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/drive/folders/1xO2QUFyZulNau28LuSb-3SFYMlfzqDQB?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 issues?)
Design a UML Use Case Diagram of your system (submitted in a separate file).	☒ Yes ☐ No	Created a Usecase diagram for the given specifications using UML.
Design a UML Class Diagram of your system (submitted in a separate file).	☒ Yes ☐ No	Created class diagram for the given specifications using UML.
Implementation Class Product	☒ Yes ☐ No	Class Product is created as an abstract class with relevant constructors, getters, and setters.
Implementation Class Electronics	☒ Yes ☐ No	Electronics class is created by extending product class (as a child class of the product class)
Implementation Class Clothing	☒ Yes ☐ No	cloth class is created by extending product class (as a child class of the product class)
Implementation Class User	☒ Yes ☐ No	The user class is created with relevant constructors, getters and setters.

Implementation Class Shopping Cart	☒ Yes ☐ No	Shopping cart class created with relevant getters, setters, and constructors. Also GUI cart window and action methods are created inside this class.
Implementation Interface WestminsterShoppingManager	☒ Yes ☐ No	The WestminsterShoppingManager class was created by implementing the shoppingManager interface

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 issues?)
Add a product in the system with all the relative information (max 50 doctors)	☒ Yes ☐ No	All the product information is validated and added to the productList array.
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	Validated the product ID, showed the product information to the manager, asked for the delete confirmation and deleted the product from the list. The remaining product count is displayed.
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	All the products in the ArrayList will be printed according to the productid.
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	User can use the save function and save the product list in a file. After the system reboots, the saved product list will be saved to the product ArrayList from the saved file.

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	User can select a category from dropdown menu and only product chatagories relevant to that type will be shown.
The GUI is open and a list of products with the information as per specification has been displayed	☒ Yes ☐ No	After user selected a row the relevant product information will be shown in below panel.

Items with low availability are highlighted in red	☒ Yes ☐ No	If item availability count is less than 3, that product line will be highlighted with red color.
The user can select a product and all the details are displayed as per specification in the below panel.	☒ Yes ☐ No	All the relevant selected product details will display in the below panel.
The user can add products to the shopping cart and all the information are displayed in a separate frame	☒ Yes ☐ No	User can add products to the cart by using add to cart button and after pressing the cart button new cart frame will display with the added informations.
The final price is displayed correctly	☒ Yes ☐ No	All the selected product total will display in the below panel of the cart frame.
The discounts, if applicable, are displayed as per specification, and the final price is updated accordingly	☐ Yes ☒ No	If user selected more than or equal 3 products from the same product, 20% discount will be apply. But first purchase discount will apply to the every selections.

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	Created a test plan and submittedd in a separate word document.
Implementation of an automated unit test for each scenario in the console menu.	☐ Yes ☒ No	Automated test plan didn't created.
Error Handling across all the code, input validation and code quality.	☒ Yes ☐ No	Error handlings are added in relevant parts and validation are given.