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Assignment-2.

① Find the length of Longest substring of given String without seperating charactor.

```
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 postitions.
Hashmap < character, Integer > last Index = new Hashmap
// Starting from the begining of the string  <> ();
 for(j=0; j<n; j++) {
 // If this charcter is seen before, that update;
 If (lastIndex.containskey(str.chaAt(j))){
   i=math.max(i,lastIndex.get(str,CharAt(i) +1);
 }
 //updating result
        res = math.max(res, j-i+1);
// updating the last occurrence of the current
character
    last-Index.pure(str.charAt(j),j);
 }
 system.out.println("length of longest substring is "
        +res);
 }
```

2 Write a Java program to remove the duplicate character that apperes 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[str1.length()];
  // create a character array to represent 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)
       sysdem.out.print(str1.charAt(i)];
   }
 }
```

}

Input: str1= "The quick brown for"

str2= "queen"

Output: "The new string is : th ick brow for"

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";
 boolean Startswich = str1. stratswith (s2);
  if (startswith) {
   system.out.Print ("string with specific perfix");
  }
 else
  system.out.print ("string do not specified
               perfix");
     }
    }
   }
```

(4) write a Java program to find the second most frequent character 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 charArray()){
   charfrequency.put(char,frequency.get of
    Default +1);
   }
  }
  }
```

Input: str = "Bharath Kumar Reddy"

output: 2nd most frequency character

is h

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 = "Helloworld", s2 = "Hello";
 boolean stratswith = str.2.stbtswith(s2);
   If (stratswith){
   system.out.print("string with specific perfix");}
  else{
    system.out.print(" string do not specific
          perfix);
      }
     }
    }
```

Input : s_1 = Helloworld

s_2 = Hello

output : "string with specific perfix"