

VIT - Vellore

Name: RONIT MEXSON .

Email: ronit.mexson2024@vitstudent.ac.in

Roll no: 24BAI0036

Phone: 9999999999

Branch: ARUMUGA ARUN R_OOPS

Department: admin

Batch: VL2024250502365

Degree: admin

Scan to verify results



BCSE102P_Structured and Object Oriented Programming Lab_VL2024250502365

VIT V_Structured and OOP_Lab 6_COD_Easy_Inheritance and Constructor

Attempt : 1

Total Mark : 20

Marks Obtained : 20

Section 1 : Coding

1. Problem Statement

David is managing a store and wants to calculate the total cost for different goods based on their weight and the rate per kilogram. He needs to write a program that takes user input for the weight (in kilograms) and the rate (in rupees per kilogram) of the goods and calculates the total cost. The program should display the weight, rate, and total cost with precision.

The program should utilize constructor overloading in the CotRCal class, which should have two constructors:

The default constructor initializes the weight and rate to 0.0. The parameterized constructor accepts the weight and rate as arguments and calculates the total cost.

Answer

```
// You are using GCC
#include<iostream>
#include<iomanip>
using namespace std;
class CotRCal{
public:
    double weight;
    double rate;
    CotRCal(){
        weight=0.0;
        rate=0.0;
    }
    CotRCal(double w, double r){
        weight=w;
        rate=r;
        cout<<"Weight: "<<weight<<" kg"<<endl;
        cout<<"Rate: Rs."<<rate<<" per kg"<<endl;
        cout<<fixed<<setprecision(2);
        cout<<"Total Cost: Rs."<<weight*rate<<endl;
    }
};
int main(){
    double w;
    double r;
    cin>>w;
    cin>>r;
    CotRCal(w,r);
    return 0;
}
```

Status : Correct

Marks : 10/10

2. Problem Statement

Dev is a bank assistant who needs to calculate the simple interest for various customers. He wants to develop a simple program that calculates the simple interest based on the principal amount, interest rate, and time provided by the customers.

Assist him by creating a program that uses a class SimpleInterest and constructor overloading.

Constructor overloading Specifications:

SimpleInterest(): Default constructor that initializes principal, rate, time, and simpleInterest to zero. SimpleInterest(double p, double r, int t):

Parameterized constructor that takes the principal amount (p), interest rate (r), and time (t) as arguments.

Answer

```
// You are using GCC
#include<iostream>
#include<iomanip>
using namespace std;
class SimpleInterest{
public:
    double p;
    double r;
    int t;
    SimpleInterest(){
        p=0.0;
        r=0.0;
        t=0;
    }
    SimpleInterest(double p, double r, int t){
        this->p=p;
        this->r=r;
        this->t=t;
        cout<<fixed<<setprecision(2);
        cout<<(p*r*t)/100;
    }
};
int main(){
    double p;
    double r;
    int t;
    cin>>p;
    cin>>r;
    cin>>t;
    SimpleInterest(p,r,t);
}
```

```
} return 0;
```

Status : Correct

Marks : 10/10