Scala Assignment

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 customer ID 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

Solution:

```
PerfectSquare.scala ×
1    import scala.io.StdIn;
2    object PerfectSquare {
3
4      def checkFactor(num:Int):Boolean = {
5        var count:Int = 0;
6        for(i <- 1 ≤  to  ≤ num/2){
7          if(i*i == num)
8            return true;
9        }
10       false;
11     }
12     def main(args:Array[String]){
13       println("Enter the number of People : ");
14       var people:Int = scala.io.StdIn.readInt();
15       var array:Array[String] = new Array[String](people);
16       println("Enter the values : ");
17       var index:Int = 0;
18       var values:String = scala.io.StdIn.readLine();
19       array = values.split( regex = " ");
20       var finalArray:Array[Int] = array.map(x => x.toInt);
21       var count:Int = 0;
22       for(i <- finalArray) {
23         if (checkFactor(i)) {
24           count = count + 1;
```

PerfectSquare > checkFactor(num: Int)

```scala
22      for(i <- finalArray) {
23        if (checkFactor(i)) {
24          count = count + 1;
25        }
26      }
27      println("Number of People getting discount will be : "+count);
28    }
29  }
30
```

PerfectSquare > checkFactor(num: Int)

Output:

Run: PerfectSquare ✕

```
"C:\Program Files\Java\jdk1.8.0_202\bin\java.exe" ...
Enter the number of People :
7
Enter the values :
10 20 16 25 30 40 36
Number of People getting discount will be : 3

Process finished with exit code 0
```

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