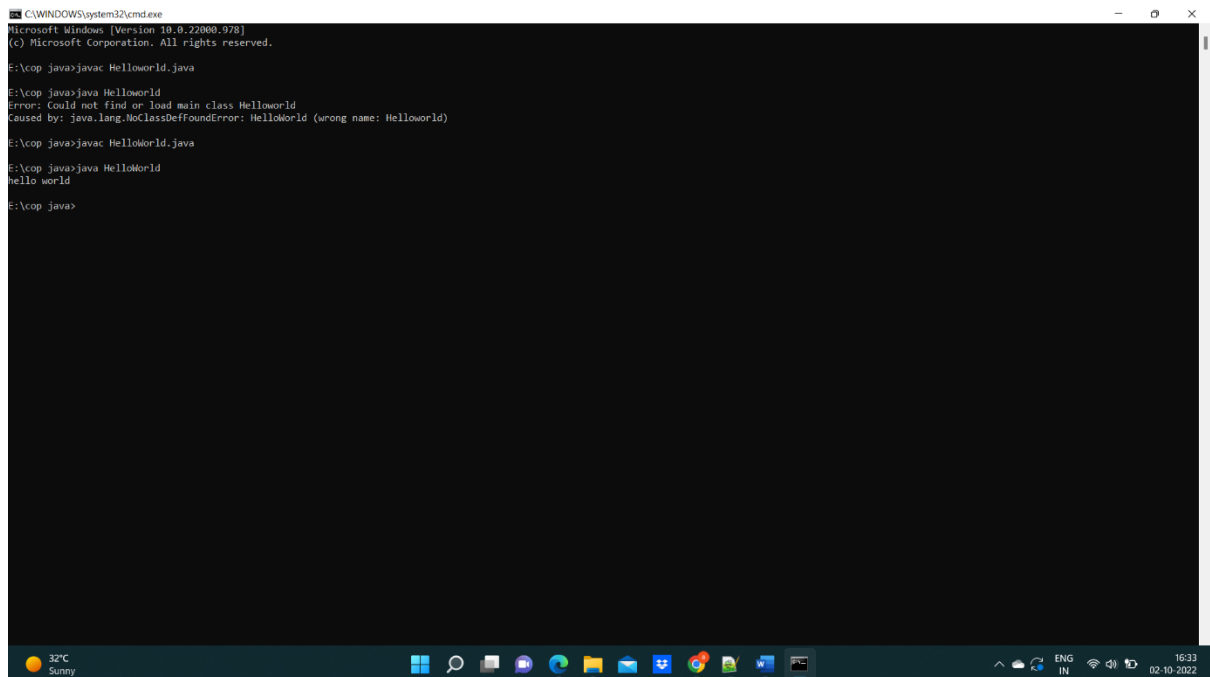


# ASSIGNMENT -1(CONCEPTS OF PROGRAMMING)

Q1) Write a java program to print hello world?

//write a program to print Hello World in java

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



The screenshot shows a Windows command prompt window with the following text:

```
C:\WINDOWS\system32\cmd.exe  
Microsoft Windows [Version 10.0.22000.978]  
(c) Microsoft Corporation. All rights reserved.  
  
E:\cop java>javac HelloWorld.java  
  
E:\cop java>java HelloWorld  
Error: Could not find or load main class HelloWorld  
Caused by: java.lang.NoClassDefFoundError: HelloWorld (wrong name: HelloWorld)  
  
E:\cop java>javac HelloWorld.java  
  
E:\cop java>java HelloWorld  
hello world  
  
E:\cop java>
```

The taskbar at the bottom shows the date and time as 16:33 on 02-10-2022, and the weather as 32°C Sunny.

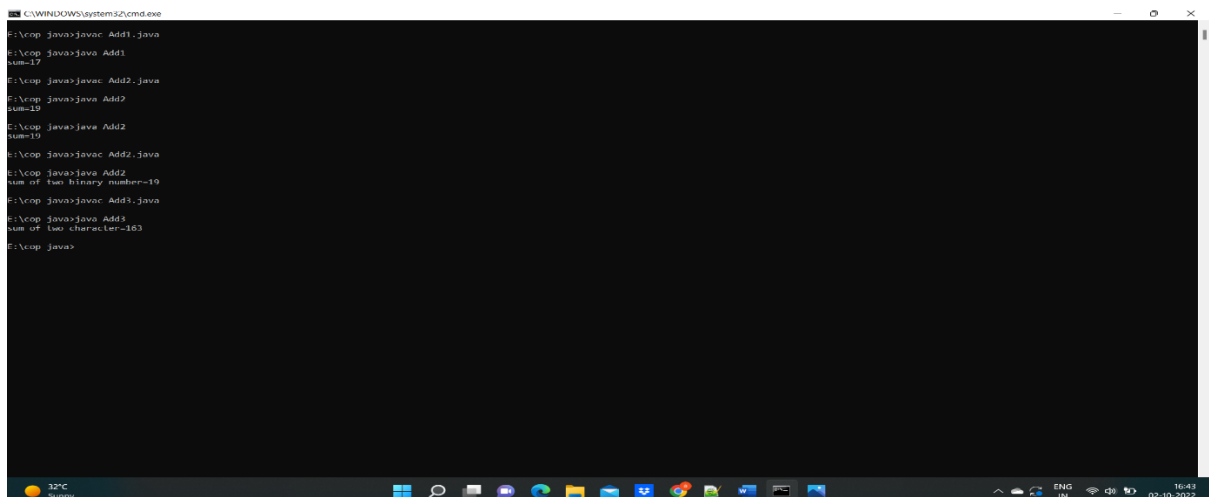
Q2) .Write a java program Add two numbers/binary numbers characters ?

```
class Add1{  
  
    public static void main(String[] args){  
  
        int a=9;  
  
        int b=8;
```

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

```
class Add2{  
  
    public static void main(String[] args){  
  
        int a= 0b1011;  
  
        int b= 0b1000;  
  
        int c=a+b;  
  
        System.out.println("sum of two binary number="+c);  
  
    }  
  
}
```

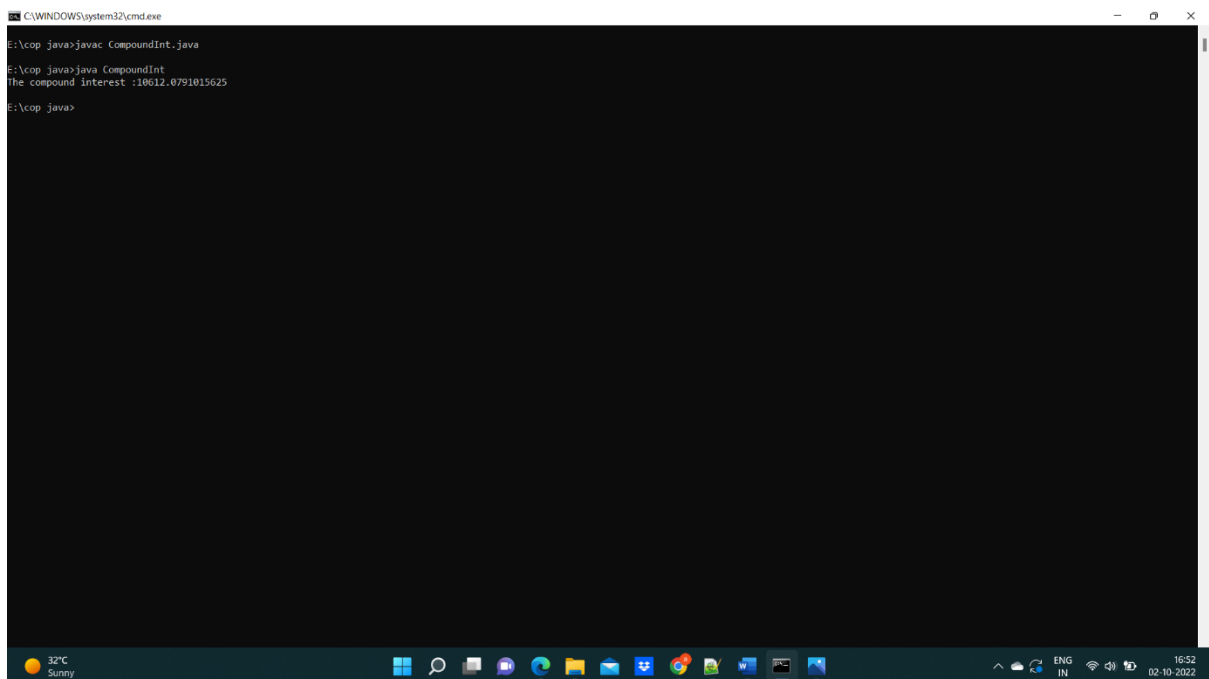
```
class Add3{  
  
    public static void main(String[] args){  
  
        char a= 'A';  
  
        char b= 'b';  
  
        int c=a+b;  
  
        System.out.println("sum of two character="+c);  
  
    }  
  
}
```



```
C:\WINDOWS\system32\cmd.exe  
E:\cop java>javac Add1.java  
E:\cop java>java Add1  
sum=17  
E:\cop java>javac Add2.java  
E:\cop java>java Add2  
sum=19  
E:\cop java>java Add2  
sum=19  
E:\cop java>javac Add2.java  
E:\cop java>java Add2  
sum of two binary number=19  
E:\cop java>javac Add3.java  
E:\cop java>java Add3  
sum of two character=163  
E:\cop java>
```

Q3) Write a program to calculate the compound interest ?

```
public class CompoundInt{  
    public class void main(String[] args){  
        float p=10000,r=2,t=3,Interest;  
        double Interest=p*((1+r/100)*(1+r/100)*(1+r/100));  
        System.out.println("The compound interest :" +Interest);  
    }  
}
```



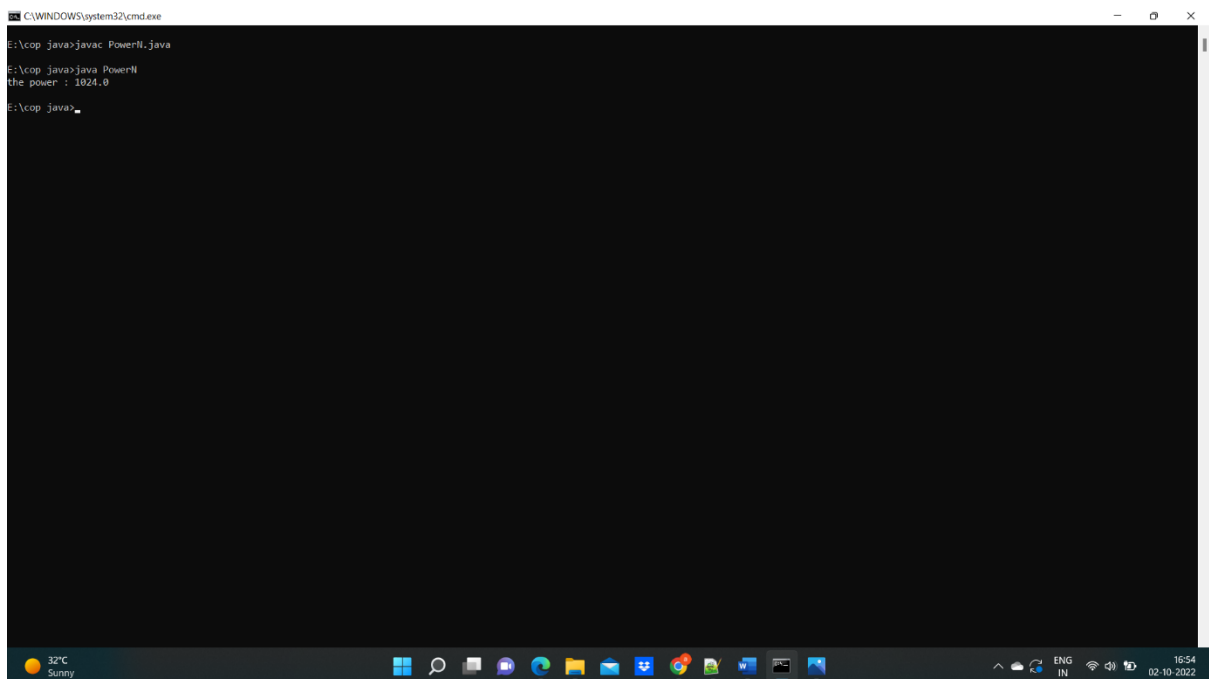
The screenshot shows a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The user has entered the following commands and received the following output:

```
E:\cop java>javac CompoundInt.java  
E:\cop java>java CompoundInt  
The compound interest :10612.0791015625  
E:\cop java>
```

The Windows taskbar at the bottom shows the date and time as 16:52 on 02-10-2022, along with various system icons including network, volume, and battery status.

Q4) Write a program to calculate the power of a number ?

```
public class PowerN{  
    public static void main(String[] args){  
        int b=4,e=5;  
        double Pow=Math.pow(b,e);  
        System.out.println("the power : "+Pow);  
    }  
}
```



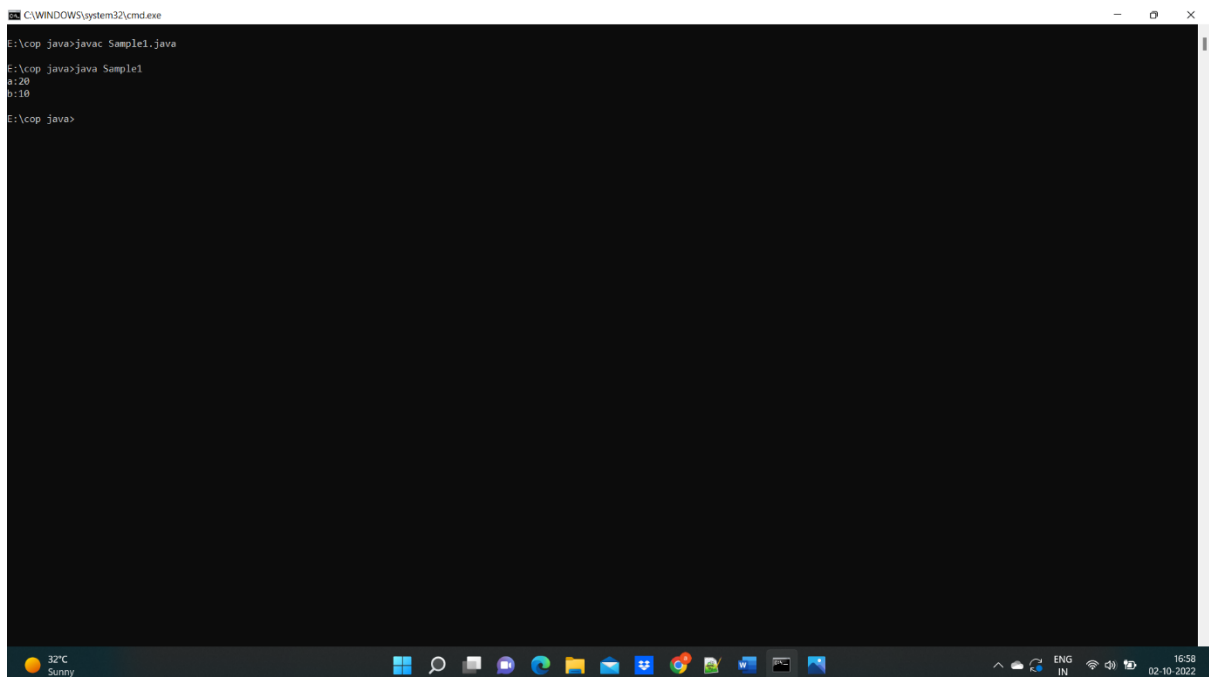
The screenshot shows a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The user has entered the following commands and received the following output:

```
E:\cop_java>javac PowerN.java  
E:\cop_java>java PowerN  
the power : 1024.0  
E:\cop_java>
```

The taskbar at the bottom of the window shows the system clock as 16:54 on 02-10-2022, and the weather as 32°C Sunny.

Q5) Write a program to swap the two numbers ?

```
public class Sample1{  
    public static void main(String[] args){  
        int a=10,b=20;  
        a=a+b;  
        b=a-b;  
        a=a-b;  
        System.out.println("a:"+a);  
        System.out.println("b:"+b);  
    }  
}
```



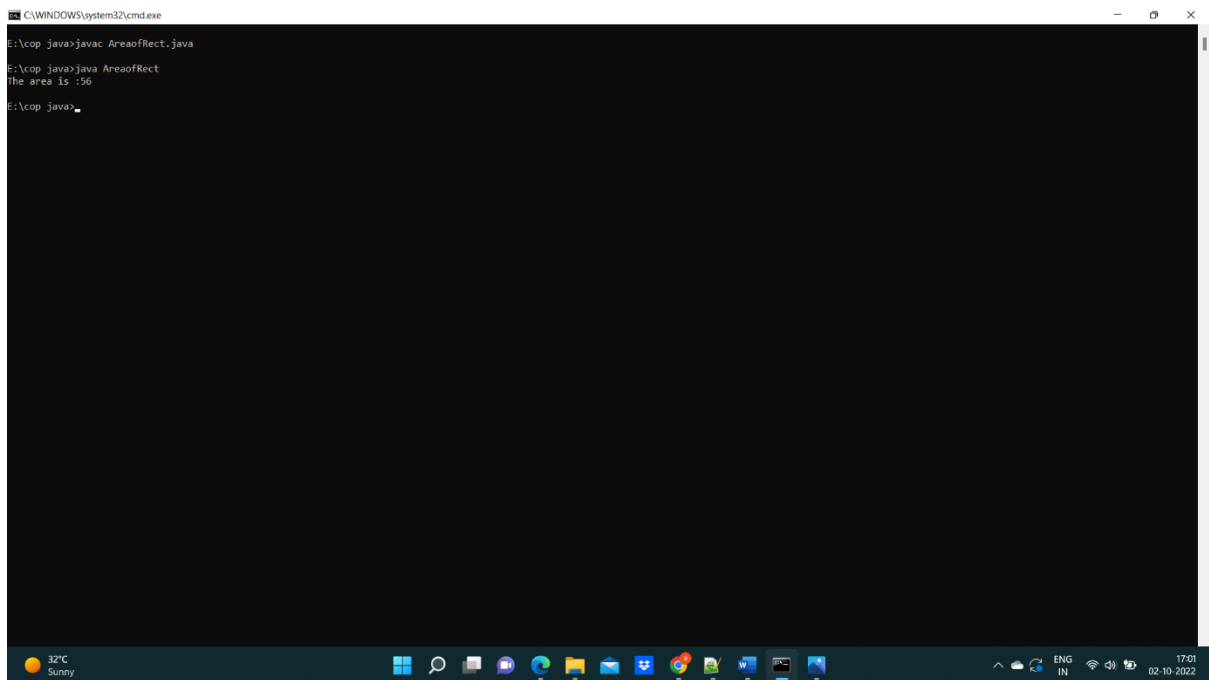
The screenshot shows a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The user has entered the following commands and received the following output:

```
E:\cop java>javac Sample1.java  
E:\cop java>java Sample1  
a:20  
b:10  
E:\cop java>
```

The output indicates that the program successfully compiled and executed, printing the values of 'a' and 'b' after the swap operation. The Windows taskbar at the bottom shows the system clock as 15:38 on 02-10-2022, and the weather as 32°C Sunny.

Q6) Write a program to calculate the area of reactangle ?

```
public class AreaofRect{  
    public static void main(String[] args){  
        int a=8;  
        int b=7;  
        int area=a*b;  
        System.out.println("The area is :"+area);  
    }  
}
```



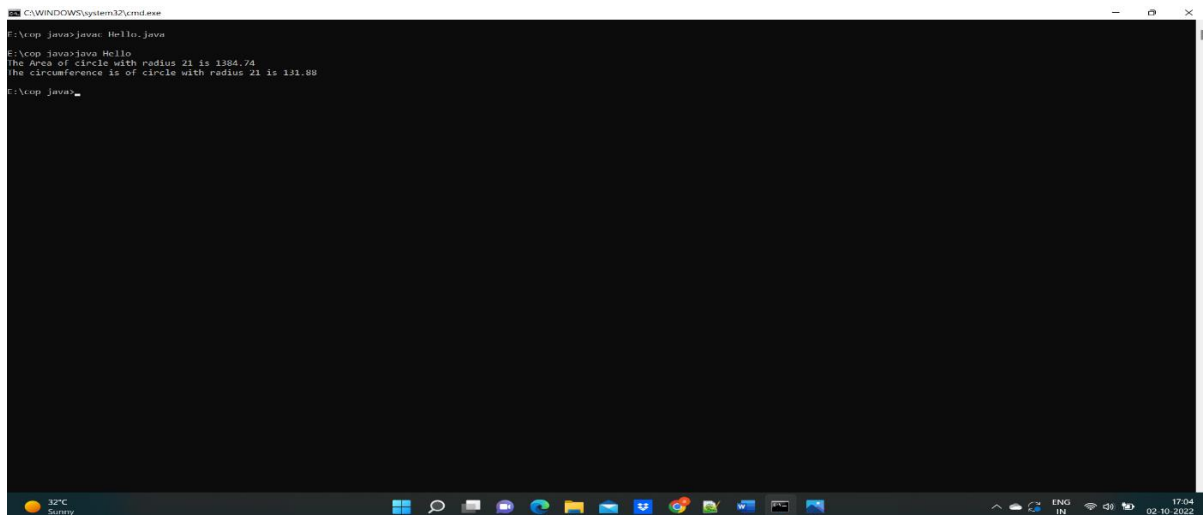
The screenshot shows a Windows command prompt window with the following text:

```
C:\WINDOWS\system32\cmd.exe  
E:\cop java>javac AreaofRect.java  
E:\cop java>java AreaofRect  
The area is :56  
E:\cop java>_
```

The taskbar at the bottom shows the system clock as 17:01 on 02-10-2022, with a temperature of 32°C and a sunny weather icon.

Q7) Calculate area and circumference of circle using multiple class ?

```
class area{  
    double area(double r){  
        return 3.14*r*r;  
    }  
}  
  
class circumference {  
    double circumference(double r){  
        return 2*3.14*r;  
    }  
}  
  
class Hello{  
    public static void main(String[] args){  
        area A = new area();  
        circumference B = new circumference();  
        System.out.println("The Area of circle with radius 21 is "+ A.area(21.0));  
        System.out.println("The circumference is of circle with radius 21 is "+  
B.circumference(21.0));  
    }  
}
```

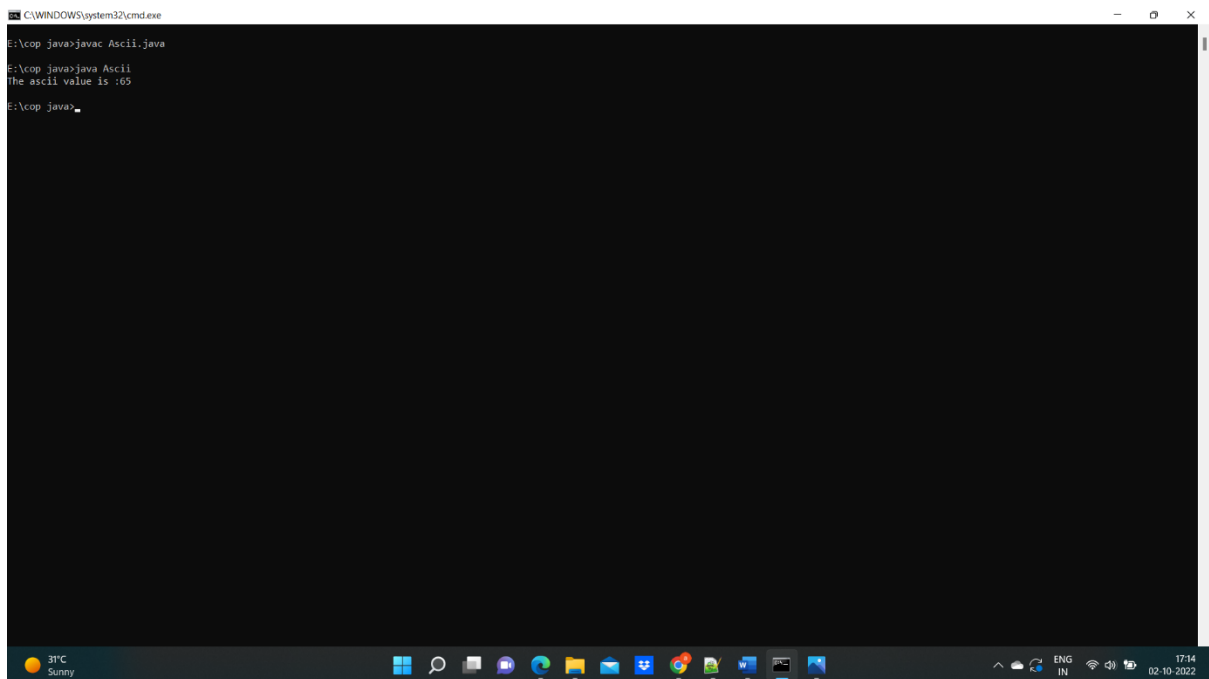


```
C:\WINDOWS\system32\cmd.exe  
E:\cop java>java: Hello.java  
E:\cop java>java Hello  
The Area of circle with radius 21 is 1384.74  
The circumference is of circle with radius 21 is 131.88  
E:\cop java>
```

The screenshot shows a Windows command prompt window with the title "C:\WINDOWS\system32\cmd.exe". The user has entered the command "E:\cop java>java: Hello.java" and then "E:\cop java>java Hello". The output of the program is displayed: "The Area of circle with radius 21 is 1384.74" and "The circumference is of circle with radius 21 is 131.88". The Windows taskbar is visible at the bottom, showing the date and time as "02/10/2022 17:04".

Q8) . Java program to find ASCII value of a character ?

```
class Ascii{  
    public static void main(String[] args){  
        char num='A';  
  
        int ascii = num;  
  
        System.out.println("The ascii value is :"+ascii);  
  
    }  
}
```



The screenshot shows a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The user has entered the following commands and received the following output:

```
E:\cop java>javac Ascii.java  
E:\cop java>java Ascii  
The ascii value is :65  
E:\cop java>_
```

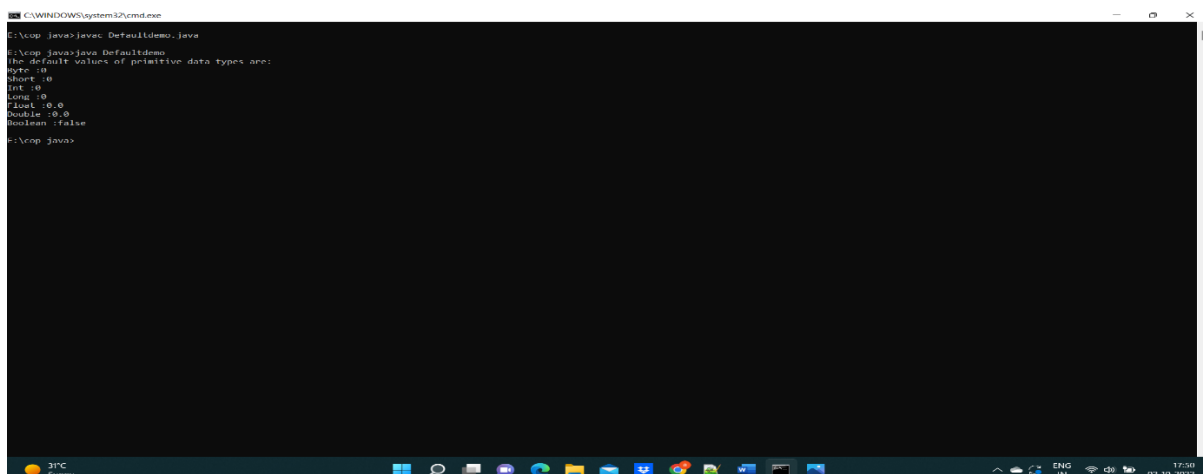
The taskbar at the bottom of the screen shows the date and time as 17:14 on 02-10-2022, along with various system icons and a weather widget indicating 31°C and Sunny weather.



Q9) Print default values of primitive data type ?

```
class Defaultdemo
{
    static byte b;
    static short s;
    static int i;
    static long l;
    static float f;
    static double d;
    static boolean bl;

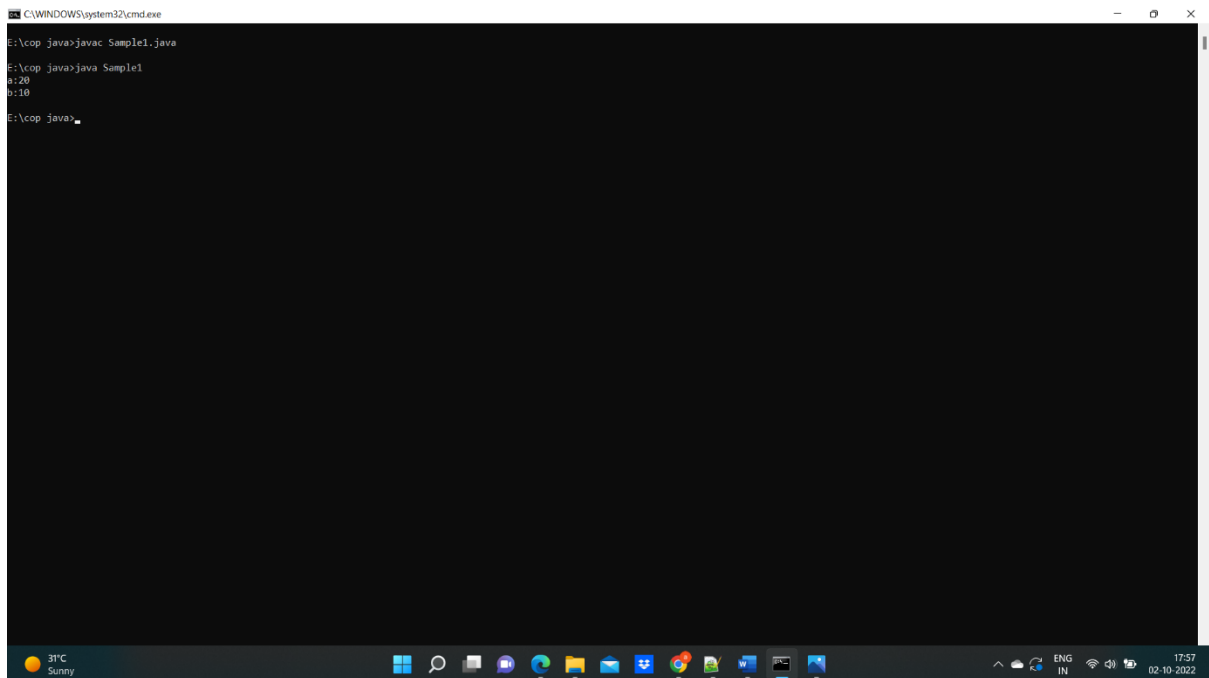
    public static void main(String[] args)
    {
        System.out.println("The default values of primitive data types are:");
        System.out.println("Byte :"+b);
        System.out.println("Short :"+s);
        System.out.println("Int :"+i);
        System.out.println("Long :"+l);
        System.out.println("Float :"+f);
        System.out.println("Double :"+d);
        System.out.println("Boolean :"+bl);
    }
}
```



```
C:\WINDOWS\system32\cmd.exe
C:\>cd java>javac Defaultdemo.java
C:\>cd java>java Defaultdemo
The default values of primitive data types are:
Byte :0
Short :0
Int :0
Long :0
Float :0.0
Double :0.0
Boolean :false
C:\>cd java>
```

Q10) Swap two variables without using the using third variable ?

```
public class Sample1{  
    public static void main(String[] args){  
        int a=10,b=20;  
  
        a=a+b;  
  
        b=a-b;  
  
        a=a-b;  
  
        System.out.println("a:"+a);  
        System.out.println("b:"+b);  
    }  
}
```



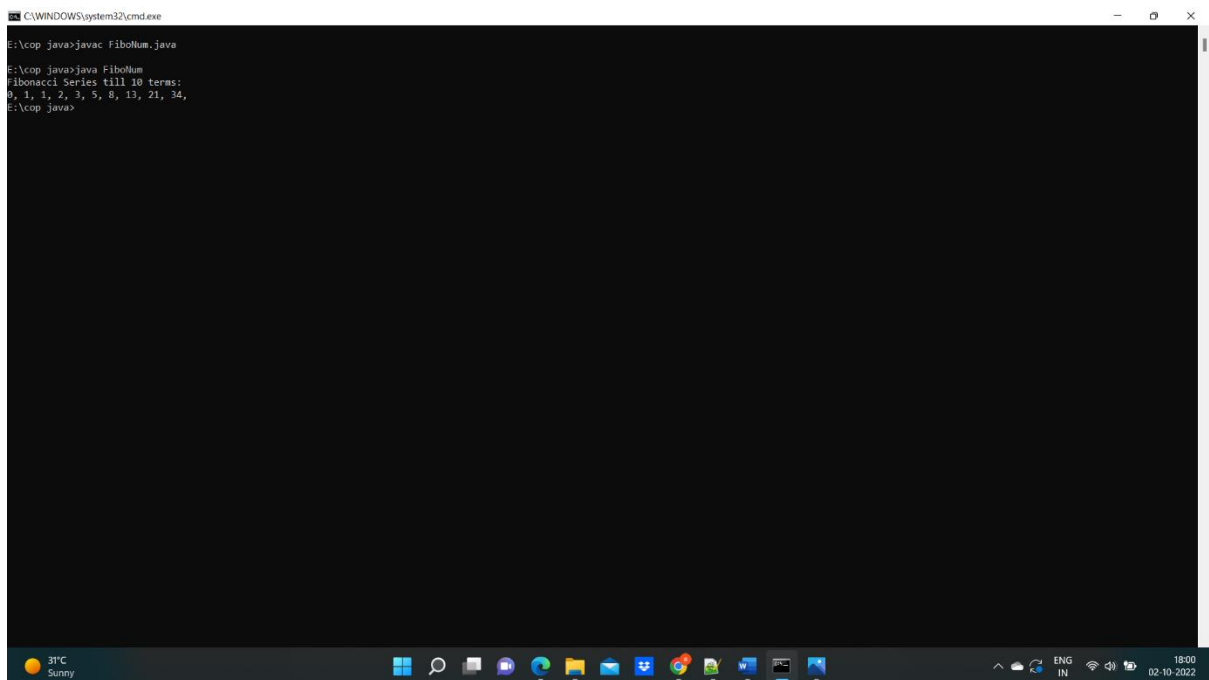
The screenshot shows a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The user has entered the following commands and received the corresponding output:

```
E:\cop java>javac Sample1.java  
E:\cop java>java Sample1  
a:20  
b:10  
E:\cop java>
```

The output demonstrates that the program successfully swapped the values of variables a and b. Initially, a was 10 and b was 20. After execution, a is 20 and b is 10. The Windows taskbar at the bottom shows the system time as 17:57 on 02-10-2022, with a temperature of 31°C and sunny weather.

Q11) Print Fibonacci series till n ?

```
class FiboNum{  
    public static void main(String[] args) {  
  
        int n = 10, firstTerm = 0, secondTerm = 1;  
        System.out.println("Fibonacci Series till " + n + " terms:");  
  
        for (int i = 1; i <= n; ++i) {  
            System.out.print(firstTerm + ", ");  
  
            int nextTerm = firstTerm + secondTerm;  
            firstTerm = secondTerm;  
            secondTerm = nextTerm;  
        }  
    }  
}
```



The screenshot shows a Windows command prompt window with the title bar "C:\WINDOWS\system32\cmd.exe". The command prompt displays the following text:

```
E:\cop java>javac FiboNum.java  
E:\cop java>java FiboNum  
Fibonacci Series till 10 terms:  
0, 1, 1, 2, 3, 5, 8, 13, 21, 34,  
E:\cop java>
```

The Windows taskbar is visible at the bottom, showing the system clock as 16:00 on 02-10-2022, and the temperature as 31°C Sunny.