



National University of Computer & Emerging Sciences, Karachi
Spring – 2024, School of Computing
Quiz # 1
16th Feb 2023



Course Code: CS1004	Course Name: Object Oriented Programming
Instructor Name: Mr. Basit Ali	
Student Roll No:	Section:

Max Marks: 20

Question # 1 (15 Marks)

Develop an inventory management system for a retail company dealing in electronics, requiring a robust class structure in C++ to handle various product types.

Requirements

- 1- Create a class named 'Product' to encapsulate common attributes such as serial number, brand, model, price, and quantity.
- 2- Implement constructors for the 'Product' class to initialize its attributes, ensuring default values are appropriately set.
- 3- Include setter and getter functions within the 'Product' class to enable manipulation and retrieval of product information.
- 4- Incorporate data validation checks within setter functions to ensure data integrity, such as ensuring non-negative prices and non-zero quantities.
- 5- Define a method within the 'Product' class to calculate the total value of a product based on its price and quantity in stock.
- 6- Ensure that the calculation method accurately computes the total value considering the price and quantity attributes.
- 7- Implement functions within the inventory management system to support the addition, removal, and updating of products dynamically.

Question # 2 (5 Marks)

Summarize the advantages of the proposed class and its significance in developing a reliable and efficient inventory management system for the retail company.