

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/drive/folders/155amv52qQ1vba1iSXfnKQYmHcjPlmWpR?usp=drive_link

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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). | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Create a use case diagram for system |
| Design a UML Class Diagram of your system (submitted in a separate file). | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Create a class diagram for system |
| Implementation Class Product | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented the product class as a abstract class with variables |
| Implementation Class Electronics | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented the Electronic class which extends product class with variables, constructors , getters and setters. |
| Implementation Class Clothing | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented the clothes class which extends product class with variables, constructors , getters and setters. |
| Implementation Class User | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented user class with variables , constructors, getters and setters. |
| Implementation Class Shopping Cart | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented Shoping Cart class with |

| | | |
|---|---|--|
| Implementation Interface ShoppingManager | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented the WestminsterShoppingManager class which implements 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 issue?) |
|--|---|---|
| Add a product in the system with all the relative information (max 50 Products) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | First check the arraylist size. If arraylist size>50 display a message or arralistsize<50 add to the size |
| 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. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If I want to delete any unwanted item in the list . first give the id then check the given id is in the list. If the condition is true delete the item. |
| Print on the screen the list of the products in the system with all the relative information. The list should be ordered alphabetically. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Sorted names and get the alphabetically 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. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Create a file a and save the details of product added |

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 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | User can select the product if all or electronic or clothes. If select all both of electronic and clothes data will display |
| The GUI is open and a list of products with the information as per specification has been displayed | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | List of products and the product details display in a table. |

| | | |
|--|---|--|
| Items with low availability are highlighted in red | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If any product the product count is less than 3 the row will be highlighted in red. |
| The user can select a product and all the details are displayed as per specification in the below panel | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | When select a product the all details about the product will display in the text area in below. |
| The user can add products to the shopping cart and all the information are displayed in a separate frame | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | When user add products to shopping cart and select the shopping cart the all details in cart will display in the separate frame. |
| The final price is displayed correctly | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | The final amount will displayed correctly with the discounts. |
| The discounts, if applicable, are displayed as per specification and the final price updated accordingly | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If there are no discounts their will be display 0 |

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). | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | A test plan is created to test all the inputs and outputs of the system. |
| Implementation of an automated unit test for each scenario in the console menu. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Implemented Junit testing for all methods in console menu. |
| Error Handling across all the code, input validation and code quality. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Error handling done for all of the code. An error occurs at only two instance of the code during user inputs. |