**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**BACHELORS OF SCIENCE IN COMPUTER SCIENCE**

**Course Title and Course Code: Object Oriented Programming (CT-260)**

**Course Learning Outcome:**

**CLO 2:** Comprehend the objects & their relationships to build an object-oriented solution.

**Complex Problem solving Attributes (CPA): (NCEAC Manual 2021** [**https://www.seoulaccord.org/document.php?id=79**](https://www.seoulaccord.org/document.php?id=79)**)**

**CPA-1 Depth of analysis required:** Has no obvious solution, and requires conceptual thinking and innovative analysis to formulate suitable abstract models

**CPA-2 Depth of knowledge required:** A solution requires the use of in-depth computing or domain knowledge and an analytical approach that is based on well-founded principles.

**CPA-3 Requirement identification:** Identification of a requirement or the cause of a problem is ill defined or unknown.

**Problem Statement:**

**DESIGN** and **IMPLEMENT** best design for the given case by adding appropriate functionalities. You may add your own assumptions to complete this case.

**Problem Description:**

Order management consists of several critical business processes, including order, shipment, and invoice processing. These processes spawn important business metrics, such as sales volume and invoice revenue, that are key performance indicators for any organization that sells products or services to others.

ABC company manages order management of Watches and Jewelry. The company manages to take orders in their shops and also offer customized products with preferable features; such as colors of straps and chains of watches, and addition/removal in jewelry designs. This company now aims to shift their store/shop business to online system. This online system will have display of products for these two categories. In addition to that, customer can add products in shopping cart and can make payment using three modes; Credit card, EasyPaisa, Cash on Delivery.

**Instructions:**

* Students may work in group of 3 at maximum.
* Your assignment will be graded according to the rubrics (provided with the assignment).
* Submit your assignment on Google Classroom.

**Deliverables:**

1. Object-oriented design using UML Class diagram with complete notations with proper naming conventions.
2. Implementation of the object-oriented design of the given problem.
3. Clearly drafted assumptions (if any)