# Coursework Report – 5COSC019C Object Oriented Programming

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| Have you submitted the video with the demonstration 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: ……….**

**…….**

**Phase 1 – Design and class implementation**

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| **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 | Completely implemented it  No errors |
| Design a UML Class Diagram of your system (submitted in a separate file). | Yes  No | Completely implemented it  No errors |
| Implementation Class Product | Yes  No | Completely  No errors |
| Implementation Class Electronics | Yes  No | Completely  No errors |
| Implementation Class Clothing | Yes  No | Completely  No errors |
| Implementation Class User | Yes  No | I added a username and password for logging in to the GUI. Also added the counter to check the no.of logins |
| Implementation Class Shopping Cart | Yes  No | Included the GUI there |
| Implementation Interface WestminsterShoppingManager | Yes  No | Included the Manager’s console there |

**Phase 2 – Console menu implementation**

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| **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 | Completely  I used a modified hashmap to keep the maximum number at 50. |
| 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 | All the requirements are met. |
| 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 | Alphabetically ordered by ordering product names  In 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 | Used a JSON file to store as a hashmap. |

**Phase 3 – GUI Implementation**

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| **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 | Works |
| The GUI is open and a list of products with the information as per specification has been displayed | Yes  No | The products won’t show up automatically. The user has to select a category first. |
| Items with low availability are highlighted in red | Yes  No | If the product number is below, 3 products are highlighted in red. |
| The user can select a product and all the details are displayed as per specification in the below panel | Yes  No | Works fine. |
| The user can add products to the shopping cart and all the information are displayed in a separate frame | Yes  No | When the Shopping Cart button is pressed, the second frame is displayed. After they are added. |
| The final price is displayed correctly | Yes  No | Works fine. |
| The discounts, if applicable, are displayed as per specification and the final price updated accordingly | Yes  No | Yes, but, the same category discount works only for different types of products of the same category. |

**Phase 4 – Testing and system validation**

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| **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 | I created the test plan in an excel sheet to cover almost all cases except for some error handling situations |
| Implementation of an automated unit test for each scenario in the console menu. | Yes  No | Some of the scenarios were implemented, others were difficult to do due to issues like inability get user input in testing |
| Error Handling across all the code, input validation and code quality. | Yes  No | Included sufficient error handling in the consoles for handling incorrect datatypes in inputs. |