

CS212- Quiz5:	Date:
Name:	Score:

This is a take-home quiz. Please follow the instruction below to write a Java Program and submit it through Blackboard. The due date for this quiz is 04/20/2021 (11:59 pm).

Instructions:

Design a class named **Person** with fields for holding a person's name, address, and telephone number. Write on or more constructors and the appropriate mutator and accessor methods for the class's fields.

Next, design a class named **Customer**, which extends the **Person** class. The **Customer** class should have a field for a customer member number and a boolean field indicating whether the customer wishes to be on a mailing list. Write one or more constructors and the appropriate mutator and accessor methods for the class's fields.

A retail store has a preferred customer plan where customers can earn discounts on all their purchases. The amount of a customer's discount is determined by the amount of the customer's cumulative purchases in the store as follows:

- When a preferred customer spends \$500, he or she gets a 5 percent discount on all future purchases.
- When a preferred customer spends \$1000, he or she gets a 6 percent discount on all future purchases.
- When a preferred customer spends \$1500, he or she gets a 7 percent discount on all future purchases.
- When a preferred customer spends \$2000, he or she gets a 10 percent discount on all future purchases.

Design a class named **PreferredCustomer**, which extends the **Customer** class. The **PreferredCustomer** class should have fields for the amount of the customer's purchases and the customer's discount level. Write on or more constructors and the appropriate mutator and accessor methods for the class's fields. Demonstrate the **PreferredCustomer** class in a simple program.

Rubric is on Blackboard.

Submission Requirements:

1. **Upload all your class file to BlackBoard for submission. Only .java source file is acceptable.**
2. You should make sure that your file is **able to compile and run**. If your program cannot be compiled, then you get 0 for that quiz. If your program cannot be run but it can be compiled, then you lose at least 50 points for a single quiz.
3. Submit your file through Blackboard.
4. This assignment can be submitted unlimited times, but only the last submission will be graded.