LOVELY PROFESSIONAL UNIVERSITY

Academic Task No. 1

School: SCA **Faculty of: LFTS**
Course Title: PROGRAMMING IN JAVA-LAB **Course Code: CAP680**
Max. Marks: 30[10 Marks each] **Date of Allotment: 17th Feb. 2022**
Last Date of Submission: 25th Feb. 2022

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SET-2

Q1: Write a program to perform following operations on a given number and check whether the resulted value is prime or not?

a. Sum of given number

b. Product of given number

For e.g.: Given number is: 1231 Sum of number is :(1+2+3+1) 7 is a prime no.

Product of number is :(1*2*3*1) 6 is not a prime no.

ANS:-

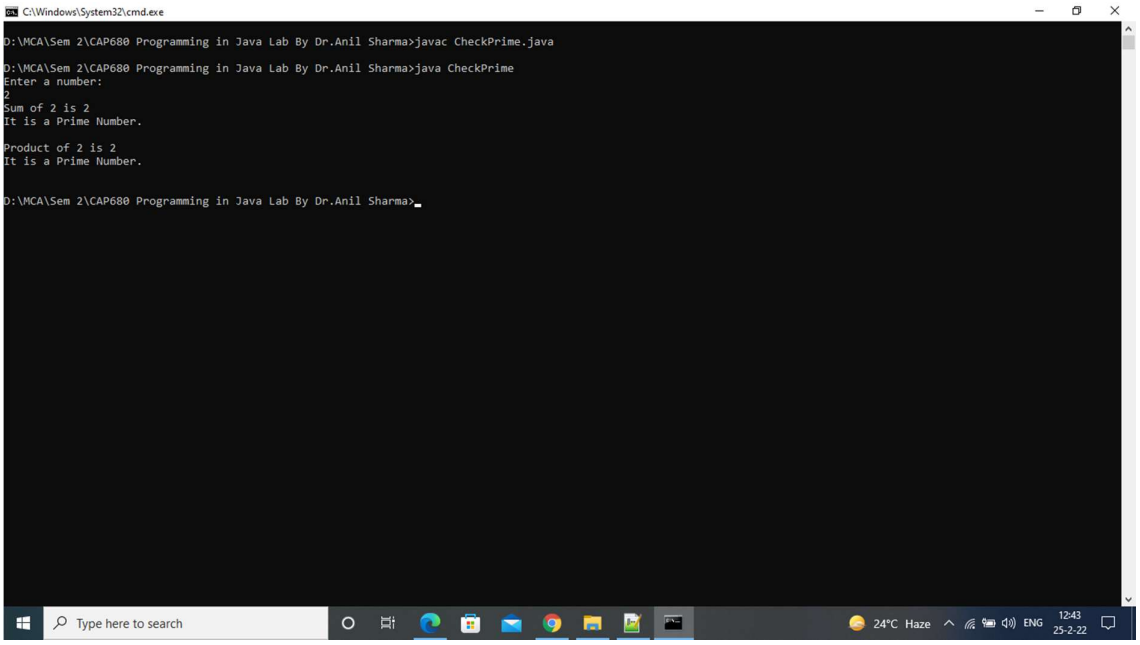
```
import java.util.Scanner;
class CheckPrime
{


  int getSum(int n)
      {
        int sum=0;


           while(n>0)
           {
```

```
    sum = sum +(n % 10);
    n = n / 10;
   }

        return sum;
}


int getProduct(int n)
{
  int product = 1;

   while (n != 0)
  {
     product = product * (n % 10);
     n = n / 10;
  }

  return product;
}


      static void getPrime(int result)
      {
              int count=0;
         for(int i=2; i<result; i++)
   {
     if(result%i == 0)
     {
```

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


    public static void main(String[] args)
    {

                int number;
                Scanner sc =new Scanner(System.in);
                System.out.println("Enter a number:");
                number=sc.nextInt();
                //creating an object.
                CheckPrime c = new CheckPrime();
                //calling of non static getSum() function.
                int sResult = c.getSum(number);
                System.out.println("Sum of " + number + " is " + sResult);
                //calling of static getPrime() function.
                getPrime(sResult);
                //calling of non static getProduct function.
                int pResult = c.getProduct(number);
                System.out.println("Product of " + number + " is " +pResult);
                //Again calling of static getPrime() function.
```

```
        getPrime(pResult);

    }

}
```

Output:-



Q2: Write a program to display a colour name depending on colour value using switch case. Ask colour value from user.

For e.g.:

Colour Value: #1111

Colour Name: White

Colour Value: #0000

Colour Name: Black

Ans:-

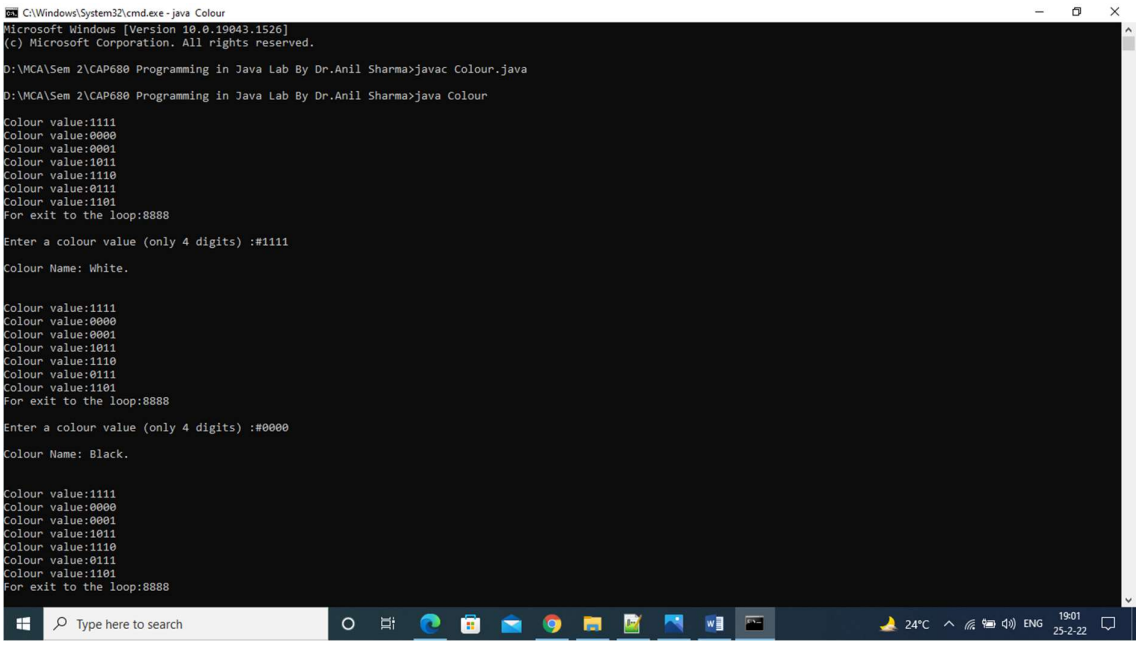
```
import java.util.Scanner;
```

```
class Colour
{

        public static void main(String args[])
        {

                Scanner sc=new Scanner(System.in);
                //creating infinite loop.
                while(true)
                {
                   //To displaying colour code.

                        System.out.println("\nColour value:1111");
                        System.out.println("Colour value:0000");
                        System.out.println("Colour value:0001");
                        System.out.println("Colour value:1011");
                        System.out.println("Colour value:1110");
                        System.out.println("Colour value:0111");
                        System.out.println("Colour value:1101");
                        System.out.println("For exit to the loop:8888");//For
exiting to the loop.

                        System.out.print("\nEnter a colour value (only 4 digits)
:#");
                   int value=sc.nextInt();

                        switch(value)//creating switch cases.
```

```
{
   case 1111:

      System.out.println("\nColour Name: White.\n");
      break;

   case 0000:

      System.out.println("\nColour Name: Black.\n");
                        break;
   case 0001:

      System.out.println("\nColour Name: Blue.\n");
      break;

                     case 1011:

      System.out.println("\nColour Name: Green.\n");
                        break;
                     case 1110:

      System.out.println("\nColour Name: Red.\n");
                        break;
                     case 1101:

      System.out.println("\nColour Name: Orange.\n");
```

```
                    break;
            case 8888:
                                System.exit(0);//For exit to the loop.
                    default:
                System.out.println("You have enter wrong colour value.\n");
                            break;
                        }
                }
    }
}
```

Output:-



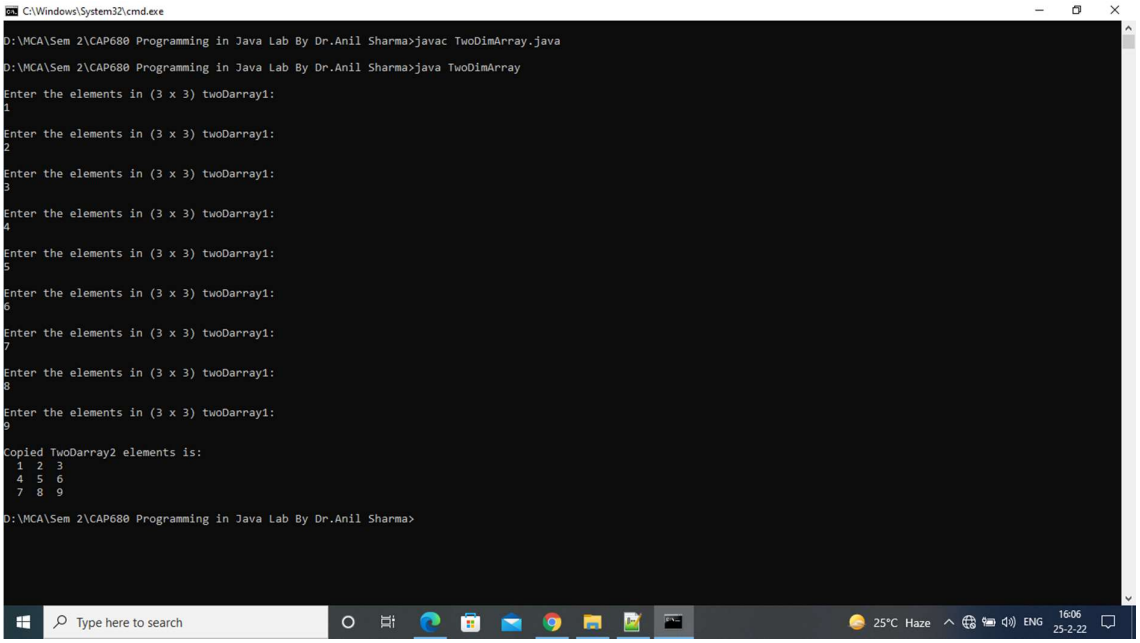
Q3: Write a program to create two multidimensional arrays of same size. Accept value from user and store them in first array. Now copy all the elements of first array to second array and print output.

Ans:-

```
import java.util.Scanner;
class TwoDimArray
{

        public static void main(String []args)
        {
                // Dynamically Array declation.
                int array1[][] = new int[3][3];
                int array2[][] = new int[3][3];
                Scanner sc = new Scanner(System.in);
                //This for nested loop entering elements in array1.
                for(int i=0; i<3; i++)
                {
                    for(int j=0; j<3; j++)
                    {
                    System.out.println("\nEnter the elements in (3 x 3) twoDarray1:");
                    array1[i][j]  = sc.nextInt();//taking input into array1.
                    }
                }
                //This loop coping array1 elements to array2.
                for(int i=0; i<3; i++)
                {
```

```
                for(int j=0; j<3; j++)
                {
                        array2[i][j]=array1[i][j];
                }
            }

    System.out.println("\nCopied TwoDarray2 elements is:");
            //This loop showing array2 elements.
            for(int i=0; i<3; i++)
            {
      for(int j=0; j<3; j++)
                {
        System.out.print("  "+array2[i][j]);
                }
      System.out.println();
            }
   }
}
```

Output


C:\Windows\System32\cmd.exe
D:\MCA\Sem 2\CAP680 Programming in Java Lab By Dr.Anil Sharma>javac TwoDimArray.java
D:\MCA\Sem 2\CAP680 Programming in Java Lab By Dr.Anil Sharma>java TwoDimArray
Enter the elements in (3 x 3) twoDarray1:
1
Enter the elements in (3 x 3) twoDarray1:
2
Enter the elements in (3 x 3) twoDarray1:
3
Enter the elements in (3 x 3) twoDarray1:
4
Enter the elements in (3 x 3) twoDarray1:
5
Enter the elements in (3 x 3) twoDarray1:
6
Enter the elements in (3 x 3) twoDarray1:
7
Enter the elements in (3 x 3) twoDarray1:
8
Enter the elements in (3 x 3) twoDarray1:
9
Copied TwoDarray2 elements is:
1 2 3
4 5 6
7 8 9
D:\MCA\Sem 2\CAP680 Programming in Java Lab By Dr.Anil Sharma>
Type here to search
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ENG
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25-2-22