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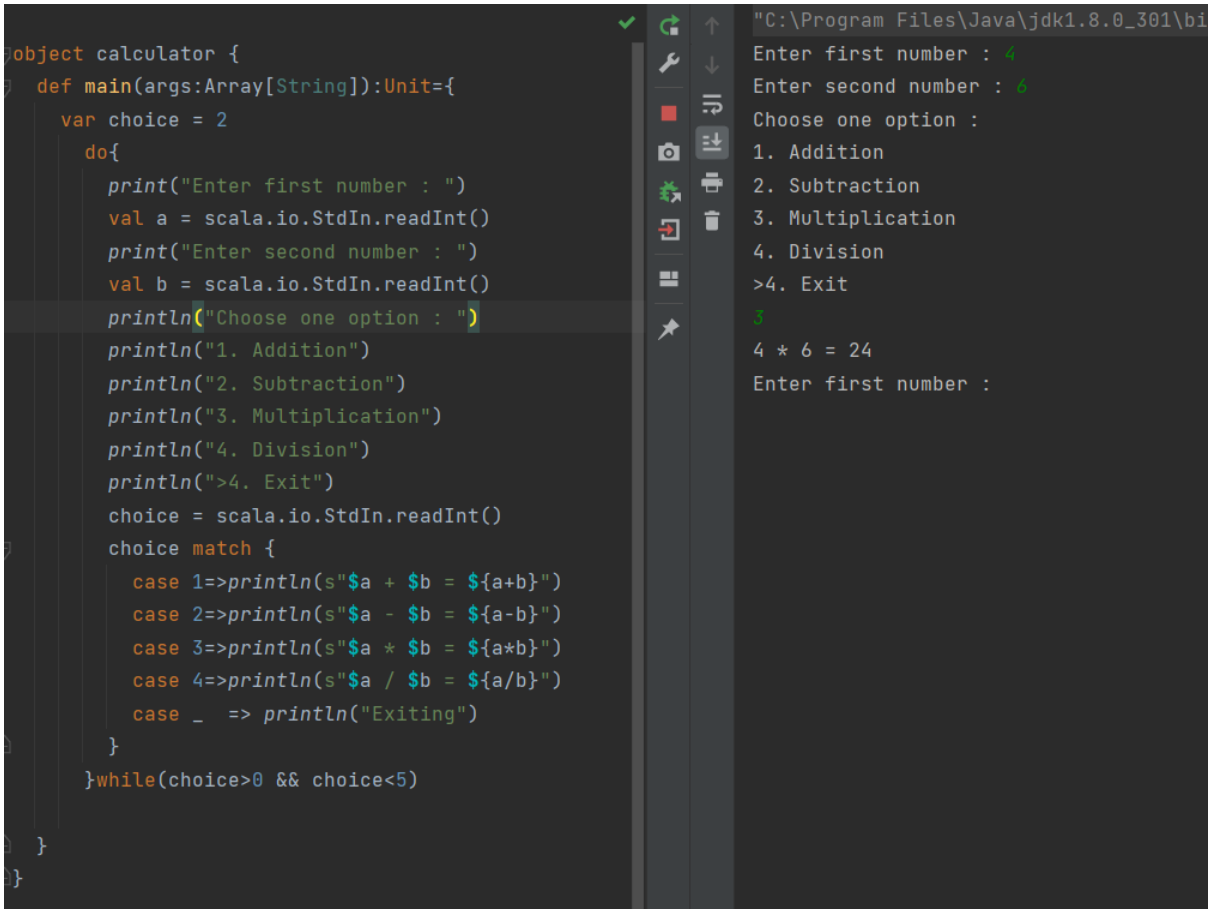
Q1 :



```
object calculator {
  def main(args:Array[String]):Unit={
    var choice = 2
      do{
        print("Enter first number : ")
        val a = scala.io.StdIn.readInt()
        print("Enter second number : ")
        val b = scala.io.StdIn.readInt()
        println("Choose one option : ")
        println("1. Addition")
        println("2. Subtraction")
        println("3. Multiplication")
        println("4. Division")
        println(">4. Exit")
        choice = scala.io.StdIn.readInt()
        choice match {
          case 1=>println(s"$a + $b = ${a+b}")
          case 2=>println(s"$a - $b = ${a-b}")
          case 3=>println(s"$a * $b = ${a*b}")
          case 4=>println(s"$a / $b = ${a/b}")
          case _  => println("Exiting")
        }
      }while(choice>0 && choice<5)

  }
}
```

```
"C:\Program Files\Java\jdk1.8.0_301\bi
Enter first number : 4
Enter second number : 6
Choose one option :
1. Addition
2. Subtraction
3. Multiplication
4. Division
>4. Exit
3
4 * 6 = 24
Enter first number :
```

Q 2 :

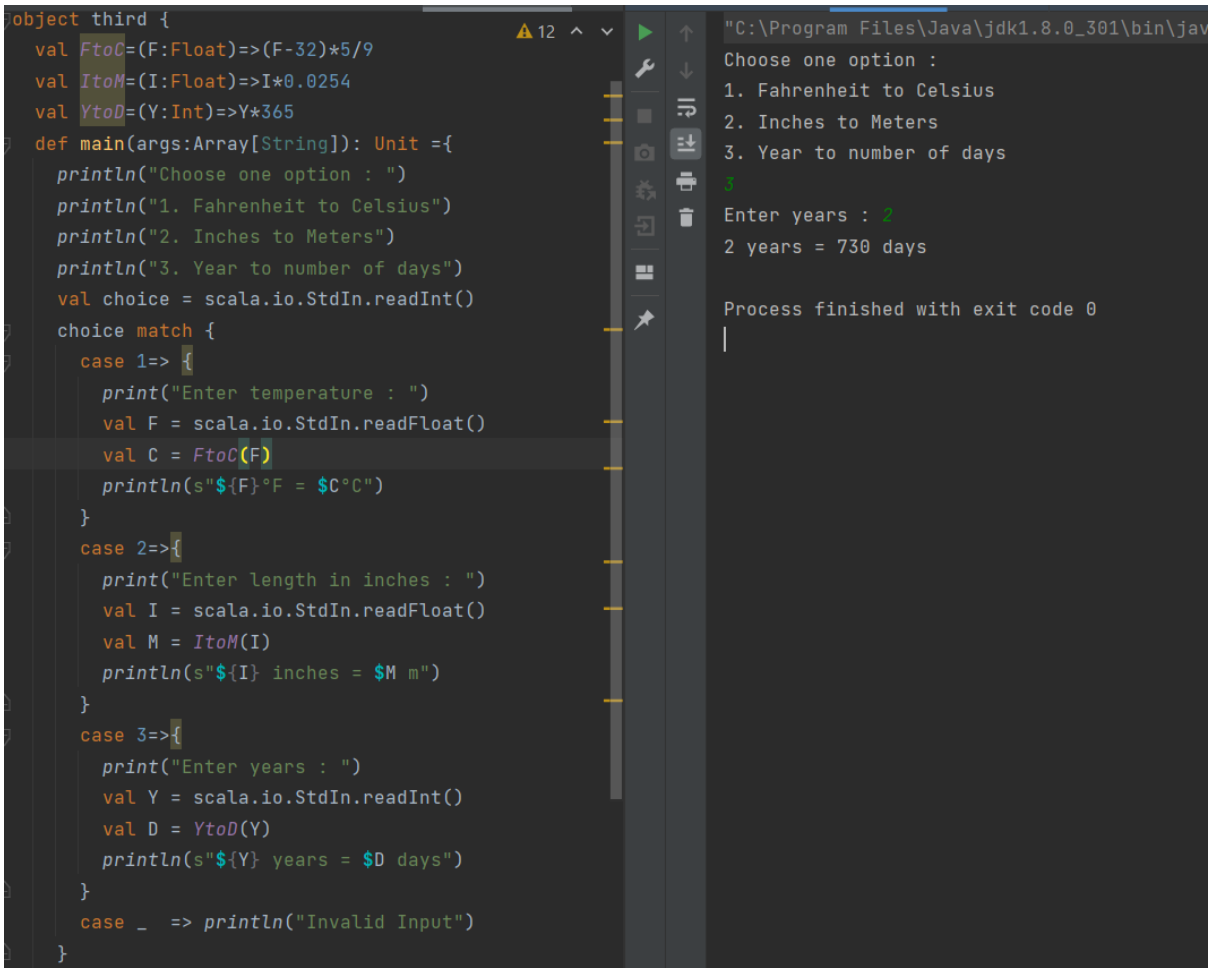
```scala
object prime {
  def isPrime(number: Int): Boolean =
    if (number < 4) number > 1
    else if (number % 2 == 0 || number % 3 == 0) false
    else (5 to math.sqrt(number).toInt by 6).forall(i => number % i != 0 && number % (i + 2) != 0)

  def main(args:Array[String]): Unit ={
    print("Enter a number : ")
    val num = scala.io.StdIn.readInt()
    if(isPrime(num)){
      println("Prime")
    }
    else{
      println("Not Prime")
    }
  }
}
```

```
prime › main(args: Array[String])
calculator × third × prime ×
"C:\Program Files\Java\jdk1.8.0_301\bin\java.exe" ...
Enter a number : 19
Prime

Process finished with exit code 0
```

Q 3 :

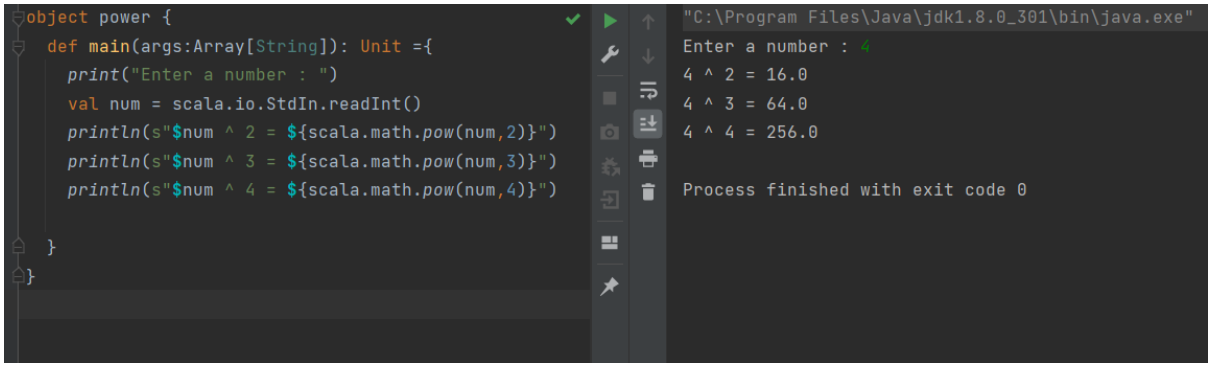


```
object third {
  val FtoC=(F:Float)=>(F-32)*5/9
  val ItoM=(I:Float)=>I*0.0254
  val YtoD=(Y:Int)=>Y*365
  def main(args:Array[String]): Unit ={
    println("Choose one option : ")
    println("1. Fahrenheit to Celsius")
    println("2. Inches to Meters")
    println("3. Year to number of days")
    val choice = scala.io.StdIn.readInt()
    choice match {
      case 1=> {
        print("Enter temperature : ")
        val F = scala.io.StdIn.readFloat()
        val C = FtoC(F)
        println(s"${F}°F = $C°C")
      }
      case 2=>{
        print("Enter length in inches : ")
        val I = scala.io.StdIn.readFloat()
        val M = ItoM(I)
        println(s"${I} inches = $M m")
      }
      case 3=>{
        print("Enter years : ")
        val Y = scala.io.StdIn.readInt()
        val D = YtoD(Y)
        println(s"${Y} years = $D days")
      }
      case _  => println("Invalid Input")
    }
```

```
"C:\Program Files\Java\jdk1.8.0_301\bin\jav
Choose one option :
1. Fahrenheit to Celsius
2. Inches to Meters
3. Year to number of days
3
Enter years : 2
2 years = 730 days

Process finished with exit code 0
```

Q 4 :



```
object power {
  def main(args:Array[String]): Unit ={
    print("Enter a number : ")
    val num = scala.io.StdIn.readInt()
    println(s"$num ^ 2 = ${scala.math.pow(num,2)}")
    println(s"$num ^ 3 = ${scala.math.pow(num,3)}")
    println(s"$num ^ 4 = ${scala.math.pow(num,4)}")

  }
}
```

```
"C:\Program Files\Java\jdk1.8.0_301\bin\java.exe"
Enter a number : 4
4 ^ 2 = 16.0
4 ^ 3 = 64.0
4 ^ 4 = 256.0

Process finished with exit code 0
```