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# URS

## List URS

|  |  |
| --- | --- |
| **ID** | **Description** |
| **URS-01** | Customer can registration themselves as customer. |
| **URS-02** | Customer can login to the system. |
| **URS-03** | Customer can view all the product category. |
| **URS-04** | Customer can search the product. |
| **URS-05** | Customer can add the product as many products as customer want to the shopping cart. |
| **URS-06** | Customer can edit the product in the shopping cart. |
| **URS-07** | Customer can save the product in the shopping cart. |
| **URS-08** | Customer can check out for purchase the product. |
| **URS-09** | Customer can view the shopping history. |
| **URS-10** | Customer can logout. |
| **URS-11** | Administrator can login to the system. |
| **URS-12** | Administrator can view the shopping history of all customer. |
| **URS-13** | Administrator can provide detail of the product. |
| **URS-14** | Administrator can update all information of registration. |
| **URS-15** | Administrator can logout. |

# SRS

## List SRS

|  |  |
| --- | --- |
| **ID** | **Description** |
| **SRS-01** | The system provide an interface for registration which receive username, password, name address and their picture for the registration. |
| **SRS-02** | The system can check the name format. The name format should be only a character. |
| **SRS-03** | The system can check the address. The address format should be a characters between 1-255 characters. |
| **SRS-04** | The system can check the picture that user uploading. The picture should be an image format such as, .png, .jpg. |
| **SRS-05** | The system can check the username format. The username format should be characters. |
| **SRS-06** | The system can check the password format. The password format should be characters. |
| **SRS-07** | The system shall connect to the database. |
| **SRS-08** | The system retrieve information from the database. |
| **SRS-09** | The system shall add a new customer information to database using username, password, name, address and their picture. |
| **SRS-10** | The system shall provide the successful registration page after registration is complete. |
| **SRS-11** | The system shall display the error message “The username must be characters”. |
| **SRS-12** | The system shall display the error message “The password must be characters”. |
| **SRS-13** | The system shall display the error message “The name must be only characters”. |
| **SRS-14** | The system shall display the error message “The address must be a characters between 1-255 characters”. |
| **SRS-15** | The system shall display the error message “The picture must be image format”. |
| **ID** | **Description** |
| **SRS-16** | The system provides the login interface which receive the user name and password. |
| **SRS-17** | The system can check the username format. The username format should be characters. |
| **SRS-18** | The system can check the password format. The password must contain the characters. |
| **SRS-19** | The system validates the username and password. |
| **SRS-20** | The system shall provide the successful login page. |
| **SRS-21** | The system shall show the user status with a customer picture on the top-right of the user interface to confirm his identity. |
| **SRS-22** | The system provide an interface that show all the product category including, name, description, price and image. |
| **SRS-23** | The system show the product detail that consist of name, description, price and image. |
| **SRS-24** | The system shall provide interface to search a product page which receive product name for searching. |
| **SRS-25** | The system retrieve information from the database by name. |
| **SRS-26** | The system shall provide detail page that consist with product name, product description, and product picture. |
| **SRS-27** | The system shall provide the interface to add new product which user selected. |
| **SRS-28** | The system add the product that user is selected into the shopping cart. |
| **SRS-29** | The system shall update the product that user is selected into the database. |
| **SRS-30** | The system shall provide the successful add new product page after user add new product into the shopping cart. |
| **SRS-31** | The system shall delete the products from the database. |
| **SRS-32** | The system shall update amount of the products into database. |
| **SRS-33** | The system shall display the error message “The system cannot edit the new updating”. |
| **SRS-34** | The system shall display the message “Edit Completed” when updated in the database. |
| **SRS-35** | The system provide an interface for edit function. |
| **SRS-36** | The system shall update information into the database. |
| **SRS-37** | The system shall display error message “The system cannot save the new product”. |
| **SRS-38** | The system shall display error message “The system cannot connect to the database”. |
| **SRS-39** | The system shall display the message “Save Completed” when updated in the database. |
| **SRS-40** | The system provide an interface for save function. |
| **SRS-41** | The system shall provide an interface for Check out function. |
| **SRS-42** | The system shall provide an interface for select the payment option including, Transfer, Credit card and PayPal. |
| **SRS-43** | The system shall update payment option into the database. |
| **SRS-44** | The system shall display message “Purchase successful” when the transect amount from banking system. |
| **SRS-45** | The system provide an interface for the shopping history page. |
| **SRS-46** | The system retrieve shopping history form the database by reference from user. |
| **SRS-47** | The system provide an interface for logout. |
| **SRS-48** | The system doesn’t show a user status on top right after logout successful. |
| **SRS-49** | The system retrieve shopping history form the database by reference from date. |
| **SRS-50** | The system provide an interface that show all the shopping history of all customer. |
| **SRS-51** | The system provide an interface for update a product which receive name, description, price and image. |
| **SRS-52** | The system provide an interface for update the registration which receive username, password, name, address and their picture for the registration. |

## URS/SRS

**URS: CUSTOMER  
URS-01**: Customer can registration themselves as customer.  
 **SRS-01:** The system provide an interface for registration which receive username, password,   
 name address and their picture for the registration.   
 **SRS-02:** The system can check the name format. The name format should be only a   
 character.  
 **SRS-03:** The system can check the address. The address format should be a characters   
 between 1-255 characters.  
 **SRS-04:** The system can check the picture that user uploading. The picture should be an   
 image format such as, .png, .jpg.  
 **SRS-05:** The system can check the username format. The username format should be   
 characters.  
 **SRS-06:** The system can check the password format. The password format should be   
 characters.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-08**: The system retrieve information from the database.  
 **SRS-09:** The system shall add a new customer information to database using username,   
 password, name, address and their picture.  
 **SRS-10:** The system shall provide the successful registration page after registration is   
 complete.  
 **SRS-11:** The system shall display the error message “The username must be characters”.  
 **SRS-12:** The system shall display the error message “The password must be characters”.  
  **SRS-13:** The system shall display the error message “The name must be only characters”.  
 **SRS-14:** The system shall display the error message “The address must be a characters   
 between 1-255 characters”.  
 **SRS-15:** The system shall display the error message “The picture must be image format”.  
**URS-02**: Customer can login to the system.  
 **SRS-16:** The system provides the login interface which receive the user name and password.  
 **SRS-17:** The system can check the username format. The username format should be   
 characters.  
 **SRS-18:** The system can check the password format. The password must contain the   
 characters.  
 **SRS-19:** The system validates the username and password.  
 **SRS-20:** The system shall provide the successful login page.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-08**: The system retrieve information from the database.  
 **SRS-21:** The system shall show the user status with a customer picture on the top-right of   
 the user interface to confirm his identity.  
**URS-03**:Customer can view all the product category.   
 **SRS-22:** The system provide an interface that show all the product category including, name,   
 description, price and image.   
 **SRS-07**: The system shall connect to the database.  
 **SRS-08**: The system retrieve information from the database.  
 **SRS-23:** The system show the product detail that consist of name, description, price and   
 image.  
**URS-04:** Customer can search the product.  
 **SRS-24:** The system shall provide interface to search a product page which receive product   
 name for searching.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-25**: The system retrieve information from the database by name.  
 **SRS-26:** The system shall provide detail page that consist with product name, product   
 description, and product picture.  
**URS-05**: Customer can add the product as many products as customer want to the   
 shopping cart.   
 **SRS-27:** The system shall provide the interface to add new product which user selected.  
 **SRS-28:** The system add the product that user is selected into the shopping cart.

**SRS-07**: The system shall connect to the database.  
 **SRS-29:** The system shall update the product that user is selected into the database.  
 **SRS-30:** The system shall provide the successful add new product page after user add new   
 product into the shopping cart.  
**URS-06:** Customer can edit the product in the shopping cart.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-31**: The system shall delete the products from the database.  
 **SRS-32:** The system shall update amount of the products into database.  
 **SRS-33**: The system shall display the error message “The system cannot edit the new   
 updating”.  
 **SRS-34**: The system shall display the message “Edit Completed” when updated in the   
 database.  
 **SRS-35**: The system provide an interface for edit function.  
**URS-07:** Customer can save the product in the shopping cart.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-36:** The system shall update information into the database.  
  **SRS-37:** The system shall display error message “The system cannot save the new product”.  
 **SRS-38:** The system shall display error message “The system cannot connect to the   
 database”.  
 **SRS-39:** The system shall display the message “Save Completed” when updated in the   
 database.  
 **SRS-40:** The system provide an interface for save function.  
**URS-08:** Customer can check out for purchase the product.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-08**: The system retrieve information from the database.  
 **SRS-36**: The system update product information in database.  
 **SRS-41**: The system shall provide an interface for Check out function.  
 **SRS-22:** The system provide an interface that show all the product category including, name,   
 description, price and image  
 **SRS-42:** The system shall provide an interface for select the payment option including,   
 Transfer, Credit card and PayPal.  
 **SRS-43:** The system shall update payment option into the database.  
 **SRS-44:** The system shall display message “Purchase successful” when the transect amount   
 from banking system.  
  
**URS-09:** Customer can view the shopping history.  
 **SRS-45:** The system provide an interface for the shopping history page.  
 **SRS-46**: The system retrieve shopping history form the database by reference from user.  
**URS-10:** Customer can logout.  
 **SRS-47:** the system provide an interface for logout.  
 **SRS-48:** The system doesn’t show a user status on top right after logout successful.

**URS: ADMINISTRATOR  
URS-11**: Administrator can login to the system.  
 **SRS-16:** The system provides the login interface which receive the user name and password.  
 **SRS-17:** The system can check the username format. The username format should be   
 characters.  
 **SRS-18:** The system can check the password format. The password must contain the   
 characters.  
 **SRS-19:** The system validates the username and password.  
 **SRS-20:** The system shall provide the successful login page.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-08**: The system retrieve information from the database.  
 **SRS-21:** The system shall show the user status with a customer picture on the top-right of   
 the user interface to confirm his identity  
**URS-12:** Administrator can view the shopping history of all customer.  
 **SRS-44:** The system provide an interface for the shopping history page.  
 **SRS-45**: The system retrieve shopping history form the database by reference from user.  
 **SRS-49**: The system retrieve shopping history form the database by reference from date.  
 **SRS-50:** The system provide an interface that show all the shopping history of all customer.  
**URS-13:** Administrator can provide detail of the product.  
 **SRS-51:** The system provide an interface for update a product which receive name,   
 description, price and image.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-36**: The system update information into database.  
**URS-14:** Administrator can update all information of registration.  
 **SRS-52:** The system provide an interface for update the registration which receive   
 username, password, name, address and their picture for the registration.  
 **SRS-07**: The system shall connect to the database.  
 **SRS-36:** The system shall update all information into database.  
**URS-15:** Administrator can logout.  
 **SRS-47:** the system provide an interface for logout.  
 **SRS-48:** The system doesn’t show a user status on top right after logout successful.

# Use case Diagram

## List use cases

|  |  |
| --- | --- |
| **ID** | **Description** |
| **UCD-01** | Registration. |
| **UCD-02** | ViewTheProductCategory. |
| **UCD-03** | SearchTheProduct. |
| **UCD-04** | AddShoppingcart. |
| **UCD-05** | ViewShoppingCart. |
| **UCD-06** | CheckOut. |
| **UCD-07** | SaveShoppingCart. |
| **UCD-08** | EditShoppingCart. |
| **UCD-09** | ViewTheShoppingHistory. |
| **UCD-10** | ManagementTheProduct. |
| **UCD-11** | Login. |
| **UCD-12** | Logout. |

## Use case

# Class Diagram

## List Class Diagram

|  |  |
| --- | --- |
| **ID** | **Description** |
| **CD-01** | User. |
| **CD-02** | Administrator. |
| **CD-03** | Customer. |
| **CD-04** | Product. |
| **CD-05** | ShoppingCart. |
| **CD-06** | History. |
| **CD-07** | UserDAO. |
| **CD-08** | UserDAOImpl. |
| **CD-09** | UserService. |
| **CD-10** | UserServiceImpl. |
| **CD-11** | UserController. |
| **CD-12** | ProductDAO. |
| **CD-13** | ProductDAOImpl. |
| **CD-14** | ProductService. |
| **CD-15** | ProductServiceImpl. |
| **CD-16** | ProductController. |
| **CD-17** | ShoppingCartDAO. |
| **CD-18** | ShoppingCartDAOImpl. |
| **CD-19** | ShoppingCartService. |
| **CD-20** | ShoppingCartServiceImpl. |
| **CD-21** | ShoppingCartController. |
| **CD-22** | HistoryDAO. |
| **CD-23** | HistoryDAOImpl. |
| **CD-24** | HistoryService. |
| **CD-25** | HistoryServiceImpl. |
| **CD-26** | HistoryController. |

## Class Diagram

# Sequence Diagram

## List Sequence Diagram

|  |  |
| --- | --- |
| **ID** | **Description** |
| **SQD-01** | AddProductShoppingCart. |
| **SQD-02** | CheckOut. |
| **SQD-03** | EditProductShoppingCart. |
| **SQD-04** | Registration. |
| **SQD-05** | SaveProductShopping. |
| **SQD-06** | ViewProduct. |
| **SQD-07** | SearchProduct. |
| **SQD-08** | AddProduct. |
| **SQD-09** | UpdateRegisteration. |
| **SQD-10** | Login. |
| **SQD-11** | Logout. |
| **SQD-12** | ViewHistory. |

## Sequence Diagram

# Method Design

## List method

|  |  |
| --- | --- |
| **ID** | **Description** |
| **MTD-01** | User. |
| **MTD-02** | Administrator. |
| **MTD-03** | Customer. |
| **MTD-04** | Product. |
| **MTD-05** | ShoppingCart. |
| **MTD-06** | History. |
| **MTD-07** | UserDAO. |
| **MTD-08** | UserDAOImpl. |
| **MTD-09** | UserService. |
| **MTD-10** | UserServiceImpl. |
| **MTD-11** | UserController. |
| **MTD-12** | ProductDAO. |
| **MTD-13** | ProductDAOImpl. |
| **MTD-14** | ProductService. |
| **MTD-15** | ProductServiceImpl. |
| **MTD-16** | ProductController. |
| **MTD-17** | ShoppingCartDAO. |
| **MTD-18** | ShoppingCartDAOImpl. |
| **MTD-19** | ShoppingCartService. |
| **MTD-20** | ShoppingCartServiceImpl. |
| **MTD-21** | ShoppingCartController. |
| **MTD-22** | HistoryDAO. |
| **MTD-23** | HistoryDAOImpl. |
| **MTD-24** | HistoryService. |
| **MTD-25** | HistoryServiceImpl. |
| **MTD-26** | HistoryController. |

### Proper method design

# Traceability

## Traceability matric between URS/SRS

## Traceability matric between URS/Class Diagram

## Traceability matric between URS/Use cases Diagram

## Traceability matric between URS/Sequence Diagram

## Traceability matric between URS/Method designs

## Traceability matric between SRS/Use cases Diagram

## Traceability matric between SRS/Class Diagram

## Traceability matric between SRS/Sequence Diagram

## Traceability matric between SRS/Method designs

## Traceability matric between Use cases Diagram / Class Diagram

## Traceability matric between Use cases Diagram /Sequence Diagram

## Traceability matric between Use cases Diagram /Method designs

## Traceability matric between Class Diagram/Sequence Diagram

## Traceability matric between Class Diagram/Method designs

## Traceability matric between Sequence Diagram/Method designs