# **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: https://drive.google.com/file/d/1UDRGy8RkLw4GULWVtBhu7R9CmAVSY3L3/view?usp=sharing**

**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 | Use case diagram has been created to showcase key use cases and actors of this system |
| Design a UML Class Diagram of your system (submitted in a separate file). | Yes  No | Drew class diagram to make a sketch about the whole programme by getting an overall understanding about how the classes are being formed in this programme. |
| Implementation Class Product | Yes  No | Abstract class Product is created/ |
| Implementation Class Electronics | Yes  No | This class is inherited from Product class. |
| Implementation Class Clothing | Yes  No | This class is inherited from Product class. |
| Implementation Class User | Yes  No | User class is created |
| Implementation Class Shopping Cart | Yes  No | This class is the class which contains all logical methods related to shopping cat gui. |
| Implementation Interface WestminsterShoppingManager | Yes  No | ShoppingManager interface implemented to WestminsterShoppingManager and defined all methods 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 Products) | Yes  No | Admin can add 50 clothing and electronics products to the product list. |
| 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 | If the user need to remove a particular Item then user need to find the productid and after selecting clothing or electronic then add the productid. |
| 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 | Products added to the system are being displayed according to the product ID. Product Id is being sorted according to the alphabetical order and numerical order. First IDs starting with c then IDs starting with E. |
| 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 data entered by user is being saved in a text file. I used Object Input Stream and Object Output Stream in this so the file is not human readable. So I created another text file which is human readable. That is just to show that all details are correctly written. But throughout the project Im using other text file which is not human readable. |

**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 | User can select electronic, clothing or both. |
| The GUI is open and a list of products with the information as per specification has been displayed | Yes  No | Yes GUI can open a list of products as the specification has displayed. |
| Items with low availability are highlighted in red | Yes  No | If the Item is not available it displays a message in red as this item is not available. If the user clicks on an unavailable item then the row of the product table is being red colour. |
| The user can select a product and all the details are displayed as per specification in the below panel | Yes  No | Yes it displays as the specification shows. |
| The user can add products to the shopping cart and all the information are displayed in a separate frame | Yes  No | Yes all the information shows in the same frame. |
| The final price is displayed correctly | Yes  No | Yes all are being calculated with applicable discounts. |
| The discounts, if applicable, are displayed as per specification and the final price updated accordingly | Yes  No | Yes. Final price is calculating with all applicable discounts and it is being calculated correctly. |

**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 |  |
| Implementation of an automated unit test for each scenario in the console menu. | Yes  No |  |
| Error Handling across all the code, input validation and code quality. | Yes  No | Throughout the code I handled exceptions properly. And yes I validated all inputs. |