

**Informatics Institute of Technology**

**Department of Computing**

**Object Oriented Programming**

**Test Plan**

**Module** : 5COSO19C.1 Object Oriented Programming  
(2022)

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**Date of Submission:** 15/01/2024

**IIT ID** : 20221506

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### Test Cases

Use case Number	Test Case	Test Input	Expected Result	Actual Result
1.	Program prompts to load previously saved data and displays a Console Menu containing all menu options.	N/A	Program prompts to load previously saved data and displays a Console Menu containing all menu options.	Program prompts to load previously saved data and displays a Console Menu containing all menu options.
2.	Console Menu Option No. 1  <b>Add A New Product</b>	N/A	N/A	N/A
3.	Program prompt the user to Enter 1 for Clothing item and Enter 2 for Electronic Item.	N/A	Program prompt the user to Enter 1 for Clothing item and Enter 2 for Electronic Item.	Program prompt the user to Enter 1 for Clothing item and Enter 2 for Electronic Item.
4.	Error message will display if user enters invalid integer or a String.	<b>Input: abc</b>	Displays “Invalid input! Please enter a valid Integer.”	Displays “Invalid input! Please enter a valid Integer.”
5.	Program will successfully prompt the user with the relative statements based on the input	<b>Input: 1</b>	Displays “Enter the Product ID of the Clothing”	Displays “Enter the Product ID of the Clothing”

6.	Program will successfully prompt the user with the relative statements based on the input	<b>Input: 2</b>	Displays “Enter the Product ID of the Electronic”	Displays “Enter the Product ID of the Electronic”
7.	Program displays user to input statements to Enter The Product ID for the Electronic item	N/A	Program displays user input statements to Enter The Product ID	Program displays user input statements to Enter The Product ID
8.	Error messages are displayed if user enters two strings as an ID	<b>Input: Abc 123</b>	Displays “Invalid input. Please enter a single word”	Displays “Invalid input. Please enter a single word”
9.	Product ID is successfully added if it matches the correct format.	Input: E001	Product ID is successfully added if it matches the correct format.	Product ID is successfully added if it matches the correct format.

10.	Program displays user input statements to Enter the Product Name	N/A	Program displays user input statements to Enter the Product Name	Program displays user input statements to Enter the Product Name
11.	Product name is successfully added if it matches the correct format.	<b>Input: Phone</b>	Product name is successfully added if it matches the correct format.	Product name is successfully added if it matches the correct format.
12.	Program displays user input statements to Enter Product Items	N/A	Displays “Enter the number of Phones adding to the System”	Displays “Enter the number of Phones adding to the System”
13.	Error messages are displayed if user enters String values	“Enter the number of Phones adding to the System:” <b>Input: abc</b> <b>Input: a</b> <b>Input: #</b>	Displays “Invalid input. Please enter a valid integer”	Displays “Invalid input. Please enter a valid integer”
14.	Product quantity is successfully added if it matches the correct format.	“Enter the number of Phones adding to the System:” <b>Input: 10</b>	Product quantity is successfully added if it matches the correct format.	Product quantity is successfully added if it matches the correct format.

15.	Program displays user input statements to Enter Price of the product	N/A	Program displays user input statements to Enter Price of the product	Program displays user input statements to Enter Price of the product
16.	Error messages are displayed if user enters String values	Enter the price of the Electronic:  <b>Input: abc</b> <b>Input: a</b> <b>Input: #</b>	Displays “Invalid input. Please enter a valid decimal number”	Displays “Invalid input. Please enter a valid decimal number”
17.	Price of the product is successfully added if it matches the correct format.	Price of the product: <b>Input: 4500.67</b>	Price of the product is successfully added if it matches the correct format.	Price of the product is successfully added if it matches the correct format.
18.	Program displays user input statements to Enter The Product brand	N/A	Displays “Enter the Brand of the Electronic :”	Displays “Enter the Brand of the Electronic :”
19.	Program displays user input statements to Enter The Product warranty period	N/A	Displays “How long is the warranty of the Electronic(in months):”.	Displays “How long is the warranty of the Electronic(in months):”.
20.	Error messages are displayed if the user enters string values or if the integer value is not between 1 and 12.	How long is the warranty for one Iron (in months):  Input: aaa Input: 19	Displays “Invalid input. Please enter a valid integer”  Displays “Enter a number between 1-12”	Displays “Invalid input. Please enter a valid integer”  Displays “Enter a number between 1-12”

21.	Warranty of the product is successfully added if it matches the correct format.	How long is the warranty for one Iron (in months):  <b>Input: 5</b>	Price of the product is successfully added if it matches the correct format.	Price of the product is successfully added if it matches the correct format.
22.	All the details of the product successfully added if it matches the correct format.	N/A	Displays “New Electronic successfully added to the System !”	Displays “New Electronic successfully added to the System !”
23.	Console Menu Option No. 2  <b>Delete Product</b>	N/A	N/A	N/A
24.	Program displays an appropriate message if there are no products added to the system.	N/A	Displays “There is no Products in the System to Delete”	Displays “There is no Products in the System to Delete”
25.	Error messages are displayed if user enters Invalid Product Id	ProductID:  Input: abc	Program displays “Couldn’t find any matching product with the ID + ID”.	Program displays “Couldn’t find any matching product with the ID + ID”.

26.	The product ID is successfully deleted if it matches the correct format and corresponds to a product in the system.	ProductID: Input: C001	Displays “The product successfully deleted from the system” along with it’s Details	Displays “The successfully c from the system with its De
27.	Console Menu Option No. 3 to View List Of Products	N/A	N/A	N/A
28.	Program displays an appropriate message if there is no products in the system to print.	N/A	Displays “No products In The System to print!”.	Displays “No p In The System print!”.
29.	If there are Products in the system, Program is displaying the list of Products with all the related information and the list is sorted alphabetically according to ID of the Products.	N/A	Display all the Products Alphabetically based on Their Product ID	Display all the Alphabetically Their Produ
30.	Console Menu Option No. 4 to save the products in a file.	N/A	N/A	N/A
31.	All the program data is successfully stored in the text file.	-	Program stores all The data in to the text file and displays following confirmation message “All the Products have successfully saved to the file!”	Program stor The data in to file and displa following confirmat message “All the Produ successfully s the file!

32.	User is able to read back all the stored data when running a new instance of the application.	-	The user can successfully load the saved data by starting a fresh instance of the program.	The user can successfully load the saved data by starting a fresh instance of the program.
33.	Console Menu Option No. 5 Open User Interface	N/A	N/A	N/A
34.	Opens Graphical User Interface from The Console Menu	N/A	Opens Graphical User Interface from The Console Menu	Opens Graphical User Interface from The Console Menu
35.	Displays a new login frame with two text fields for User ID and password, along with three buttons for Login, and Sign Up.	N/A	Displays a new login frame with two text fields for User ID and password, along with two buttons for Login and Sign Up.	Displays a new login frame with two text fields for User ID and password, along with two buttons for Login and Sign Up.

36.	An error message will be displayed if the user doesn't exist or if the user enters the wrong username or password.	-	Display "Invalid username or password"	Display "Invalid username or password"
37.	Users can successfully log into the system or sign up by providing the correct details.	N/A	Program will display the product menu	Program will display the product menu



38.	Users can select product categories from the combo box	N/A	Users are able to select product categories from the combo box	Users are able to select product categories from the combo box
39.	Users can select a Product to view it's full details	N/A	Users can select a Product to view it's full details	Users can select a Product to view it's full details
40.	Users can add the selected product to the cart with the desired quantity for purchase.	N/A	Users can add the selected product to the cart with the desired quantity for purchase.	Users can add the selected product to the cart with the desired quantity for purchase.
41.	The 'Shopping Cart' button shows the products that the user selected, and a new frame will be displayed.	N/A	The 'Shopping Cart' button shows the products that the user selected, and a new frame will be displayed.	The 'Shopping Cart' button shows the products that the user selected, and a new frame will be displayed.

42.	User gets 10% discount for the very first purchase.	N/A	User gets 10% discount for the very first purchase.	User gets 10% discount for the very first purchase.
43.	User gets 20% discount for more than 3 items in a same category.	N/A	User gets 20% discount for more than 3 items in a same category.	User gets 20% discount for more than 3 items in a same category.

44.	Final bill will be displayed based on the discount amounts for the user below the cart	N/A	Final bill will be displayed based on the discount amounts for the user below the cart	Final bill will be displayed based on the discount amounts for the user below the cart
45.	The user can click on the Proceed button in the Shopping Cart GUI to finalize the order	N/A	The cart will be cleared, and all the data will be updated.	The cart will be cleared, and all the data will be updated.
46.	Console Menu Option No. 6 to Exit the Program	-	N/A	N/A