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Assignment-I

1. write a program to reverse a word using a loop? Not to use built-in

```
import java.util.Scanner;
```

```
public class reverseString {
```

```
    public static void main (String [] array) {
```

```
        Scanner input = new Scanner (System.in);
```

```
        String reversed = "";
```

```
        for (int i = name.length() - 1; i >= 0; i--) {
```

```
            reversed += name.charAt(i);
```

```
        } System.out.print (reversed);
```

```
        input.close();
```

```
}
```

Input: temple

Output: elpmet

2. Check entered user name is valid or not

```
import java.util.Scanner;
```

```
public class validate username {
```

```
    public static void main (String [] args) {
```

```
        Scanner input = new Scanner (System.in);
```

```
        System.out.print ("enter user name:");
```



```
String s: input.nextLine();
```

```
if (s.equals(s2)) {
```

```
    System.out.print("user name is valid"); }
```

```
    else {
```

```
        System.out.print("user is invalid"); }
```

```
input.close(); }
```

Output.

Pro@18

arP@18

→ user name is valid.

3 Reverse a number:

```
import java.util.Scanner;
```

```
public class reverseNumber {
```

```
    public static void main (String[] args) {
```

```
        int n = input.nextInt();
```

```
        int rev = 0;
```

```
        while (n != 0) {
```

```
            rev = rev * 10 + n % 10;
```

```
            n /= 10; }
```

```
        System.out.print(rev);
```


Input. close ();

}

Input: 12345

Output: 54321.

4. To find the Person is eligible to vote or not.

```
Import java.util.Scanner;
```

```
Public class VotingEligibility{
```

```
    Public static void main (String [] args){
```

```
        Scanner input = new Scanner (System.in);
```

```
        System.out.print ("enter your age");
```

```
        int age = input.nextInt();
```

```
        if (age <= 0){
```

```
            System.out.print ("enter Above correctly,");
```

```
        else if (age > 18){
```

```
            System.out.print ("an eligible to vote");
```

```
        else {
```

```
            System.out.print ("allowed to vote after" +  
                                (18 - age) + "years");
```

```
        input.close();
```

```
}
```


Output:

Enter Your age : 21

→ eligible to vote.

5. Find LCM and GCD of n numbers.

```
import java.util.Scanner;
```

```
public class GCD.LCM {
```

```
    static int gcd (int a, int b) {
```

```
        return a (b/gcd (a,b));
```

```
    public static void main (String args[]) {
```

```
        Scanner input = new Scanner (System.in);
```

```
        int n = input.nextInt();
```

```
        int gcd = input.nextInt();
```

```
        int lcm = gcd;
```

```
        for (int i = 1; i <= n; i++) {
```

```
            gcd = gcd (gcd, num);
```

```
            System.out.println ("LCM = " + lcm);
```

```
            input.close();
```

```
        }
```

Output

GCD = 1

LCM = 276

6. Print right triangle star pattern:

```
import java.util.Scanner;
```

```
public class RightTriangleStarPattern
```

```
{  
    public static void main (String[] args) {
```

```
        Scanner input = new Scanner (System.in);
```

```
        int n = input.nextLine();
```

```
        for (int i = 1; i <= n; i++) {
```

```
            for (int j = 1; j <= i; j++) {
```

```
                System.out.print ("*");
```

```
            }  
            input.close();  
        }  
    }
```

}

Output : 5

```
*  
* *  
*  *  *  
*  *  *  *  
*  *  *  *  *  
*  *  *  *  *  *
```

7) Pascal triangle:

```
import java.util.Scanner;
```

```
public class PascalTriangle {
```

```
    public static void main (String[] args) {
```

```
        Scanner input = new Scanner (System.in);
```



```
int n = input.nextInt();
```

```
for (int i = 0; i < n; i++) {
```

```
    for (int s = 0; s < n - 1 - i; s++) {
```

```
        System.out.print(" ");
```

```
    int a = 1;
```

```
    for (int j = 0; j <= i; j++) {
```

```
        System.out.print(a + " ");
```

```
        a = a * (i - s) / (s + 1);
```

```
    System.out.println();
```

```
    input.close();
```

```
}
```

output: 5

```

      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
```


8) write a Program using function to calculate Simple Interest.

```
Import java.util.Scanner
```

```
Public static double calculate interest (double)
```

```
Principal -int year ,boolean isSenior citizen {
```

```
double rate = isSenior citizen?
```

```
Public static void main (String[] args) {
```

```
Scanner input = new Scanner (System.in);
```

```
System.out .Print ("Is customer senior (Y/N:");
```

```
boolean senior citizen = input next ();
```

```
equals ignore case ("Y");
```

```
double interest = calculate interest,
```

```
(Principal, years, isSenior citizen);
```

```
input.close ();
```

```
}.
```

Output.

enter Principal amount : 20000

enter no. of years : 3

Is customer senior citizen (Y/N): N

Interest : 600000

Q even sum of Fibonacci:

Import java.util.Scanner;

Public class even FibonacciSum {

Public static void main (String[] args) {

int n = input.nextInt();

int a = 0, a2 = 1, sum = 0;

if (i % 2 == 0) sum += a1;

int a3 = a1 + a2;

a2 = a3;

input.close();

}

Output: A

sum = 3

10. Print numbers from n to o by skip k numbers in between.

```
Import java.util.Scanner;
```

```
Public class kNumbers{
```

```
    Public Static void main (String [] args){
```

```
        Scanner input = new Scanner (System.in)
```

```
        int n = input . nextInt ();
```

```
        int o = input . nextInt ();
```

```
        int k = input . nextInt ();
```

```
        for (int i = n; i <= o; i = k + i){
```

```
            System.out . print (i + " ");
```

```
        }
```

```
    }
```

Input : 50

100

10

Output : 50, 58, 66, 74, 82, 90, 98.