Result & Analysis

Attempt 1 of 01

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Test	REC_2028_OOPS using Java_Week 6_MCQ
Course	2024_28_III_OOPS Using Java Lab

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Summary Sections Filters

1 MCQ (15)

Question No: 1

Multi Choice Type Question

Which of the following is the correct way for class **B** to inherit from class **A**?

- class B + class A {}
- class B inherits class A {}
- class B extends A {}
- class B extends class A {}

Status **Correct** | Mark obtained **1/1** | Hints used **0** | Level **Easy**

Question type **MCQ Single Correct** | Subject **Java** | Topic **OOPS**

Result & Analysis

Attempt 1 of 01

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Summary Sections Filters

1 Coding (1)

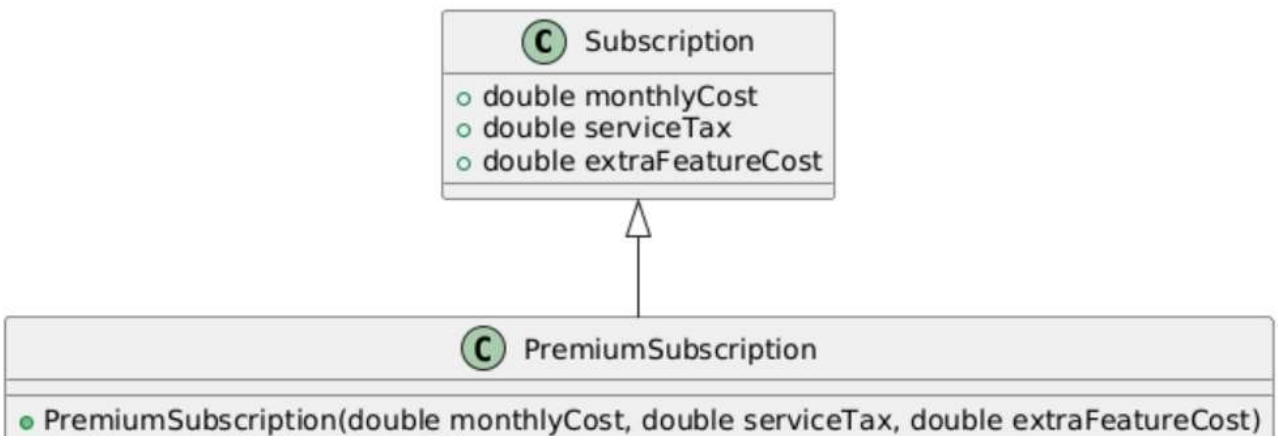
Question No: 1

Single File Programming Question

Problem Statement

Elsa subscribes to a premium service with a base monthly cost, a service tax and an extra feature cost. Assist her in writing an inheritance program that takes input for these values and calculates the total monthly cost.

Refer to the below class diagram:



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Test	2028_REC_OOPS using Java_Week 6_Q2
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Summary Sections Filters

1 Coding (1)

Question No: 1

Single File Programming Question

Problem Statement

Alice is managing an online store and wants to implement a program using inheritance to calculate the selling price of products after applying discounts.

Guide her by following the instructions:

1. Create a base class called **Product** with a public double attribute price.
2. Create a subclass called **DiscountedProduct,** which extends Product and includes a private double attribute discount rate. This subclass has a method called **calculateSellingPrice()** to determine the final selling price after applying the discount.

Formula: Discounted selling price = price * (1 - discount rate)

Input format :

The first line of input consists of a double value **p,** the initial price of the product.

The second line consists of a double value **d,** the discount rate.

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Test Duration 00:... Test Start Time O... Test Submit Time N Resume Count 3

Summary Sections Filters

1 Coding (1)

Question No: 1

Single File Programming Question

Problem Statement

Preethi is working on a project to automate sales tax calculations for items in a store. She wants to create a program that takes the price of an item and the sales tax rate as input and calculates the final price of the item after applying the sales tax.

Write a program using the class **SalesTaxCalculator**, which contains an overloaded method named **calculateFinalPrice** to handle both integer and double inputs. The program should also include a Main class that takes user input, calls the appropriate method from SalesTaxCalculator, and prints the final price of the item.

Formula Used: Final price = price + ((price * sales tax rate) / 100)

Input format :

The first line of input consists of an integer **price** (the price of the item for integer inputs).

The second line of input consists of an integer **taxRate** (the sales tax rate for integer inputs).

The third line of input consists of a double **price** (the price of the item for double inputs).

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Summary Sections Filters

1 Coding (1)

Question No: 1

Single File Programming Question

Problem Statement

Mr.Kapoor wants to create a program to calculate the volume of a Cuboid and a Cube using method overriding.

Implements a base class **Cuboid** with attributes for length, width, and height. Include a method calculateVolume() that computes the volume of the cuboid.

Extends the base class with a subclass **Cube** representing a cube, where all sides are equal. Override the calculateVolume() method in the Cube class to compute the volume of the cube.

The program should take user input for the dimensions of the cuboid and the side length of the cube and display the calculated volumes with two decimal places.

Input format :

The first line of input consists of 3 space-separated double values, representing the cuboid length, width, and

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Summary Sections Filters

1 Coding (1)

Question No: 1

Single File Programming Question

Problem statement:

Tim was tasked with developing a grocery shopping app. You have a class hierarchy that includes **Item, Produce, and OrganicProduce.** Your goal is to calculate the total cost of a shopping list, which may contain a mix of regular produce and organic produce items. Additionally, you need to apply discounts to organic items. Apply a **10% discount** on organic produce items

Class Hierarchy:
Item: Base class for all items.
Produce: Subclass of Item for regular produce items.
OrganicProduce: Subclass of Produce for organic produce items.

Result & Analysis

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Summary Sections Filters

1 Coding (4)

Question No: 1

Single File Programming Question

Problem Statement

John is planning a long road trip and wants to calculate the distance his car can travel based on its speed and fuel capacity. As John knows that different cars have different fuel efficiencies, he wants a program that can help him estimate the travel distance for any given car.

To do this, you are tasked with creating a program that calculates the travel distance of a car based on its speed and fuel capacity. The calculation is simple and follows the formula:

Travel Distance = Speed * Fuel Capacity

You need to model this system using a **Vehicle** class and a **Car** class. The Vehicle class will have attributes for the speed and fuel capacity, while the Car class will inherit from the Vehicle class and include a method to calculate the travel distance.

Input format :

The first line of input consists of a double value representing the speed of the car in km/h

Result & Analysis

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Summary Sections Filters

1 Coding (4)

Question No: 1

Single File Programming Question

Problem Statement

A bank provides two types of deposit schemes: **Fixed Deposits (FD)** and **Recurring Deposits (RD)**. Customers want to calculate the interest they can earn based on their selected scheme.

Develop a **Java program using inheritance** to compute the interest for FD and RD. The program should include:

- A **base class** Account with attributes accountHolder and principalAmount, along with a method for interest calculation.
- A **subclass** FixedDeposit that calculates interest for FD.
- A **subclass** RecurringDeposit that calculates interest for RD.

Formulas Used:
Interest for FD: (principal amount * duration in years * rate of interest) / 100
Interest for RD: (maturity amount * duration in months * rate of interest) / (12 * 100), where maturity amount = monthly deposit * duration in months.