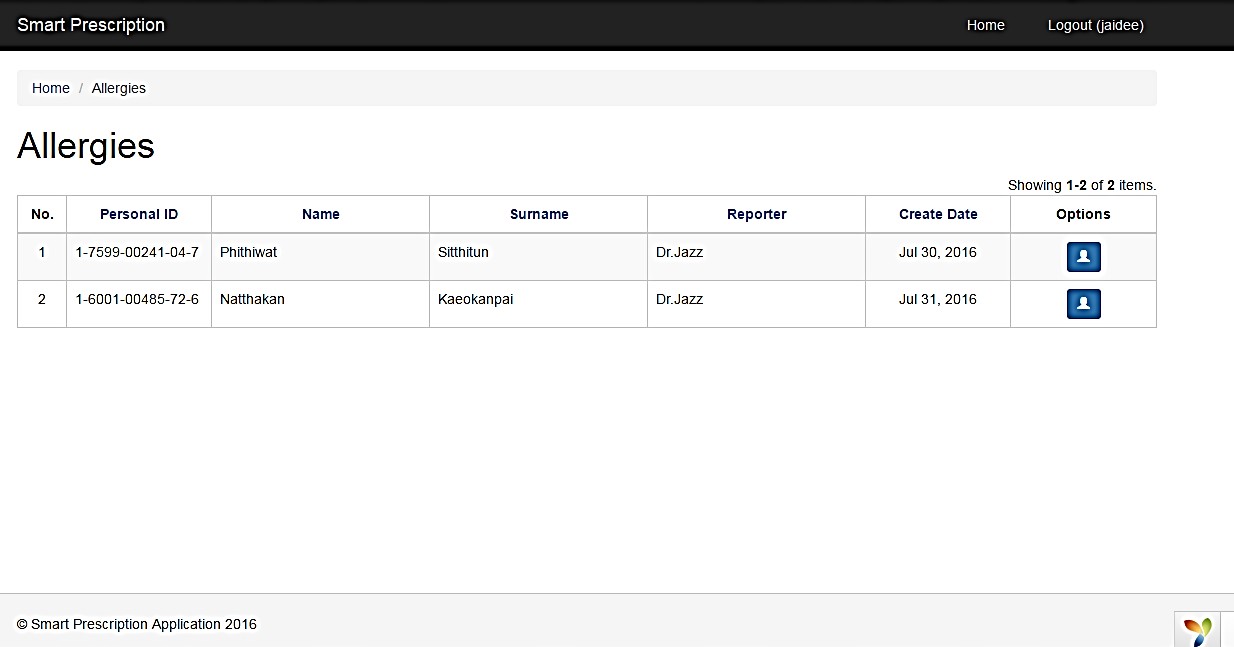
**System Test Case (STC-25): FDAs can view list of allergy reports on the web application.**



|  |  |
| --- | --- |
| **Test Description** | This test case is a system testing for URS-30. FDAs can view list of allergy  reports on the web application. |
| **Prerequisite** | Doctor must login and has create allergy report successful. The system  shall display a FDA home page. |
| **Prepared Data** | The system prepare the allergy reports. |
| **Test Steps** | 1. FDA selects “View Report Lists” button on allergy options menu box. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**Test cases**



|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 25.1 | Test that doctor click  ‘View Report Lists’ in  the allergy options menu box to view the  list of allergy report. | Click ‘View Report Lists’ on allergy  options menu box. | System displays the lists of allergy report.  Result : |

|  |  |  |  |  |  |
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**System Test Case (STC-26): Patients can login to the mobile application by using username and password.**



|  |  |
| --- | --- |
| **Test**  **Description** | This test case is a system testing for URS-17. Patients can login to the mobile  application by using username and surname. The system shall provide the UI  for login, to receive username and password. |
| **Prerequisite** | Patients access to the mobile application. |
| **Test Steps** | 1. Patients input the username and password to the login form.  2. Patients select ‘login’ button on the login form. |

|  |  |  |  |  |  |
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**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 17.1 | Test that user can input  the username into the username input box. | Username = Test  Password = “ ” | System display error message  “Invalid Username or Password” |
| 17.2 | Test that user can input  the password into the username input box. | Username = “ ”  Password = 1234 | System display error message  “Invalid Username or Password” |
| 17.3 | Test that user can login  to the application with the wrong password | Username = Test  Password = 1222  Click “Login” button | System displays the error message.  “Invalid Username or Password”. |
| 17.4 | Test that user can login  to the application with the wrong username | Username = Test22  Password = 1234  Click “Login” button | System displays the error message.  “Invalid Username or Password”. |
| 17.5 | Test that user can login  to the application with the correct username and password with connect the internet | Username = Test  Password = 1234  Click “Login” button | System displays message “Login  success” and redirect user to the main  page. |

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**System Test Case (STC-27): Patients can logout from the mobile application.**



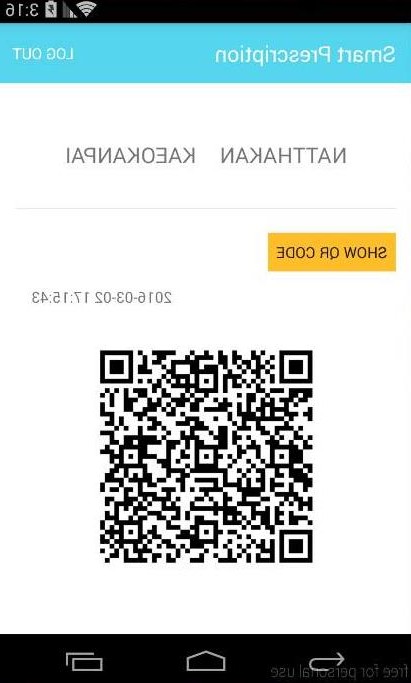
|  |  |
| --- | --- |
| **Test**  **Description** | This test case is a system testing for URS-18. Patients can logout from the  mobile application. The system shall provide “logout” button on the main  page for logout from the application. |
| **Prerequisite** | Patients already login to the application. |
| **Test Steps** | 1. Patients select “logout” button.  2. Patient exists from the application |

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| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 18.1 | Test that user can click  “logout” button. | Click “logout” button. | Patient can click “Logout” button. |
| 18.2 | Test that user exits  from the application | Click “logout” button. | System exits from the application |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**System Test Case (STC-28): Patients can view the QR code on the mobile application.**



|  |  |
| --- | --- |
| **Test**  **Description** | This test case is a system testing for URS-19. Patients can view the QR code  on the mobile application. The system shall display QR code to patient. |
| **Prerequisite** | Patients already login to the application. |
| **Test Steps** | 1. Patients click “Show QR code” button.  2. Patients view the QR code on the screen. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 18.1 | Test for user can click  “Show QR code”  button. | Click “Show QR  code” button. | Patient can click “Show QR code”  button. |
| 18.2 | Test for user can view  QR code after select “Show QR code” button. | Click “Show QR  code” button. | Patient can view the QR code on the  screen. |

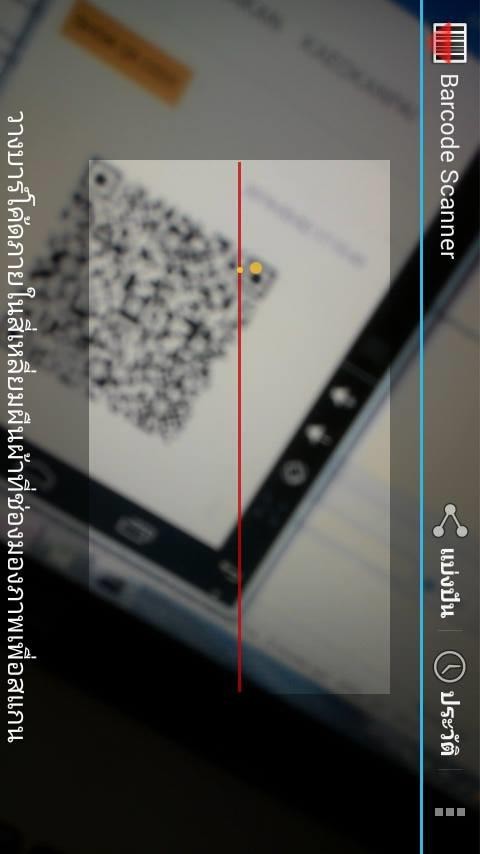
**System Test Case (STC-29): Pharmacists can scan the QR code on the mobile application.**



|  |  |
| --- | --- |
| **Test**  **Description** | This test case is a system testing for URS-20. Pharmacists can scan the QR  code on the mobile application. The system shall display error message if the picture that user scanning are not the QR code. |
| **Prerequisite** | Pharmacist already access to the application. |
| **Test Steps** | 1. Pharmacist select “Scan QR code” button. |

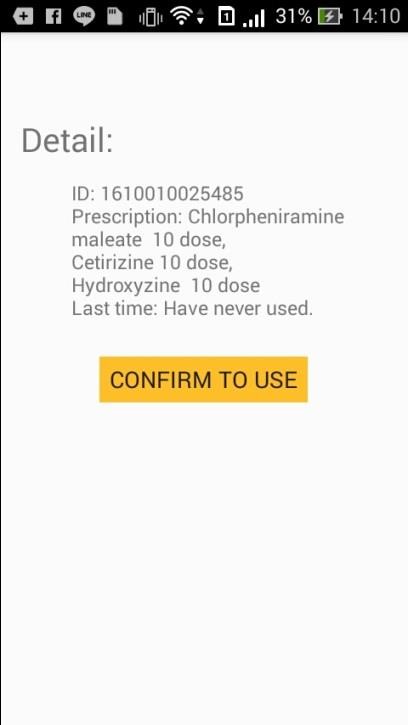
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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2. Pharmacist scans QR code.



3. Pharmacist views the information of patient’s profile after scan QR

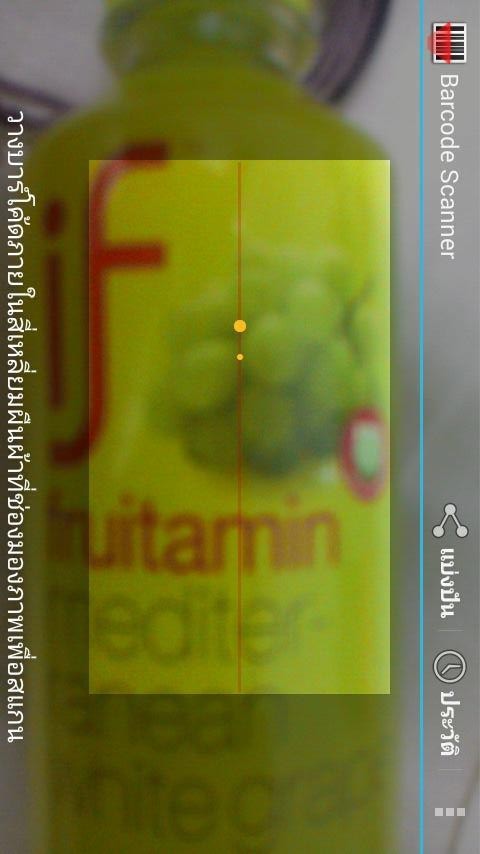
code.



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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4. The system cannot scan the other picture if the picture is not the QR

code.



5. The system can scan the other barcode but it is not information of

patient’s profile.



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 18.1 | Test for user can click  “Scan” button. | Click “Scan” button. | Pharmacist can click “Show QR  code” button. |
| 18.2 | Test for user can use the  scan QR code function  after select “Show QR  code” button. | Scan QR code | Pharmacist can view the information  of patient’s profile after scan QR  code. |
| 18.3 | Test for pharmacist  cannot use the scan QR  code function for scan other picture after select  “Scan” button. | Click “Scan” button. | Pharmacist cannot view the  information of patient’s profile after  scan QR code. |
| 18.4 | Test for pharmacist can  use the scan QR code function for scan other  barcode after select  “Scan” button. | Click “Scan” button. | Pharmacist can view the other  information of barcode after scan QR  code. |

**System Test Case (STC-30): Pharmacists can add the time of dispensation to**

**patient’s profile on the mobile application.**

|  |  |
| --- | --- |
| **Test**  **Description** | This test case is a system testing for URS-21. Pharmacists can add the time of  dispensation to patient’s profile on the mobile application. The system shall record the current time to the patient’s profile. |
| **Prerequisite** | Pharmacist already scans QR code. |
| **Test Steps** | 1. Pharmacist select “Confirm” button.  2. Pharmacist views the message “successful” after select “confirm”  button. |

**Test cases**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Input** | **Expected Result** |
| 18.1 | Test for user can click  “Confirm” button. | Click “Confirm”  button. | Pharmacist can click “Confirm”  button. |
| 18.2 | Test for user can view the  message ”Successful” after select “confirm” button. | Click “Confirm”  button. | Pharmacist can view the  message”Successful” after select  “confirm” button. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**Chapter Five | Appendix**

**Appendix A**

Database for unit testing part of web application.

**User**

id 2

name Natthakan surname Kaeokanpai username natthakan password man password2 man

roleId 2

id 3 name Tony surname Stark username tony password tony password2 tony roleId 3

id 15

name Phithiwat surname Sitthitun username phithi password 1234 password2 1234 roleId 1

id 29 name Steve surname Rogers username steve password 1234 password2 1234 roleId 1

id 31

name Dr.Hussen surname Hamonica username hussen password hussen password2 hussen roleId 2

id 32

name Dr.Jazz surname Hamonica username jazz password jazz password2 jazz

roleId 2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Patient** |  | | | | | | |
| personal\_id |  | 1719900241047 |  |  | personal\_id |  | 1769900241047 |
| name |  | Somkiat |  |  | name |  | Dangdee |
| surname |  | Warahala |  |  | surname |  | Rakna |
| prescription |  | Paracetamol 500 ml. |  |  | prescription |  | Vitamins 90 ml. |
| create\_by |  | 31 |  |  | create\_by |  | 32 |
| username |  | somkiat |  |  | username |  | dang |
| password |  | 54139 |  |  | password |  | 67045 |
| create\_at |  | 2016-07-31 18:36:28 |  |  | create\_at |  | 2016-07-30 23:55:17 |
| update\_at |  | 2016-07-31 18:36:28 |  |  | update\_at |  | 2016-07-30 23:59:23 |

|  |  |  |  |  |  |
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|  |  |
| --- | --- |
| personal\_id | 1660100485726 |
| name | Vikom |
| surname | Chomjai |
| prescription | Dextrometrophan |
| create\_by | 32 |
| username | vikom |
| password | 58706 |
| create\_at | 2016-08-01 03:39:11 |
| update\_at | 2016-08-01 03:39:11 |

**Allergy**

|  |  |
| --- | --- |
| allergy\_id | 10 |
| personal\_id | 1600100485726 |
| name | Natthakan |
| surname | Kaeokanpai |
| allergy\_drug | Vitamin C. |
| reporter | 32 |
| create\_at | 2016-07-31 04:20:43 |
| update\_at | 2016-07-31 04:20:43 |

|  |  |
| --- | --- |
| allergy\_id | 8 |
| personal\_id | 1759900241047 |
| name | Phithiwat |
| surname | Sitthitun |
| allergy\_drug | Pyramidone,  Co-Trimoxazole, Aspirin |
| reporter | 32 |
| create\_at | 2016-07-30 04:15:11 |
| update\_at | 2016-07-31 04:42:21 |

|  |  |
| --- | --- |
| allergy\_id | 11 |
| personal\_id | 1779900241047 |
| name | Somjai |
| surname | Ngaila |
| allergy\_drug | Multivitamins. |
| reporter | 31 |
| create\_at | 2016-07-31 18:47:11 |
| update\_at | 2016-07-31 18:47:11 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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| Document Type | Test Plan | Release  Date | August 26th, 2016 | Print Date | December 9th, 2016 |

**Chapter Six | Reference**

[1] Definition of Unit testing<http://artofunittesting.com/definition-of-a-unit-test>

[2] Definition of System testing<http://www.softwaretestingclass.com/system-testing-what-why-how/>

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| --- | --- | --- | --- | --- | --- |
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