**Inha University in Tashkent  
School of Computer Science and Information Engineering**

**Course Name:** Object Oriented Programming 2  
**Semester and Year:** Spring Freshman, 2024

**Laboratory Assignment 1: Object-Oriented Programming in C++**

**Topics Covered:**

* Classes and objects
* Defining a Class With a Member Function
* Defining a Member Function with a Parameter
* Data Members, set Functions, and get Functions
* Placing a Class in a Separate File for Reusability (Cont.)
* Separating Interface from Implementation
* Validating Data with set Functions

**General Instructions:**

1. This C++ program exercise should be thoroughly commented. Each segment of code should be accompanied by descriptive comments explaining its purpose and functionality. Begin each exercise with a header containing the program name, date of creation, and the author's name.
2. Adhere to code conventions while writing your C++ program. Maintain readability by employing proper indentation and formatting.
3. Plagiarism, copying, or utilizing AI-generated content will result in a score of zero for the laboratory assignment.
4. Upload your completed laboratory exercise, named RealEstateManagement.cpp to the eClass system before the designated deadline: **February 15, 2024**.

**Exercise 1: Real Estate Management System**

**Objective:** Design a real estate management system using object-oriented programming principles in C++. Implement a class Property to represent real estate properties with the following features:

* Data members: propertyId, propertyName, propertyType, propertyValue.
* Member functions: getPropertyId(), setPropertyId(), getPropertyName(), setPropertyName(), getPropertyType(), setPropertyType(), getPropertyValue(), setPropertyValue().
* Implement set functions to validate and set property data appropriately.

**Additional Instructions:**

For reusability purposes, create an appropriate RealEstateManagement.cpp to declare the class Property. This file should contain the class declaration along with the member function prototypes.