Coursework Report – 5COSC019C Object Oriented Programming

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Have you submitted the <u>video with the demonstration</u> of your system? ☒ Yes ☐ No

If the video has been submitted specify where:
☒ Blackboard
☒ On the cloud (file shared from Google drive, or OneDrive or DropBox, etc), or YouTube.

Copy here the link: https://drive.google.com/file/d/17uKDZS614nmH_qLaxmSEE5YvQAXkQHJ-/view?usp=sharing

Phase 1 – Design and class implementation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Design a UML Use Case Diagram of your system (submitted in a separate file).	☒ Yes ☐ No	I made a Use case diagram that shows how people use the program. It covers things like adding products and using the shopping cart.
Design a UML Class Diagram of your system (submitted in a separate file).	☒ Yes ☐ No	I Created the class diagram that shows how different parts of the program are connected. It includes what things have and what things they can do.
Implementation Class Product	☒ Yes ☐ No	All implementation classes and the WestminsterShoppingManager interface are implemented with relevant attributes and methods. They align with the design and provide a solid foundation for the program.
Implementation Class Electronics	☒ Yes ☐ No	The functionality to add a product is successfully implemented. User input is validated, and the product is added to the system as expected.
Implementation Class Clothing	☒ Yes ☐ No	Clothing class Implemented and functional
Implementation Class User	☒ Yes ☐ No	User class Implemented and functional

Implementation Class Shopping Cart	☒ Yes ☐ No	Shopping cart class implemented and functional
Implementation Interface WestminsterShoppingManager	☒ Yes ☐ No	Interface class created for the WestminsterShoppingManager

Phase 2 – Console menu implementation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Add a product in the system with all the relative information (max 50 doctors)	☒ Yes ☐ No	The functionality to add a product is successfully implemented. User input is validated, and the product is added to the system as expected.
Delete a product from the system by selecting the product ID. Display a message to confirm it has been removed and the total number of products in the system.	☒ Yes ☐ No	successfully implemented the ability to delete a product by entering the product ID. Users receive a confirmation message after deletion, and the total product count is updated.
Print on the screen the list of the products in the system with all the relative information. The list should be ordered alphabetically.	☒ Yes ☐ No	The list of products is displayed on the screen in alphabetical order. This feature enhances user experience and provides a clear overview of available products.
Save in a file entered by the user so far. The user should be able to load back the information running a new instance of the application.	☒ Yes ☐ No	The functionality to save the entered information to a file and load it in a new instance is successfully implemented. This ensures data persistence across application runs.

Phase 3 – GUI Implementation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
The user can select the category through the drop down menu	☒ Yes ☐ No	Users can select product categories through a drop-down menu in the GUI. It provides a user-friendly way to filter products based on categories.

The GUI is open and a list of products with the information as per specification has been displayed	☒ Yes ☐ No	The GUI successfully displays a list of products with detailed information. It adheres to the specifications and provides a visually appealing presentation.
Items with low availability are highlighted in red	☒ Yes ☐ No	Items with low availability are correctly highlighted in red, providing a visual alert to users. This feature enhances the user interface.
The user can select a product and all the details are displayed as per specification in the below panel	☒ Yes ☐ No	Users can select a product, and all the details are correctly displayed in the below panel of the GUI. This ensures users have access to comprehensive product information.
The user can add products to the shopping cart and all the information are displayed in a separate frame	☒ Yes ☐ No	Users can add products to the shopping cart, and all relevant information is displayed in a separate frame. This feature provides a smooth shopping experience.
The final price is displayed correctly	☒ Yes ☐ No	The final price is accurately calculated and displayed in the GUI. This ensures users are informed about the total cost of their selected items.
The discounts, if applicable, are displayed as per specification and the final price updated accordingly	☐ Yes ☒ No	Partially implemented, The discounted amount wont update in the shopping cart

Phase 4 – Testing and system validation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Test plan. (Submitted in a separate file).	☒ Yes ☐ No	All cases tested and included in the test plan documentation
Implementation of an automated unit test for each scenario in the console menu.	☐ Yes ☒ No	Could not do automated testing to the code
Error Handling across all the code, input validation and code quality.	☒ Yes ☐ No	Error handling included in the console and as well as the GUI