JAVA Lab Assignment – Week 3

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1. Given two strings (str1 and str2) of lower-case letters, perform the following operations:
   • Sum the lengths ofstr1 and str2.
   •Determine if is lexicographically larger than (i.e.: does come before in the dictionary?).
   •Capitalize the first letter in str1 and str2 and print them on a single line, separated by a space.
   Input Form
   hello
   java
   Output Format
   9
   No
   Hello Java

   Code:

```
import java.util.Scanner;

public class StringManip {
    public static void main(String[] args)
    {
        Scanner scanner = new Scanner(System.in);
        String a = scanner.nextLine();
        String b = scanner.nextLine();
        int len = (a+b).length();
        System.out.println("Output : ");
        System.out.println(len);
        if (a.compareTo(b)>0)
        System.out.println("Yes");
        else
        System.out.println("No");
        scanner.close();
        String caps = a.substring(0,1).toUpperCase()+a.substring(1)+"
"+b.substring(0,1).toUpperCase()+b.substring(1);
        System.out.println(caps);
    }
}
```

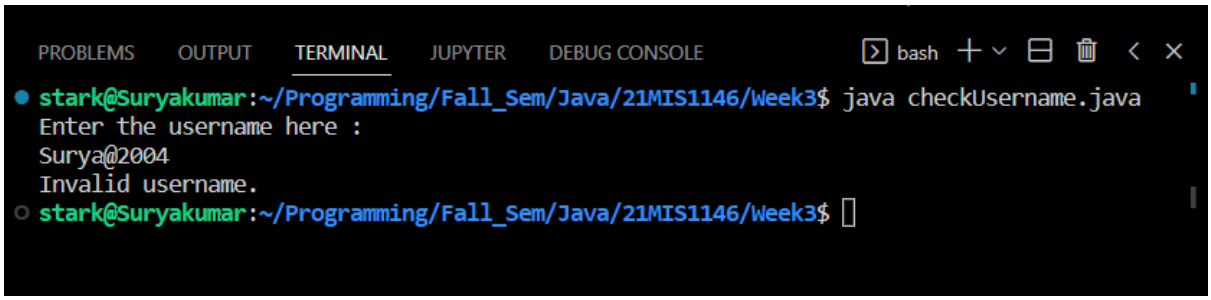
Output:

2. You are updating the username policy on your company's internal networking platform. According to the policy, a username is considered valid if all the following constraints are satisfied:The username consists of 8 to 30 characters inclusive. If the username consists of less than or greater than characters, then it is an invalid username.The username can only contain alphanumeric characters and underscores (_). Alphanumeric characters describe the character set consisting of English lower-case [a-z] characters , upper-case [A-Z] characters , and digits [0-9]. The first character of the username must be an alphabetic character, i.e., either lower-case character [a-z] or upper-case character [A-Z].

Code:

```
import java.util.*;
public class checkUsername {
    public static void main(String[] args)
    {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter the username here :");
        String username = scanner.nextLine();
        scanner.close();
        if(username.substring(0,1).matches("([a-z,A-Z])") &&
username.matches("^[a-zA-Z0-9_]*$") && username.length()>=8 &&
username.length()<=30)
        {
            System.out.println("Valid username.");
        }
        else
        {System.out.println("Invalid username.");}
    }
}
```

Output:



3. Write a Java program to convert the given number into word form?

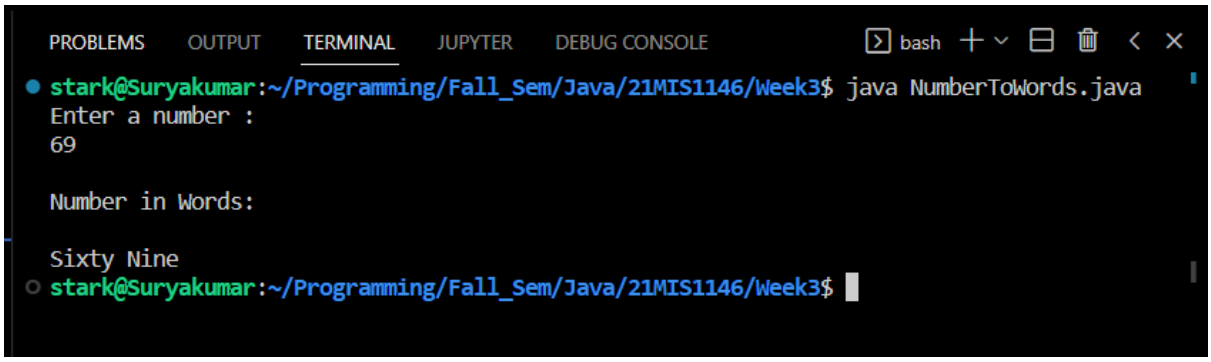
Code:

```
import java.util.*;
class NumberToWords
{
 public static void main(String args[])
 {
 Scanner scanner =new Scanner (System.in);
 System.out.println("Enter a number : ");
 int n=scanner.nextInt();
 scanner.close();
 if (n==0)
 {
 System.out.print("Zero");
 }
 else
 {
 String wrd=String.valueOf(n);
 int l=wrd.length();
 String z="",zz="";
 int i=0,c=0,nn=0,nnn=0,zzc=0;
 for (i=l-1;i>=0;i--)
 {
 char cc=wrd.charAt(i);
 c=Integer.valueOf(String.valueOf(cc));
 String
uw[]={"","One","Two","Three","Four","Five","Six","Seven","Eight","Nine","Ten",
"Eleven","Twelve","Thirteen","Fourteen","Fifteen","Sixten","Seventeen","Eighte
en","Ninteen"};
 String
tw[]={"","Ten","Twenty","Thirty","Fourty","Fifty","Sixty","Seventy","Eighty","
Ninety"};
 if(i>0)
 {
 zz=wrd.substring(i-1,i+1);
 zzc=Integer.valueOf(zz);
```

```
 }
 else
 {
 zzc=22;
 }
 if (nnn==2)
 {
 if(c!=0){
 z="hundred "+z;
 }
nn=0;
 }
 if (nnn==3)
 {
 if(c!=0){
 z="thousand "+z;
 }
 nn=0;
 }
 if (nnn==5)
 {
 if(c!=0){
 z="lakh "+z;
 }
nn=0;
 }
 if (nnn==7)
 {
 if(c!=0){
 z="crore "+z;
 }
nn=0;
 }
 if(zzc<20 && nnn!=1 && nnn==0)
 {
 z=uw[zzc]+" "+z;
 nn++;nnn++;i--;
 }
 else if(zzc<20 && nnn!=1 && nnn%2!=0)
 {
 z=uw[zzc]+" "+z;
 nn++;nnn++;i--;
 }
 else if(nn%2==0)
 {
 z=uw[c]+" "+z;
 }
 else
```

```
 {
 z=tw[c]+" "+z;
 }
 nn++;nnn++;
 }
 System.out.println("\nNumber in Words: \n");
 System.out.println(z);
 }
 }
}
```

Output:



4. Write a java program to reverse the given string without using auxiliary string.

Code:

```
public class reverseString {
public static void main(String[] args)
{
    StringBuilder str = new StringBuilder("Java Programming");
    str.reverse();
    System.out.println(str);
}
}
```

Output: