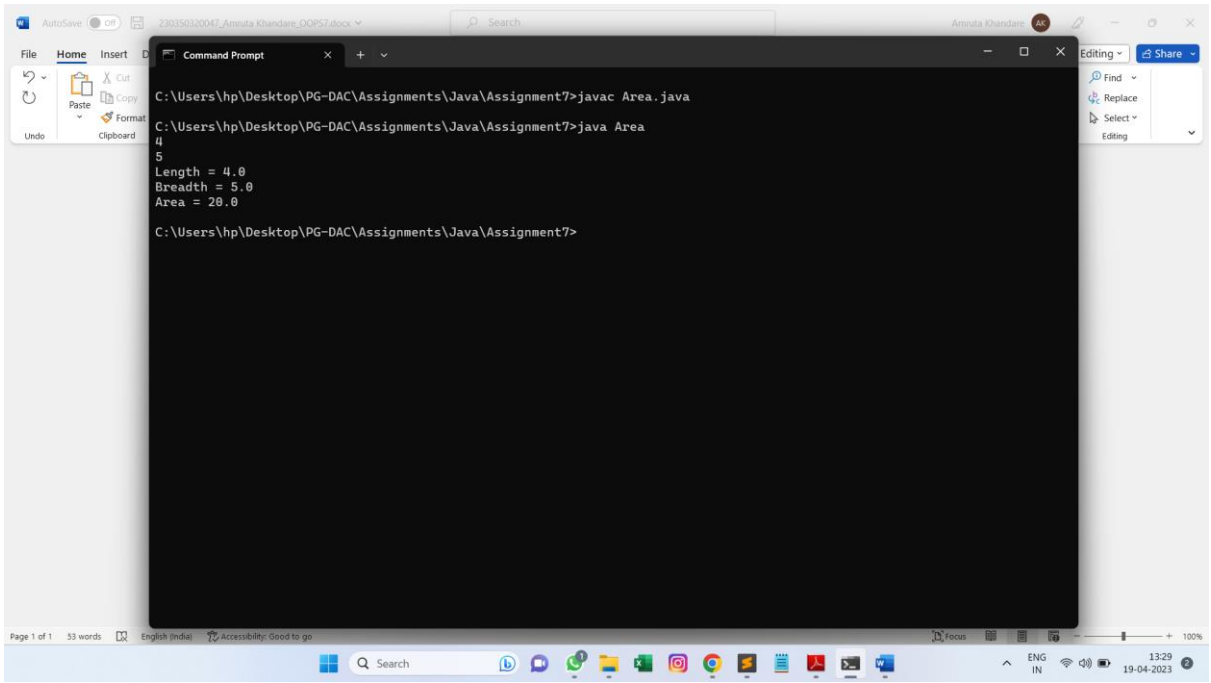
230350320047_Amruta Khandare_OOPS6

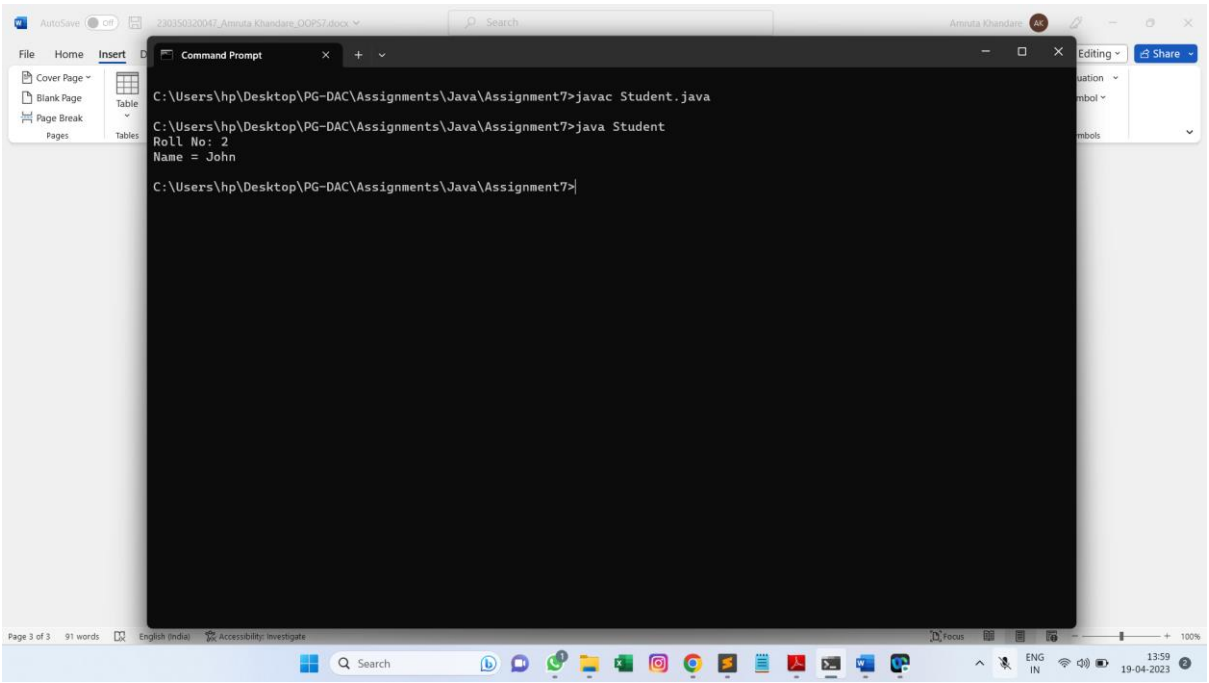
Q1:

```
import java.util.Scanner;
public class Area{
	Scanner sc = new Scanner(System.in);
	double length = sc.nextDouble();
	double breadth = sc.nextDouble();
	public void setDim(){
	System.out.println("Length = "+length);
	System.out.println("Breadth = "+breadth);
	}
	public void getArea(){
		System.out.println("Area = "+length*breadth);
	}
	public static void main(String[] args) {
		Area a = new Area();
		a.setDim();
		a.getArea();
	}
}
```


Command Prompt
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>javac Area.java
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>java Area
4
5
Length = 4.0
Breadth = 5.0
Area = 20.0
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>

Q2:

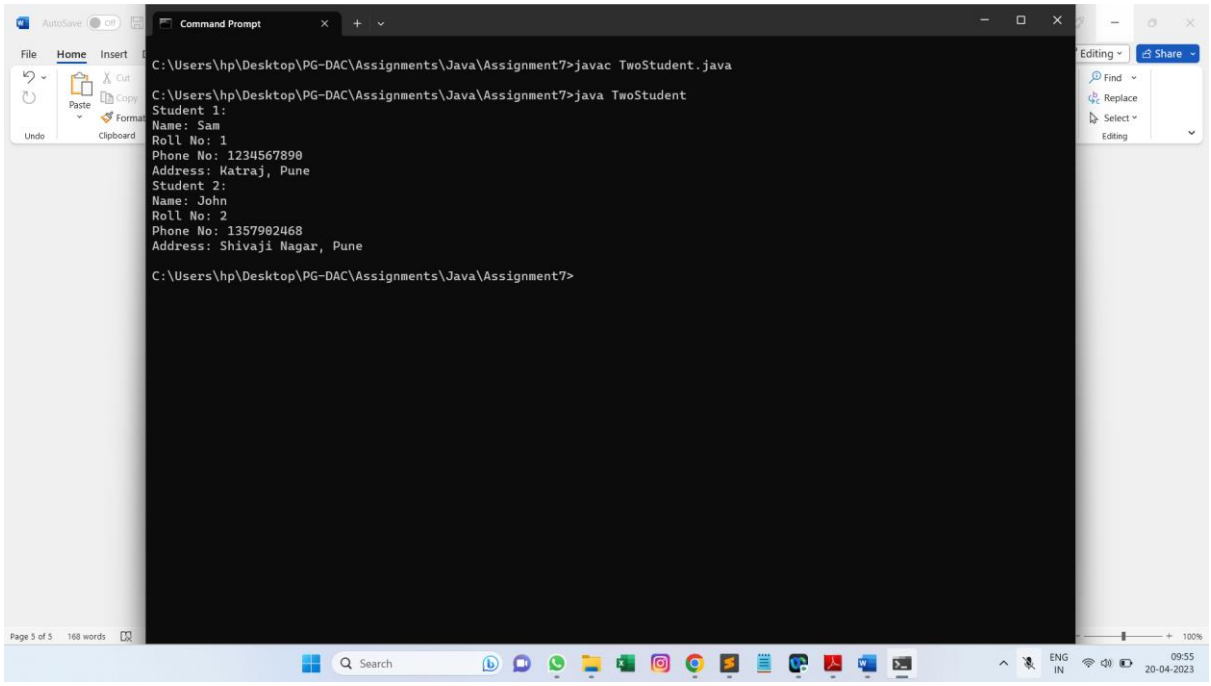
```
public class Student{
	String name;
	int roll_no;
	public void printDetails(){
		System.out.println("Roll No: "+roll_no);
		System.out.println("Name = "+name);
	}
	public static void main(String[] args) {
		Student s1 = new Student();
		s1.roll_no = 2;
		s1.name = "John";
		s1.printDetails();
	}
}
```



Q3:

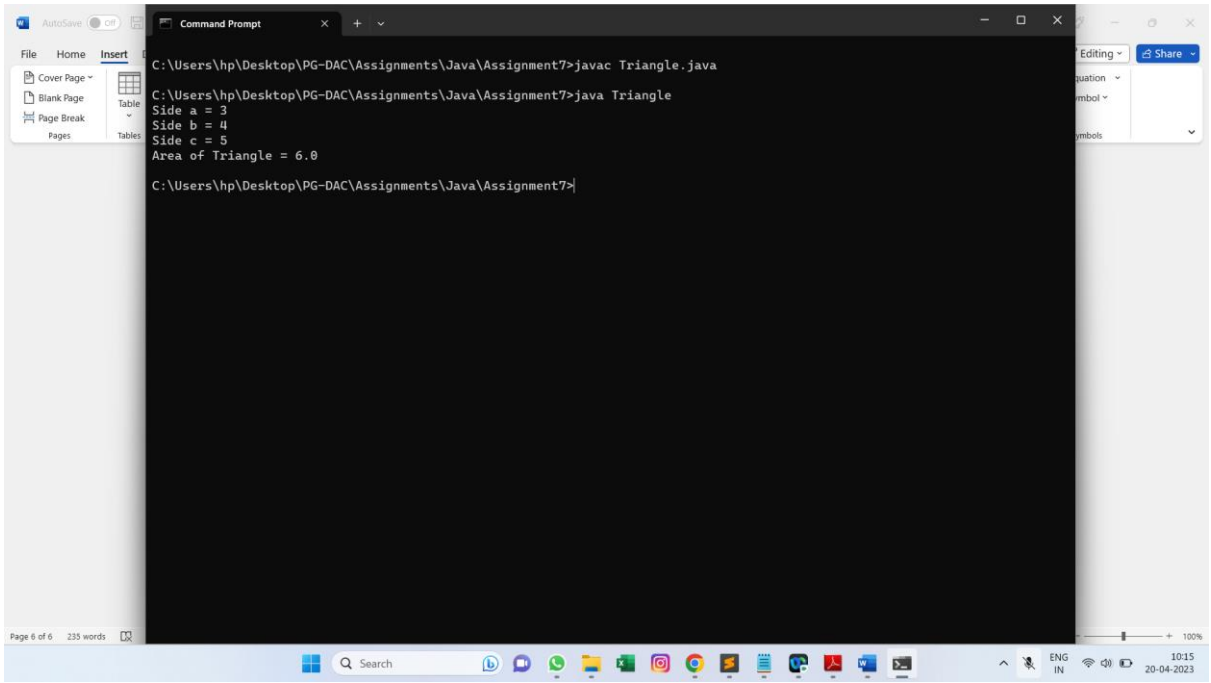
```
public class TwoStudent{
	String name;
	int roll_no;
	int phone_no;
	String address;
	public void printDetails(){
		System.out.println("Name: "+name);
		System.out.println("Roll No: "+roll_no);
		System.out.println("Phone No: "+phone_no);
		System.out.println("Address: "+address);
	}
	public static void main(String[] args) {
		TwoStudent sam = new TwoStudent();
		TwoStudent john = new TwoStudent();
		sam.name = "Sam";
		sam.roll_no = 1;
		sam.phone_no = 1234567890;
		sam.address = "Katraj, Pune";
		john.name = "John";
		john.roll_no = 2;
		john.phone_no = 1357902468;
		john.address = "Shivaji Nagar, Pune";
		System.out.println("Student 1:");
		sam.printDetails();
		System.out.println("Student 2:");
```

```
        john.printDetails();
    }
}
```



Q4:

```
import static java.lang.Math.sqrt;
public class Triangle{
	int a;
	int b;
	int c;
	double s;
	double ar;
	public void area(){
		System.out.println("Side a = "+a);
		System.out.println("Side b = "+b);
		System.out.println("Side c = "+c);
		s = (a+b+c)/2.0;
		ar = Math.sqrt(s*(s-a)*(s-b)*(s-c));
		System.out.println("Area of Triangle = "+ar);
	}
	public static void main(String[] args) {
		Triangle t1 = new Triangle();
		t1.a = 3;
		t1.b = 4;
		t1.c = 5;
		t1.area();
	}
}
```


Command Prompt
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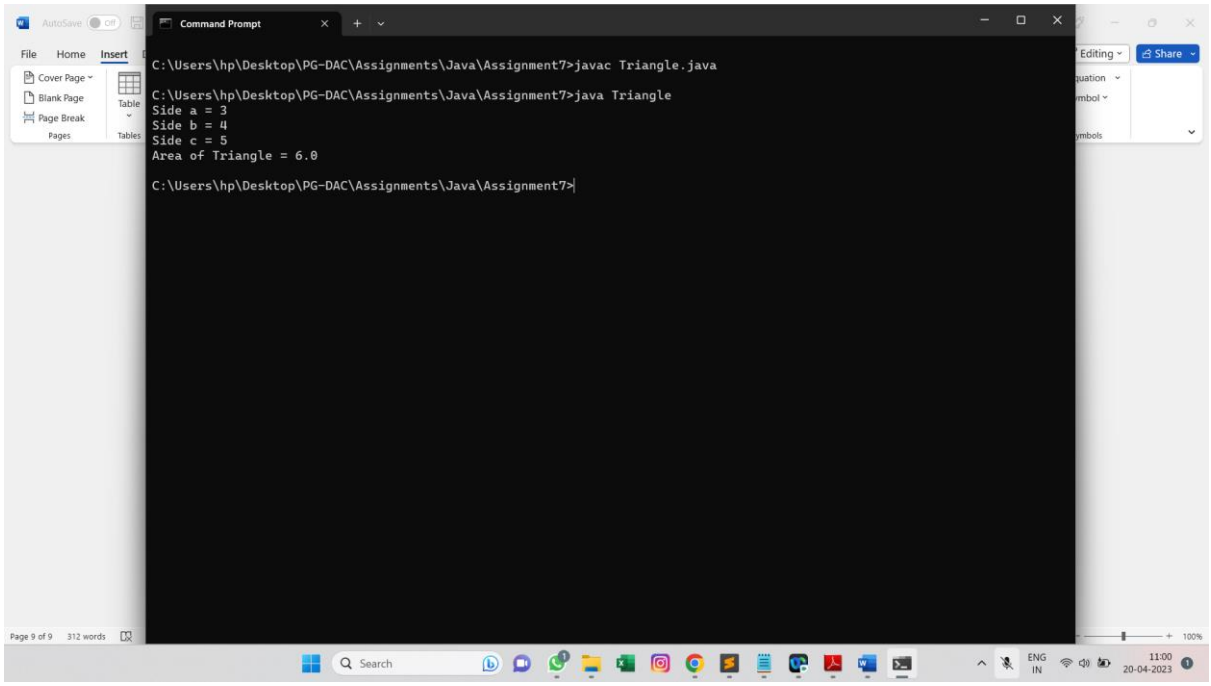
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>java Triangle
Side a = 3
Side b = 4
Side c = 5
Area of Triangle = 6.0
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>

Q5:

```
import static java.lang.Math.sqrt;
public class Triangle{
	int a;
	int b;
	int c;
	double s;
	double ar;
	public Triangle(int a, int b, int c){
		this.a = a;
		this.b = b;
		this.c = c;
	}
	public void area(){
		System.out.println("Side a = "+a);
		System.out.println("Side b = "+b);
		System.out.println("Side c = "+c);
		s = (a+b+c)/2.0;
		ar = Math.sqrt(s*(s-a)*(s-b)*(s-c));
		System.out.println("Area of Triangle = "+ar);
	}
	public static void main(String[] args) {
		Triangle t1 = new Triangle(3, 4, 5);
		t1.area();
	}
}
```


Command Prompt
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>javac Triangle.java
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>java Triangle
Side a = 3
Side b = 4
Side c = 5
Area of Triangle = 6.0
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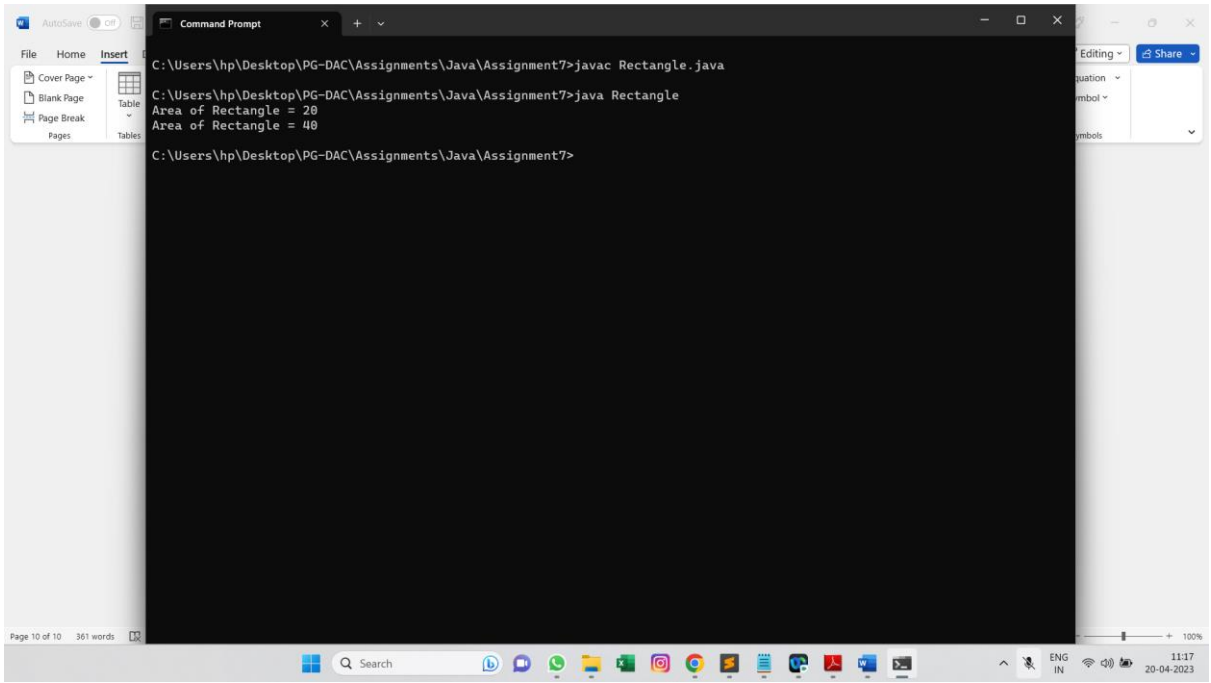
20-04-2023

Q6:

```
public class Rectangle{
	int a;
	int b;
	public Rectangle(int a, int b){
		this.a = a;
		this.b = b;
	}
	public void area(){
		System.out.println("Area of Rectangle = "+a*b);
	}
	public static void main(String[] args) {
		Rectangle r1 = new Rectangle(4,5);
		Rectangle r2 = new Rectangle(5,8);

		r1.area();
		r2.area();
	}
}
```


Command Prompt
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>javac Rectangle.java
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>java Rectangle
Area of Rectangle = 20
Area of Rectangle = 40
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>
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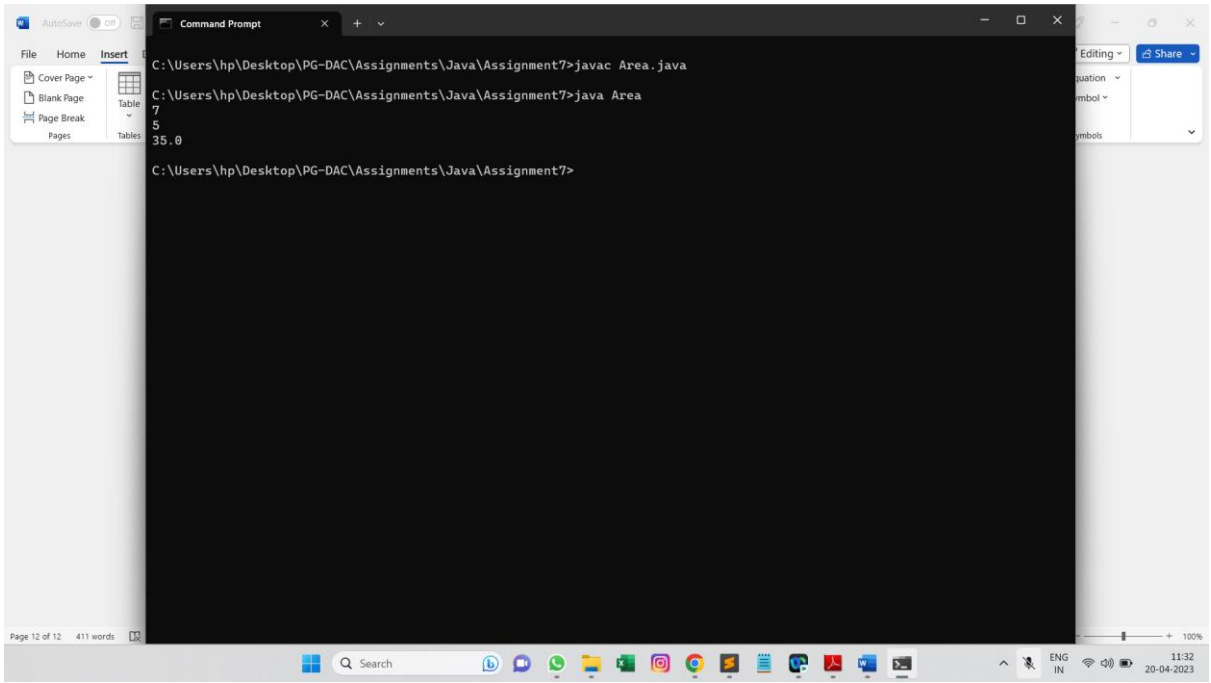
11:17
20-04-2023

Q7:

```
import java.util.Scanner;
import java.util.Scanner;
public class Area{
	Scanner sc = new Scanner(System.in);
	double a = sc.nextDouble();
	double b = sc.nextDouble();
	public void area(){
		this.a = a;
		this.b = b;
	}
	public void returnArea(){
		System.out.println(a*b);
	}
	public static void main(String[] args) {
		Area ar1 = new Area();
		ar1.returnArea();
	}
}
```


Command Prompt
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>javac Area.java
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>java Area
7
5
35.0
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>
File
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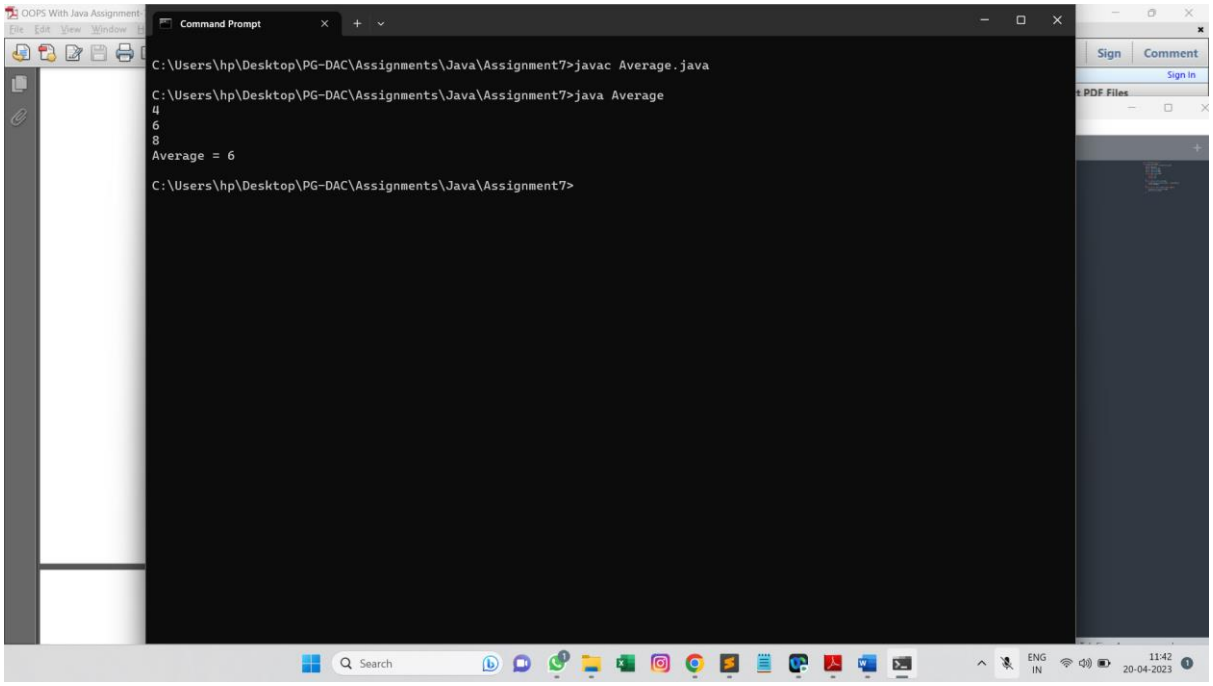
20-04-2023

Q8:

```
import java.util.Scanner;
public class Average{
	Scanner sc = new Scanner(System.in);
	double average;
	int a = sc.nextInt();
	int b = sc.nextInt();
	int c = sc.nextInt();
	public void Average(){
		this.a = a;
		this.b = b;
		this.c = c;
	}
	public double printAverage(){
		System.out.println((a+b+c)/3);
		return average;
	}
	public static void main(String[] args) {
		Average a1 = new Average();
		a1.printAverage();
	}
}
```


Command Prompt
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>javac Average.java
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>java Average
4
6
8
Average = 6
C:\Users\hp\Desktop\PG-DAC\Assignments\Java\Assignment7>
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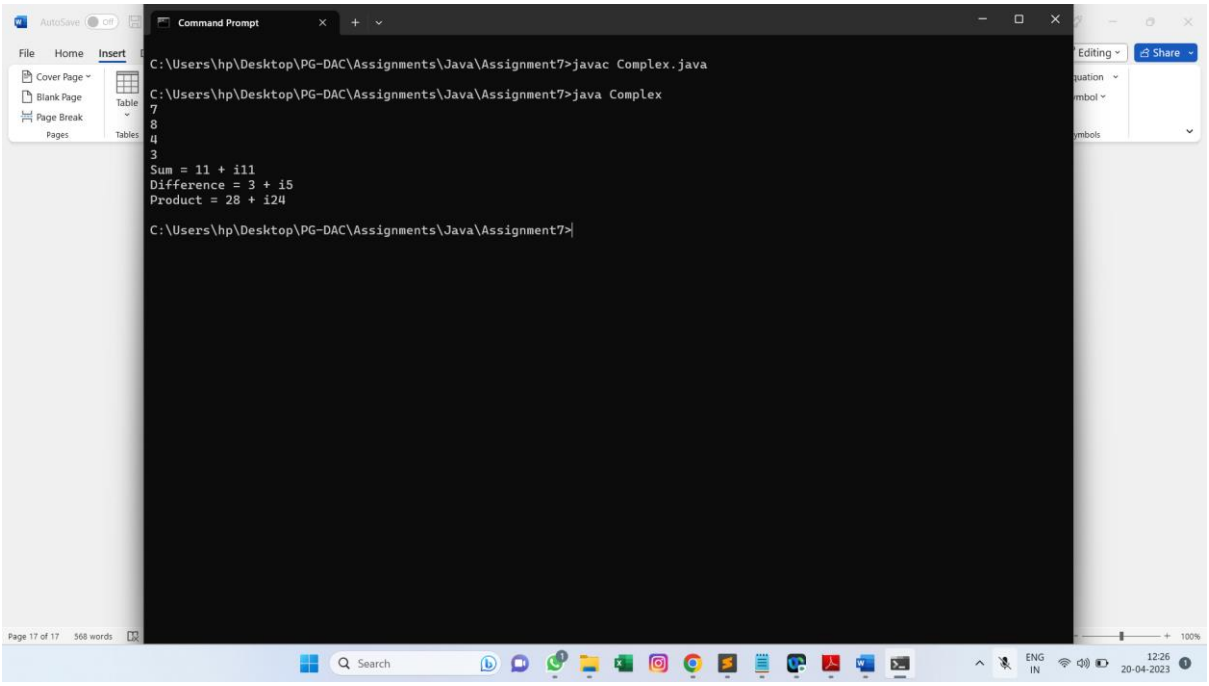
Q9:

```
import java.util.Scanner;
public class Complex{
	Scanner sc = new Scanner(System.in);
	int real1 = sc.nextInt();
	int imaginary1 = sc.nextInt();
	int real2 = sc.nextInt();
	int imaginary2 = sc.nextInt();
	public void Complex(){
		this.real1 = real1;
		this.imaginary1 = imaginary1;
		this.real2 = real2;
		this.imaginary2 = imaginary2;
	}
	public void sum(){
		System.out.println("Sum = "+(real1+real2) + " + i" +
(imaginary1+imaginary2));

	}
	public void difference(){
		System.out.println("Difference = "+(real1-real2) + " + i" +
(imaginary1-imaginary2));

	}
	public void product(){
		System.out.println("Product = "+(real1*real2) + " + i" +
(imaginary1*imaginary2));
```

```
    }
    public static void main(String[] args) {
        Complex c1 = new Complex();
        c1.sum();
        c1.difference();
        c1.product();
    }
}
```



Q10:

```
public class Employee{
	String name;
	int year;
	String address;

	public Employee(String name, int year, String address){
		this.name = name;
		this.year = year;
		this.address = address;
	}
	public void printInfo(){
		System.out.print(name);
		System.out.print(year);
		System.out.print(address);
		System.out.println();
	}
	public static void main(String[] args) {
		Employee e1 = new Employee("Robert          ", 1994, "
	64C - WallsStreat");
		Employee e2 = new Employee("Sam     ", 2000, "              68D -
WallsStreat");
		Employee e3 = new Employee("John    ", 1999, "              26B -
WallsStreat");

		System.out.println("Name          Year of Join  Address");
		e1.printInfo();
```

```
        e2.printInfo();
        e3.printInfo();
    }
}
```