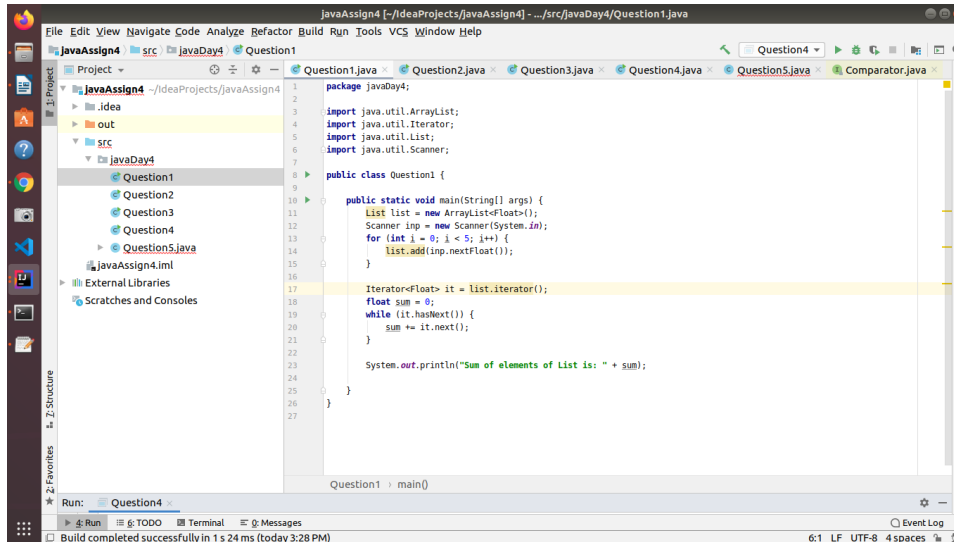
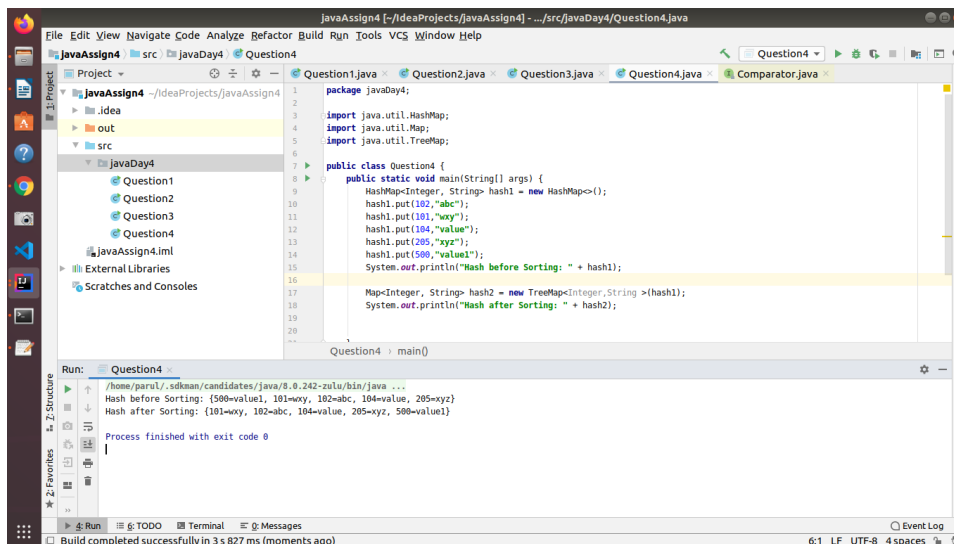


Question: 1:

Write Java code to define List . Insert 5 floating point numbers in List, and using an iterator, find the sum of the numbers in List.



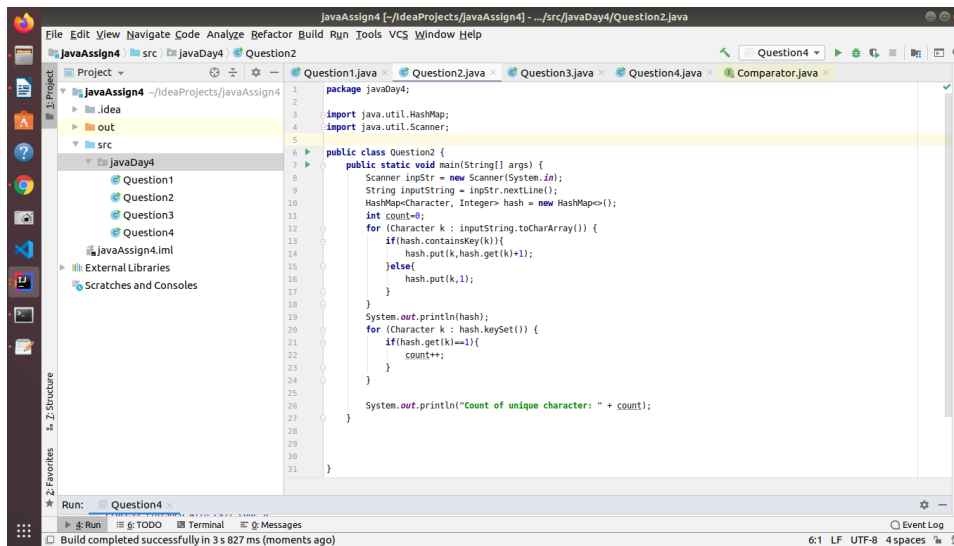
```
1 package javaDay4;
2
3 import java.util.ArrayList;
4 import java.util.Iterator;
5 import java.util.List;
6 import java.util.Scanner;
7
8 public class Question1 {
9
10     public static void main(String[] args) {
11         List list = new ArrayList<Float>();
12         Scanner inp = new Scanner(System.in);
13         for (int i = 0; i < 5; i++) {
14             list.add(inp.nextFloat());
15         }
16
17         Iterator<Float> it = list.iterator();
18         float sum = 0;
19         while (it.hasNext()) {
20             sum += it.next();
21         }
22
23         System.out.println("Sum of elements of List is: " + sum);
24     }
25 }
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
```



```
1 package javaDay4;
2
3 import java.util.HashMap;
4 import java.util.Map;
5 import java.util.TreeMap;
6
7 public class Question4 {
8
9     public static void main(String[] args) {
10         HashMap<Integer, String> hash1 = new HashMap<>();
11         hash1.put(102, "abc");
12         hash1.put(101, "xyz");
13         hash1.put(104, "value");
14         hash1.put(205, "xyz");
15         hash1.put(500, "value1");
16         System.out.println("Hash before Sorting: " + hash1);
17
18         Map<Integer, String> hash2 = new TreeMap<Integer, String>(hash1);
19         System.out.println("Hash after Sorting: " + hash2);
20     }
21 }
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
```

Question: 2:

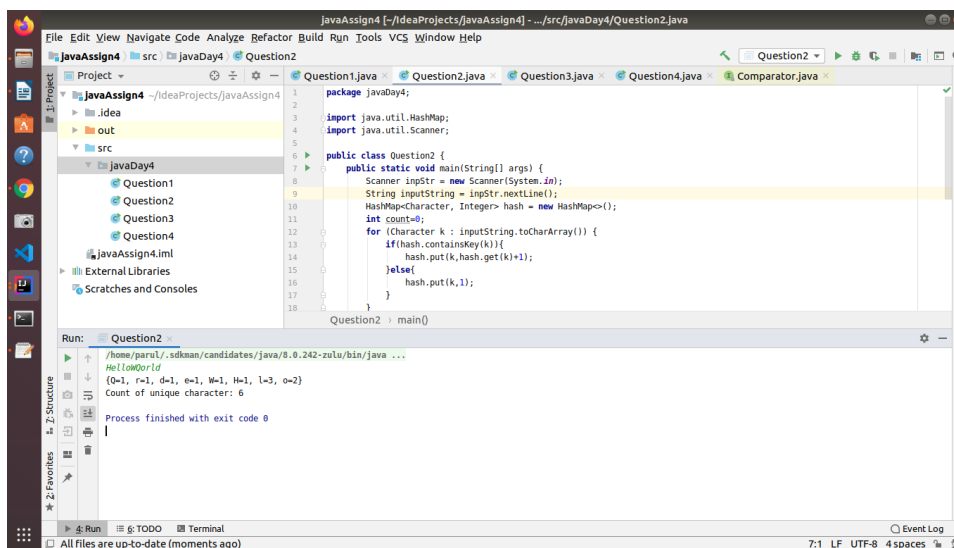
Write a method that takes a string and returns the number of unique characters in the string.



```
1 package javaDay4;
2
3 import java.util.HashMap;
4 import java.util.Scanner;
5
6 public class Question2 {
7     public static void main(String[] args) {
8         Scanner inputStr = new Scanner(System.in);
9         String inputString = inputStr.nextLine();
10        HashMap<Character, Integer> hash = new HashMap<>();
11        int count=0;
12        for (Character k : inputString.toCharArray()) {
13            if(hash.containsKey(k)){
14                hash.put(k,hash.get(k)+1);
15            }else{
16                hash.put(k,1);
17            }
18        }
19        System.out.println(hash);
20        for (Character k : hash.keySet()) {
21            if(hash.get(k)!=1){
22                count++;
23            }
24        }
25        System.out.println("Count of unique character: " + count);
26    }
27 }
28
29
30
31 }
```

Run: Question4

Build completed successfully in 3 s 827 ms (moments ago)



```
1 package javaDay4;
2
3 import java.util.HashMap;
4 import java.util.Scanner;
5
6 public class Question2 {
7     public static void main(String[] args) {
8         Scanner inputStr = new Scanner(System.in);
9         String inputString = inputStr.nextLine();
10        HashMap<Character, Integer> hash = new HashMap<>();
11        int count=0;
12        for (Character k : inputString.toCharArray()) {
13            if(hash.containsKey(k)){
14                hash.put(k,hash.get(k)+1);
15            }else{
16                hash.put(k,1);
17            }
18        }
19        System.out.println(hash);
20        for (Character k : hash.keySet()) {
21            if(hash.get(k)!=1){
22                count++;
23            }
24        }
25        System.out.println("Count of unique character: " + count);
26    }
27 }
28
29
30
31 }
```

Run: Question2

/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...

HelloWorld

{0=1, r=1, d=1, e=1, H=1, l=3, o=2}

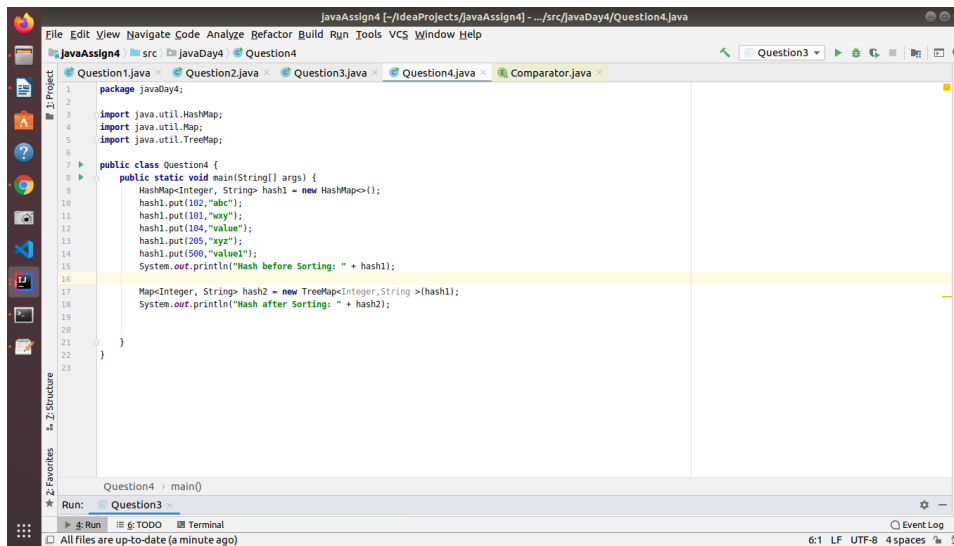
Count of unique character: 6

Process finished with exit code 0

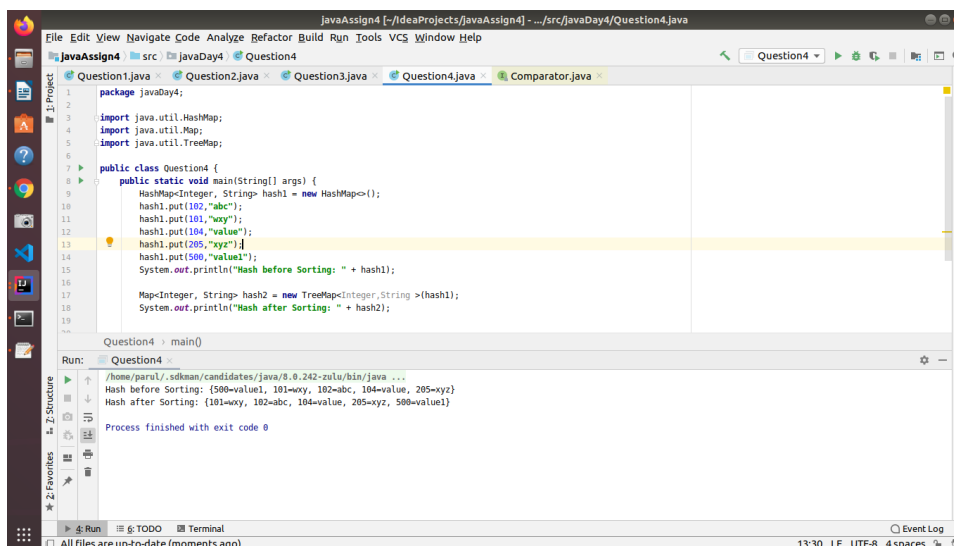
Question: 3:

Write a method that takes a string and print the number of occurrence of each character characters in the string.

Question: 4:
Write a program to sort HashMap by value.



```
1 package javaDay4;
2
3 import java.util.HashMap;
4 import java.util.Map;
5 import java.util.TreeMap;
6
7 public class Question4 {
8     public static void main(String[] args) {
9         HashMap<Integer, String> hash1 = new HashMap<>();
10        hash1.put(102, "abc");
11        hash1.put(101, "xyz");
12        hash1.put(104, "value");
13        hash1.put(205, "xyz");
14        hash1.put(500, "value1");
15        System.out.println("Hash before Sorting: " + hash1);
16
17        Map<Integer, String> hash2 = new TreeMap<Integer, String>(>(hash1);
18        System.out.println("Hash after Sorting: " + hash2);
19    }
20 }
21
22
23
```



```
Run: Question4
/home/parul/.sdkman/candidates/java/8.0.242-zulu/bin/java ...
Hash before Sorting: {500=value1, 101=xyz, 102=abc, 104=value, 205=xyz}
Hash after Sorting: {101=xyz, 102=abc, 104=value, 205=xyz, 500=value1}
Process finished with exit code 0
```

Question: 5:

Write a program to sort Employee objects based on highest salary using Comparator. Employee class{ Double Age; Double Salary; String Name

Question: 6:

Write a program to sort the Student objects based on Score , if the score are same then sort on First Name . Class Student{ String Name; Double Score; Double Age

Question: 7:

Print the elements of an array in the decreasing frequency if 2 numbers have same frequency then print the one which came first.

Question: 8:

Design a Data Structure SpecialStack that supports all the stack operations like push(), pop(), isEmpty(), isFull() and an additional operation getMin() which should return minimum element from the SpecialStack. (Expected complexity $O(1)$)