Faculty of Engineering & Technology
Subject Name: Java Workshop
Subject Code: 203105259
B.Tech.: IT Year: 2021-22 Semester: 4

CERTIFICATE

This is to certify that Mr./Ms. ***……. Hemil…Chovatiya……*** *with enrolment no.* ***……200303108003……*** *has successfully completed* ***his****/her laboratory experiments in the* ***JAVA PROGRAMMING WORKSHOP (203105259)*** *from the department of* ***……..Information Technology(4ITA1)……*** *during the academic year* ***……..2021-2022……***

Date of Submission: …….. Staff In charge: ……..

Head of Department: ……..

Practical Set: 1

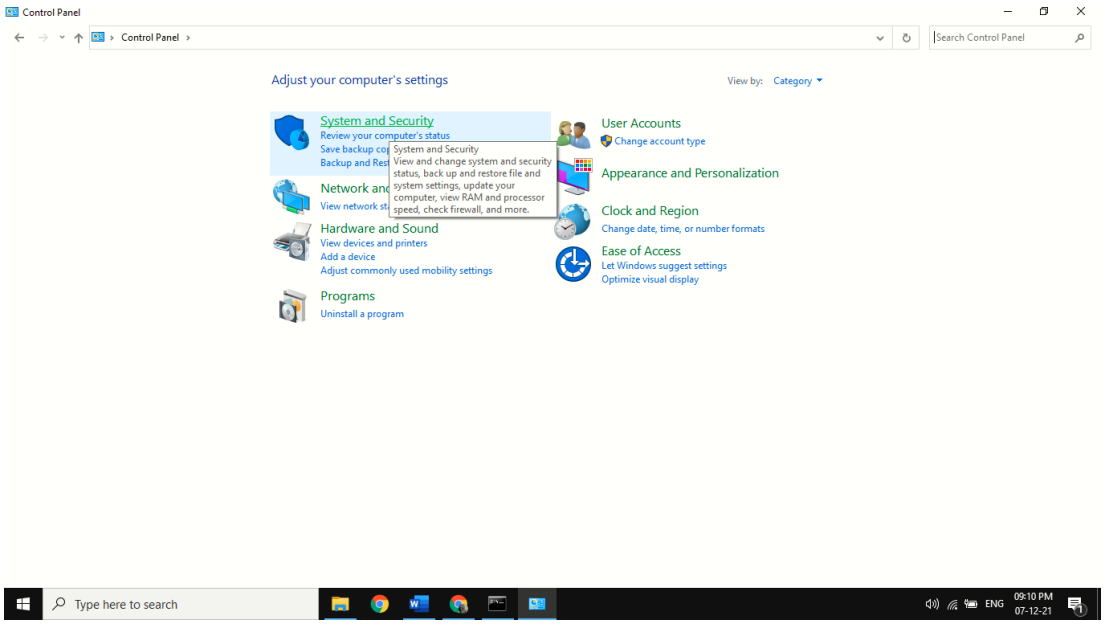
Basics of Java

Practical 1:

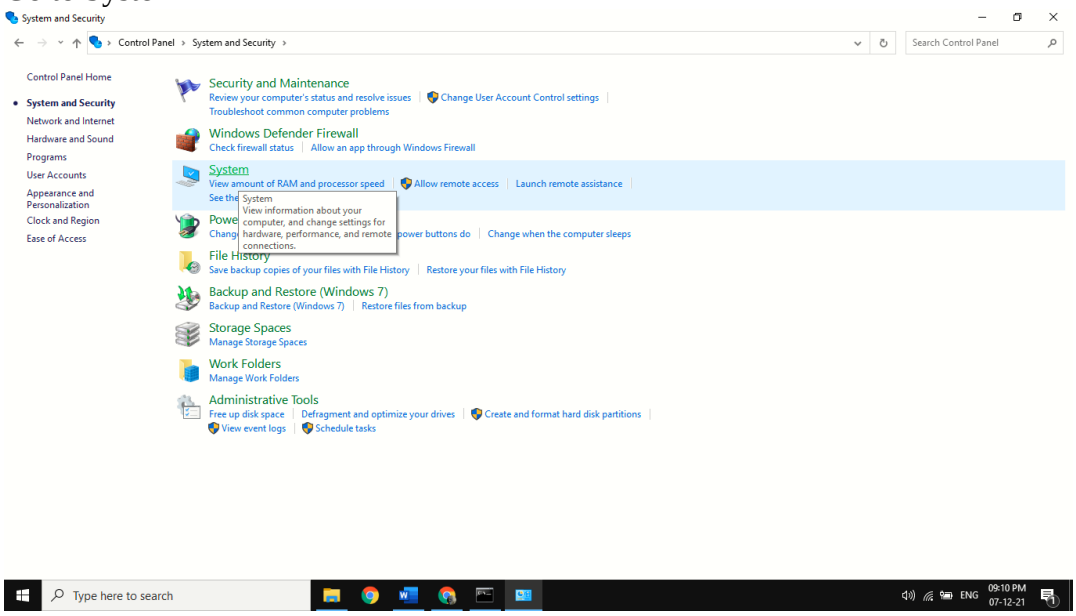
AIM: Prepare a report on how to set the PATH variable to the java directory.

Steps:

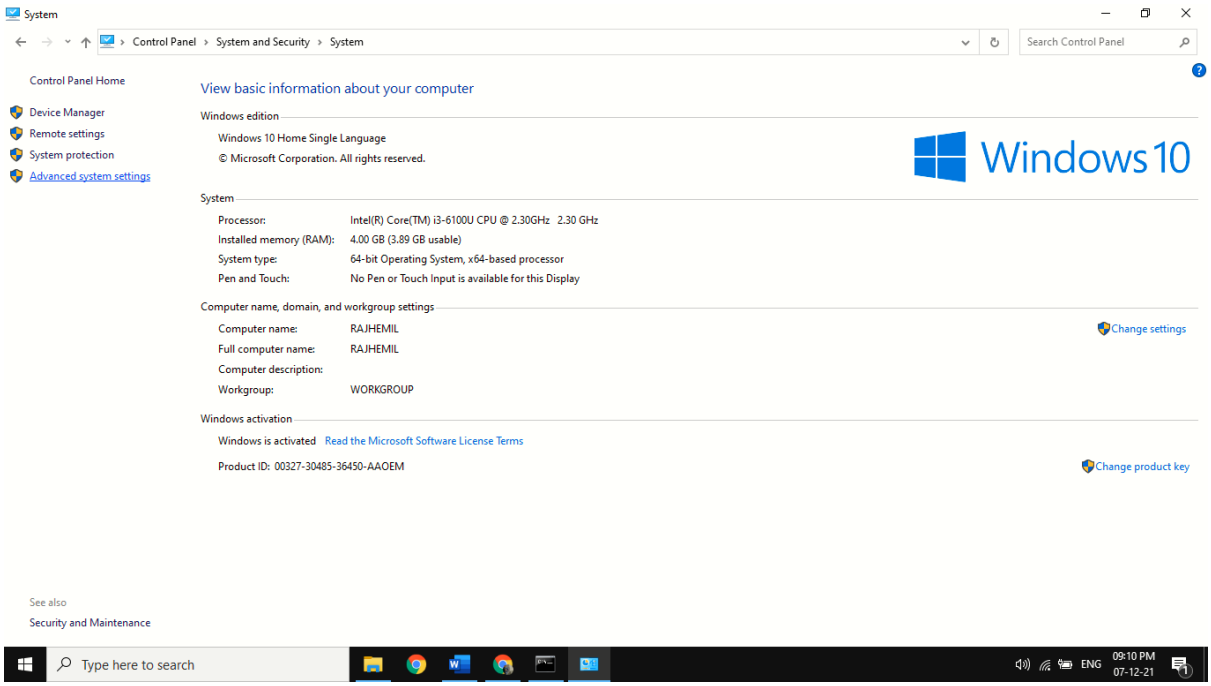
1. Open Control Panel and go to System and Secutiry



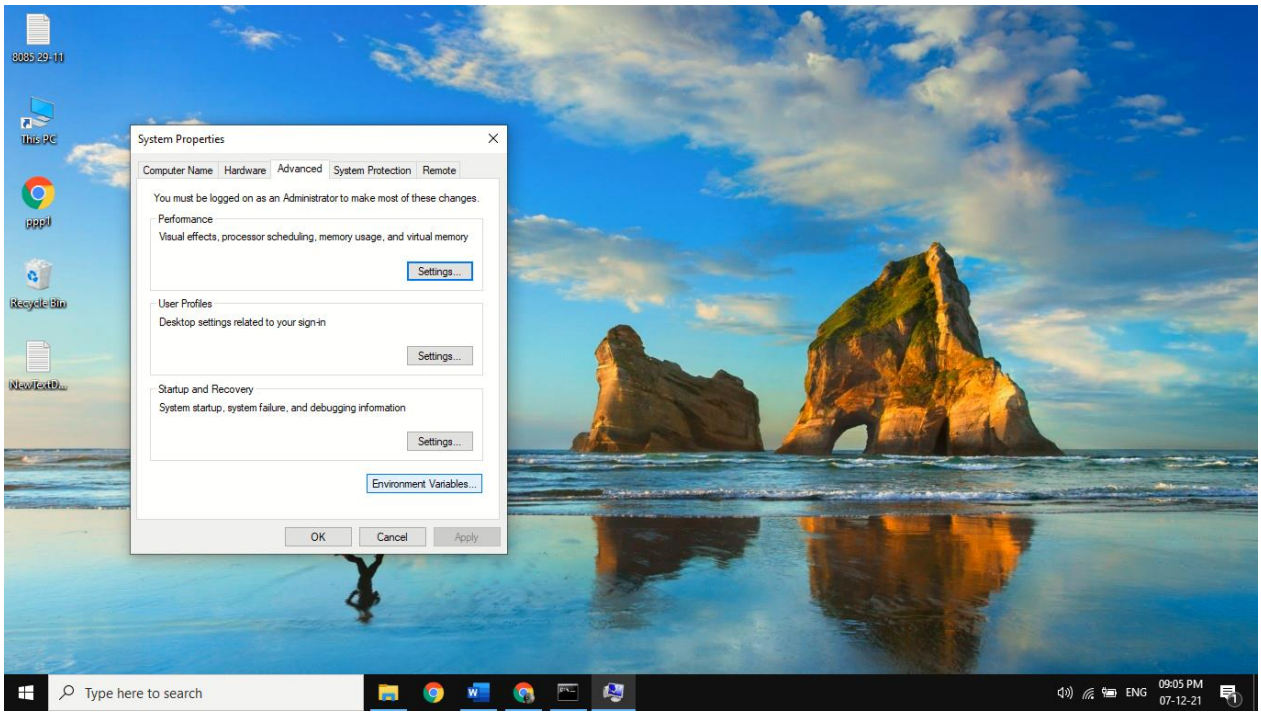
2. Go to System



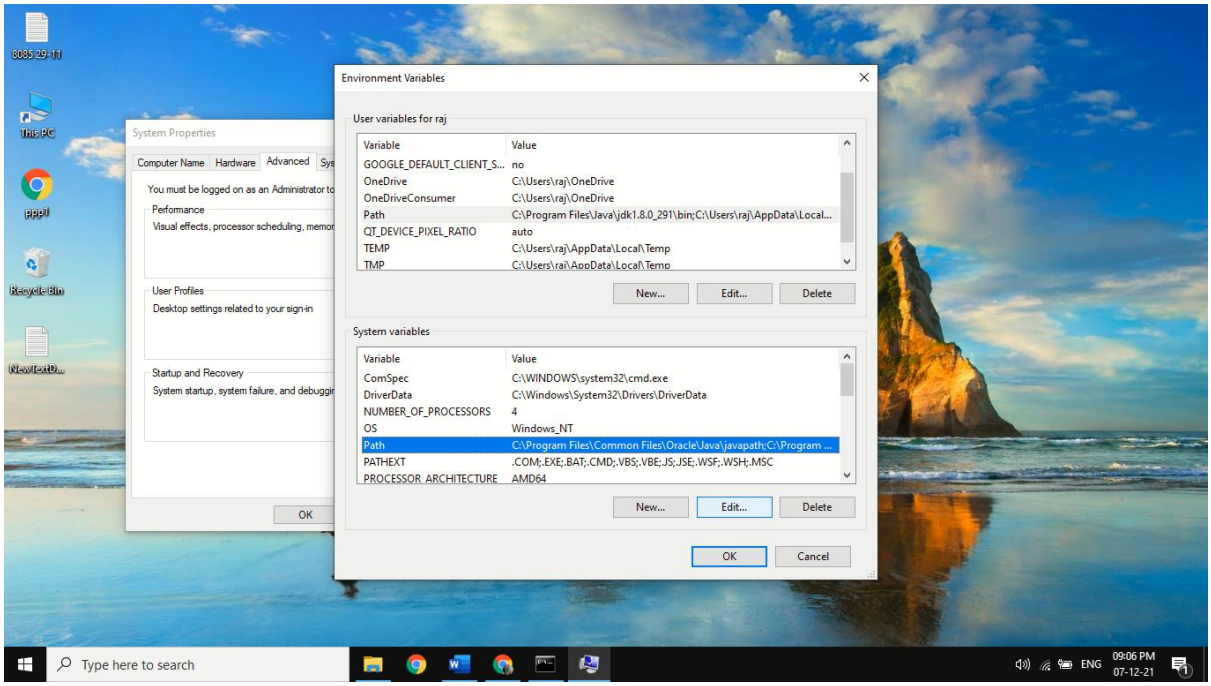
3. Go to Advanced System Setting



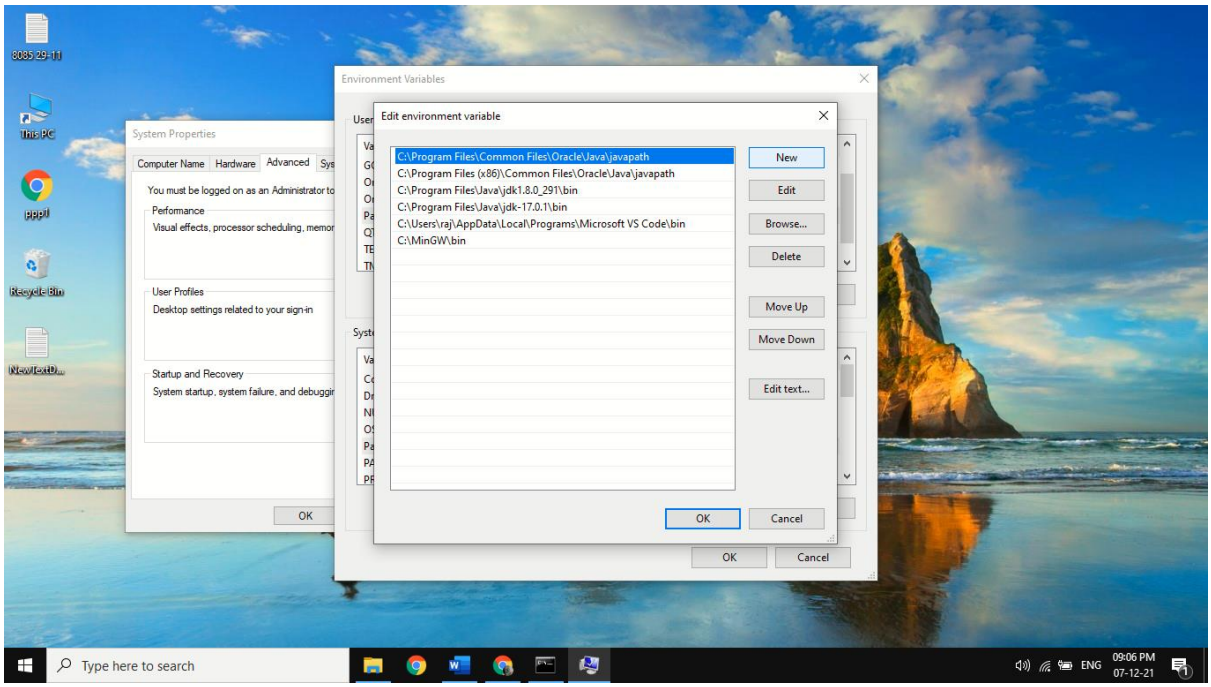
4. Go to Environment Variables



5. Click on path and then click on edit



6. Click on new and paste the Path of java as show below



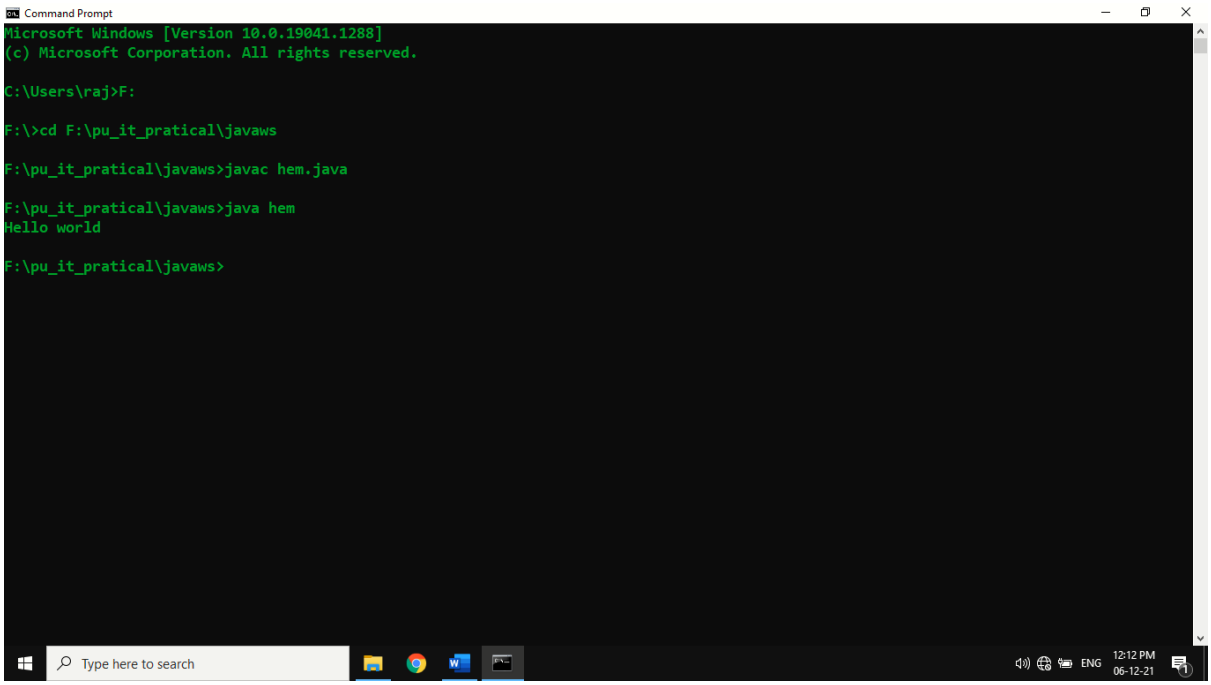
Practical 2:

AIM: Implement a JAVA program to display "Hello World" on the console.

CODE:

```
class hem
{
  public static void main(String args[])
    {
      System.out.println("Hello world");
    }

}
```

OUTPUT:



Practical 3:

AIM: How to compile and run the above program.

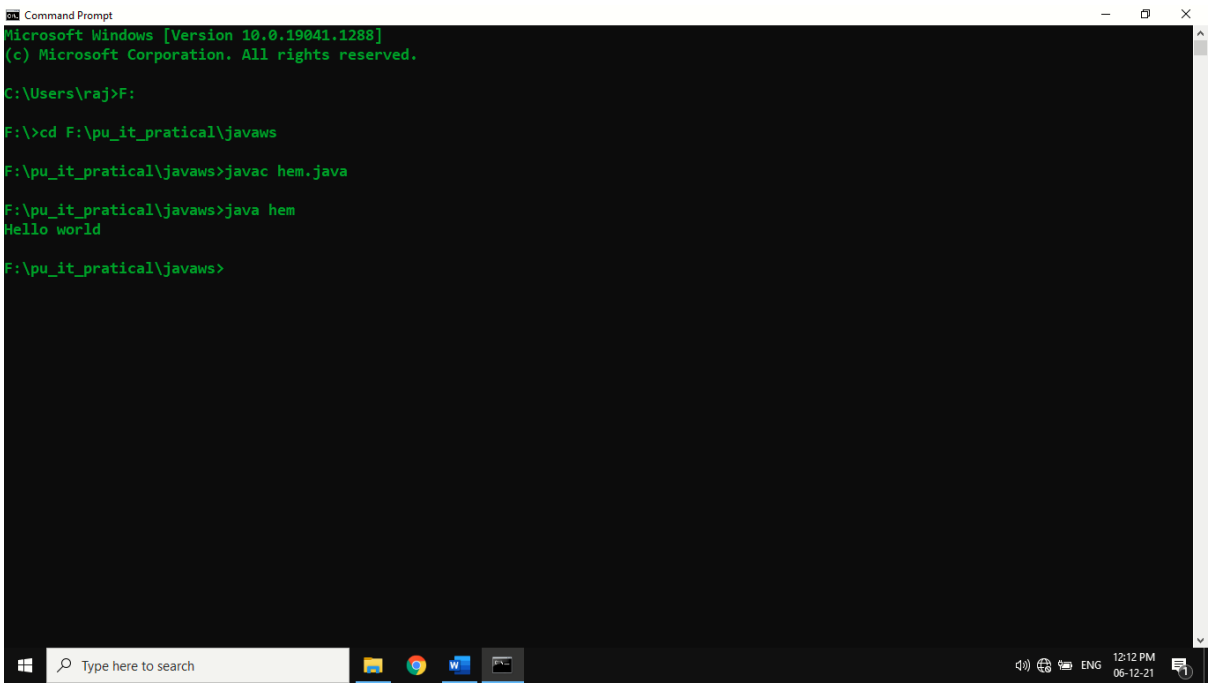
Steps:

1. Firstly Open The Command Line In Your Device
2. Than Go To C Or D Drive Wherever You Have Saved Your Code File.
3. Than Type Javac P1.Java To Compile And Get Class File For It
4. And Than Type Java P1 To Run The Program

Code:

```
C:\Users\raj>F:

F:\>cd F:\pu_it_pratical\javaws

F:\pu_it_pratical\javaws>javac hem.java

F:\pu_it_pratical\javaws>java hem

Hello world
```

OUTPUT:



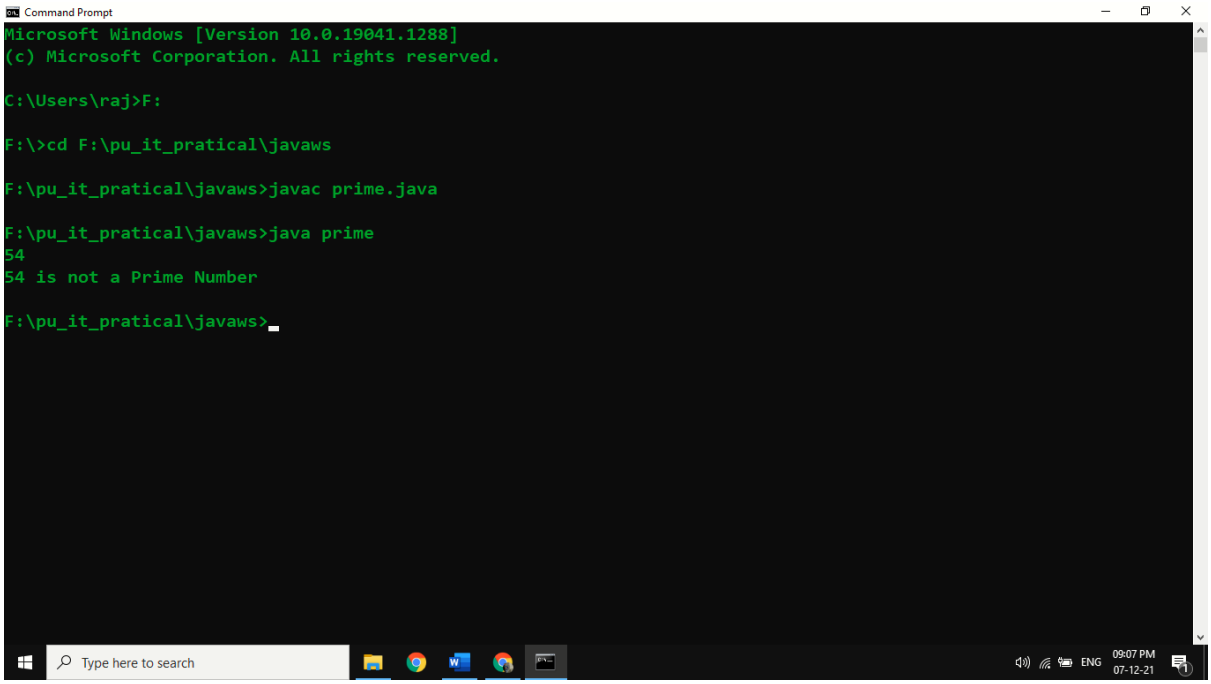
Practical 4:

AIM: Write a program to test number is prime or not.

CODE:

```
import java.util.*;
class prime{
      public static void main(String args[])
      {
        int a,p,i;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Number:");
        a= sc.nextInt();
        p=0;
        for(i=1;i<=a;i++)
          {
           if ( a % i == 0)
            {
              p++;
            }
          }
        if(p==2)
           {    System.out.println(a+" is a Prime Number");         }
        else
           {    System.out.println(a+" is not a Prime Number");    }
      }
}
```

Output:


Command Prompt
Microsoft Windows [Version 10.0.19041.1288]
(c) Microsoft Corporation. All rights reserved.
C:\Users\raj>F:
F:\>cd F:\pu_it_pratical\javaws
F:\pu_it_pratical\javaws>javac prime.java
F:\pu_it_pratical\javaws>java prime
54
54 is not a Prime Number
F:\pu_it_pratical\javaws>
Type here to search
ENG
09:07 PM
07-12-21

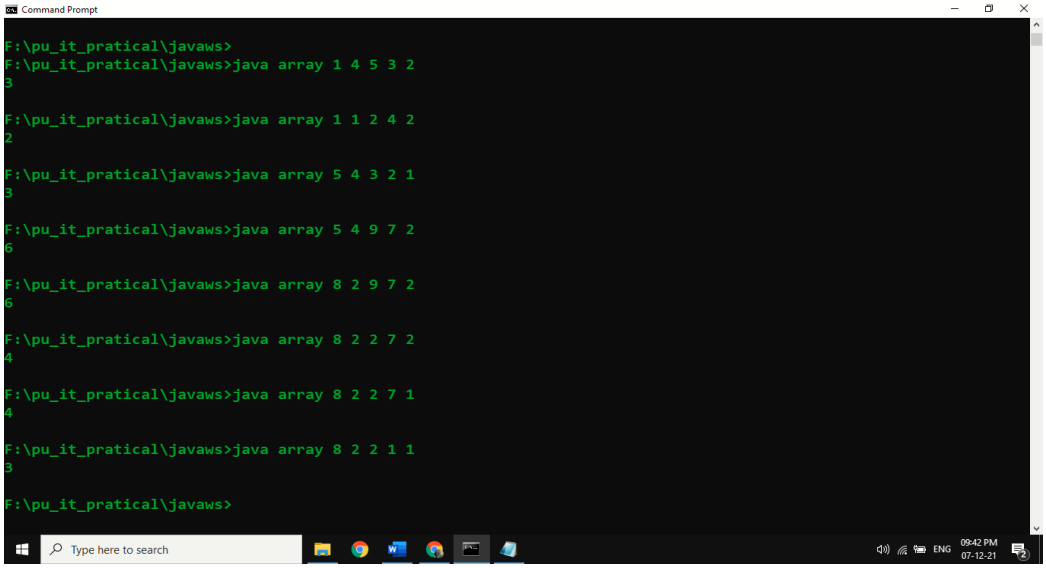
Practical 5:

AIM: Write a program that creates and initializes a four integer element array. Calculate and display the average of its values.

Code:

```
import java.util.*;

class array1

{               public static void main(String args[])

                 {

                      Scanner sc = new Scanner(System.in);

                      System.out.print("enter a : ");

                      int a = sc.nextInt();

                      System.out.print("enter b : ");

                      int b= sc.nextInt();

                      int c;

                      c = (a + b)/2;

                      System.out.println("avg is " +c);

                   }

}
```

OUTPUT:



Practical Set: 2

Class, object and methods in JAVA

Practical 1:

AIM: Write class Box

a. Define data member l,b,h

b. Define method to set the data.

c. Define display method to dislplay data member

Practical 2:

AIM: Write class Box

a. Define data member l,b,h.

b. Define default and Parameterized constructor to initialize value of data member.

c. Define display method to dislplay data member.

Practical 3:

AIM:Write a java Program for garbage collection.

Practical 4:

AIM: Write a java program to do sum of command line argument passed two Double numbers.

Practical 5:

AIM:Write a test program that creates two Fan objects. One with default values and the other with medium speed, radius 6, color brown, and turned on status true. Display the descriptions for two created Fan objects.

Practical 6:

AIM:Define time class with hour and minute. Also define addition method to add two time objects.