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/13Fpo-jWXUYZi_CGNUIfaC1he-B4p8NBF?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	Created a UML Use Case Diagram
Design a UML Class Diagram of your system (submitted in a separate file).	☒ Yes ☐ No	Created a UML Class Diagram
Implementation Class Product	☒ Yes ☐ No	The class Product have been implemented with the necessary requirements.
Implementation Class Electronics	☒ Yes ☐ No	The class Electronics have been implemented with the necessary requirements.
Implementation Class Clothing	☒ Yes ☐ No	The class Clothing have been implemented with the necessary requirements.
Implementation Class User	☒ Yes ☐ No	The class User have been implemented with the necessary requirements.
Implementation Class Shopping Cart	☒ Yes ☐ No	The class Shopping cart have been implemented with the necessary requirements.
Implementation Interface WestminsterShoppingManager	☒ Yes ☐ No	The interface WestminsterShoppingManager have been implemented with the necessary requirements.

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 products are added to the system after successfully getting the necessary details.
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	The selected ID gets deleted with the "Product has been successfully deleted" message. It also displays the total number of products left as "Total number of products left: ".
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 details of all the products which have been added to the system is printed and displayed in an alphabetical order.
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 details of the products which have been added to the system are saved in a file called "ShoppingCartData.txt" and it displays products of new instances as well.

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	On the top of the GUI, a drop drown menu is displayed as "Select Product Category" which lets the user choose among "All", "Electronics" and "Clothing" categories.
The GUI is open and a list of products with the information as per specification has been displayed	☒ Yes ☐ No	The GUI is open and the products which have been added to the system are displayed with the necessary details in a table.

Items with low availability are highlighted in red	☒ Yes ☐ No	Does not highlight the product row in red.
The user can select a product and all the details are displayed as per specification in the below panel	☒ Yes ☐ No	The user can select a product and when a product is clicked, the details of the product appears on the panel at the bottom of the page.
The user can add products to the shopping cart and all the information are displayed in a separate frame	☒ Yes ☐ No	The user can select and click "Add to shopping cart" button to add products to the shopping cart and the necessary details of the selected products can be viewed in a new window by clicking "Shopping Cart" button.
The final price is displayed correctly	☒ Yes ☐ No	The final price is displayed after being calculated with the discounts properly.
The discounts, if applicable, are displayed as per specification and the final price updated accordingly	☒ Yes ☐ No	The discounts are displayed, however the first purchase discount of 10% does not calculate properly. The final price is updated and displayed accordingly.

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	Wrote a test plan
Implementation of an automated unit test for each scenario in the console menu.	☒ Yes ☐ No	Unit testing using Junit has been implemented on "addNewProduct" and "deleteAProduct" methods
Error Handling across all the code, input validation and code quality.	☒ Yes ☐ No	