Coursework Test Plan – 5COSC019C Object Oriented Programming

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Test plan for console application

1. Test the Addition of a New Product

Test Case 1.1: Add a new clothing product with valid details.

Steps: Choose option 1 from the menu, enter valid clothing product details.

Expected Outcome: The product should be added successfully, and a success message should be displayed.

Test Case 1.2: Add a new electronics product with valid details.

Steps: Choose option 1 from the menu, enter valid electronics product details.

Expected Outcome: The product should be added successfully, and a success message should be displayed.

Test Case 1.3: Attempt to add a new product when the maximum limit is reached.

Steps: Add the maximum allowed number of products, then try to add one more.

Expected Outcome: An error message should be displayed, and no new product should be added.

2. Test the Deletion of a Product

Test Case 2.1: Remove an existing product.

Steps: Choose option 2 from the menu, enter the product ID of an existing product.

Expected Outcome: The product should be removed successfully, and the remaining number of products should be displayed.

Test Case 2.2: Attempt to remove a non-existing product.

Steps: Choose option 2 from the menu, enter the product ID of a non-existing product.

Expected Outcome: An error message should be displayed, and no product should be removed.

3. Test the Display of Product List

Test Case 3.1: Display the list of products.

Steps: Choose option 3 from the menu.

Expected Outcome: The list of products should be displayed without any errors.

4. Test Saving and Loading of Products

Test Case 4.1: Save the current product list to a file.

Steps: Choose option 4 from the menu.

Expected Outcome: The product list should be successfully saved to the specified file, and a success message should be displayed.

Test Case 4.2: Load the product list from the saved file.

Steps: Close and reopen the application, choose option 4 to load from the file.

Expected Outcome: The product list should be loaded successfully from the file, and a success message should be displayed.

5. Test GUI Display

Test Case 5.1: Open the GUI.

Steps: Choose option 5 from the menu.

Expected Outcome: The GUI should open without any errors.

6. Test Exit Option

Test Case 6.1: Choose the exit option.

Steps: Choose option 0 from the menu.

Expected Outcome: The application should exit after saving the product list, and an exit message should be displayed.

7. Test Invalid Inputs

Test Case 7.1: Enter invalid input for menu choices.

Steps: Enter characters or symbols when prompted for menu choices.

Expected Outcome: An error message should be displayed, and the user should be prompted to enter a valid choice.

Test Case 7.2: Enter invalid input for product details.

Steps: Enter invalid data types or formats when adding a new product.

Expected Outcome: Error messages should be displayed, and the user should be prompted to enter valid details.