

# OOP Lab 12

Task 1:

```
package com.mycompany.lab12task1;
```

```
abstract class vehicle
```

```
{
```

```
    public abstract void start();
```

```
}
```

```
class Car extends vehicle
```

```
{
```

```
    private String model;
```

```
    Car (String model)
```

```
{
```

```
        this.model=model;
```

```
}
```

```
    public void start()
```

```
{
```

```
        System.out.println(model + "Car is starting");
```

```
}
```

```
}
```

```
class Motorcycle extends vehicle
```

```
{
```

```
    private String brand;
```

```
    Motorcycle(String brand)
```

```
{
```

```
        this.brand= brand;
```

```
}
```

```

    public void start()
    {
        System.out.println(brand + "Motorcycle is starting");
    }
}

public class Lab12task1 {

```

```

    public static void main(String[] args) {
        Car c = new Car ("Toyoto");
        Motorcycle m = new Motorcycle("Honda");
        c.start();
        m.start();
    }
}

```

OUTPUT:

ToyotoCar is starting

HondaMotorcycle is starting

Task 2:

```
package com.mycompany.lab12task2;
```

```
abstract class Seat
```

```

{
    public abstract double calculateSeatPrice(int seats);
}

```

```
class BusinessClass extends Seat
```

```

{
    public double calculateSeatPrice(int numberOfSeats) throws IllegalArgumentException
    {

```

```

        double pricePerSeat = 10000;
        return seats * pricePerSeat;
    }
}

class FirstClass extends Seat
{
    public double calculateSeatPrice(int numberOfSeats)throws IllegalArgumentException
    {
        double pricePerSeat = 20000;
        return seats * pricePerSeat;
    }
}

class EconomyClass extends Seat
{
    public double calculateSeatPrice(int numberOfSeats)throws IllegalArgumentException
    {
        double pricePerSeat = 30000;
        return seats * pricePerSeat;
    }
}

public class Lab12task2 {
    public static void main(String[] args) {
        Seat business = new BusinessClass();
        Seat first = new BusinessClass();
        Seat economy = new BusinessClass();

        System.out.println("Business Class Price "+ business.calculateSeatPrice(3));
        System.out.println("First Class Price "+ first.calculateSeatPrice(2));
        System.out.println("Economy Class Price "+ economy.calculateSeatPrice(4));
    }
}

```

}

}

Output:

Business Class Price 30000.0

First Class Price 20000.0

Economy Class Price 40000.0