Core java

Assignment-2

01)Write a program to print table of any entered number using loop.

```
import java.util.Scanner;
class Table
{
	public static void main(String args[])
	{
		int x,y,z;
		Scanner scan=new Scanner(System.in);
		System.out.println("Enter the table number:");
		int num=scan.nextInt();
		for(int i=1;i<=10;i++)
		{
			System.out.println(num+ " x "+i+ " = "+num*i);
		}
	}
}
```

Output:

```
D:\Assignment-2>javac Table.java

D:\Assignment-2>java Table
Enter the table number:
4
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40
```

2) Write a program to reverse a given number.

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

		while(number!=0)
		{
			temp=(temp*10)+(number%10);
			number=number/10;
		}
		System.out.println("Result:"+temp);
	}
}
```

Output:

```
D:\Assignment-2>javac Reverse.java

D:\Assignment-2>java Reverse
Enter the reverse:
456
Result:654
```

3) Program to check whether number is prime or not.

```
import java.util.Scanner;
class prime
{
	public static void main(String args[])
	{
		int num,i,res;
		boolean flag=true;
		Scanner scan=new Scanner(System.in);
		System.out.println("Enter the number:");
		num=scan.nextInt();
		for(i=2;i<=num;i++)
		{
			res=num%i;
			if(res==0)
			{
				flag=false;
				break;
			}
		}
		if(flag)
		{
			System.out.println("prime");
		}
		else
		{
			System.out.println("not prime");
		}
	}
}
```

Output:

```
D:\Assignment-2>javac prime.java

D:\Assignment-2>java prime
Enter the number:
4
Not prime

D:\Assignment-2>javac prime.java

D:\Assignment-2>java prime
Enter the number:
1
prime
```

4) Calculate series : 12+22+32+42+.....+n2

```
class Series
{
	public static void main(String args[])
	{
	int n,i,sum=0;
	for(i=12;i<=102;i=i+10)
	{
		System.out.print(i);
		if(i<102)
		{
			System.out.print("+");
			sum=sum+i;
		}

	}
}
}
```

Output:

```
D:\Assignment-2>javac Series.java

D:\Assignment-2>java Series
12+22+32+42+52+62+72+82+92+102
```

5) Print all prime numbers between two given numbers. [break continue]

```
import java.util.Scanner;
class PrimeNumber
{
	public static void main(String args[])
	{
	int i,j,a,b,flag;
	Scanner scan=new Scanner(System.in);
	System.out.println("Enter the first:");
	 a=scan.nextInt();
	System.out.println("Enter the second:");
	b=scan.nextInt();

	System.out.println("Prime Number:");
	for(i=a;i<=b;i++)
	{
		if(i==1 || i==0)
		{
			continue;
		}
		flag=1;
		for(j=2;j<=i/2;++j)
		{
			if(i%j==0)
			{
			flag=0;
```

```
                    break;
                    }
            }
            if(flag==1)
            {
                    System.out.println(i);
            }
        }
}
}
```

Output:

```
D:\Assignment-2>javac PrimeNumber.java

D:\Assignment-2>java PrimeNumber
Enter the first:
1
Enter the second:
30
Prime Number:
2
3
5
7
11
13
17
19
23
29
```

6) Program to show sum and average of 10 element array. Accept array elements from user.

```
import java.util.Scanner;
class SumAverage
{
        public static void main(String args[])
        {
                int n,sum=0;
```

```
        float avg;
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter the elements:");
        n=scan.nextInt();
        int arr[]=new int[n];

        System.out.println("Enter the All elements:");

        for(int i=0;i<n;i++)
        {
            arr[i]=scan.nextInt();
                sum=sum+arr[i];

        }
            System.out.println("Sum:"+sum);
            avg=(float)sum/n;
            System.out.println("avg:"+avg);

    }
}
```

Output:

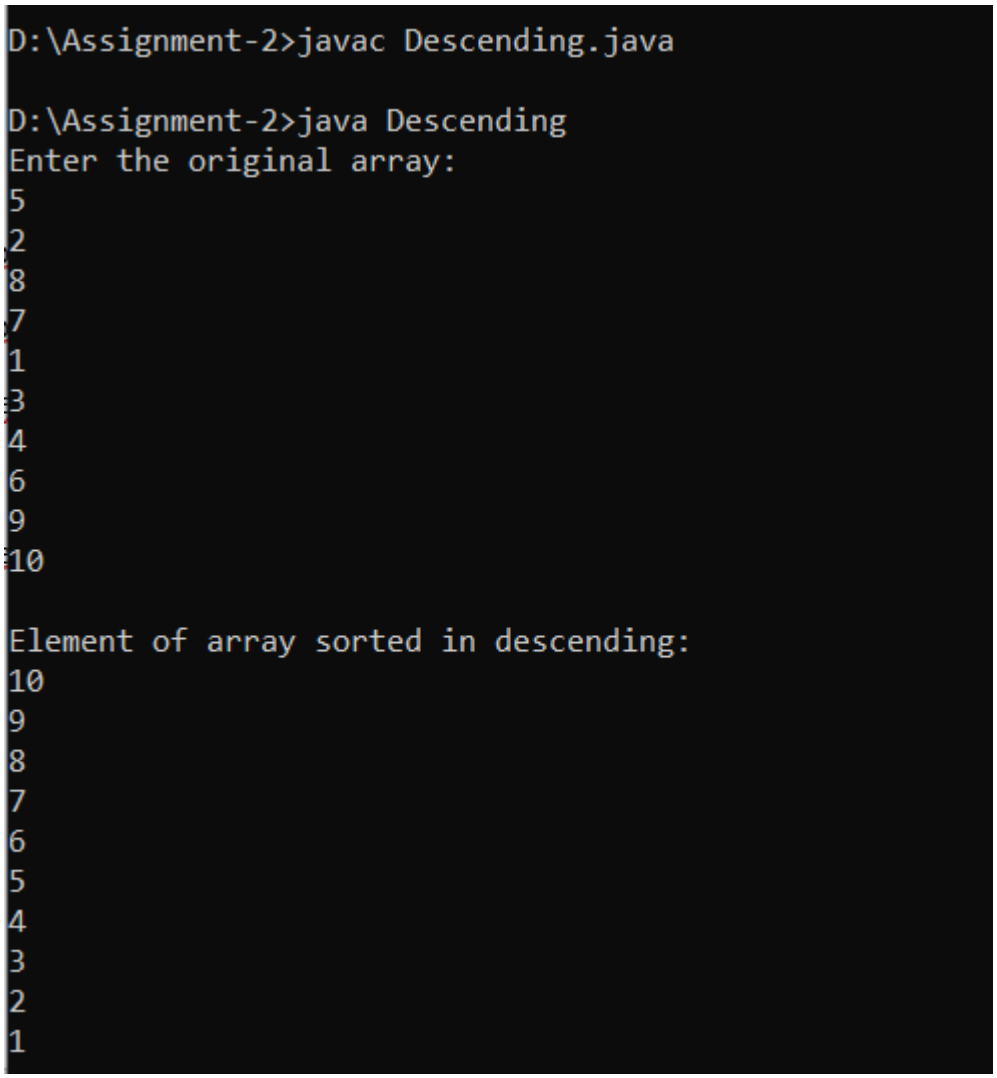
```
D:\Assignment-2>javac SumAverage.java

D:\Assignment-2>java SumAverage
Enter the elements:
3
Enter the All elements:
2
4
5
Sum:11
avg:3.6666667
```

7) Sort a ten element array in descending order.

```
class Descending
{
	public static void main(String args[])
	{
		int arr[]=new int[]{5,2,8,7,1,3,4,6,9,10};
		int temp=0;
		System.out.println("Enter the original array:");
		for(int i=0;i<arr.length;i++)
		{
			System.out.println(arr[i]+" ");
		}
		for(int i=0;i<arr.length;i++)
		{
		for(int j=i+1;j<arr.length;j++)
		{
			if(arr[i]<arr[j])
			{
				temp=arr[i];
				arr[i]=arr[j];
				arr[j]=temp;
			}
		}
		}
		System.out.println();
		System.out.println("Element of array sorted in descending:");
		for(int i=0;i<arr.length;i++)
		{
			System.out.println(arr[i]+" ");
		}
	}
}
```

Output:



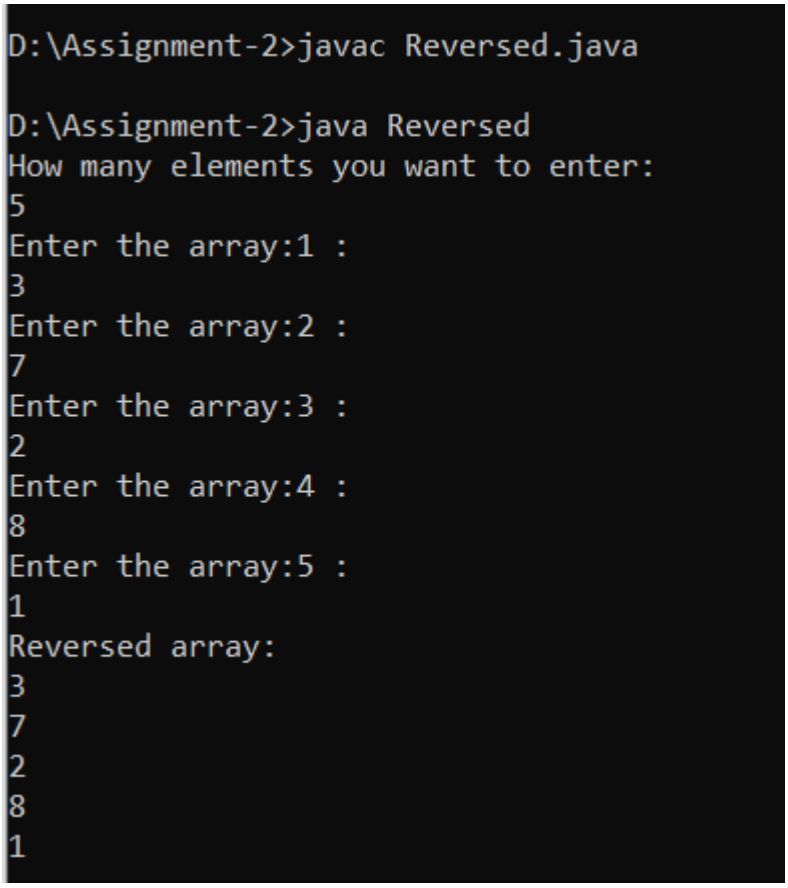
8) Write a program to reverse the array elements.

```
class Reversed
{
	public static void main(String args[])
	{
		int count,i=0,j=0,temp;
		int num[]=new int[100];
		Scanner scan=new Scanner(System.in);
		System.out.println("How many elements you want to enter:");
		count=scan.nextInt();

		for(i=0;i<count;i++)
```

```
                {
                        System.out.println("Enter the array:"+(i+1)+" :");
                        num[i]=scan.nextInt();
                }
                j=i-1;
                j=0;
                while(i<j)
                {
                        temp=num[i];
                        num[i]=num[j];
                        num[j]=temp;
                        i++;
                        j--;
                }
                System.out.println("Reversed array: ");
                for(i=0;i<count;i++)
                {
                        System.out.println(num[i]+" ");
                }
        }
}
```

Output:



9) Write a program to search an element in the array

```
import java.util.Scanner;
class Search
{
	public static void main(String args[])
	{
		int i,n,search,flag=0;
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter the number of elements:") ;
		n = sc.nextInt();
		int[] a = new int[n];

		 System.out.println("Enter the elements") ;
		for(i=0;i<n;i++)
		 {
```

```
                a[i] = sc.nextInt();
                }

                System.out.println("Enter the element to be seached");
                search = sc.nextInt();


                for(i=0;i<n;i++)
                {
                if(a[i]==search)
                {
                System.out.println("Element "+search+" found at "+i+" position");
                flag=1;
                break;
                }
                }
                if(flag==0)
                {
                System.out.println("Element "+search+" not found");

                }
        }
}
```

Output:

```
D:\Assignment-2>javac Search.java

D:\Assignment-2>java Search
Enter the number of elements:
5
Enter the elements
6
8
3
4
7
Enter the element to be seached
3
Element 3 found at 2 position
```

10) Write the program to find the sum of even elements and sum of odd elements present in the array of integer type.

```
import java.util.Scanner;

class Sum_Odd_Even

{

        public static void main(String args[])

        {

                int n,sumE=0,sumO=0;

                Scanner sc=new Scanner(System.in);

                System.out.println("Enter the number of array:");

                n=sc.nextInt();

                int arr[]=new int[n];

                System.out.println("Enter the elements of array:");

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

                {

                        arr[i]=sc.nextInt();

                }

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

                {

                        if(arr[i]%2==0)
```

```
                {
                        sumE=sumE+arr[i];
                }
                else
                {
                        sumO=sumO+arr[i];
                }
        }
        System.out.println("sum of Even number:"+sumE);
        System.out.println("sum of Odd number:"+sumO);
    }
}
```

Output: