Practical 1

- Aim: Write a program that dislplays: Welcome to java. Learning Java now and programming is fun.

Input:

```
public class Main
{
    public static void main(String args[])
    {
        System.out.println("Welcome to java. Learning Java now and programming is fun.");
    }
}
```

Output:

```
Welcome to java. Learning Java now and programming is fun.


...Program finished with exit code 0
Press ENTER to exit console.
```

Practical 2

- Aim: Write a program that prompts the user to enter a letter and check whether a letter is a vowel or consonant.

  Input:

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

```
    {
        char ch = ‘a’;
        if(ch== ‘a’|| ch== ‘e’|| ch== ‘i’|| ch== ‘o’|| ch== ‘u’)
        {
        System.out.println(ch + “\t Given character is vowel…!”);
        }
        else
        {
        System.out.println(ch + “\t Given character is consonant…!”);
        }
    }
}
```

Output:

```
a       Given character is vowel…!


...Program finished with exit code 0
Press ENTER to exit console.
```

```
p       Given character is consonant…!


...Program finished with exit code 0
Press ENTER to exit console.
```

Practical 3

- Aim: Write a program to print given pattern:

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

Input:

```
class Main
{
    public static void main(String []args)
    {
        for(int i=1; i<4; i++)
        {
            for(int k=3; k>=i; k--)
            {
                System.out.print("");
            }
            for(int j=1; j<=4; j++)
```

```
                {
                        System.out.print(i +“”);
                }
            System.out.print(“\n”);
            }// end of for loop
        }//end of main method
}// end of class
```

Output:

Practical 4

- Aim: Write a program that reads number in meters, converts it to feet, and displays the result.

Input:

```
import java.util.*;
public class Main
{
    public static void main(String []args)
    {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter a value for meter:");
        double meter = input.nextDouble();
        double feet = meter/0.305;
         System.out.println("meter is" + meter + "Convert into feet" + feet);
```

```
    }
}
```

Output:

Practical 5

- Aim: Write a program that reads number in meters, converts it to feet, and displays the result.

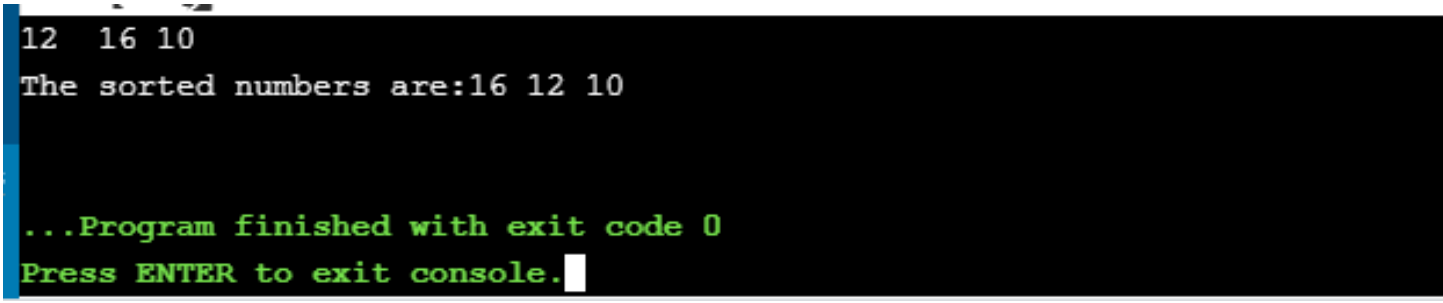
Input:

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

```
System.out.println("Enter three values: ");
int num1= input.nextInt();
int num2= input.nextInt();
int num3= input.nextInt();
if((num1>num2)&&(num2>num3))
{
    System.out.println("The sorted numbers are:"  + num1 + " " + num2 + " " + num3);
}
if((num1>num2)&&(num2<num3))
{
    System.out.println("The sorted numbers are:"  + num1 + " " + num3 + " " + num2);
}
if((num1<num2)&&(num2<num3))
{
    System.out.println("The sorted numbers are:"  + num3 + " " + num2 + " " + num1);
}
if((num1<num2)&&(num2>num3))
{
    System.out.println("The sorted numbers are:"  + num2 + " " + num1 + " " + num3);
```

```
        }
}//end of main
}//end of class
```

Output:



Practical 6

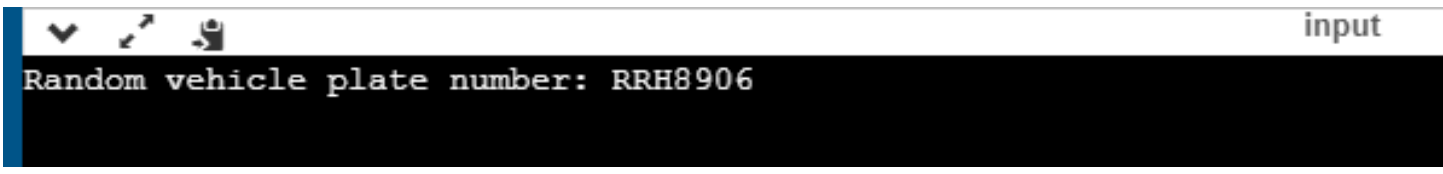
- Aim: Assume a vehicle plate number consist of three uppercase letters followed by four digits. Write a program to generate a plate number.

Input:

```
public class Main
```

```
{
    public static void main(String []args)
    {
        StringBuilder s = new StringBuilder();
        for(int i=0; i<3; i++)
        {
            char ch = (char)(Math.random()*26 + 'A');
            s.append(ch);
        }
        for(int i=0; i<4; i++)
        {
        char digit1 = (char)(Math.random()*10 + '0');
            s.append(digit1);
        }
        System.out.println("Random vehicle plate number: " + s);
    }
}
```

Output:



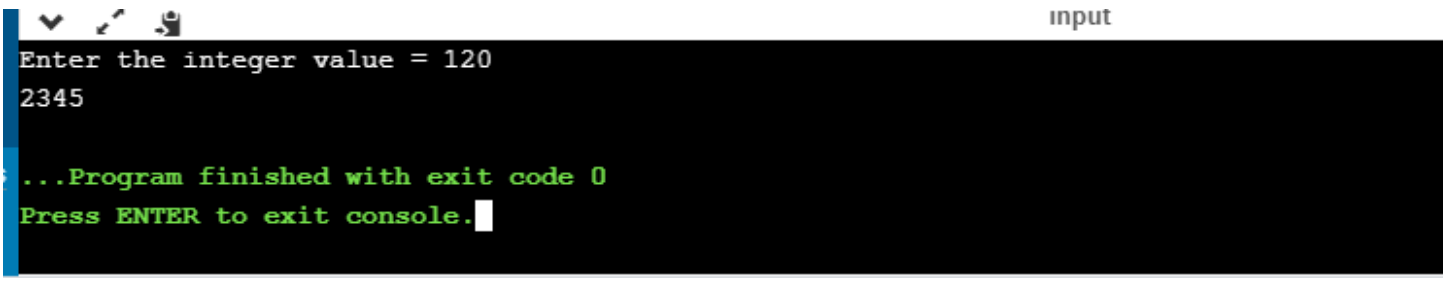
Practical 7

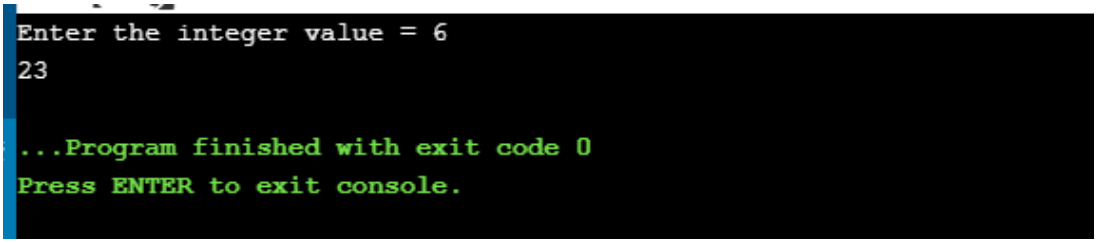
- Aim: Write a program that reads an integer and displays all its smallest factors in increasing order. For example, if input number is 120, the output should be as follows:2,2,2,3,5

```
import java.util.Scanner;
public class Main
{
	public static void main(String []args)
	{
		Scanner input = new Scanner(System.in);
		System.out.print(“Enter the integer value = ”);
		int num = input.nextInt();
		for(int i=2; i<=num; i++)
		{
			if(num%i==0)
			{
				System.out.print(i + “”);
				num /= i ;
			}
			else
			{
```

```
                    i++ ;
                }
            }
}//end of main
}//end of class
```

Output:





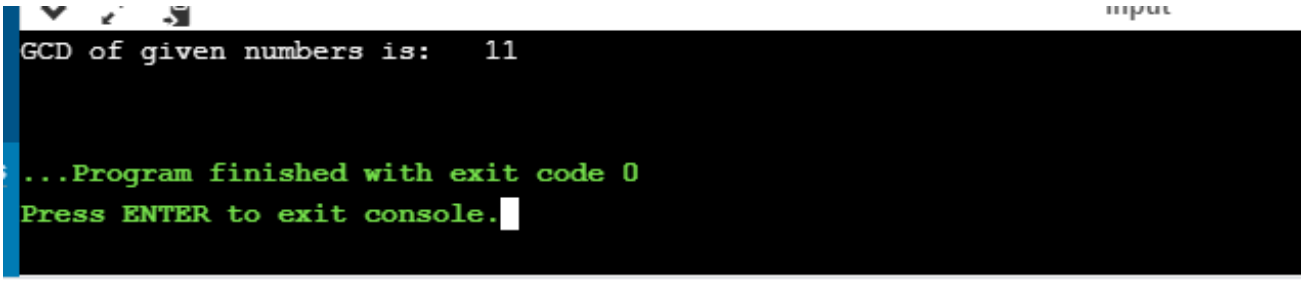
Practical 8

- Aim:. Write a method with following method header: public static int gcd(int num1, int num2). Write a program that prompts the user to enter two integers and compute the gcd of two numbers:

```
public class Main
{
    public static void main(String args[])
    {
    int  num1 = 55, num2 = 121;
    while(num1!=num2)
    {
        if(num1>num2)
    num1 = num1 - num2;
    else
    num2 = num2 - num1;
    }
    System.out.println( “GCD of given numbers is:   ”+ num2);
```

```
    }
}
```

Output:


GCD of given numbers is: 11
...Program finished with exit code 0
Press ENTER to exit console.

Practical 9

- Aim: Write a program that reads number in meters, converts it to feet, and displays the result.

Input:

```
import java.util.*;
public class Main
{
	public static void main(String []args)
	{
		Random num =  new Random(1000);
		for(int i=0; i<1000; i++)
		{
		System.out.format(“%3d”, num.nextInt(49));
		if((i+1)%20 == 0)
		{
```

```
                System.out.println();


            }
            }
        }
}
```

Output:

```
40  1 17  0 46 46  4 33  9 40 25 13 17 29 30 31 42 35 48 40
11 13 10  0 38  9  0 10 35 10 14 26 34 35 31 43 47 35  2 33
16 48 45 43  5 29  1 35  0 25 28 42 25  2 33 30 18 27  4 28
31 35  9 13 33 12 18 36 39  7 17 31 21 26 47 39 11 40 11 26
48 26 27 32 19 30 26  4  7 40  9 41  8 37  3 34 10 36  4 21
```

Practical 10

- Aim: Write a program that prompts the user to enter three integers and display the integers in decreasing order.

Input:

```
import java.util.*;
public class Main
{
    public static void main(String []args)
    {
        Scanner p = new Scanner(System.in);
        System.out.println("Enter the first number :");
```

```
        int num1 = p.nextInt();
        System.out.println("Enter the second number :");
        int num2 = p.nextInt();
        System.out.println("Enter the third number :");
        int num3 = p.nextInt();
        int result = No(num1, num2, num3);
        System.out.println(result);
}
public static int No(int one, int two, int three)
{
        if(one>two && two>three)
        {
        System.out.println(one + "" + two+ "" + three);
        }
        else if(two>one  && one>three)
        {
        System.out.println(two + "" + one+ "" + three);
        }
        else if(three>two  && two>one)
        {
        System.out.println(three + "" + two+ "" + one);
```

```
            }
        else
            {
            System.out.println(one + “” +three+ “” + two);
            }
            return No(one,two,three);
        }
}
```