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| animatedLOGO | **Assignment No. 01 (Graded) SEMESTER SPRING 2021 CS304- Object Oriented Programming** | | **Total Marks: 20**  **Due Date 20/05/2021** |
| ***Instructions***  **Please read the following instructions carefully before solving & submitting assignment:**  **It should be clear that your assignment will not get any credit if:**   * **The assignment is submitted after due date.** * **The submitted assignment is other than .doc/.docx file.** * **The submitted assignment does NOT open or file is corrupted.** * **The assignment is copied (from other student or copied from handouts or internet).**   ***Solution Uploading instructions***   * For clarity and simplicity, you are required to Upload/Submit only **.DOC/.DOCX file** * Copy/Paste your class diagram in your final MS Word file if you are using any drawing tool (MS Paint, MS Visio etc.). Images submitted as solution files will not be accepted.   ***Objective***  The objective of this assignment is:   * To give you the idea of practical implementation of the OOP concepts like abstraction, encapsulation, inheritance, association, generalization, specialization, and UML class construction**.**   **For any query about the assignment, contact at** [**CS304@vu.edu.pk**](mailto:CS304@vu.edu.pk)  **GOOD LUCK** | | | |
|  | | **Marks: 20** | |
| **Problem Statement:**  Due to Ramadan, your nearby community wants to launch an “Online Grocery Store” so that, people can purchase groceries from home and able to maintain social distance. This precaution will allow reducing the movement of people in Ramadan and minimize the spread of disease COVID-19. The XYZ store will offer various products. The user will be shown a list of products, which can be selected or deselected from the provided list. The user will need to get registered to buy Products. At the end of shopping, the customer can double-check all the Products added into his Cart and verify the total amount before payment. The Store Administrator will manage Products and assign orders to Delivery Boys.  Draw an Object Model (Class Diagram) for the given scenario showing main objects, their attributes, functions and relationships.  **The tasks you have to do are:**   1. Extract the main objects (entities) of above system. 2. Find the necessary attributes and functions that need to be associated with each object. 3. Identify the relationships among identified objects.   **4. Construct a final comprehensive Class diagram showing all objects and their relationships along with their attributes and functions.**  **Important things to consider:**   1. As happens in real world that everyone visualizes a problem in a different way so the solutions of all students may vary based upon their own thinking. 2. You have to use standard UML notations for objects, classes, and their associations.   **Hint:**  Besides problem statement; objects, properties, and functions of a system can also be extracted from domain knowledge.  **Note:**  You have to use all concepts studied so far like abstraction, encapsulation, inheritance, association, generalization, and specialization wherever applicable. | | | |
| **Lectures Covered:** This assignment covers Lecture # **1-6**  **Deadline:** Your assignment must be uploaded/submitted within due date **20/05/2021** | | | |