

Problem 1: Big Data - Scala Coding.

A Company “Star Grocery Store” is planning a big sale at which they will give their customers a special promotional discount.

Each customer that purchases a product from the company has a unique customerID numbered from 0 to N-1.

“Brien” the marketing head of the company has selected bill amounts of the N customers for the promotional scheme. The discount will be given to customers whose bill amounts are perfect squares.

The customers may use this discount on a future purchase.

Write an algorithm to help Brien to find the number of customers that will be given discounts.

Input: The first line consists of an integer numOfCust, representing the number of customers whose bills are selected for the promotional discount (N).

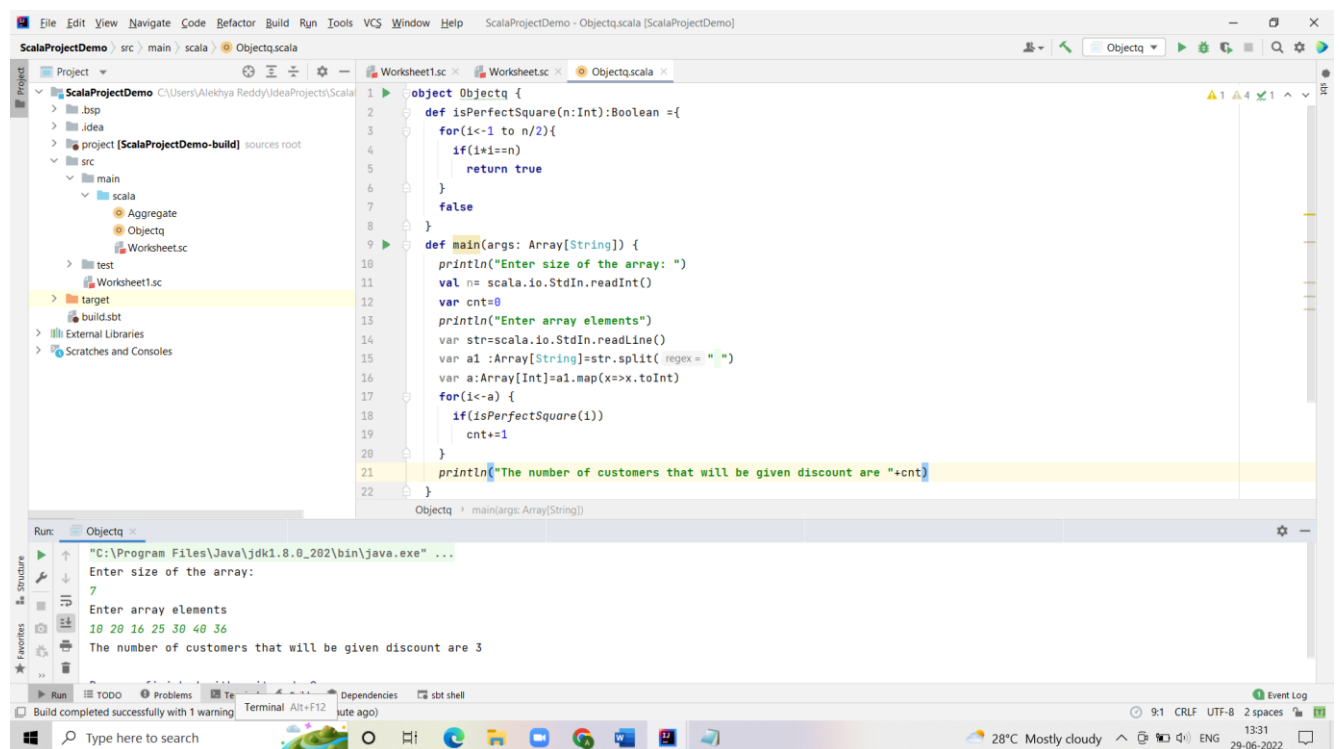
The second line consists of N space-separated Integers bill1, bill2, bill3.. representing the bill amounts of the N customers selected for the promotional discount.

7

10 20 16 25 30 40 36

Output: print an integer representing the number of customers

Answer:



```
object Objectq {  
  def isPerfectSquare(n:Int):Boolean = {  
    for (i<-1 to n/2) {  
      if (i*i==n) {  
        return true  
      }  
    }  
    false  
  }  
  
  def main(args: Array[String]) {  
    println("Enter size of the array: ")  
    val n = scala.io.StdIn.readInt()  
    var cnt=0  
    println("Enter array elements")  
    var str=scala.io.StdIn.readLine()  
    var a1 :Array[String]=str.split(" ")  
    var a:Array[Int]=a1.map(x=>x.toInt)  
    for (i<-a) {  
      if (isPerfectSquare(i)) {  
        cnt+=1  
      }  
    }  
    println("The number of customers that will be given discount are "+cnt)  
  }  
}
```

Run: Objectq

```
"C:\Program Files\Java\jdk1.8.0_202\bin\java.exe" ...  
Enter size of the array:  
7  
Enter array elements  
10 20 16 25 30 40 36  
The number of customers that will be given discount are 3
```