**URS01:**

**Description:** Test Admin log in.

**Unit Test Case 01(UTC-01):** verify (String username, String Password)

**Test Data: \***The test data is already exit in database.

|  |  |  |
| --- | --- | --- |
| **ID** | **Username** | **Password** |
| 1 | “admin” | “secret” |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | **Expected**  **Result** | **Actual**  **Result** |
| **Username** | **Password** |  |
| 1 | Test log in which existed in database. | “admin” | “secret” | true | true |
| 2 | Test log in which not existed in database. | “admin1” | “password” | false | false |

**URS 02:**

**Description:** Test Admin add product to data base

**Unit Test Case 02(UTC-02):** create (Product product)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | **Expected**  **Result** | **Actual**  **Result** |
| **Product Object** | | | | **Product object** | **Product object** |
| **Product Name** | **Description** | **Price** | **Picture** | **id** | **id** |
| 1 | Test add product with all correct information | “8111” | “Redwing 8111” | “9800” | “8111.jpg” | 1 | 1 |
| 2. | Test add product by not input description. | “875 ” | - | “290” | “875 .jpg” | null | null |
| 3 | Test add product by input price with alphabets. | “8110” | “Redwing 8110” | “aaa” | “8110.jpg” | null | null |
| 4. | Test add product by not input picture. | “8138” | “Redwing 8138” | “200” | - | null | null |
| 5. | Test add product by not input Price. | “9111” | “Redwing 9111” | - | “9111.jpg” | null | null |
| 6. | Test input no data | - | - | - | - | null | null |

**URS 02:**

**Description:** Test Admin add product to data base

**Unit Test Case 03(UTC-03):** saveProduct (Product product)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | **Expected**  **Result** | **Actual**  **Result** |
| **Product Object** | | | | **Product object** | **Product object** |
| **Product Name** | **Description** | **Price** | **Picture** | **id** | **id** |
| 1 | Test add product with all correct information | “8111” | “Redwing 8111” | “9800” | “Iron.jpg” | 1 | 1 |

**URS 03:**

**Refer to UTC-03**

**Description:** Test edit product.

**Unit Test Case 04(UTC-04):** Edit(int productId)

**Test Data:**

\*The Product RefID = #001 and RefID = #002 is already exit in database.

\*The RefID column is not the attribute of the Product object, it just for identifying the object under test.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** | **RefID** |
| 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” | #001 |
| 2 | “875” | “Red wing 875” | “8900” | “875.jpg” | #002 |

New detail

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** | **RefID** |
| 1 | “9000” | “Red wing 9000” | “9000” | “9000.jpg” | #003 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | | **Expected Result** | **Actual**  **Result** |
| **Product Object** | | | | | **RefID** | **RefID** |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** |
| 1 | Test edit product detail which product already existed in the database. | 1 | “9000” | “Red wing 9000” | “9000” | “010.jpg” | #003 | #003 |
| 2 | Test edit product in database which detail is filled | 2 | - | - | - | - | null | #003 |

**URS 04:**

**Description:** Test delete product.

**Unit Test Case 05(UTC-05):** Delete (int productId): Boolean

**Test Data:**

**The product which existed in database**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** |
| 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | | **Expected**  **Result** | **Actual**  **Result** |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** |  |
| 1 | Test delete product which product already existed in the database. | 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” | True | True |
| 2 | Test delete product which product is not existed in the database | 2 | “875” | “Red wing 875” | “8900” | “875.jpg” | true | true |

**URS 07 :**

**Description:** Test user make a registration to the system.

**Unit Test Case 06(UTC-06):** register(Account account): Account

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | | | | **Expected**  **Result** | **Actual**  **Result** |
| **Product Object** | | | | | | | **Product object** | **Product object** |
| **Name** | **Surname** | **id** | **Password** | **Address** | **Email** | **Picture** | **ID** | **ID** |
| 1 | Test add detail with all correct information | “Michael” | “Jackson” | “Username1” | “Password1” | “Chiang Mai, Thailand, 50200**”** | “example@example.com” | “Michael.jpg” | 1 | 1 |
| 2. | Test add detail by not input user name. | “Obama ” | “Ona” | - | “Obama” | “Chiang Mai, Thailand, 50200**”** | “example2@example.com” | “Obama .jpg” | null | null |
| 3 | Test add detail by input email with wrong format. | “Sarah” | “Oven” | “Username2” | “Password2” | “Chiang Mai, Thailand, 50200**”** | “aaa@gmail” | “Sarah.jpg” | null | null |
| 4. | Test add detail by not input picture. | “Potato” | “Redwing 8138” | “Username3” | “Password3” | “Chiang Mai, Thailand, 50200**”** | “200” | - | null | null |
| 5. | Test add product by not input data. | - | - | - | - | - | - | - | null | null |

**URS 07 :**

**Description:** Test user make a registration to the system.

**Unit Test Case 07(UTC-07):** saveAccount(Account account): Account

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | | | | **Expected**  **Result** | **Actual**  **Result** |
| **Product Object** | | | | | | | **Product object** | **Product object** |
| **Name** | **Surname** | **Username** | **Password** | **Address** | **Email** | **Picture** | **ID** | **ID** |
| 1 | Test add detail with all correct information | “Michael” | “Jackson” | “Username1” | “Password1” | “Chiang Mai, Thailand, 50200**”** | “example@example.com” | “Michael.jpg” | 1 | 1 |

**URS08:**

**Description:** Test user log in.

**Unit Test Case 08(UTC-08):** verify(String username, String Password)

**Test Data: \***The test data is already existed in database.

|  |  |  |
| --- | --- | --- |
| **Username** | **Password** | **Id** |
| “Username1” | “Password1” | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | **Expected**  **Result** | **Actual**  **Result** |
| **Username** | **Password** |  |
| 1 | Test log in which existed in database. | “Username1” | “Password1” | true | true |
| 2 | Test log in which not existed in database. | “customer” | “customer” | false | false |

**URS 09:**

**Refer to UTC 07**

**Description:** Test customer can update account.

**Unit Test Case 09(UTC-09):** update (Account account):Account

**Test Data:**

\*The Customer RefID = #001 and RefID = #002 is already existed in database.

\*The RefID column is not the attribute of the Account object, it just for identifying the object under test.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Surname** | **Username** | **Password** | **Address** | **Email** | **Picture** | **RefID** |
| “Michael” | “Jackson” | “Username1” | “Password1” | “Chiang Mai, Thailand, 50200**”** | “example@example.com” | “Michael.jpg” | #001 |
| “Obama” | “Georg” | “Username2” | “Password2” | “Chiang Mai, Thailand, 50200**”** | “example2@example.com” | “Obama.jpg” | #002 |

New detail

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Surname** | **Username** | **Password** | **Address** | **Email** | **Picture** | **RefID** |
| “Michael” | “Jackson jay” | “Username1” | “Password1” | “Chiang Mai, Thailand, 50200**”** | “example@example.com” | “Michael.jpg” | #003 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | | | | | | **Expected Result** | **Actual**  **Result** |
| **Account Object** | | | | | | | **RefID** | **RefID** |
| **Name** | **Surname** | **Username** | **Password** | **Address** | **Email** | **Picture** |
| 1 | Test edit customer detail which customer detail already existed in the database. | “Michael” | “Jackson jay” | “Username1” | “Password1” | “Chiang Mai, Thailand, 50200**”** | “example@example.com” | “Michael.jpg” | #003 | #003 |
| 2 | Test edit customer in database which detail is filled | “Obama” | “Georg” | - | “Password2” | “Chiang Mai, Thailand, 50200**”** | “example2@example.com” | “Obama.jpg” | null | null |

**URS 11:**

**Description:** Test customer search product.

**Unit Test Case 10(UTC-10):** SearchByName(String productName):Product

**Test Data:**

\*The Customer information is already existed in database.

**The product which existed in database**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **ProductName** | **Detail** | **Price** | **Picture** |
| 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | **Expected Result** | **Actual**  **Result** |
| **Product Object** | **Product object** | **Product object** |
| **Name** | **id** | **id** |
| 1 | Test add detail with all correct information | “Michael” | 1 | “1” |

**URS 12**

**Description:** Test add product to cart.

**Unit Test Case 11(UTC-11):** AddItem(Product product, int quantity):Void

**Test Data: \***The test data is already exist in database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** |
| 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” |

\*The cart object was create after add item to cart.

|  |  |  |
| --- | --- | --- |
| **CartID** | **Username** | **Products** |
| “1” | “Customer” | {1} |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | | **Expected Result** | **Actual**  **Result** |
| **Product Object** | | **Cart Object** | **Cart Object** |
| **ID** | **Quantity** | **ID** | **ID** |
| 1 | Test add product to cart, product is existed in database. | “1” | “1” | “1” | “1” |

**URS 13**

**Description:** Test add product to cart.

**Unit Test Case 12(UTC-12):** RemoveLine(Product product):void

**Test Data: \***The test data is already exist in database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** |
| 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” |

|  |  |  |  |
| --- | --- | --- | --- |
| **CartID** | **Username** | **Products** | **Quantity** |
| “1” | “Michael” | {1} | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | **Expected Result** | **Actual**  **Result** |
| **Cart Object** | **Cart Object** |
| **ID** | **ID** |
| 1 | Test remove product from cart, product is existed in database. | “1” | null | null |

URS14

**Description:** Test get total price of product.

**Unit Test Case 13(UTC-13):** ComputeTotalValue()**:**decimal

**Test Data: \***The test data is already exit in database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Product Name** | **Detail** | **Price** | **Picture** |
| 1 | “8111” | “Red wing 8111” | “9000” | “8111.jpg” |

|  |  |  |  |
| --- | --- | --- | --- |
| **Cart ID** | **Username** | **Products** | **Quantity** |
| “1” | “Michael” | {1} | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Case** | **Description** | **Input** | **Expected**  **Result** | **Actual**  **Result** |
| **Cart Object** |
| **ID** |
| 1 | Test total price which cart is existed in database. | “1” | 9000 | 9000 |