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Assignment-2

Q.WAP to find weather the no entered by user is even or odd.

```
public class Main
{
	public static void main(String[] args)
	{
		Scanner sc = new Scanner(System.in);

		System.out.print("Enter a Number : ");
		int numb = sc.nextInt();
		if(numb  %  2 == 0)
			System.out.println("Even Number");
		else
			System.out.println("Odd Number");
		sc.close();
	}
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\javaw
Enter a Number : 88
Even Number
```

Q.WAP to swap the values of 2 nos.(Take input from user)
eg a=10 b=20

after swapping
a=20 b=10

```
import java.util.Scanner;

public class Main

{
```

```
  public static void main(String[] args)
  {
    int a, b, temp;
    Scanner s = new Scanner(System.in);

    System.out.print("Enter the First Number: ");
    a = s.nextInt();
    System.out.print("Enter the Second Number: ");
    b = s.nextInt();

    temp = a;
    a = b;
    b = temp;

    System.out.println("\na = " +a);
    System.out.println("b = " +b);
  }
}
```

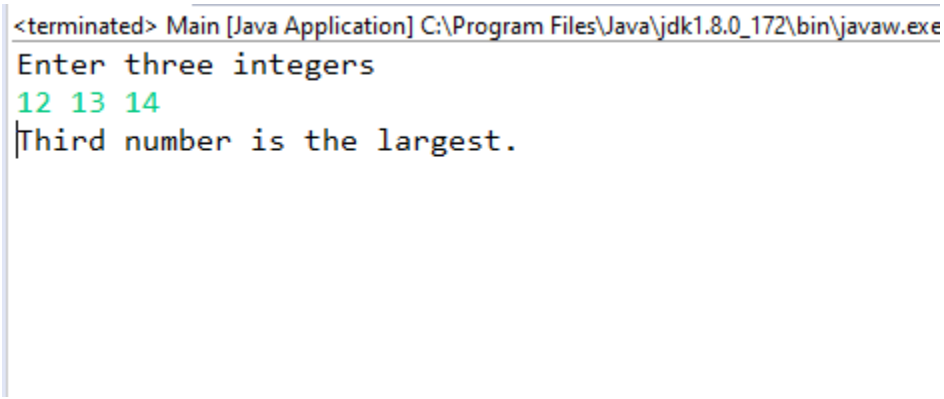
```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\javaw.exe (Jan
Enter the First Number: 10
Enter the Second Number: 11

a = 11
b = 10
```

Q.WAP to find the greatest between the 3 nos and display the output. (Take input from user)

```
import java.util.Scanner;
class Main
{
  public static void main(String args[])
  {
    int x, y, z;
    System.out.println("Enter three integers");
    Scanner in = new Scanner(System.in);
    x = in.nextInt();
    y = in.nextInt();
    z = in.nextInt();
```

```
    if (x > y && x > z)
      System.out.println("First number is the largest.");
    else if (y > x && y > z)
      System.out.println("Second number is the largest.");
    else if (z > x && z > y)
      System.out.println("Third number is the largest.");
    else
      System.out.println("The numbers are not distinct.");
  }
}
```



Q.WAP to find weather the character entered by user is a vowel or not.(solve by using if..else and switch case)

```
import java.util.Scanner;

public class CharVowelorConsonant2 {

	private static Scanner sc;

	public static void main(String[] args) {

		char ch;
		sc= new Scanner(System.in);

		System.out.print("\nPlease Enter any Character =  ");
		ch = sc.next().charAt(0);

		switch(ch) {
```

```
                case 'a':
                case 'e':
                case 'i':
                case 'o':
                case 'u':
                case 'A':
                case 'E':
                case 'I':
                case 'O':
                case 'U':
                        System.out.println(ch + " is Vowel");
                        break;
                default:
                        System.out.println(ch + " is Consonant");
                }

        }
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\javaw.exe (Ja

Please Enter any Character =  a
a is Vowel
```

Q.WAP to print even nos from 1-50 using while loop.

```
import java.util.Scanner;

public class Main
{
        public static void main(String[] args)
        {
                int i=1;
                while(i<=50) {
                        if(i%2==0)
```

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

```
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50
```

Q.WAP to print odd nos from 50-100 using do while loop.

```
import java.util.Scanner;

public class Main
{
    public static void main(String[] args)
    {
        int i=50;
        do {
            if(i%2==1)
                System.out.println(i);
            i++;
        }while(i<=100);
    }
}
```

```
51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99
```

Q.Given a number N, print sum of all even numbers from 1 to N.

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

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

```
        System.out.print("Print all even numbers till : ");
        int n = scanner.nextInt();

        System.out.println("\nEven numbers from 1 to " + n + " are : ");

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

            // Check for even or not.
            if((i % 2) == 0) {

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

            }
        }
    }

}
```

```
Print all even numbers till : 15

Even numbers from 1 to 15 are :
2 4 6 8 10 12 14
```

Q. WAP to print the following patterns
a.for n=4
1
22
333
4444

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        for(int i=1;i<=5;i++) {
```

```
        for(int j=1;j<=i;j++) {
                System.out.print(i);
        }
        System.out.println();
      }



}
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_
1
22
333
4444
55555
```

b.for n=4

```
4444
4444
4444
4444
```

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        int n=sc.nextInt();
       for(int i=1;i<=n;i++) {
            for(int j=1;j<=5;j++) {
                    System.out.print(n);
            }
            System.out.println();
       }
```

```
}
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\javaw.exe (Jul
4
44444
44444
44444
44444
```

c.for n=5

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

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        int n=sc.nextInt();
        for(int i=1;i<=n;i++) {
          for(int j=n-1;j>=i;j--) {
                    System.out.print(" ");
          }
          for(int k=1;k<=i;k++) {
                    System.out.print("*");
          }
          System.out.println();
        }
```

```
}
}
```

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

Q.Revers an Array.

```
public class Main {
    static void reverse(int a[], int n)
    {
        int i, k, t;
        for (i = 0; i < n / 2; i++) {
            t = a[i];
            a[i] = a[n - i - 1];
            a[n - i - 1] = t;
        }
          System.out.println("Reversed array is: \n");
        for (k = 0; k < n; k++) {
            System.out.println(a[k]);
        }
    }

    public static void main(String[] args)
    {
        int[] arr = { 10, 20, 30, 40, 50 };
        reverse(arr, arr.length);
    }
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\
Reversed array is:

50
40
30
20
10
```

Q.Swap the nos in Array.

```
import java.util.Scanner;
public class Main {
   public static void main(String args[]) {
    int a[]= {1,2,3,4,5};
    int temp=a[0];
    a[0]=a[4];
    a[4]=temp;
    System.out.println("after swapping first and last element");
    for(int i=0;i<a.length;i++)
          System.out.print(a[i]+" ");
   }
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\javaw.exe (Jan 27, 2022, 3:16:57 PM)
after swapping first and last element
5 2 3 4 1
```

Q.WAP to calculate and display the factorial of a no entered by user.

```
import java.util.Scanner;

public class Main{

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

```
        Scanner sc=new Scanner(System.in);
      int num = sc.nextInt();
      long factorial = 1;
      for(int i = 1; i <= num; ++i)
      {
          // factorial = factorial * i;
          factorial *= i;
      }
      System.out.printf("Factorial of %d = %d", num, factorial);
   }
}
```

```
<terminated> Main [Java Application] C:\Program Files\Java\jdk1.8.0_172\bin\java
5
Factorial of 5 = 120
```

Q.WAP to check weather the no entered by user is prime or not.

```
import java.util.Scanner;

public class Main
{
  public static void main(String[] args)
  {
    int num, i, count=0;
    Scanner s = new Scanner(System.in);

    System.out.print("Enter a Number: ");
    num = s.nextInt();

    for(i=2; i<num; i++)
    {
      if(num%i == 0)
      {
        count++;
```

```
        break;
      }
    }

    if(count==0)
      System.out.println("\nIt is a Prime Number.");
    else
      System.out.println("\nIt is not a Prime Number.");
  }
}
```

```
Enter a Number: 66

It is not a Prime Number.
```

Q.Given an integer N, print all the prime numbers that lie in the range 2 to N (both inclusive).

```
import java.util.*;
 public class Main
{
     //function to check number is prime or not
      public static boolean isPrime(int number){
          int i;
          boolean flgPrime=true;
          for(i=2; i<number/2; i++){
              if(number%i==0){
                  flgPrime=false;
                  break;
              }
          }
          return flgPrime;
      }
      public static void main(String args[]){
          int loop,n;

          System.out.print("Enter value of n: ");
          Scanner SC=new Scanner(System.in);
          n=SC.nextInt();
```

```
        for(loop=2; loop<n; ++loop){
            if(isPrime(loop)){
                System.out.println(loop);
            }
        }
         }
}
```

```
Enter value of n: 55
2
3
4
5
7
11
13
17
19
23
29
31
37
41
43
47
53
```

Q.WAP to generate the reverse of a given number N. Print the corresponding reverse number.

```
import java.util.Scanner;
public class Main {
   public static void main(String args[]) {
      int d, number,temp, revnum = 0;
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter a number ::");
```

```
    number = sc.nextInt();
    temp = number;
    while (temp >0) {
      d = temp %10;
      revnum = (revnum*10)+d;
      temp = temp/10;
    }
    System.out.println("Reverse of the given number is:"+revnum);
  }
}
```

```
Enter a number ::
689
Reverse of the given number is:986
```