ASSIGNMENT - II

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① Find the length of longest substring of a given string without repeating characters

```
import java.util.HashMap;

class Longestsubstring {

    Public static void main (String args[]) {

        String str = "ABCDEFGHABED";

        int n = str.length();

        int res = 0, i = 0;

    // Creating a hash map to store the last position
        HashMap < character, Integer > lastIndex = new HashMap
    // Starting from the beginning of the string <> ();

        for (j = 0, i<n, j++) {

            if (lastIndex.Containskey (str.char(j))) {

                i = Math.max(i, lastIndex.get (str, char
                    At(j)) + 1);

            }

            res = Math.max(res, j-i+1);

            lastIndex.put (str.charAt(j) j);

        }

        System.out.println("Length of longest substring
                                in )+res);
```

Input :- str = ABCDEFABDC

Output :- len = length of substring in 6 ||.

② Write a java program to remove the duplicate characters that appears in another given string.

```
import java.util.*;

Class Remove {

    Public static void main (String arg[]) {

// Define two strings.

    String str1 = "The quick brown fox";

    String str2 = "queen";

// print the given string

    System.out.println ("The given string is : "+str1);

    char arr[] = new char[str2.length()];

// Create a character array to respect a mask of

size 256 (ASCII characters)

    char[] mask = new char [256];

//Loop through the characters of the mask string

and count occurrences of each other

    for (int i=0; i<str.length(), i++)

        mask(str2.charAt(i)++;

System.out.println ("The new string is");

print the first string

for (int i=0; i<str1.length(); i++) {

    if (mask[str1.charAt(i)]==0)

        System.out.print(str1.charAt(i));

    }
```

}
}

Input :- str1="The quick brown fox"
str2 = "queen"

Output :- "The new string in the ick brow fox"

③ Write a java program to print a list of item containing all characters of a given word.

```
Class Main {
    Public static void main (String args[])
    {
        string s1 = "Hello World";
        string s2 = "Hello";

        boolen startswich = str1.startswith(s2);
    if (startswith) {
        System.out.print(" string with specific perth\n");
        }
    else
    System.out.println(" string do not not-
    specified print\n");
        }
    }
}
```

input :- "Hello World"

s2 :- "Hello"

Output :- "Hello".

(9) write a java program to find the second most Re. characters in a string.

```
import java.util.HashMap;
import java.util.Map;
    class frequent {
        Public Static void main (String args[]) {
Map <character, Integer> char frequency = new HashMap
                                          <> ();
for (char c: str to char Array()) {
    char frequency.put(char, frequency.get of
                        Default +');
    }
    {
    {
```

Input :- str = "Shiva prasad vankiri"

Output :- 2nd most Repeated character is. "a"

⑤ Write a java program to a string starts from another string.

```
import java.util.*;
class main {
    Public static void main (String args[]) {
        String s1 = "Hello world"; s2 = "Hello"
boolen startswith = str2.startswith (s2);
    if (start swith) {
        System.out.println(string with specific prefix");
        else {
        System.out.println(" string do not specific
                specifix);
        }
    }
```

input s1 = Hello world

s2 = Hello

output = " string with specific prefix.