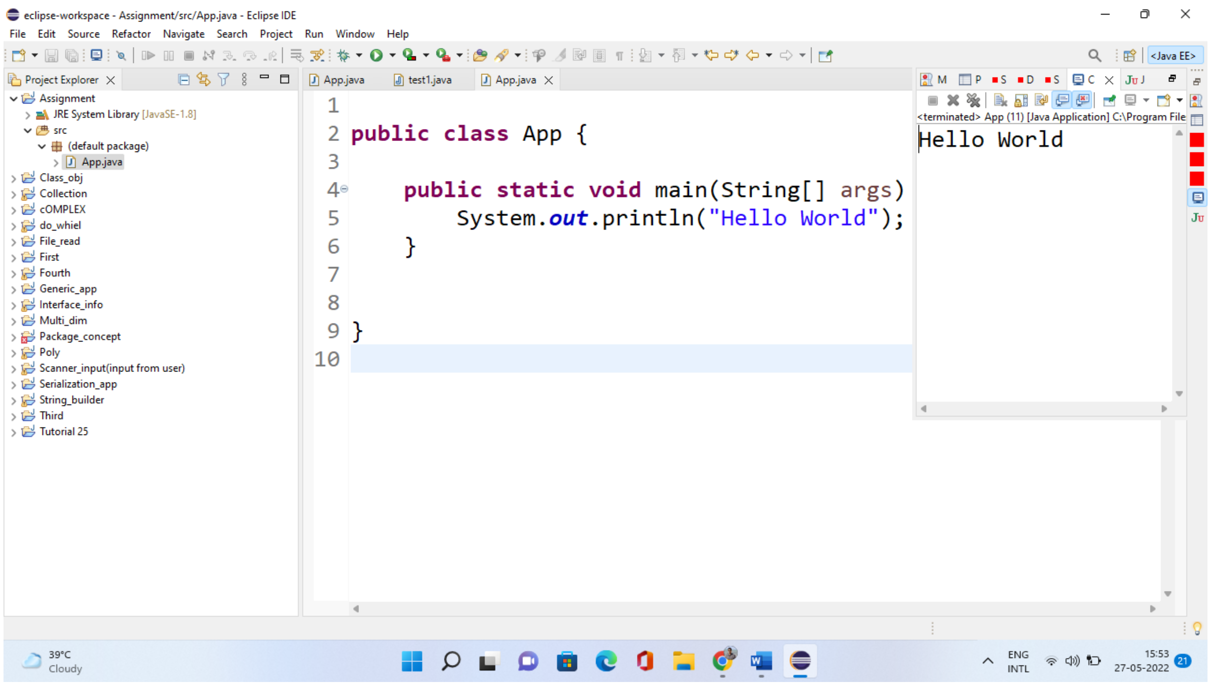
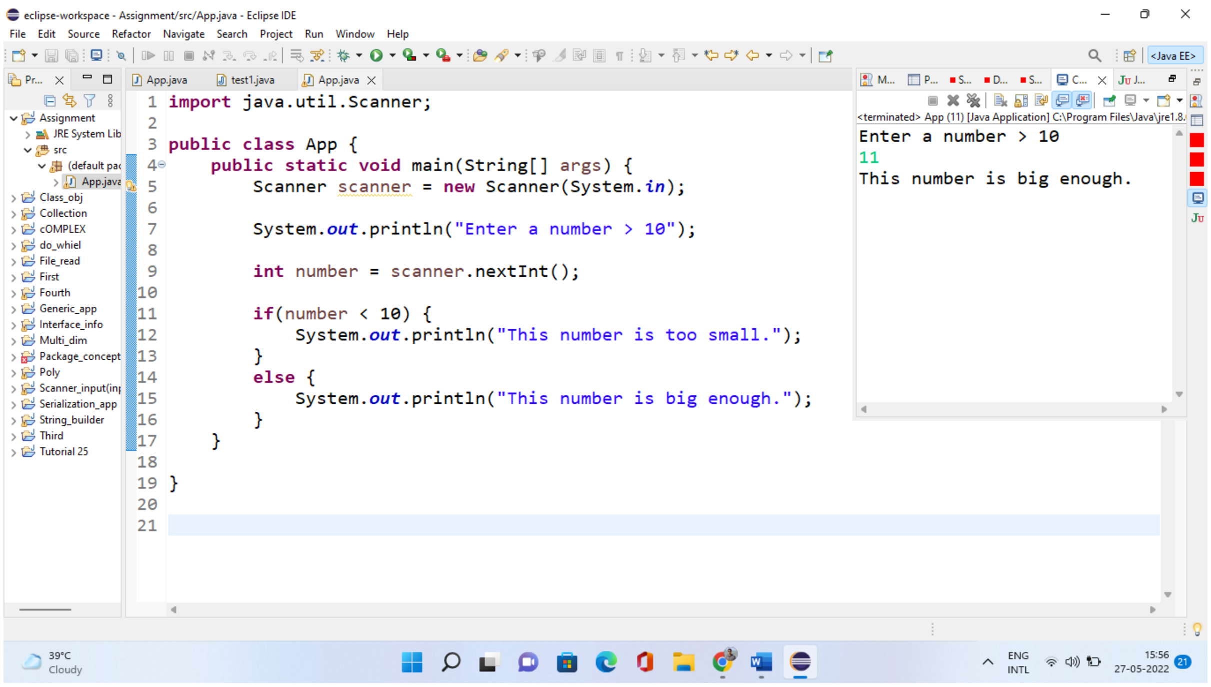
1). Create Hello World


eclipse-workspace - Assignment/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer
App.java
test1.java
App.java
<terminated> App (11) [Java Application] C:\Program File

```java

public class App {

    public static void main(String[] args)
        System.out.println("Hello World");
    }


}
```

```
Hello World
```

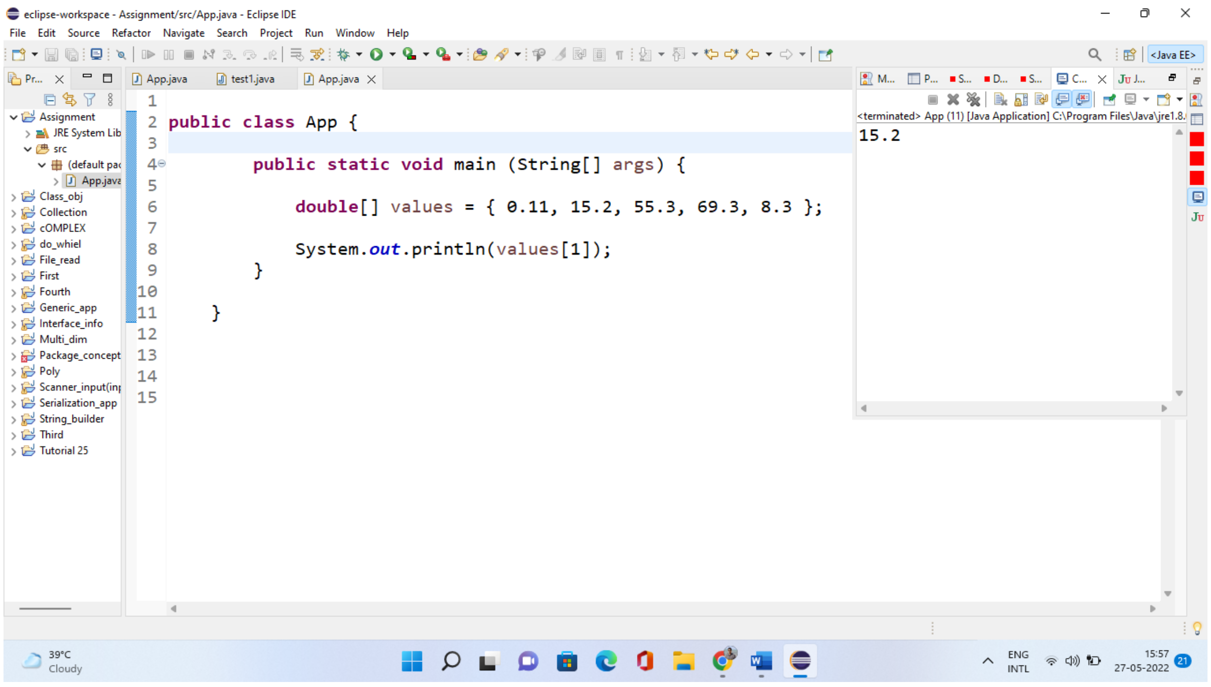
2). Create a program that asks the user to enter an integer. If the integer is less than 10, print the message "This number is too small". If the integer is greater than or equal to 10, print "This number is big enough".


eclipse-workspace - Assignment/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
App.java
test1.java
App.java
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.

```java
import java.util.Scanner;

public class App {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter a number > 10");

        int number = scanner.nextInt();

        if(number < 10) {
            System.out.println("This number is too small.");
        }
        else {
            System.out.println("This number is big enough.");
        }
    }

}
```

```
Enter a number > 10
11
This number is big enough.
```

3). Create a program that creates an array of five hard-coded floating-point values, then prints out just the second value.

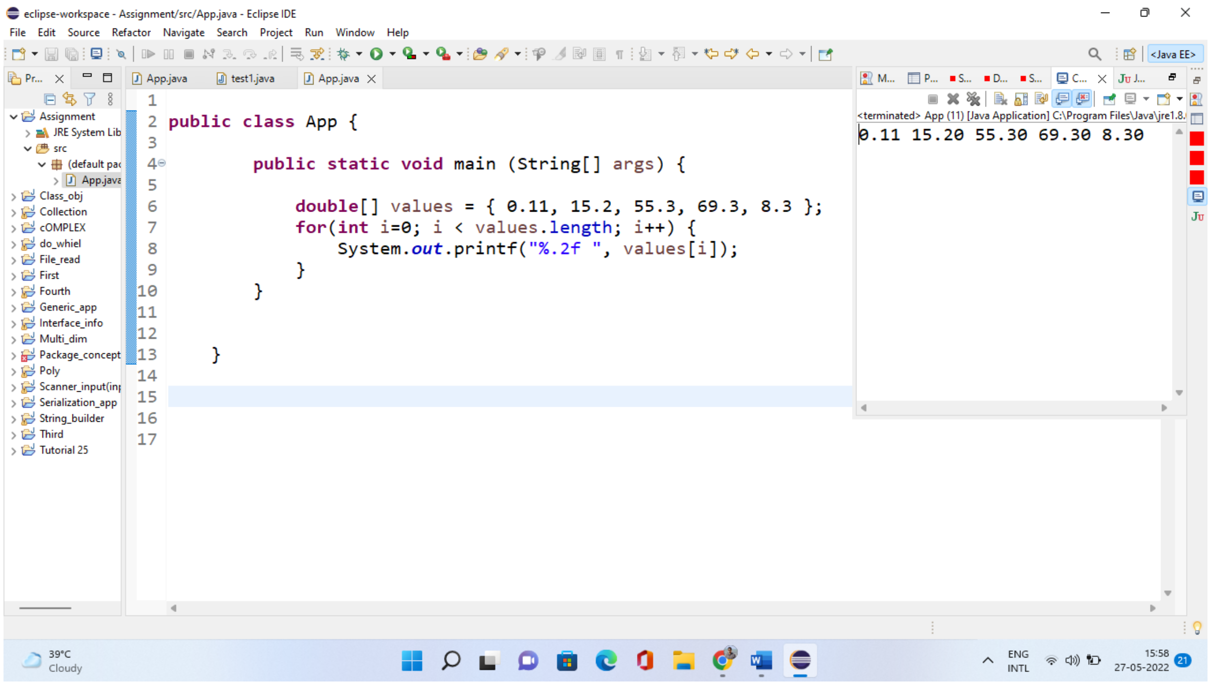

eclipse-workspace - Assignment/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
App.java
test1.java
App.java

```java
public class App {

	public static void main (String[] args) {

		double[] values = { 0.11, 15.2, 55.3, 69.3, 8.3 };

		System.out.println(values[1]);
	}

}
```

<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.

```
15.2
```

4). Modify the above program so that it uses a for loop to display all the values in the array, all on the same line, each value formatted to two decimal places and followed by a space.

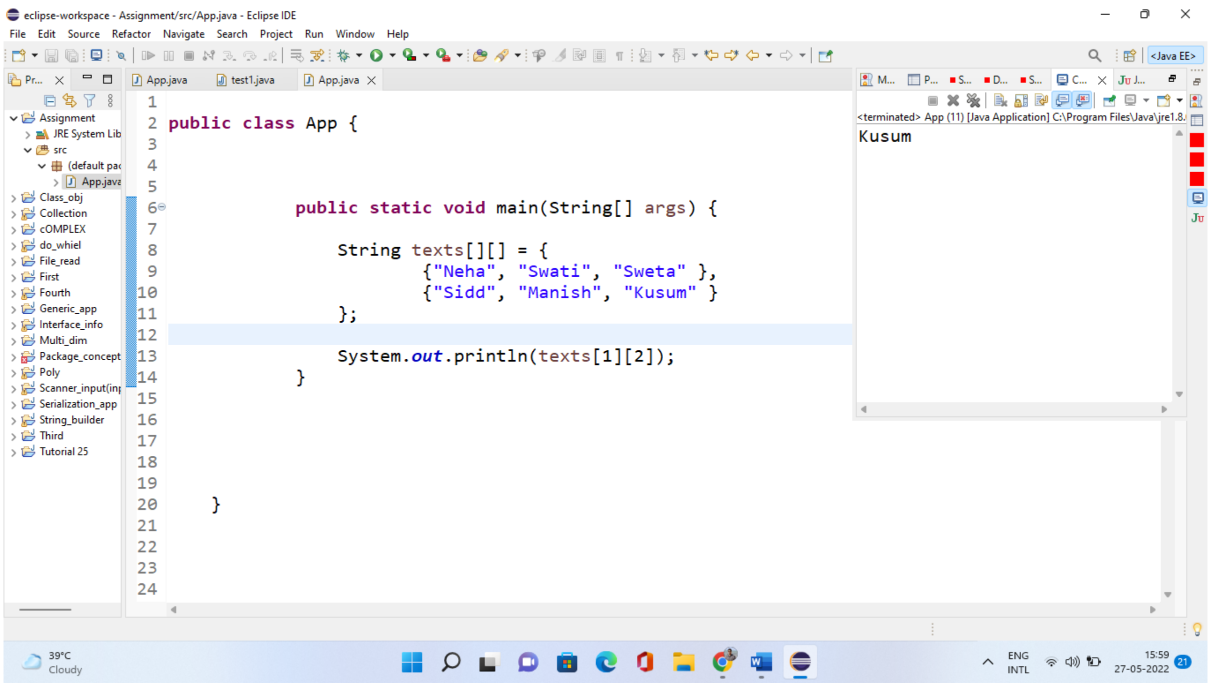

eclipse-workspace - Assignment/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
App.java
test1.java
App.java

```java
public class App {

	public static void main (String[] args) {

		double[] values = { 0.11, 15.2, 55.3, 69.3, 8.3 };
		for(int i=0; i < values.length; i++) {
			System.out.printf("%.2f ", values[i]);
		}
	}


}
```

<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.

```
0.11 15.20 55.30 69.30 8.30
```

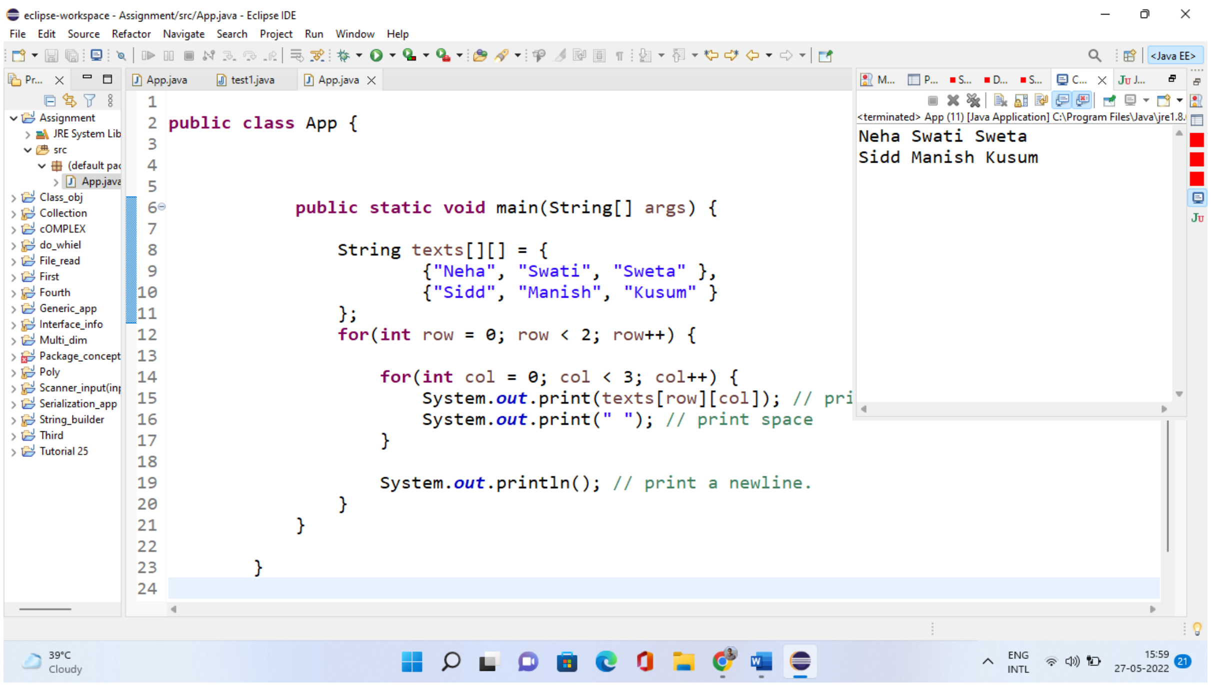
5). A bit trickier, this one. Write an application that creates a two-dimensional array of Strings, with two rows and three columns. Print the value in the second row and third column.


eclipse-workspace - Assignment/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
App.java
test1.java
App.java

```java
public class App {



		public static void main(String[] args) {

			String texts[][] = {
			    {"Neha", "Swati", "Sweta" },
			    {"Sidd", "Manish", "Kusum" }
			};

			System.out.println(texts[1][2]);
		}






	}
```

```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Kusum
```

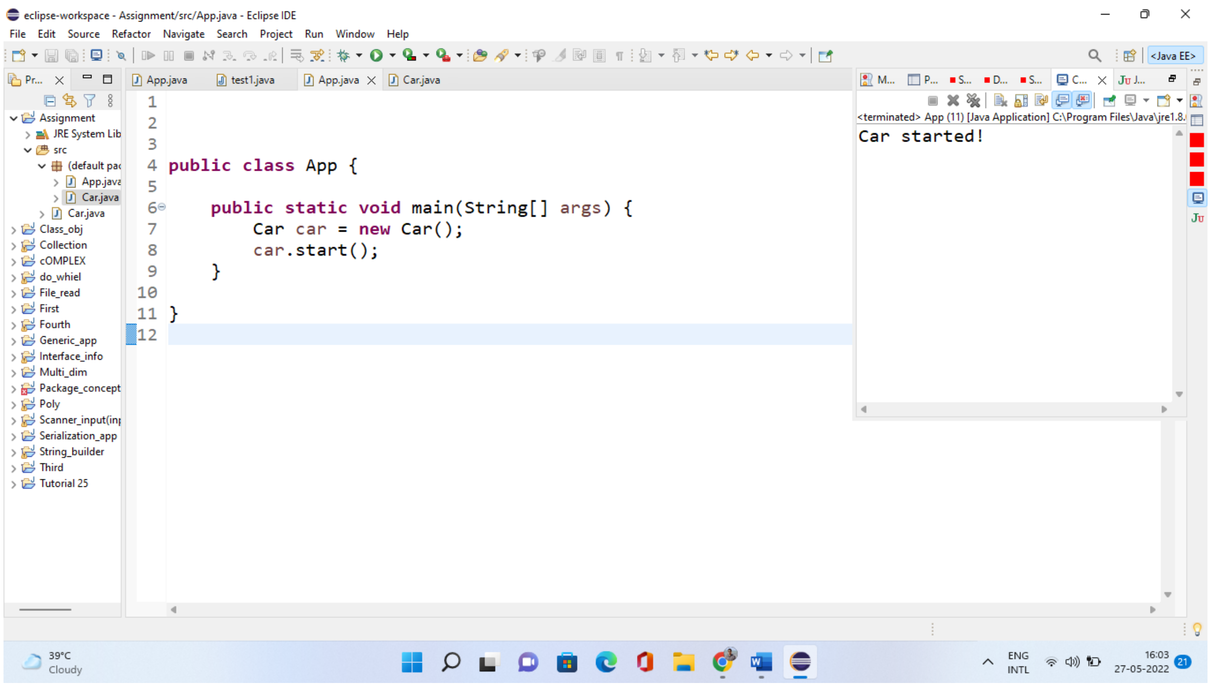
6). Create an application that uses two nested for loops to loop through the 2D array defined above and print the values.


eclipse-workspace - Assignment/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
App.java
test1.java
App.java

```java
public class App {



		public static void main(String[] args) {

			String texts[][] = {
			    {"Neha", "Swati", "Sweta" },
			    {"Sidd", "Manish", "Kusum" }
			};
			for(int row = 0; row < 2; row++) {

			    for(int col = 0; col < 3; col++) {
			        System.out.print(texts[row][col]); // pri
			        System.out.print(" "); // print space
			    }

			    System.out.println(); // print a newline.
			}
		}

	}
```

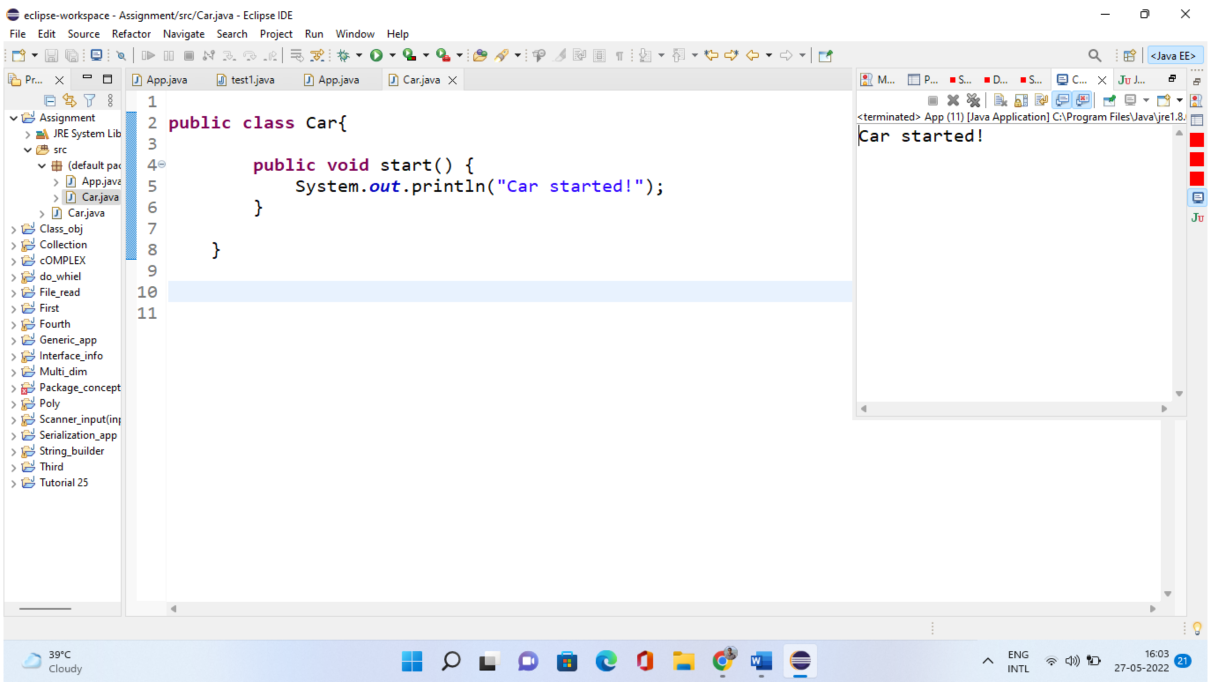
```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Neha Swati Sweta
Sidd Manish Kusum
```

7). Next, define a new class in its own file. Call the class Car. Give it a single method called "start". Make the method simply print "Car started!".



```java


public class App {

	public static void main(String[] args) {
		Car car = new Car();
		car.start();
	}

}

```

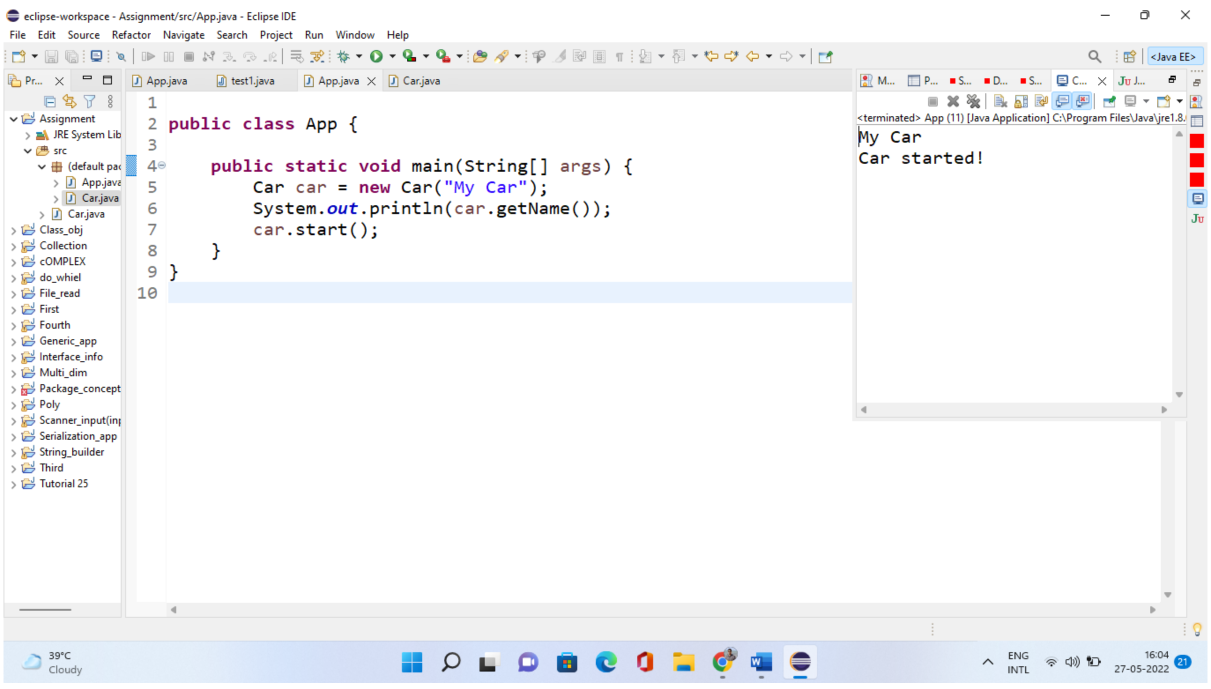
```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Car started!
```



```java

public class Car{

		public void start() {
			System.out.println("Car started!");
		}

	}


```

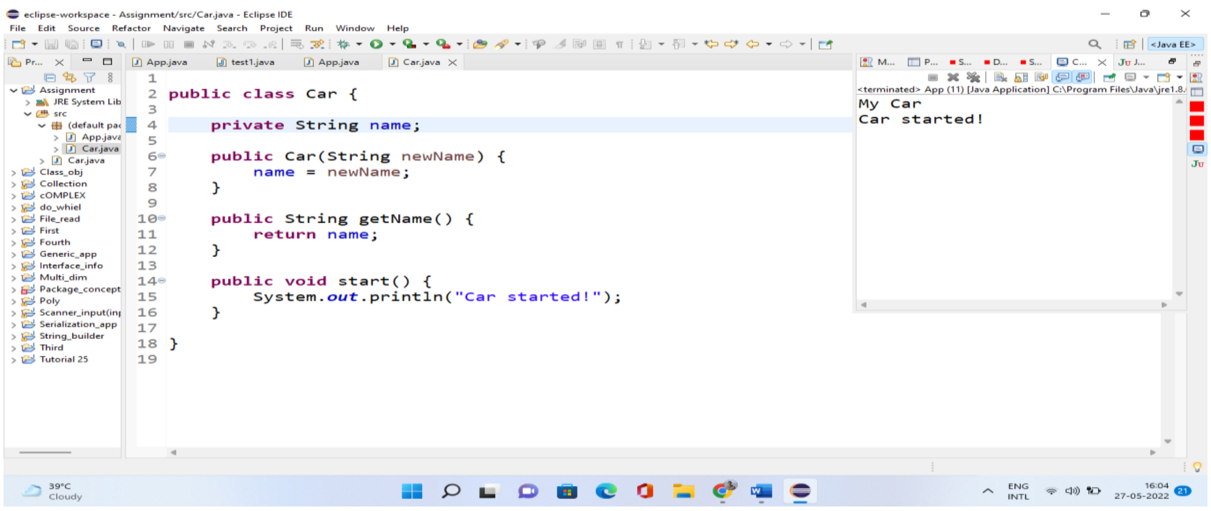
```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Car started!
```

8)Modify the above Car class so that it has an instance variable called name of type String. Add a constructor that accepts a string parameter and sets the car's name using this parameter. Add a getName() method that returns the car's name.



```java
public class App {

    public static void main(String[] args) {
        Car car = new Car("My Car");
        System.out.println(car.getName());
        car.start();
    }
}
```

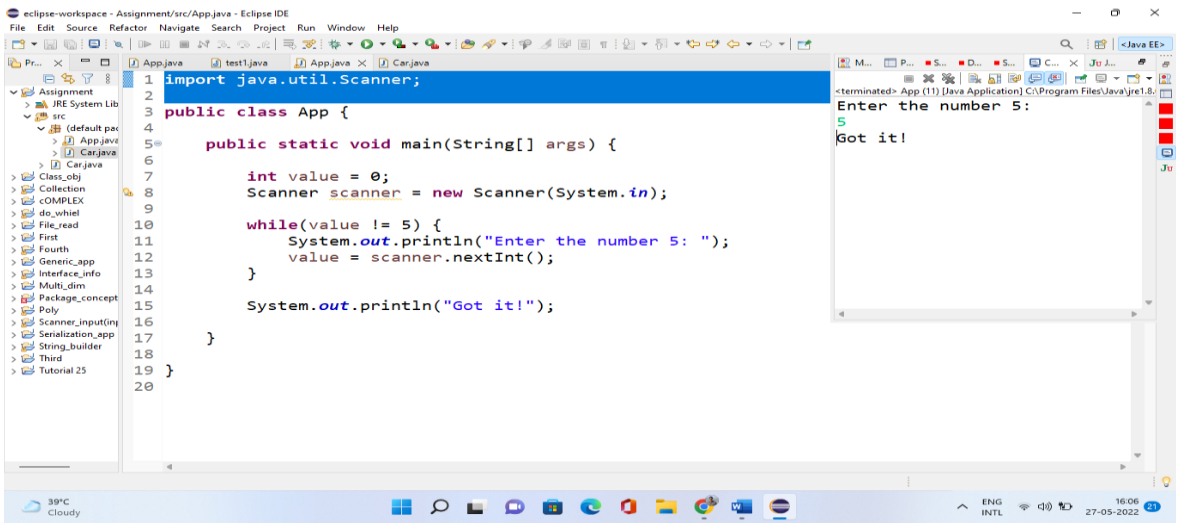
```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
My Car
Car started!
```



```java
public class Car {

    private String name;

    public Car(String newName) {
        name = newName;
    }

    public String getName() {
        return name;
    }

    public void start() {
        System.out.println("Car started!");
    }
}
```

```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
My Car
Car started!
```

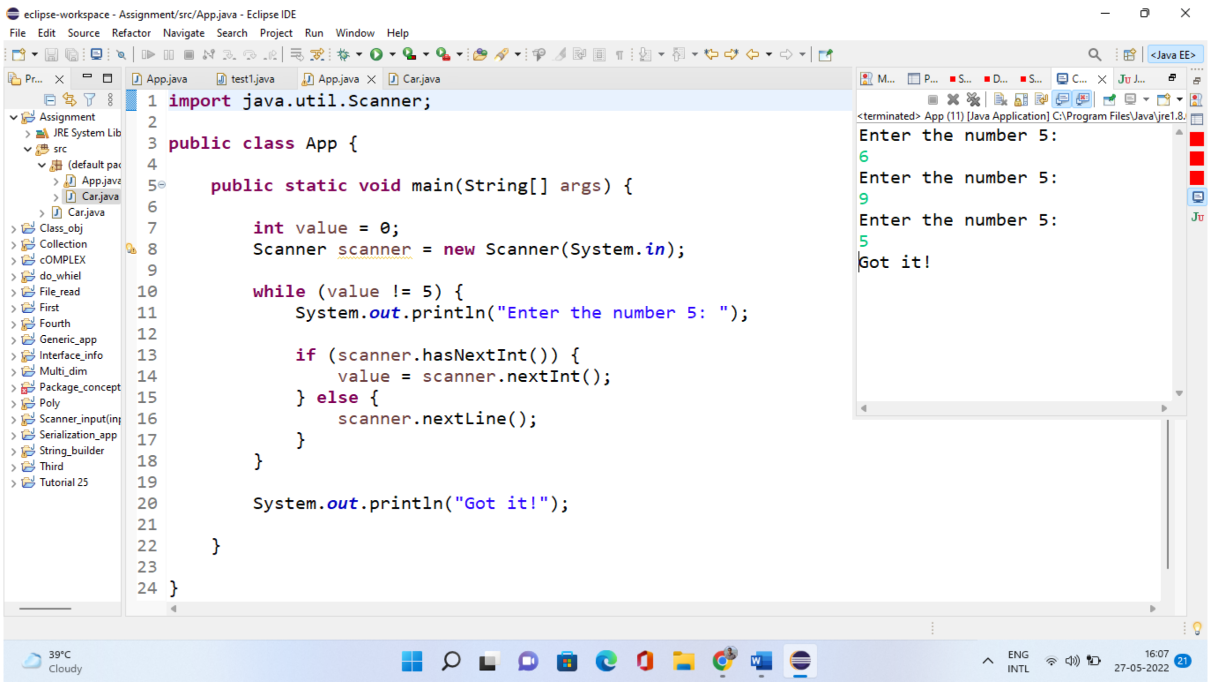
9). Write an application that asks the user to enter the number '5' and loops over and over until '5' is entered.



```java
import java.util.Scanner;

public class App {

    public static void main(String[] args) {

        int value = 0;
        Scanner scanner = new Scanner(System.in);

        while(value != 5) {
            System.out.println("Enter the number 5: ");
            value = scanner.nextInt();
        }

        System.out.println("Got it!");

    }
}
```

```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Enter the number 5:
5
Got it!
```

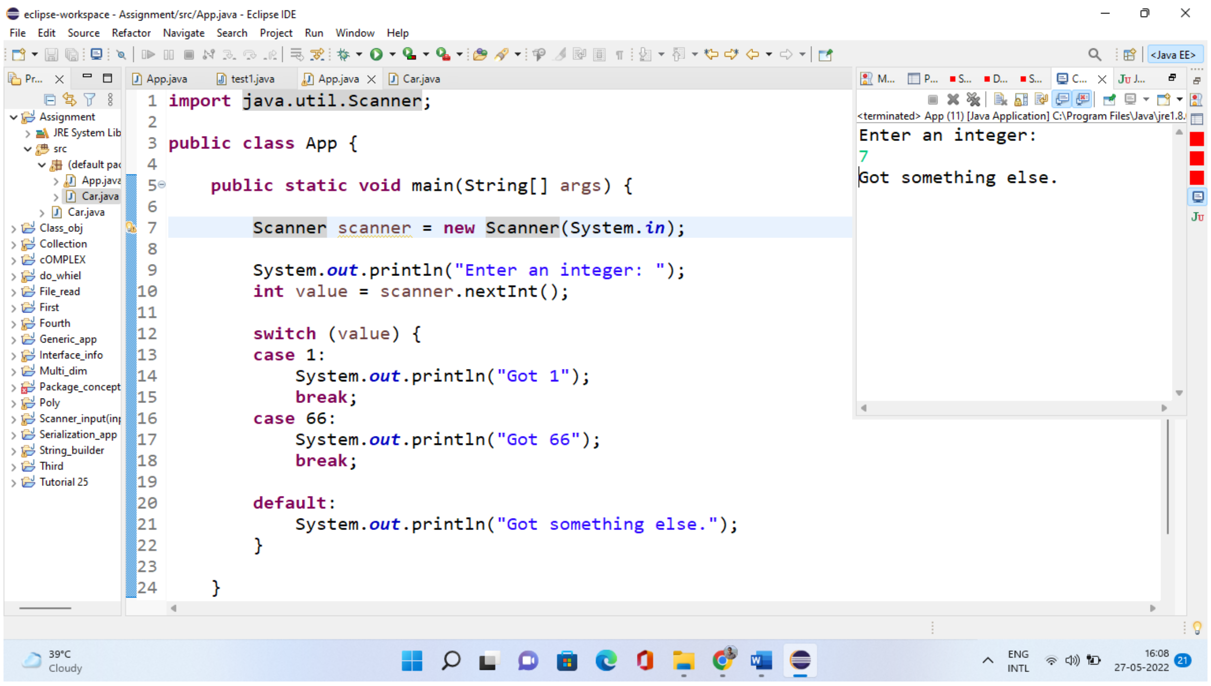
10). The above program crashes if a user enters something other than a number. The problem is that we use the nextInt() method of Scanner, assuming blindly that we will get an integer.



```java
import java.util.Scanner;

public class App {

    public static void main(String[] args) {

        int value = 0;
        Scanner scanner = new Scanner(System.in);

        while (value != 5) {
            System.out.println("Enter the number 5: ");

            if (scanner.hasNextInt()) {
                value = scanner.nextInt();
            } else {
                scanner.nextLine();
            }
        }

        System.out.println("Got it!");

    }

}
```

```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Enter the number 5:
6
Enter the number 5:
9
Enter the number 5:
5
Got it!
```

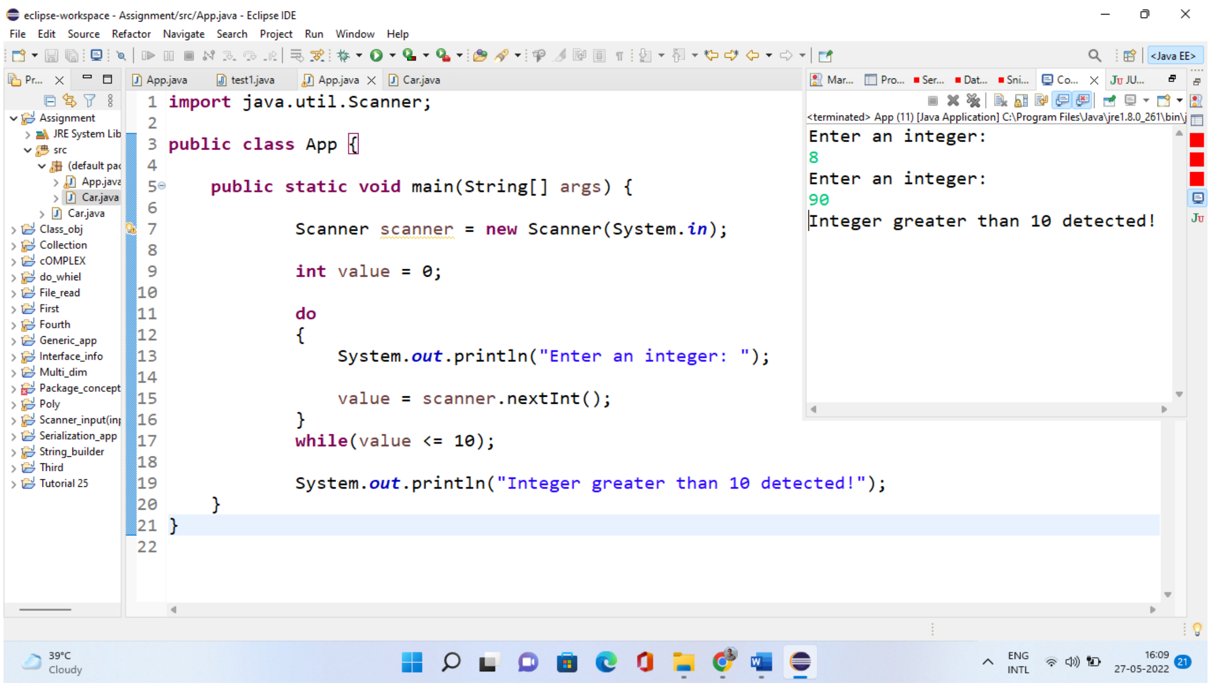
11). Write a program that asks the user to enter an integer. If the user enters '1', print "Got 1". If the user enters '66', print "Got 66". If the user enters something other than these two numbers, print "Got something else".



```java
import java.util.Scanner;

public class App {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter an integer: ");
        int value = scanner.nextInt();

        switch (value) {
        case 1:
            System.out.println("Got 1");
            break;
        case 66:
            System.out.println("Got 66");
            break;

        default:
            System.out.println("Got something else.");
        }

    }
```

```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.
Enter an integer:
7
Got something else.
```

12). A while loop checks its condition before the first iteration of the loop. A do...while loop checks the condition at the end of the loop. This means there's always at least one iteration of the loop.



```java
import java.util.Scanner;

public class App {

    public static void main(String[] args) {

            Scanner scanner = new Scanner(System.in);

            int value = 0;

            do
            {
                System.out.println("Enter an integer: ");

                value = scanner.nextInt();
            }
            while(value <= 10);

            System.out.println("Integer greater than 10 detected!");
    }
}
```

```
<terminated> App (11) [Java Application] C:\Program Files\Java\jre1.8.0_261\bin\j
Enter an integer:
8
Enter an integer:
90
Integer greater than 10 detected!
```