



Practice day 2 - Answer2/src/MinSquaresSum.java - Eclipse IDE

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Task List

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Answer4 [Practice master]

Answer1 [Practice master]

Answer2 [Practice master]

src

default package

minSquaresSum.java

MinSquaresSum.java

module-info.java

System Library [JDK-10/Foundation-1.0]

Answer1 [Practice master]

```
1 import java.util.*;
2 public class MinSquaresSum {
3     // Function to find the minimum number of squares that sum to n
4     static int minSquares(int n) {
5         // Create a table to store results of subproblems
6         int[] ansarr = new int[n + 1];
7
8         // Base case: 0 squares are needed for 0
9         ansarr[0] = 0;
10
11         // Initialize the table with maximum possible value
12         for (int i = 1; i <= n; i++) {
13             ansarr[i] = Integer.MAX_VALUE;
14         }
15
16         // Compute minimum squares required for all values from 1 to n
17         for (int i = 1; i <= n; i++) {
18             // Go through all smaller numbers
19             for (int j = 1; j * j <= i; j++) {
20                 ansarr[i] = Math.min(ansarr[i], 1 + ansarr[i - j * j]);
21             }
22         }
23
24         // The final result is stored in dp[n]
25         return ansarr[n];
26     }
27
28     public static void main(String[] args) {
29         int n1 = 100;
30         System.out.println("Minimum number of squares for " + n1 + " is " + minSquares(n1));
31
32         int n2 = 6;
33         System.out.println("Minimum number of squares for " + n2 + " is " + minSquares(n2));
34     }
35 }
36
37
```

Problems Declaration Console

Terminated: MinSquaresSum [Java Application] C:\Users\rgondh\p2\workspace\org.eclipse.jdt.core.hotspot.jre-full\win32-x86_64-21.0.1\jre\bin\javaw.exe (11 Jan 2024, 8:10:47 pm - 8:10:48

Minimum number of squares for 100: 1

Minimum number of squares for 6: 3

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Cloudy



Search



Writable

Smart Insert

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