DSA Practice questions

12/11/2024

1.ANAGRAM STRING:

```
import java.util.Arrays;

class Solution {
    static int areAnagram(String S1, String S2) {
        int l1 = S1.length();
        int l2 = S2.length();

        if (l1 != l2) {
            return 0;
        }

        char[] Arr1 = S1.toCharArray();
        char[] Arr2 = S2.toCharArray();

        Arrays.sort(Arr1);
        Arrays.sort(Arr2);

        return Arrays.equals(Arr1, Arr2) ? 1 : 0;
    }

    public static void main(String[] args) {
        String S1 = "listen";
        String S2 = "silent";

        int result = areAnagram(S1, S2);
        System.out.println("Are the strings anagrams? " + (result == 1 ? "Yes" :
"No"));
    }
}
```

```
C:\Users\Admin\Desktop\DSA questions>javac ANAGRAM.java

C:\Users\Admin\Desktop\DSA questions>java ANAGRAM.java
Are the strings anagrams? Yes

C:\Users\Admin\Desktop\DSA questions>
```

2. row with max 1s:

```
class Solution {
    public int rowWithMax1s(int arr[][]) {
        for(int j =0;j<arr[0].length;j++){
            for(int i = 0;i<arr.length;i++){
                if(arr[i][j]==1){
                    return i;
                }
            }
        }
        return -1;
    }
}
```

```
C:\Users\Admin\Desktop\DSA questions>java rowwithmax1.java
Row with maximum 1s: 1

C:\Users\Admin\Desktop\DSA questions>
```

3. Longest consequtive subsequence:

```
import java.util.HashSet;
import java.util.Set;

public class Solution {

    public int findLongestConseqSubseq(int[] arr) {
        int maxLength = 0;
        Set<Integer> set = new HashSet<>();

        for (int num : arr) {
            set.add(num);
```

```
        }

        for (int num : set) {
            if (!set.contains(num - 1)) {
                int currentNum = num;
                int length = 1;

                while (set.contains(currentNum + 1)) {
                    currentNum += 1;
                    length += 1;
                }

                maxLength = Math.max(maxLength, length);
            }
        }

        return maxLength;
    }

    public static void main(String[] args) {
        Solution solution = new Solution();


        int[] arr = {100, 4, 200, 1, 3, 2};
        int result = solution.findLongestConseqSubseq(arr);
        System.out.println("Longest consecutive subsequence length: " + result);
    }
}
```

```
C:\Users\Admin\Desktop\DSA questions>java findLongestConseqSubseq.java
Longest consecutive subsequence length: 4

C:\Users\Admin\Desktop\DSA questions>
```