

```
package assignments
```

```
object Assign4 {
```

```
  def main(ary: Array[String]): Unit = {
```

```
    //Task 1 - Single Inheritance
```

```
    var car1 = new car1
```

```
    car1.print()
```

```
    car1.brand("maruti suzuki")
```

```
    car1.price(500000)
```

```
    //Task 2 - Multiple Inheritance
```

```
    var car2 = new car2
```

```
    car2.print()
```

```
    car2.brand("Ferrari")
```

```
    car2.price(1000000)
```

```
    car2.enginecap("1,000cc")
```

```
    car2.topspeed(250)
```

```
    // Task 3 - Addition
```

```
    var add = new addition
```

```
    val a = 10
```

```
    val b = a
```

```
    println(s"Result of adding $a and $b and constant 10 then sqaure :  
" +
```

```
        add.square(10, 10))
```

```
    // Task 4 - Acadgild prices
```

```
    println("Details about Blockchain Certification are : " +
```

```
        Acadprice("Blockchain Certification") )
```

```
    println("Details about core java are " +
```

```
        Acadprice("core java") )
```

```
  }
```

```
  def Acadprice(n: String): String = {
```

```
    n match {
```

```
      case "Android App Development" => "Price is 14,999 INR"
```

```
      case "Data Science" => "Price is 49,999 INR"
```

```
      case "Big Data Hadoop & Spark Developer" => "Price is 24,999  
INR"
```

```
      case "Blockchain Certification" => "Price is 49,999 INR"
```

```
      case _ => "course not found in acadgild"
```

```
    }
```

```

    }
}

class addition {

    def add1(a: Int, b: Int): Double = {
        val constant = 100
        a + b + 100
    }

    def square(a: Int, b: Int): Double = Math.pow(add1(a, b), 2)
}

trait basiccar {
    def brand(a: String): Unit
    def price(a: Int): Unit
}

trait cardetails {
    def enginecap(a: String)
    def topspeed(a: Int)
}

class car1 extends basiccar {
    def print(): Unit = println("Hello car 1 - single inheritance")
    def brand(a: String): Unit = println(s"car brand is $a")
    def price(a: Int): Unit = println(s"car price is $a")
}

class car2 extends basiccar with cardetails {
    def print(): Unit = println("Hello car 2 - multiple inheritance")
    def brand(a: String): Unit = println(s"car brand is $a")
    def price(a: Int): Unit = println(s"car price is $a")
    def enginecap(a: String): Unit = println(s"car engine capacity is $a")
    def topspeed(a: Int): Unit = println(s"car topspeed is $a kmph")
}

```

Console Output:

```
Hello car 1 - single inheritance
car brand is maruti suzuki
car price is 500000
Hello car 2 - multiple inheritance
car brand is maruti suzuki
car price is 500000
car engine capacity is 1,000cc
car topspeed is 150 kmph
Result of adding 10 and 10 and constant 10 then sqaure : 14400.0
Details about Blockchain Certification are Price is 49,999 INR
Details about core java are course not found in acadgild
```