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EXPLORER

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- lib
- Main.java

OUTLINE

TIMELINE

JAVA PROJECTS

Main.java

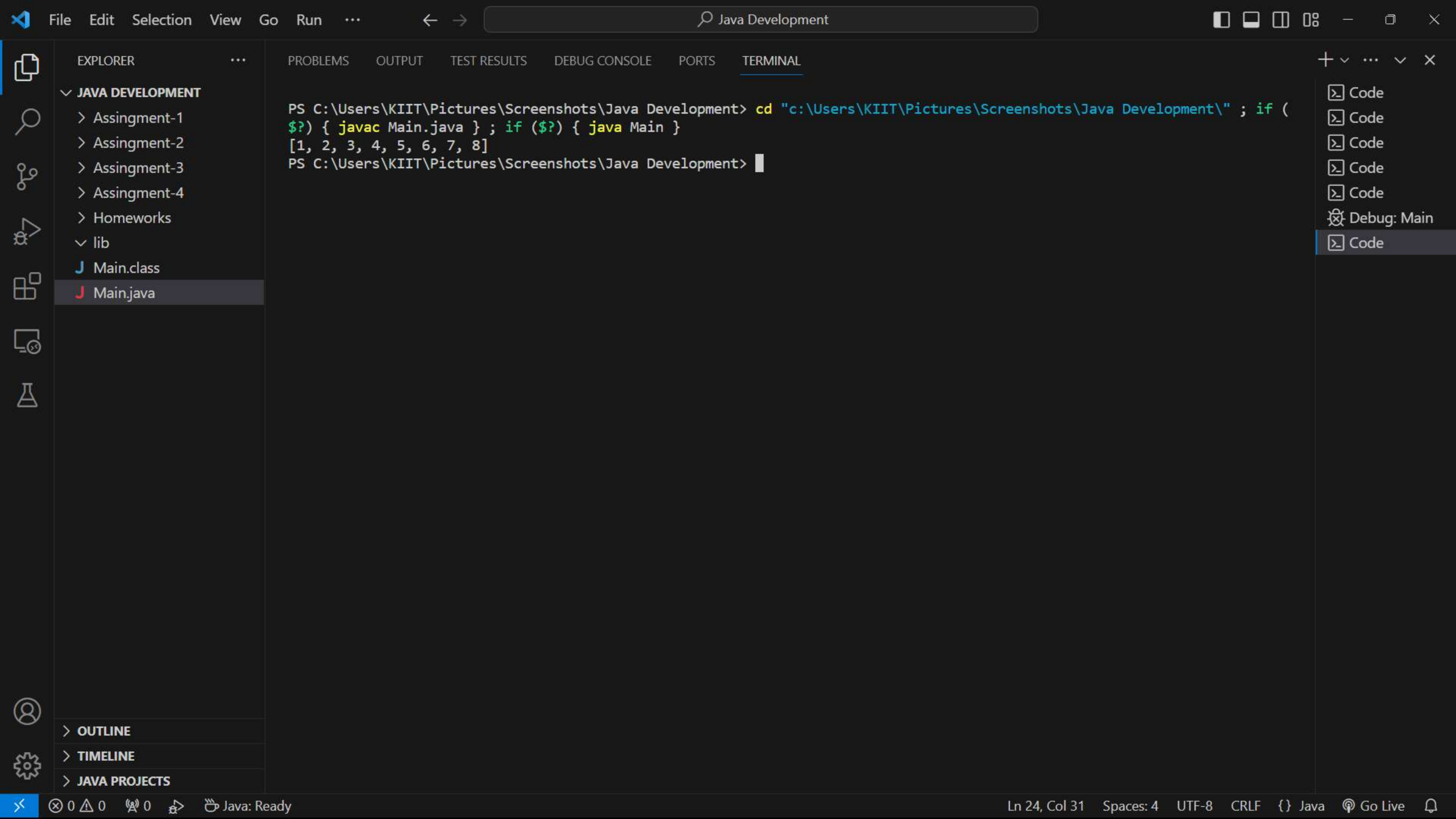
Main.java > Main > mergeArrays(int[], int[])

```java
import java.util.Arrays;

public class Main {
    Run | Debug
    public static void main(String[] args) {
        int[] A = { 1, 3, 5, 7 };
        int[] B = { 2, 4, 6, 8 };
        int[] C = mergeArrays(A, B);
        System.out.println(Arrays.toString(C));
    }

    public static int[] mergeArrays(int[] A, int[] B) {
        int[] C = new int[A.length + B.length];
        int i = 0, j = 0, k = 0;
        while (i < A.length && j < B.length) {
            if (A[i] < B[j]) {
                C[k++] = A[i++];
            } else {
                C[k++] = B[j++];
            }
        }
        while (i < A.length) {
            C[k++] = A[i++];
        }
        while (j < B.length) {
            C[k++] = B[j++];
        }
        return C;
    }
}
```

0 0 0 Java: Ready Ln 24, Col 31 Spaces: 4 UTF-8 CRLF { } Java Go Live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PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ( $?) { javac Main.java } ; if ($?) { java Main }
[1, 2, 3, 4, 5, 6, 7, 8]
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Debug: Main
Code
0 0 0
Java: Ready
Ln 24, Col 31
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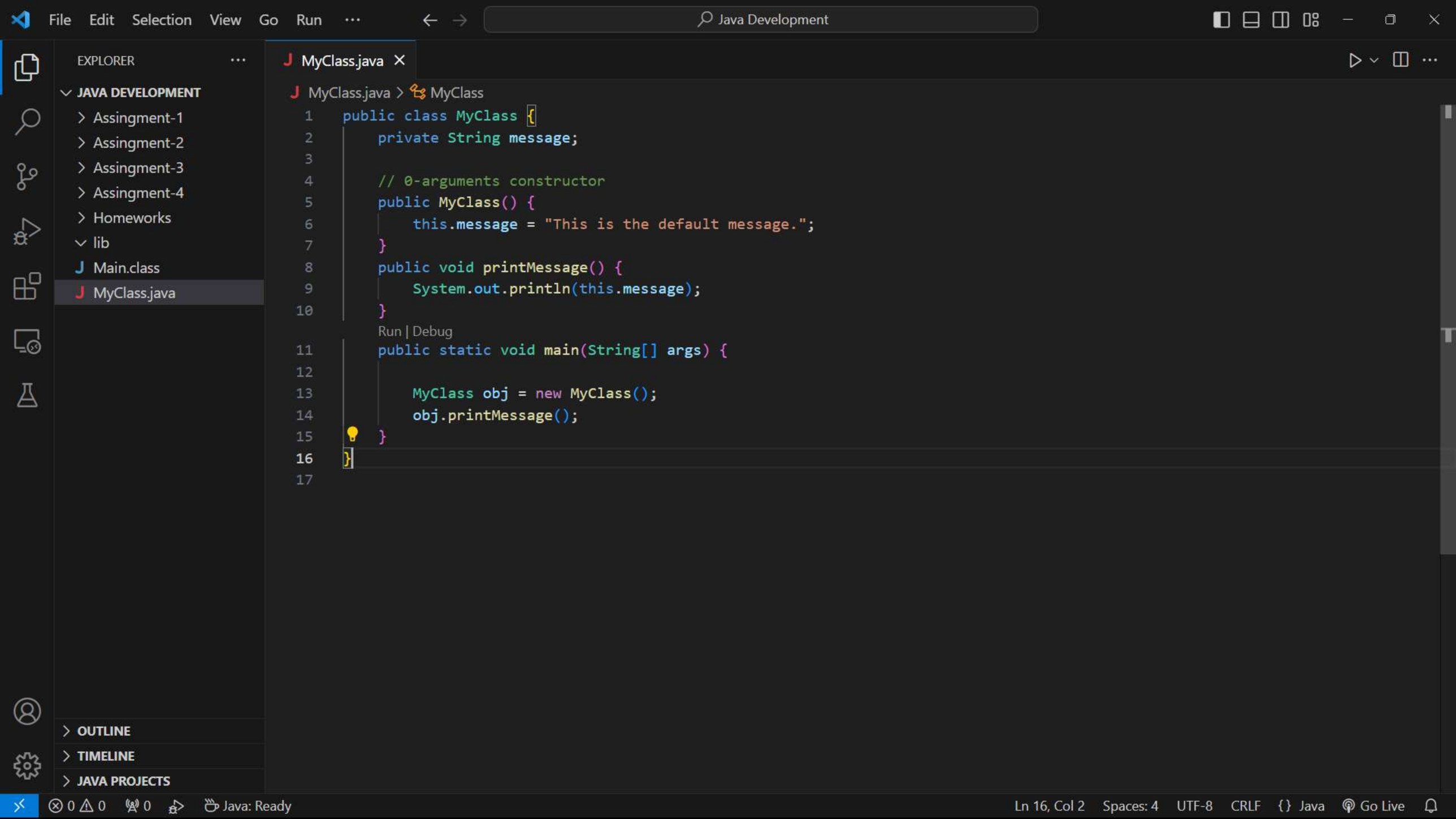
File Edit Selection View Go Run ···
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MyClass.java
MyClass.java > MyClass
public class MyClass {
private String message;
// 0-arguments constructor
public MyClass() {
this.message = "This is the default message.";
}
public void printMessage() {
System.out.println(this.message);
}
Run | Debug
public static void main(String[] args) {
MyClass obj = new MyClass();
obj.printMessage();
}
}
OUTLINE
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Java: Ready
Ln 16, Col 2
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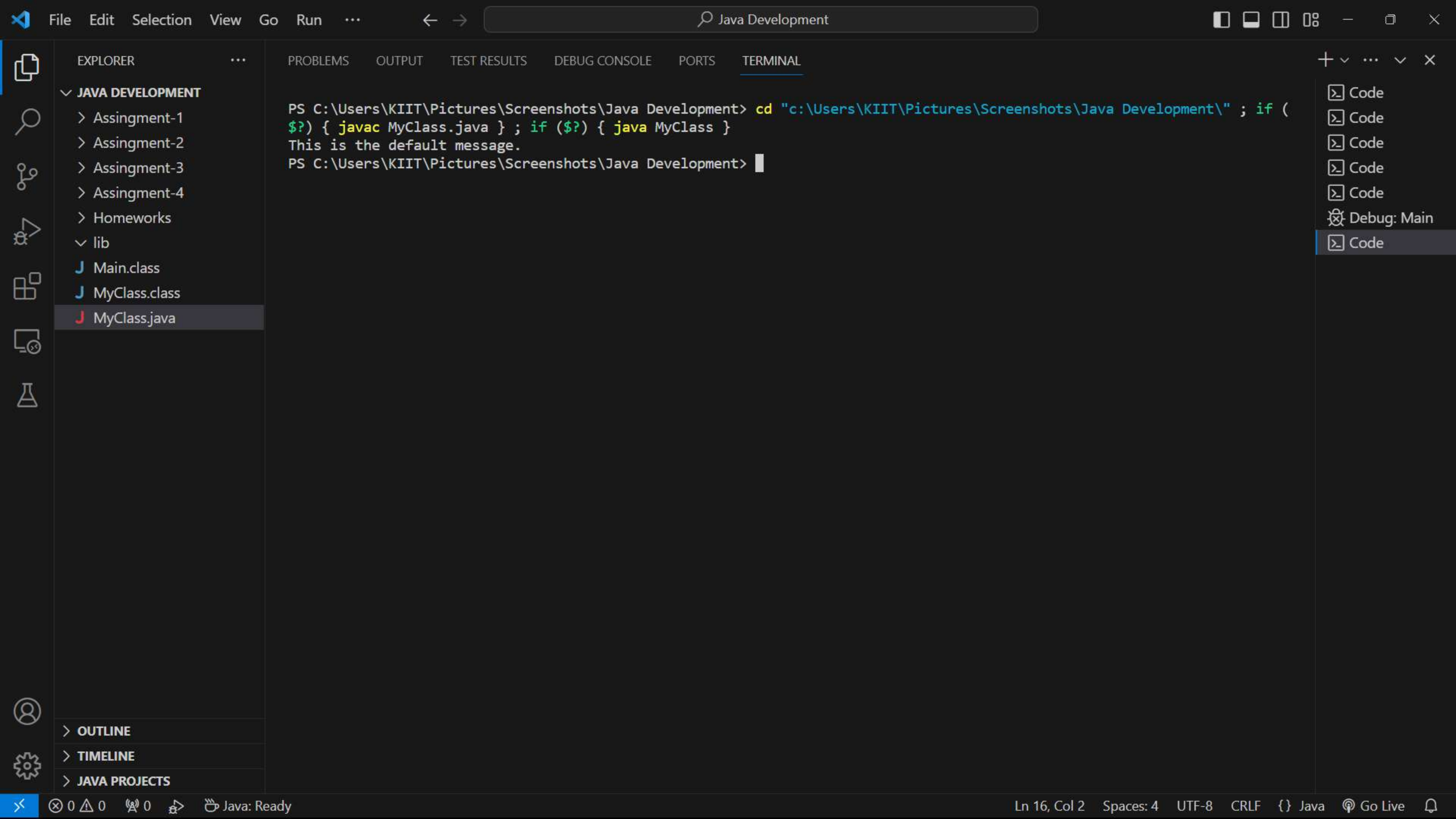
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PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ( $?) { javac MyClass.java } ; if ($?) { java MyClass }
This is the default message.
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Debug: Main
Code
0 0 0
Java: Ready
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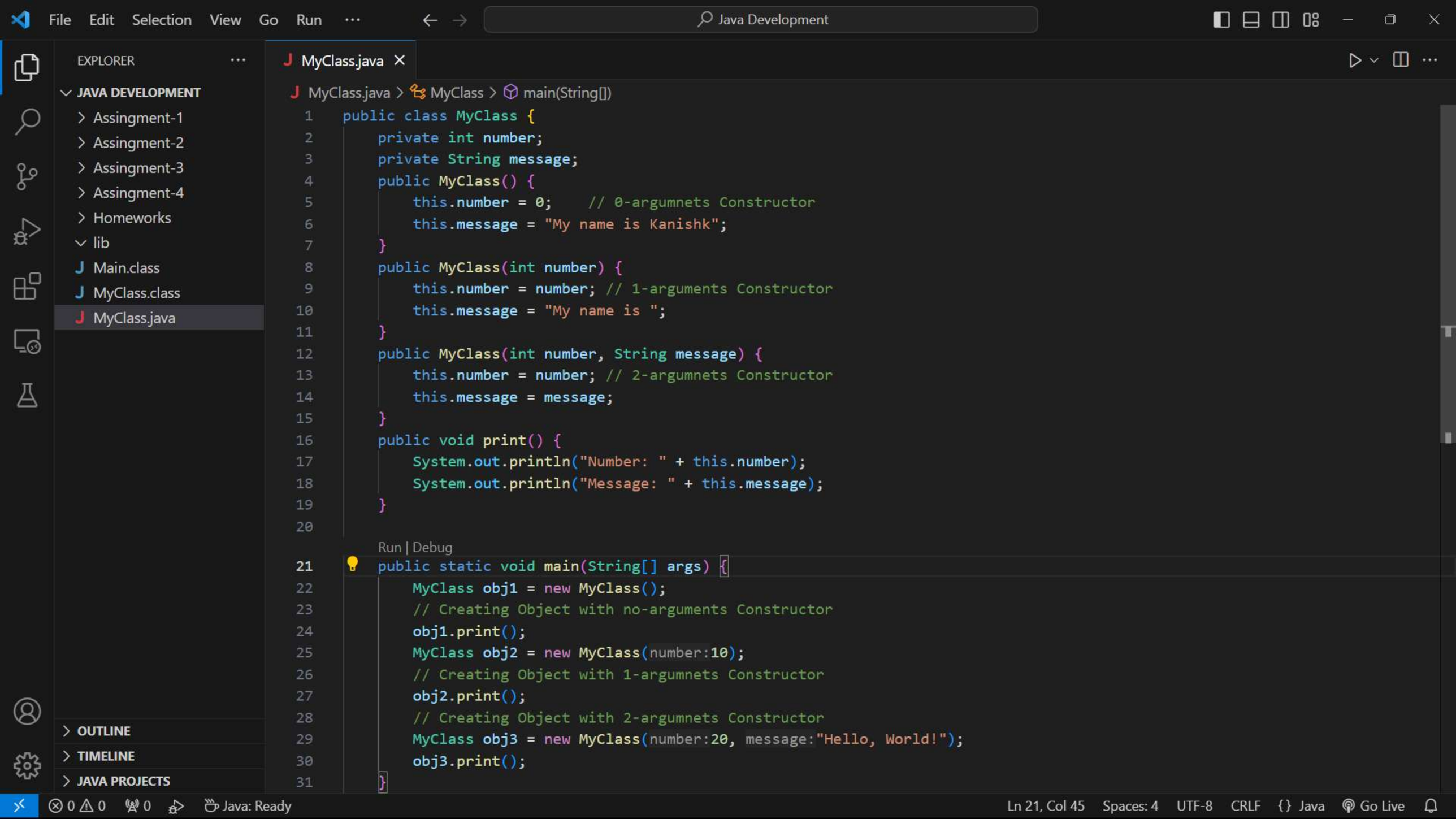
File Edit Selection View Go Run ···
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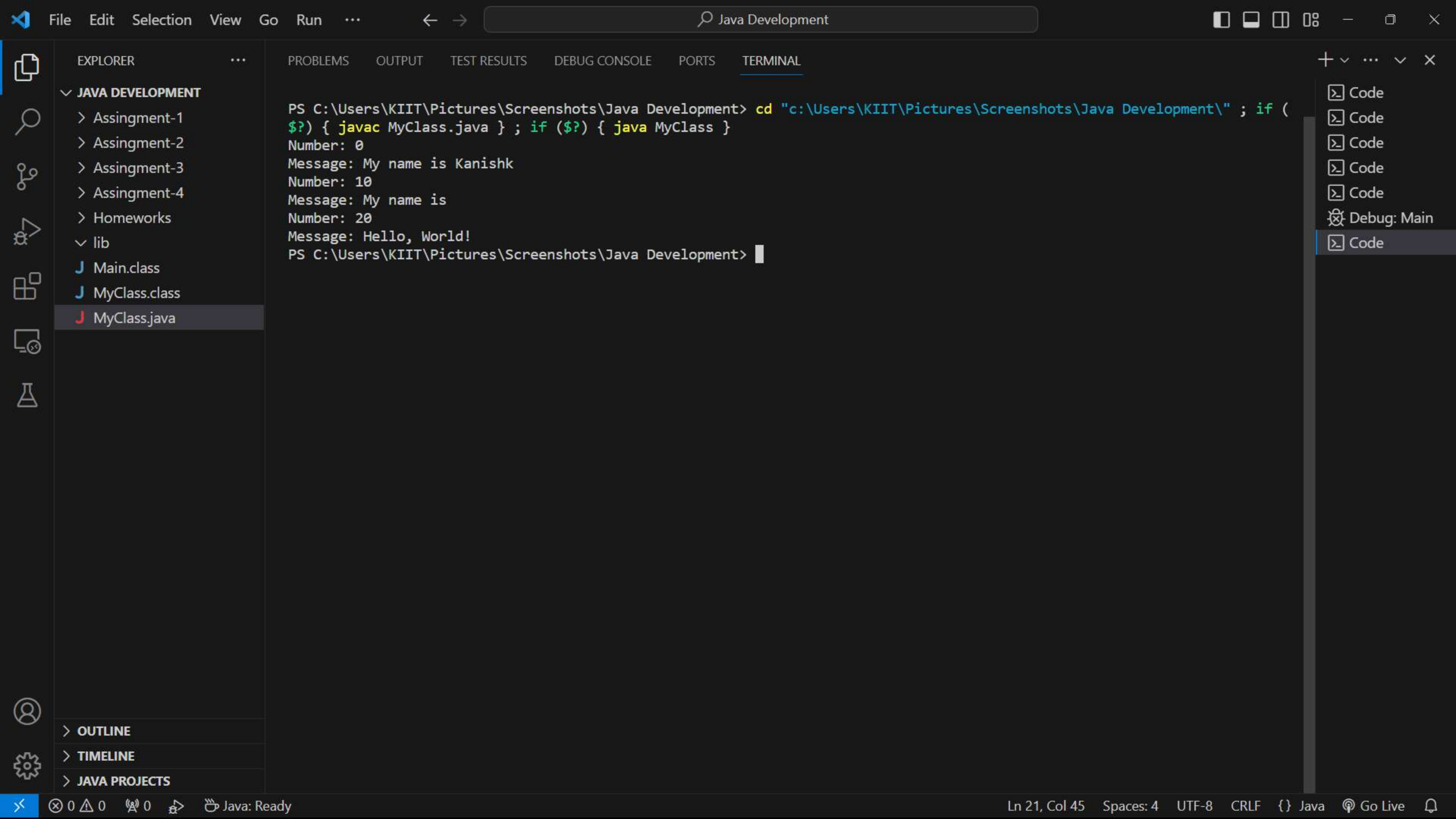
MyClass.java
MyClass.java
MyClass.java > MyClass > main(String[])
1 public class MyClass {
2 private int number;
3 private String message;
4 public MyClass() {
5 this.number = 0; // 0-argumnets Constructor
6 this.message = "My name is Kanishk";
7 }
8 public MyClass(int number) {
9 this.number = number; // 1-arguments Constructor
10 this.message = "My name is ";
11 }
12 public MyClass(int number, String message) {
13 this.number = number; // 2-argumnets Constructor
14 this.message = message;
15 }
16 public void print() {
17 System.out.println("Number: " + this.number);
18 System.out.println("Message: " + this.message);
19 }
20
Run | Debug
21 public static void main(String[] args) {
22 MyClass obj1 = new MyClass();
23 // Creating Object with no-arguments Constructor
24 obj1.print();
25 MyClass obj2 = new MyClass(number:10);
26 // Creating Object with 1-argumnets Constructor
27 obj2.print();
28 // Creating Object with 2-argumnets Constructor
29 MyClass obj3 = new MyClass(number:20, message:"Hello, World!");
30 obj3.print();
31 }
OUTLINE
TIMELINE
JAVA PROJECTS
0 0 0 Java: Ready
Ln 21, Col 45 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run ···
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PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ( $?) { javac MyClass.java } ; if ($?) { java MyClass }
Number: 0
Message: My name is Kanishk
Number: 10
Message: My name is
Number: 20
Message: Hello, World!
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Debug: Main
Code
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Java: Ready
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MyClass.java

MyClass.java > MyClass > main(String[])

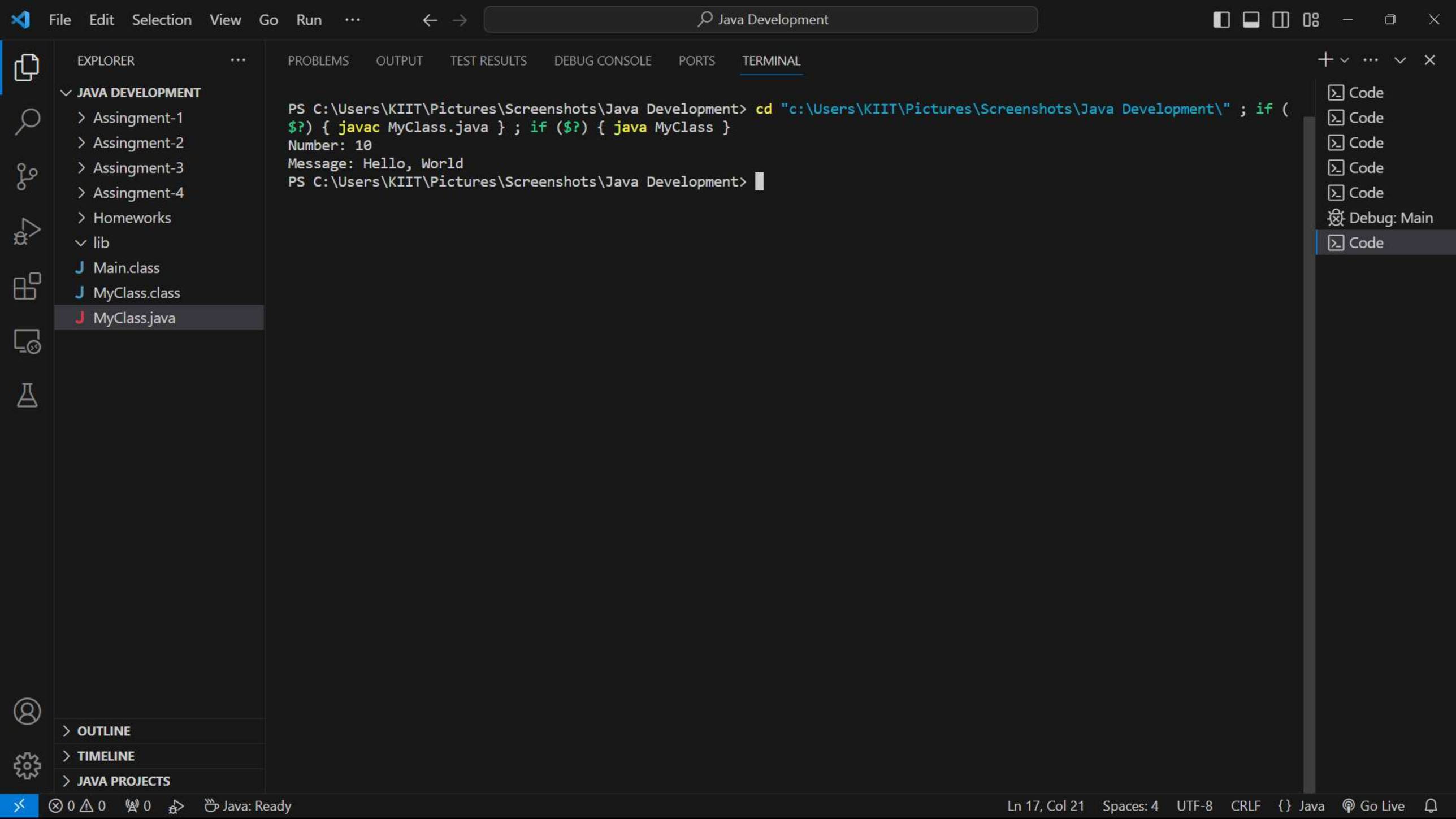
```java
public class MyClass {
    private int number;
    private String message;

    // Parameterized constructor
    public MyClass(int number, String message) {
        this.number = number;
        this.message = message;
    }
    public void print() {
        System.out.println("Number: " + this.number);
        System.out.println("Message: " + this.message);
    }

    Run | Debug
    public static void main(String[] args) {
        MyClass obj = new MyClass(number:10, message:"Hello, World");
        obj.print();
    }
}

```

Ln 17, Col 21 Spaces: 4 UTF-8 CRLF { } Java Go Live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PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ( $?) { javac MyClass.java } ; if ($?) { java MyClass }
Number: 10
Message: Hello, World
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Debug: Main
Code
0 0 0
Java: Ready
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Java Development

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Grader.java

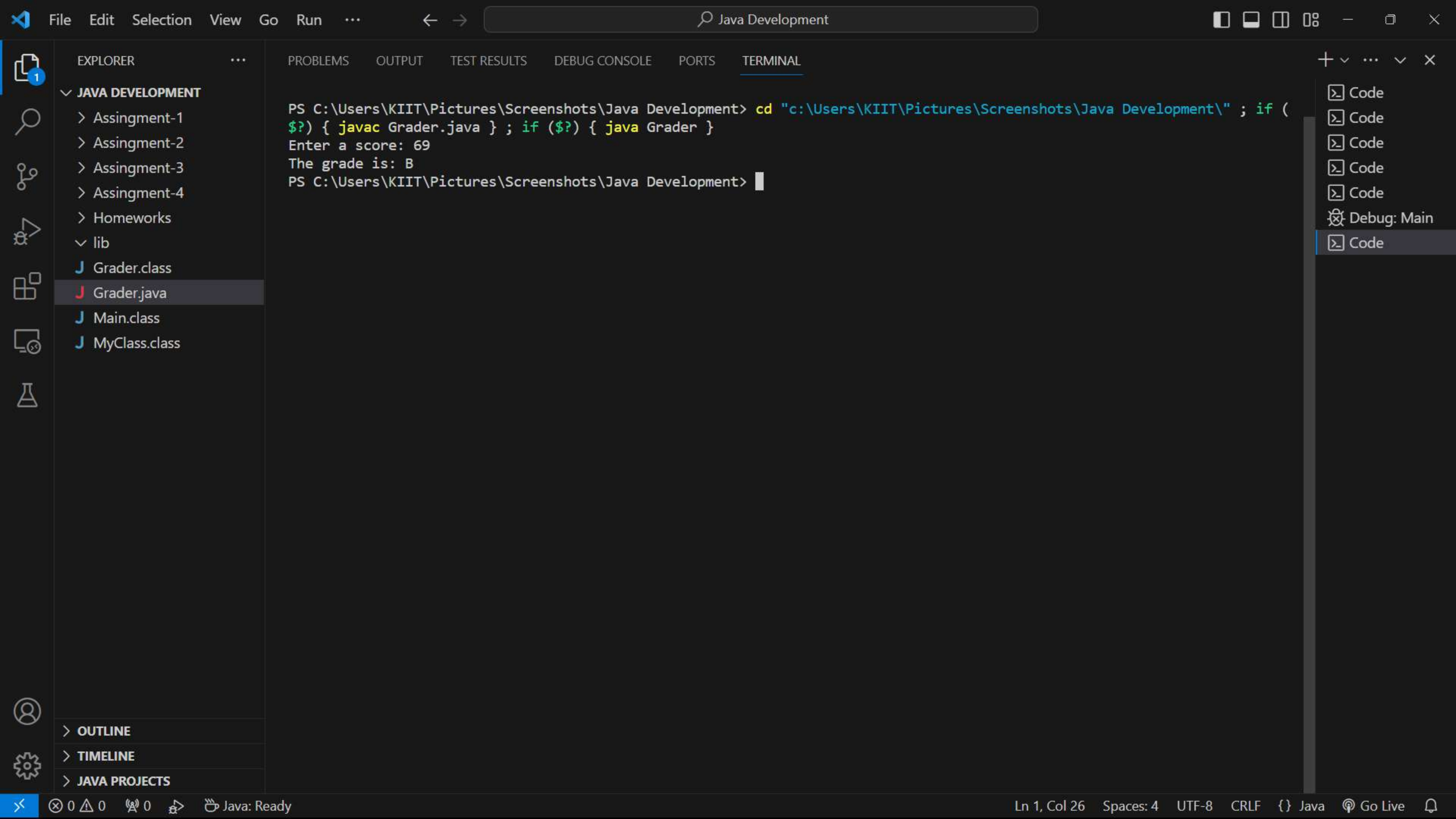
Grader.java > ...

```java
import java.util.Scanner;
public class Grader {
    private int score;
    public Grader(int score) {
        if (score < 0 || score > 100) {
            throw new IllegalArgumentException(s:"Score must be between 0 and 100");
        }
        this.score = score;
    }
    public char letterGrade() {
        if (score >= 90) {
            return 'O';
        } else if (score >= 80) {
            return 'E';
        } else if (score >= 70) {
            return 'A';
        } else if (score >= 60) {
            return 'B';
        } else if (score >= 50) {
            return 'C';
        } else {
            return 'F';
        }
    }

    Run | Debug
    public static void main(String[] args) {
        try (Scanner scanner = new Scanner(System.in)) {
            System.out.print(s:"Enter a score: ");
            int score = scanner.nextInt();

            Grader grader = new Grader(score);
            System.out.println("The grade is: " + grader.letterGrade());
        }
    }
}
```

0 0 0 Java: Ready Ln 1, Col 26 Spaces: 4 UTF-8 CRLF Java Go Live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PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ( $?) { javac Grader.java } ; if ($?) { java Grader }
Enter a score: 69
The grade is: B
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Debug: Main
Code
0 0 0
Java: Ready
Ln 1, Col 26
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  - Main.class
  - Main.java
  - MyClass.class

OUTLINE
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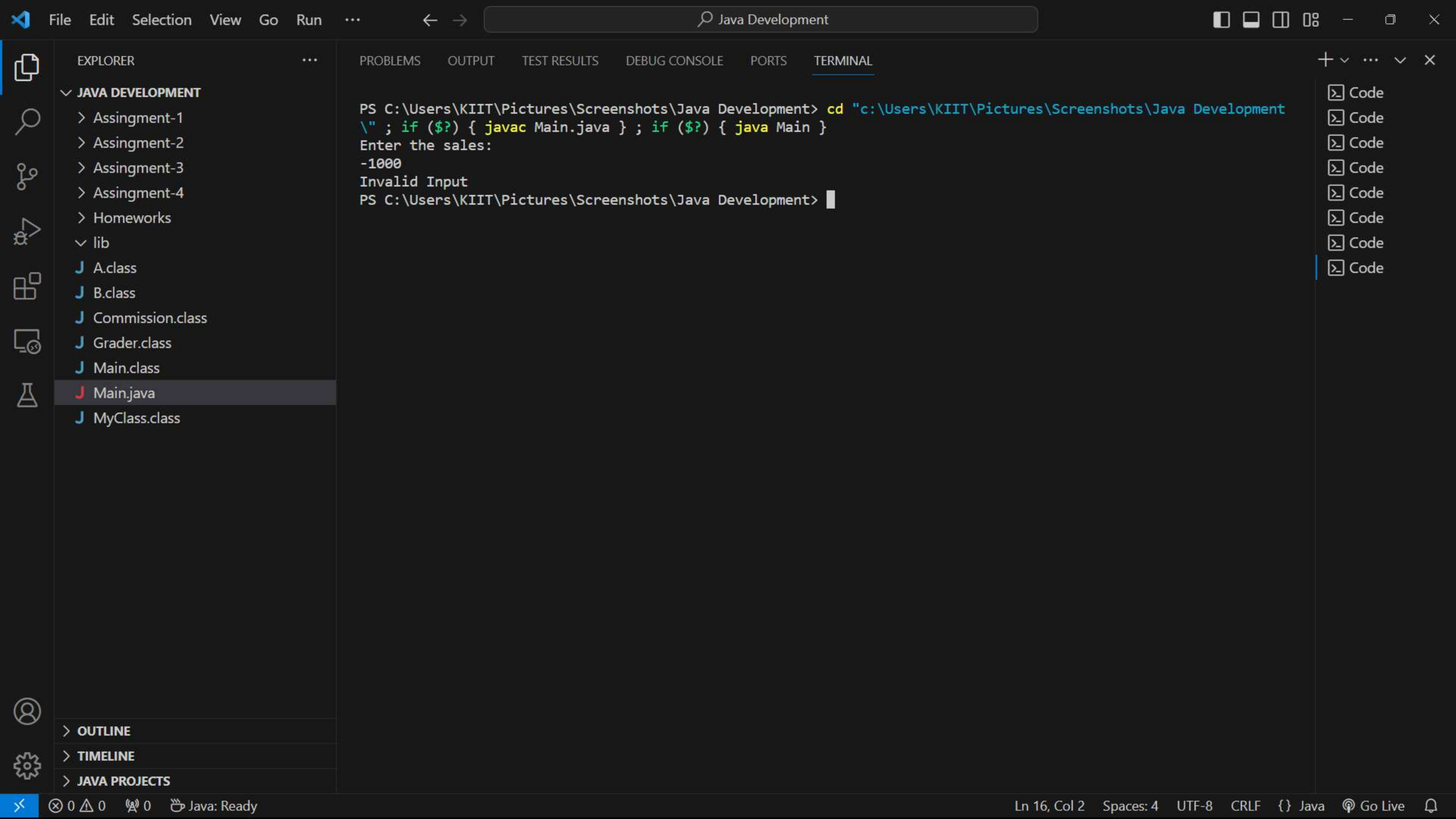
JAVA PROJECTS

Main.java

Main.java > Commission

```java
import java.util.Scanner;

class Commission {
    private double sales;

    public Commission(double sales) {
        if (sales < 0) {
            throw new IllegalArgumentException(s:"Sales cannot be negative");
        }
        this.sales = sales;
    }

    public double commission() {
        return this.sales * 0.10;
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        try (Scanner scanner = new Scanner(System.in)) {
            System.out.println(x:"Enter the sales:");
            double sales = scanner.nextDouble();

            if (sales < 0) {
                System.out.println(x:"Invalid Input");
            } else {
                Commission commission = new Commission(sales);
                System.out.println("The commission is: " + commission.commission());
            }
        }
    }
```

0 0 0 Java: Ready Ln 16, Col 2 Spaces: 4 UTF-8 CRLF {} Java Go Live


File Edit Selection View Go Run ···
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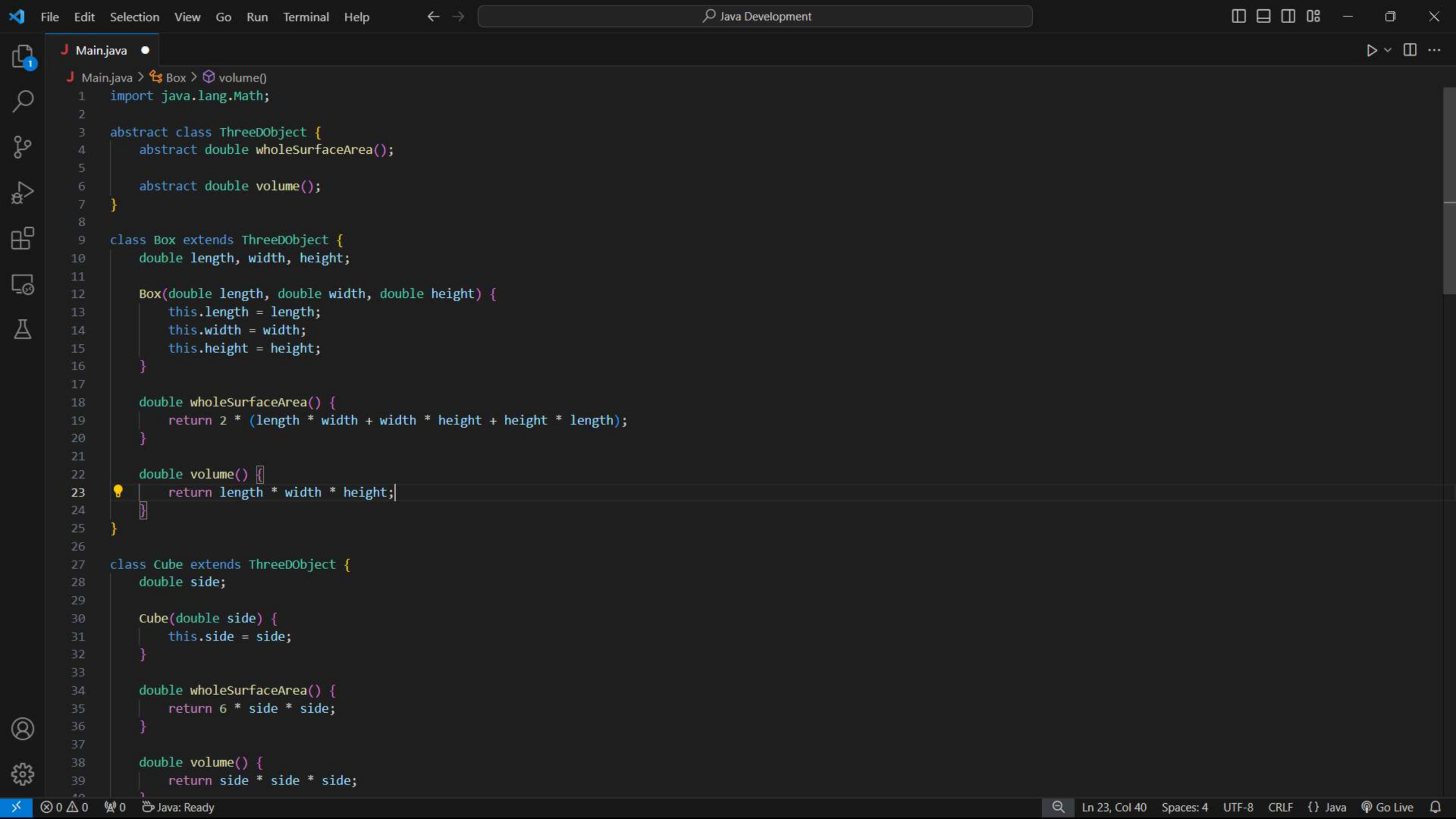
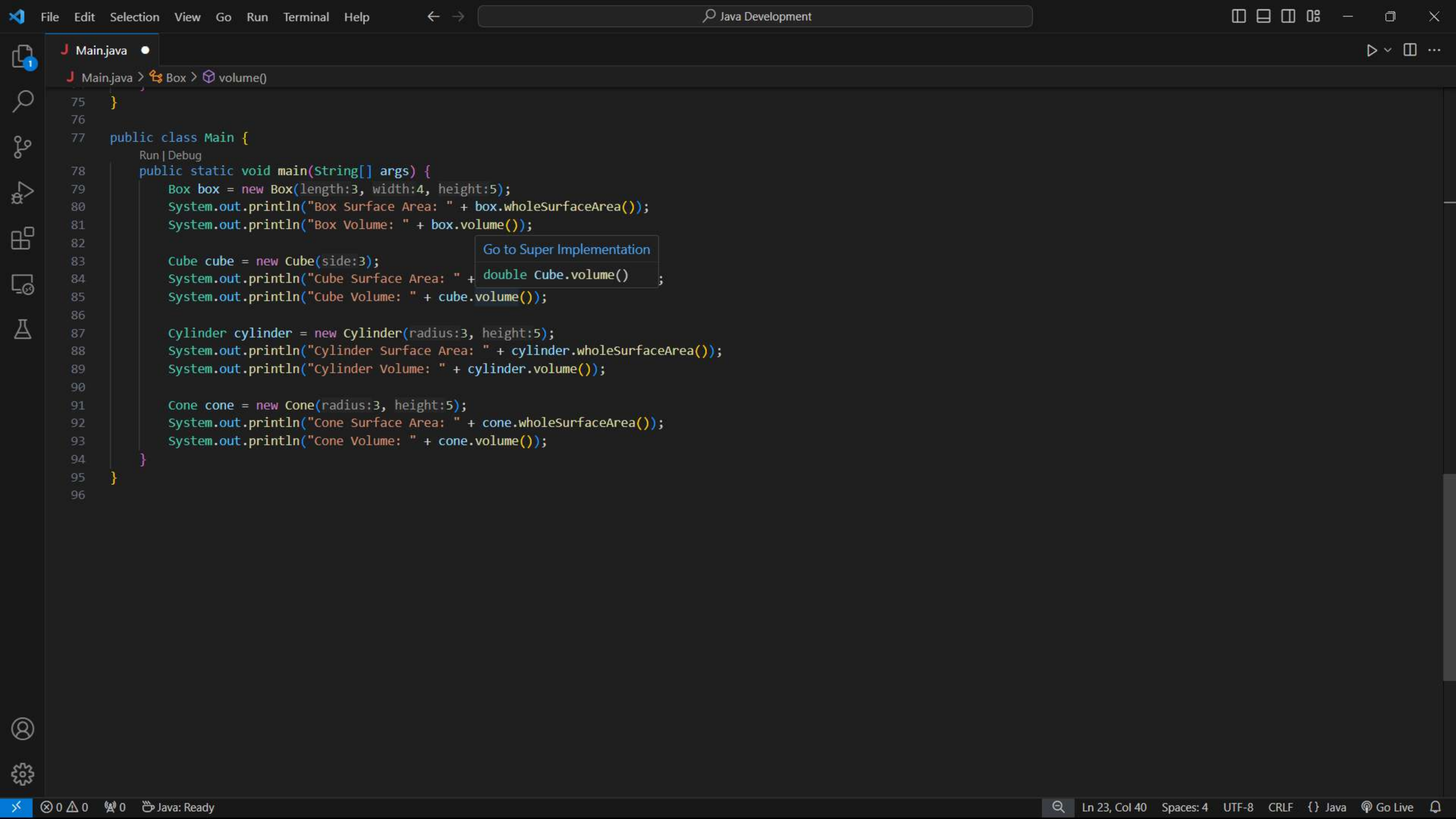
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ; if ($?) { java Main }
Enter the sales:
-1000
Invalid Input
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Code
Code
Code
0 0 0 Java: Ready
Ln 16, Col 2 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Box > volume()
import java.lang.Math;
abstract class ThreeDObject {
abstract double wholeSurfaceArea();
abstract double volume();
}
class Box extends ThreeDObject {
double length, width, height;
Box(double length, double width, double height) {
this.length = length;
this.width = width;
this.height = height;
}
double wholeSurfaceArea() {
return 2 * (length * width + width * height + height * length);
}
double volume() {
return length * width * height;
}
}
class Cube extends ThreeDObject {
double side;
Cube(double side) {
this.side = side;
}
double wholeSurfaceArea() {
return 6 * side * side;
}
double volume() {
return side * side * side;
0 0 0 Java: Ready
Ln 23, Col 40 Spaces: 4 UTF-8 CRLF Java Go Live

```
38      double volume() {
39          return side * side * side;
40      }
41  }
42
43  class Cylinder extends ThreeDObject {
44      double radius, height;
45
46      Cylinder(double radius, double height) {
47          this.radius = radius;
48          this.height = height;
49      }
50
51      double wholeSurfaceArea() {
52          return 2 * Math.PI * radius * (radius + height);
53      }
54
55      double volume() {
56          return Math.PI * radius * radius * height;
57      }
58  }
59
60  class Cone extends ThreeDObject {
61      double radius, height;
62
63      Cone(double radius, double height) {
64          this.radius = radius;
65          this.height = height;
66      }
67
68      double wholeSurfaceArea() {
69          return Math.PI * radius * (radius + Math.sqrt(height * height + radius * radius));
70      }
71
72      double volume() {
73          return Math.PI * radius * radius * height / 3;
74      }
75  }
76
```


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Box > volume()
}
public class Main {
Run | Debug
public static void main(String[] args) {
Box box = new Box(length:3, width:4, height:5);
System.out.println("Box Surface Area: " + box.wholeSurfaceArea());
System.out.println("Box Volume: " + box.volume());
Go to Super Implementation
double Cube.volume()
Cube cube = new Cube(side:3);
System.out.println("Cube Surface Area: " +
System.out.println("Cube Volume: " + cube.volume());
Cylinder cylinder = new Cylinder(radius:3, height:5);
System.out.println("Cylinder Surface Area: " + cylinder.wholeSurfaceArea());
System.out.println("Cylinder Volume: " + cylinder.volume());
Cone cone = new Cone(radius:3, height:5);
System.out.println("Cone Surface Area: " + cone.wholeSurfaceArea());
System.out.println("Cone Volume: " + cone.volume());
}
}
0 0 0 Java: Ready
Ln 23, Col 40 Spaces: 4 UTF-8 CRLF { } Java Go Live

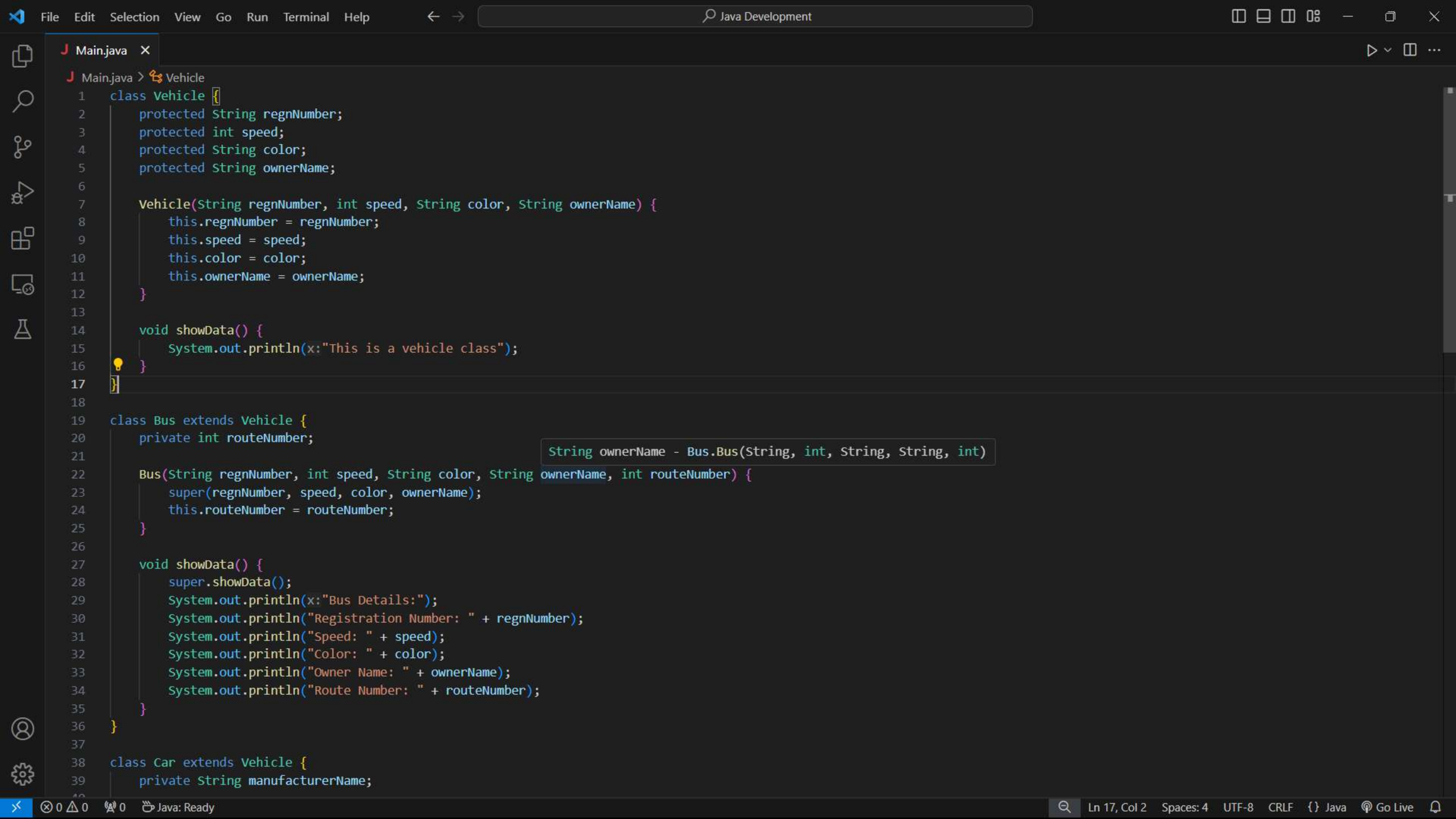
File Edit Selection View Go Run ··· Java Development

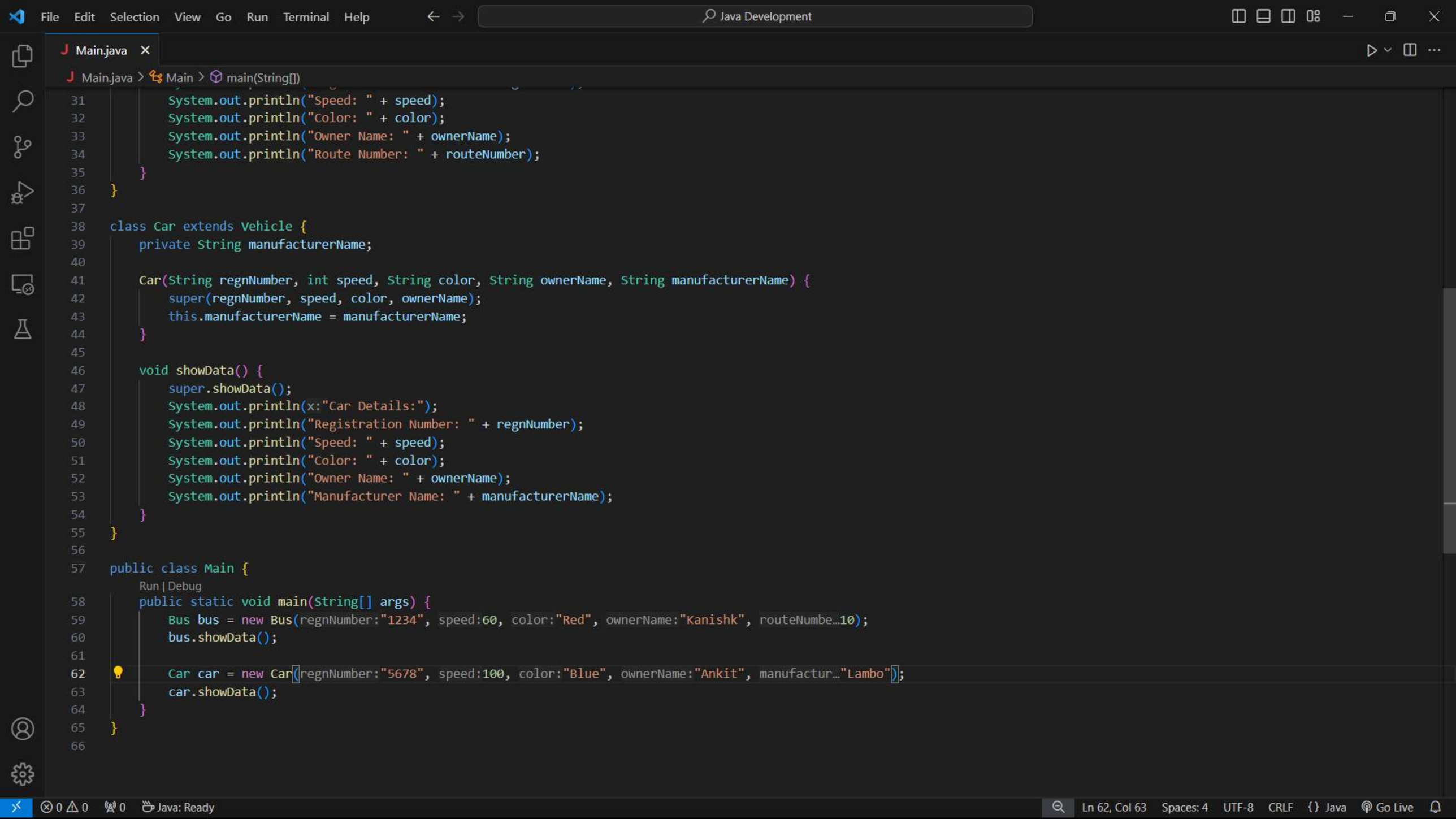
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL

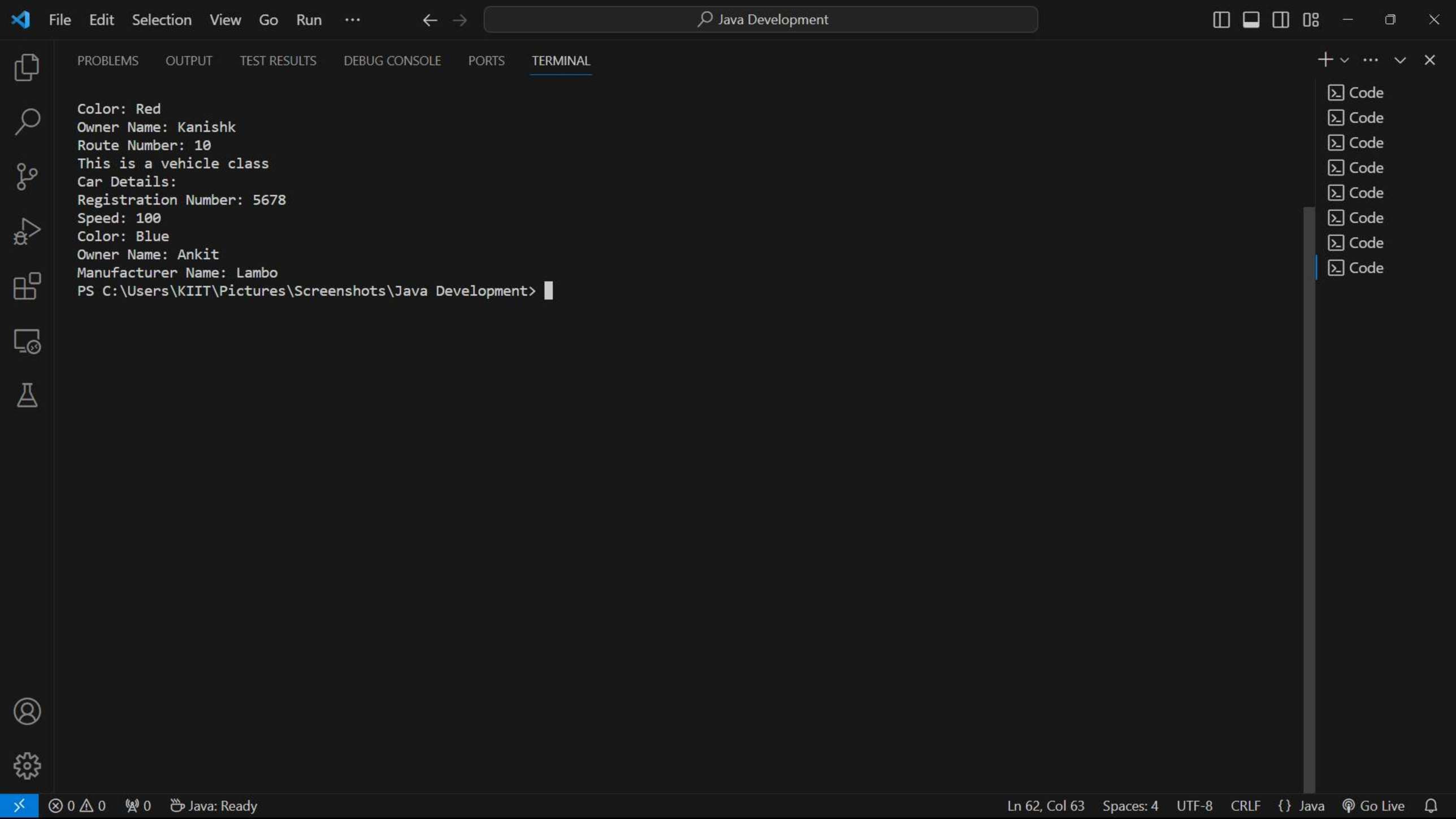
```
Invalid Input
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ; if
 ($?) { java Main }
Box Surface Area: 94.0
Box Volume: 60.0
Cube Surface Area: 54.0
Cube Volume: 27.0
Cylinder Surface Area: 150.79644737231007
Cylinder Volume: 141.3716694115407
Cone Surface Area: 83.22976079115259
Cone Volume: 47.1238898038469
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
```

Code
Code
Code
Code
Code
Code
Code
Code

0 0 0 Java: Ready Ln 23, Col 40 Spaces: 4 UTF-8 CRLF {} Java Go Live


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Vehicle
class Vehicle {
protected String regnNumber;
protected int speed;
protected String color;
protected String ownerName;
Vehicle(String regnNumber, int speed, String color, String ownerName) {
this.regnNumber = regnNumber;
this.speed = speed;
this.color = color;
this.ownerName = ownerName;
}
void showData() {
System.out.println(x:"This is a vehicle class");
}
}
class Bus extends Vehicle {
private int routeNumber;
String ownerName - Bus.Bus(String, int, String, String, int)
Bus(String regnNumber, int speed, String color, String ownerName, int routeNumber) {
super(regnNumber, speed, color, ownerName);
this.routeNumber = routeNumber;
}
void showData() {
super.showData();
System.out.println(x:"Bus Details:");
System.out.println("Registration Number: " + regnNumber);
System.out.println("Speed: " + speed);
System.out.println("Color: " + color);
System.out.println("Owner Name: " + ownerName);
System.out.println("Route Number: " + routeNumber);
}
}
class Car extends Vehicle {
private String manufacturerName;
Java: Ready
Ln 17, Col 2
Spaces: 4
UTF-8
CRLF
Java
Go Live


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Main > main(String[])
System.out.println("Speed: " + speed);
System.out.println("Color: " + color);
System.out.println("Owner Name: " + ownerName);
System.out.println("Route Number: " + routeNumber);
}
}
class Car extends Vehicle {
private String manufacturerName;
Car(String regnNumber, int speed, String color, String ownerName, String manufacturerName) {
super(regnNumber, speed, color, ownerName);
this.manufacturerName = manufacturerName;
}
void showData() {
super.showData();
System.out.println(x:"Car Details:");
System.out.println("Registration Number: " + regnNumber);
System.out.println("Speed: " + speed);
System.out.println("Color: " + color);
System.out.println("Owner Name: " + ownerName);
System.out.println("Manufacturer Name: " + manufacturerName);
}
}
public class Main {
Run | Debug
public static void main(String[] args) {
Bus bus = new Bus(regnNumber:"1234", speed:60, color:"Red", ownerName:"Kanishk", routeNumbe…10);
bus.showData();
Car car = new Car(regnNumber:"5678", speed:100, color:"Blue", ownerName:"Ankit", manufactur…"Lambo");
car.showData();
}
}
0 0 0 Java: Ready
Ln 62, Col 63 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
Color: Red
Owner Name: Kanishk
Route Number: 10
This is a vehicle class
Car Details:
Registration Number: 5678
Speed: 100
Color: Blue
Owner Name: Ankit
Manufacturer Name: Lambo
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
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Code
0 0 0 Java: Ready
Ln 62, Col 63 Spaces: 4 UTF-8 CRLF Java Go Live

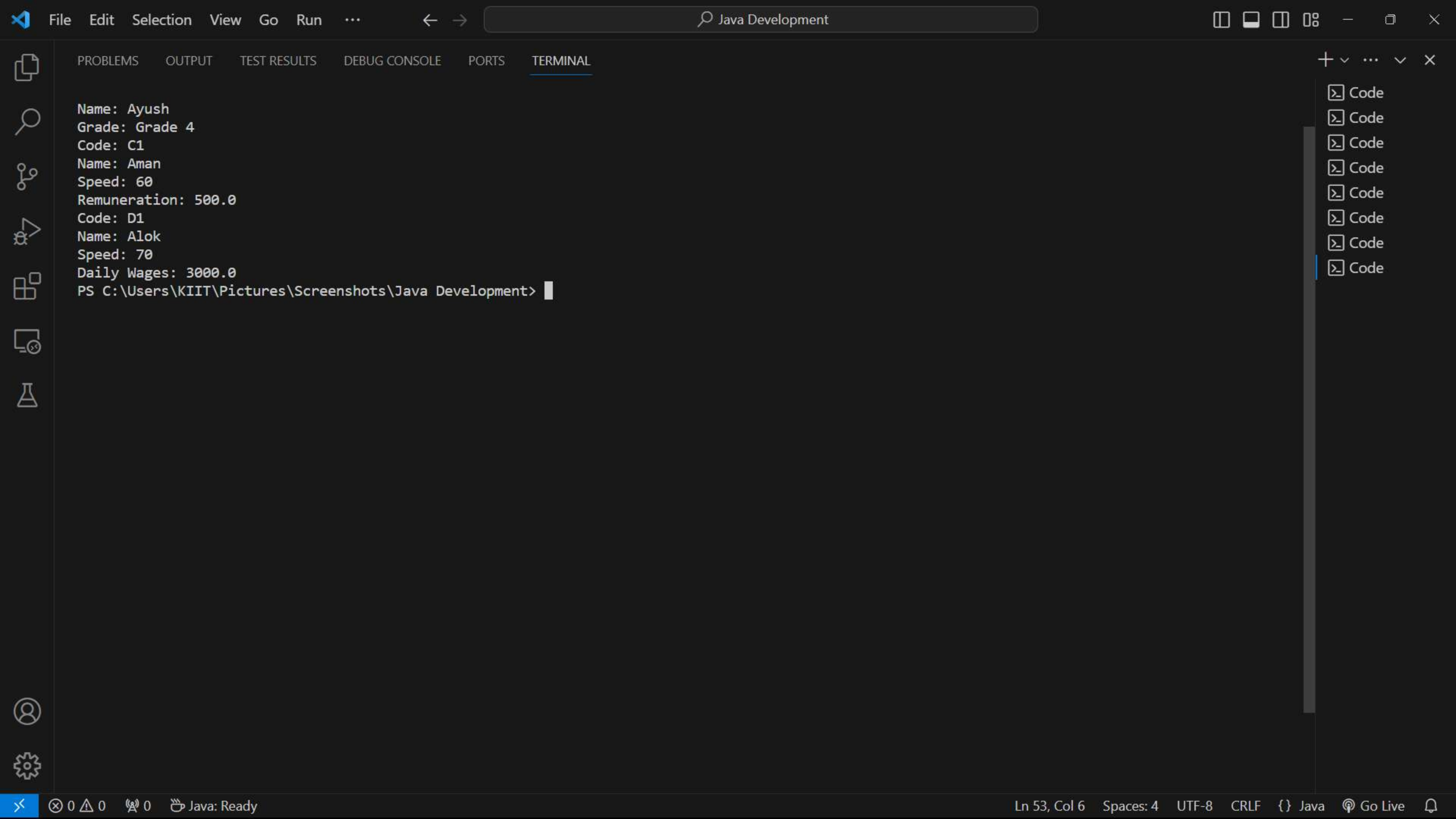
Main.java



```java
class Staff {
    protected String code;
    protected String name;

    Staff(String code, String name) {
        this.code = code;
        this.name = name;
    }

    void showData() {
        System.out.println("Code: " + code);
        System.out.println("Name: " + name);
    }
}

class Teacher extends Staff {
    private String subject;
    private String publication;

    Teacher(String code, String name, String subject, String publication) {
        super(code, name);
        this.subject = subject;
        this.publication = publication;
    }

    void showData() {
        super.showData();
        System.out.println("Subject: " + subject);
        System.out.println("Publication: " + publication);
    }
}

class Officer extends Staff {
    private String grade;

    Officer(String code, String name, String grade) {
        super(code, name);
        this.grade = grade;
    }
```

```
        this.grade = grade;
    }

    void showData() {
        super.showData();
        System.out.println("Grade: " + grade);
    }
}

class Typist extends Staff {
    protected int speed;

    Typist(String code, String name, int speed) {
        super(code, name);
        this.speed = speed;
    }

    void showData() {
        super.showData();
        System.out.println("Speed: " + speed);
    }
}

class RegularTypist extends Typist {
    private double remuneration;

    RegularTypist(String code, String name, int speed, double remuneration) {
        super(code, name, speed);
        this.remuneration = remuneration;
    }

    void showData() {
        super.showData();
        System.out.println("Remuneration: " + remuneration);
    }
}

class CasualTypist extends Typist {
    private double dailyWages;
```

```java
class CasualTypist extends Typist {
    private double dailyWages;

    CasualTypist(String code, String name, int speed, double dailyWages) {
        super(code, name, speed);
        this.dailyWages = dailyWages;
    }

    void showData() {
        super.showData();
        System.out.println("Daily Wages: " + dailyWages);
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        Teacher teacher = new Teacher(code:"A1", name:"Kanishk", subject:"OOPSJ", publication:"X");
        teacher.showData();

        Officer officer = new Officer(code:"B1", name:"Ayush", grade:"Grade 4");
        officer.showData();

        RegularTypist regularTypist = new RegularTypist(code:"C1", name:"Aman", speed:60, remuneration:500);
        regularTypist.showData();

        CasualTypist casualTypist = new CasualTypist(code:"D1", name:"Alok", speed:70, dailyWages:3000);
        casualTypist.showData();
    }
}
```


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
Name: Ayush
Grade: Grade 4
Code: C1
Name: Aman
Speed: 60
Remuneration: 500.0
Code: D1
Name: Alok
Speed: 70
Daily Wages: 3000.0
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
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Code
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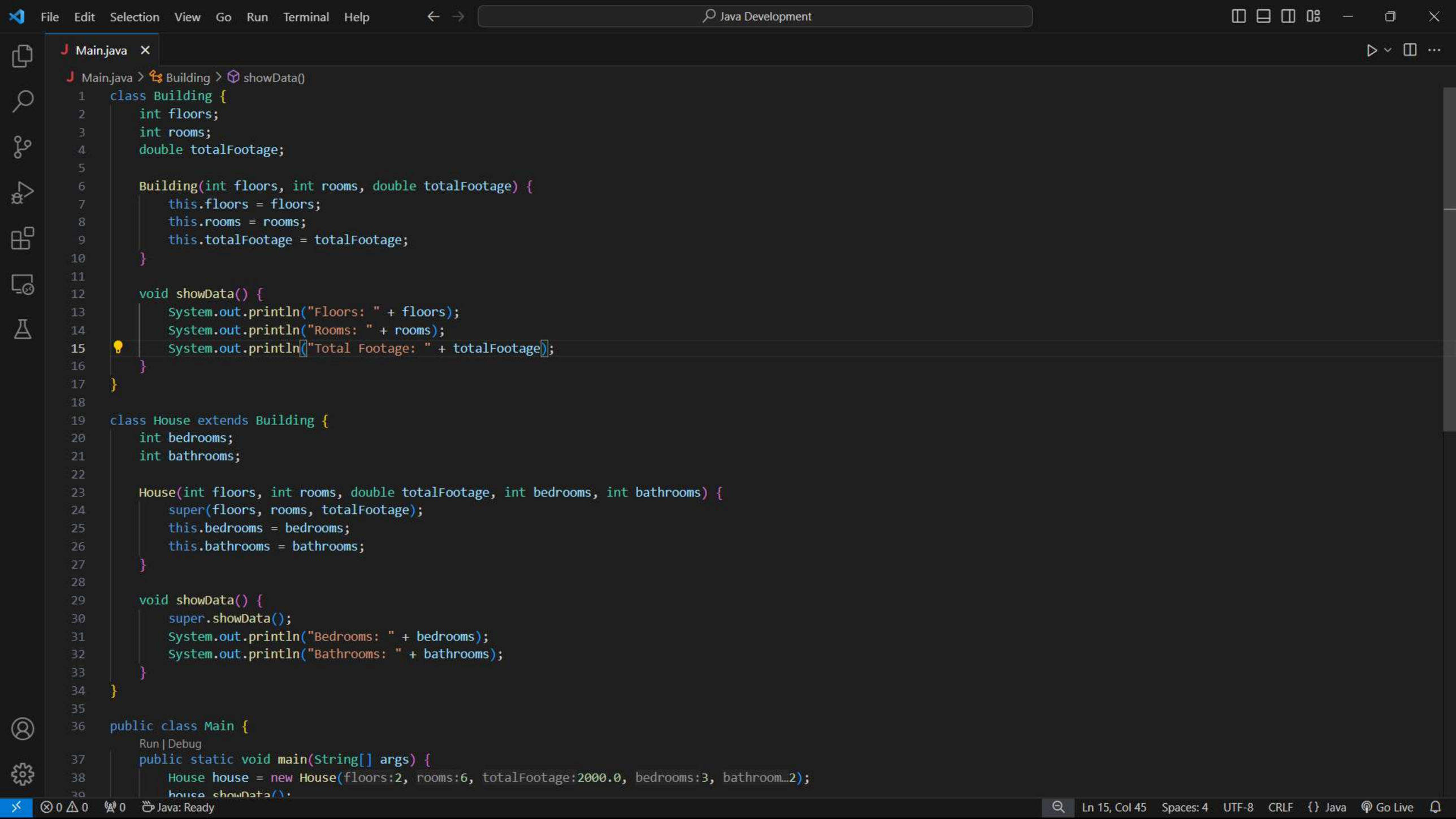
Code
0 0 0 Java: Ready
Ln 53, Col 6 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Building > showData()
class Building {
int floors;
int rooms;
double totalFootage;
Building(int floors, int rooms, double totalFootage) {
this.floors = floors;
this.rooms = rooms;
this.totalFootage = totalFootage;
}
void showData() {
System.out.println("Floors: " + floors);
System.out.println("Rooms: " + rooms);
System.out.println("Total Footage: " + totalFootage);
}
}
class House extends Building {
int bedrooms;
int bathrooms;
House(int floors, int rooms, double totalFootage, int bedrooms, int bathrooms) {
super(floors, rooms, totalFootage);
this.bedrooms = bedrooms;
this.bathrooms = bathrooms;
}
void showData() {
super.showData();
System.out.println("Bedrooms: " + bedrooms);
System.out.println("Bathrooms: " + bathrooms);
}
}
public class Main {
Run | Debug
public static void main(String[] args) {
House house = new House(floors:2, rooms:6, totalFootage:2000.0, bedrooms:3, bathroom…2);
house.showData();
0 0 0 Java: Ready
Ln 15, Col 45 Spaces: 4 UTF-8 CRLF { } Java Go Live

File Edit Selection View Go Run ··· Java Development

PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL

```
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ;
 if ($?) { java Main }
Floors: 2
Rooms: 6
Total Footage: 2000.0
Bedrooms: 3
Bathrooms: 2
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
```

Code
Code
Code
Code
Code
Code
Code
Code

0 0 0 Java: Ready Ln 15, Col 45 Spaces: 4 UTF-8 CRLF { } Java Go Live

Main.java

Main.java > House > bedrooms

```java
class Building {
    int floors;
    int rooms;
    double totalFootage;

    Building(int floors, int rooms, double totalFootage) {
        this.floors = floors;
        this.rooms = rooms;
        this.totalFootage = totalFootage;
    }

    void showData() {
        System.out.println("Floors: " + floors);
        System.out.println("Rooms: " + rooms);
        System.out.println("Total Footage: " + totalFootage);
    }
}

class House extends Building {
    int bedrooms;
    int bathrooms;

    House(int floors, int rooms, double totalFootage, int bedrooms, int bathrooms) {
        super(floors, rooms, totalFootage);
        this.bedrooms = bedrooms;
        this.bathrooms = bathrooms;
    }

    void showData() {
        super.showData();
        System.out.println("Bedrooms: " + bedrooms);
        System.out.println("Bathrooms: " + bathrooms);
    }
}

class Office extends Building {
    int telephones;
    int tables;

    Office(int floors, int rooms, double totalFootage, int telephones, int tables) {
```

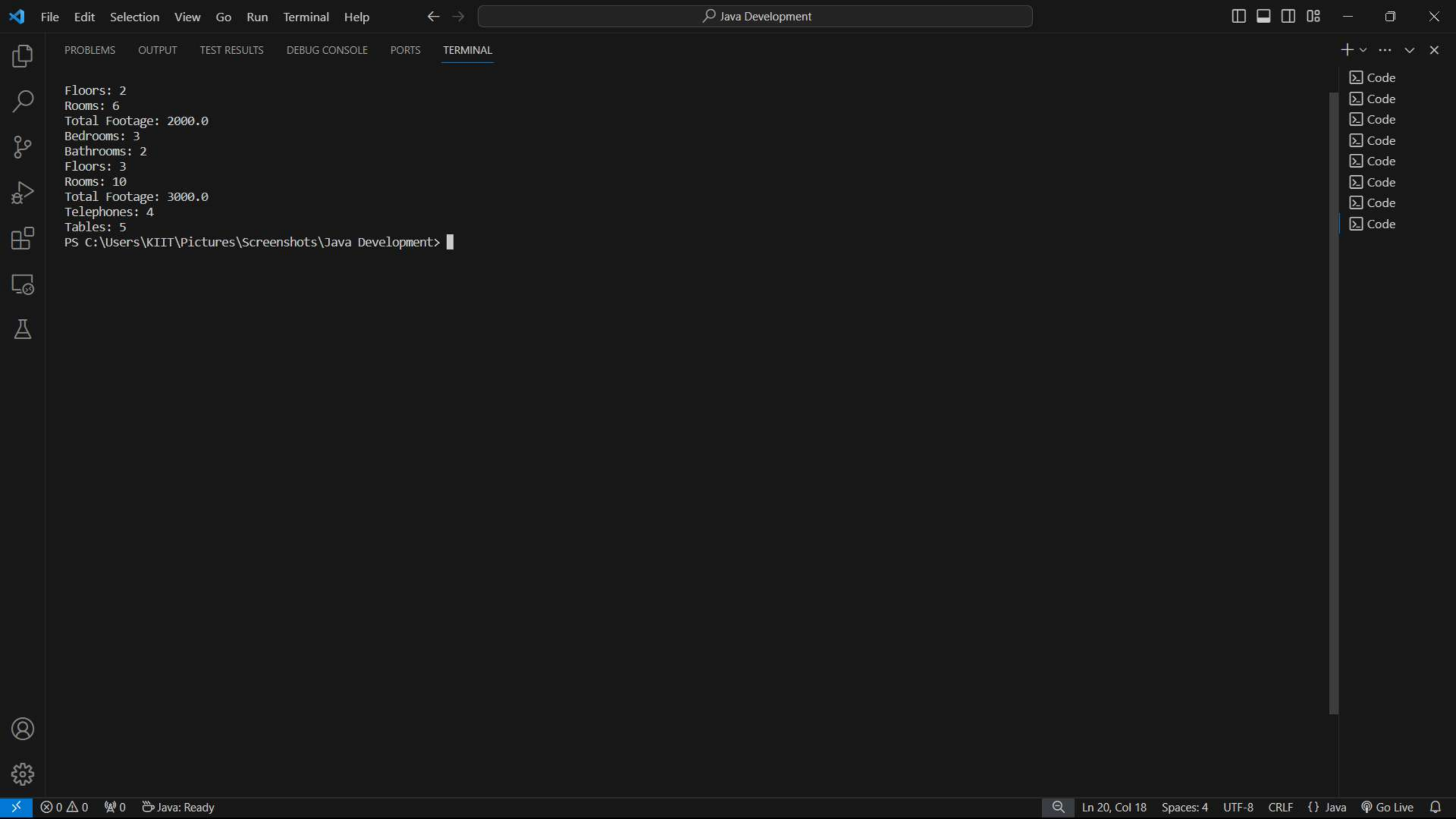
```java
class Office extends Building {
    int telephones;
    int tables;

    Office(int floors, int rooms, double totalFootage, int telephones, int tables) {
        super(floors, rooms, totalFootage);
        this.telephones = telephones;
        this.tables = tables;
    }

    void showData() {
        super.showData();
        System.out.println("Telephones: " + telephones);
        System.out.println("Tables: " + tables);
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        House house = new House(floors:2, rooms:6, totalFootage:2000.0, bedrooms:3, bathroom…2);
        house.showData();

        Office office = new Office(floors:3, rooms:10, totalFootage:3000.0, telephones:4, tables…5);
        office.showData();
    }
}
```


File Edit Selection View Go Run Terminal Help
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
Floors: 2
Rooms: 6
Total Footage: 2000.0
Bedrooms: 3
Bathrooms: 2
Floors: 3
Rooms: 10
Total Footage: 3000.0
Telephones: 4
Tables: 5
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
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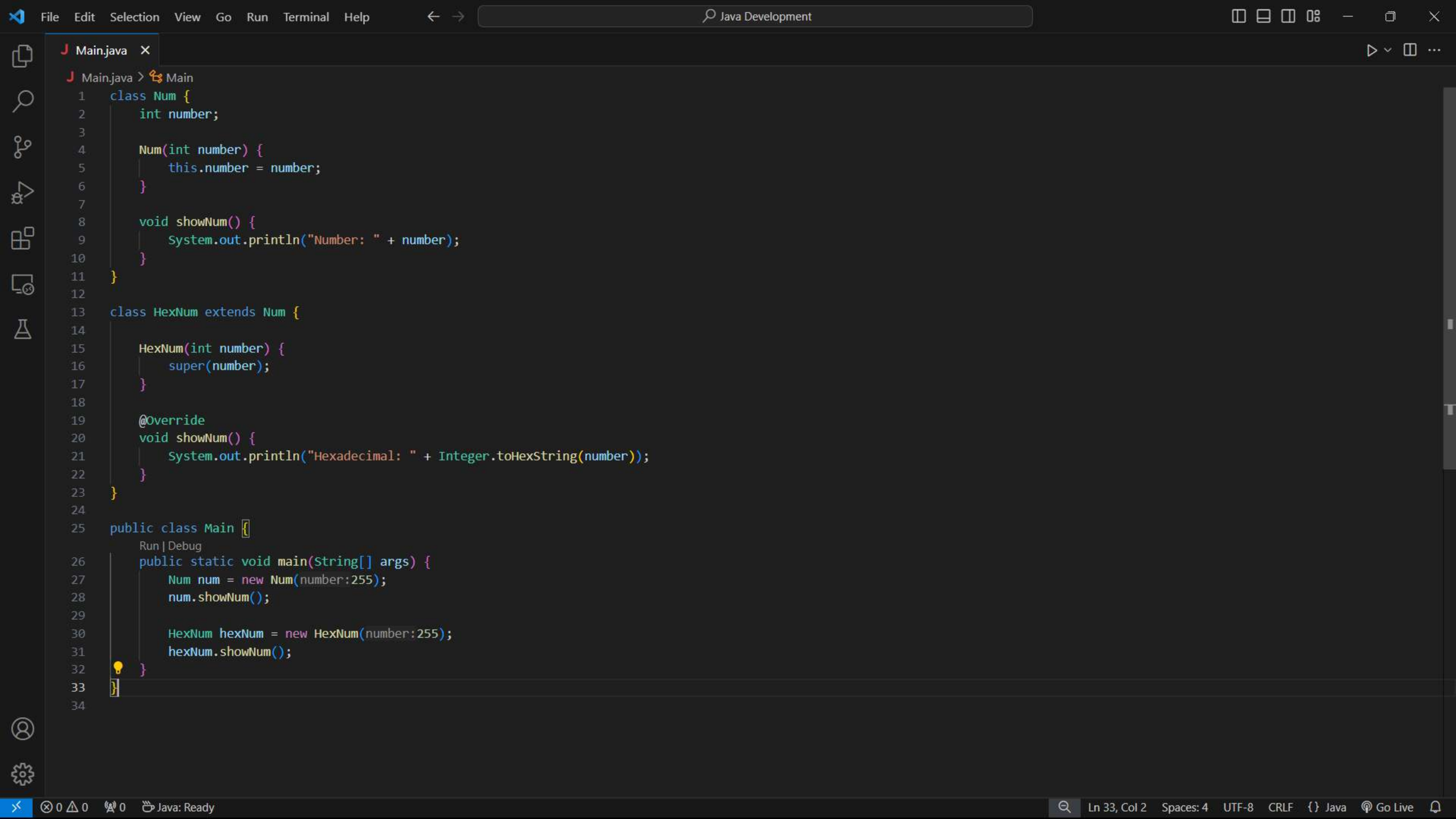
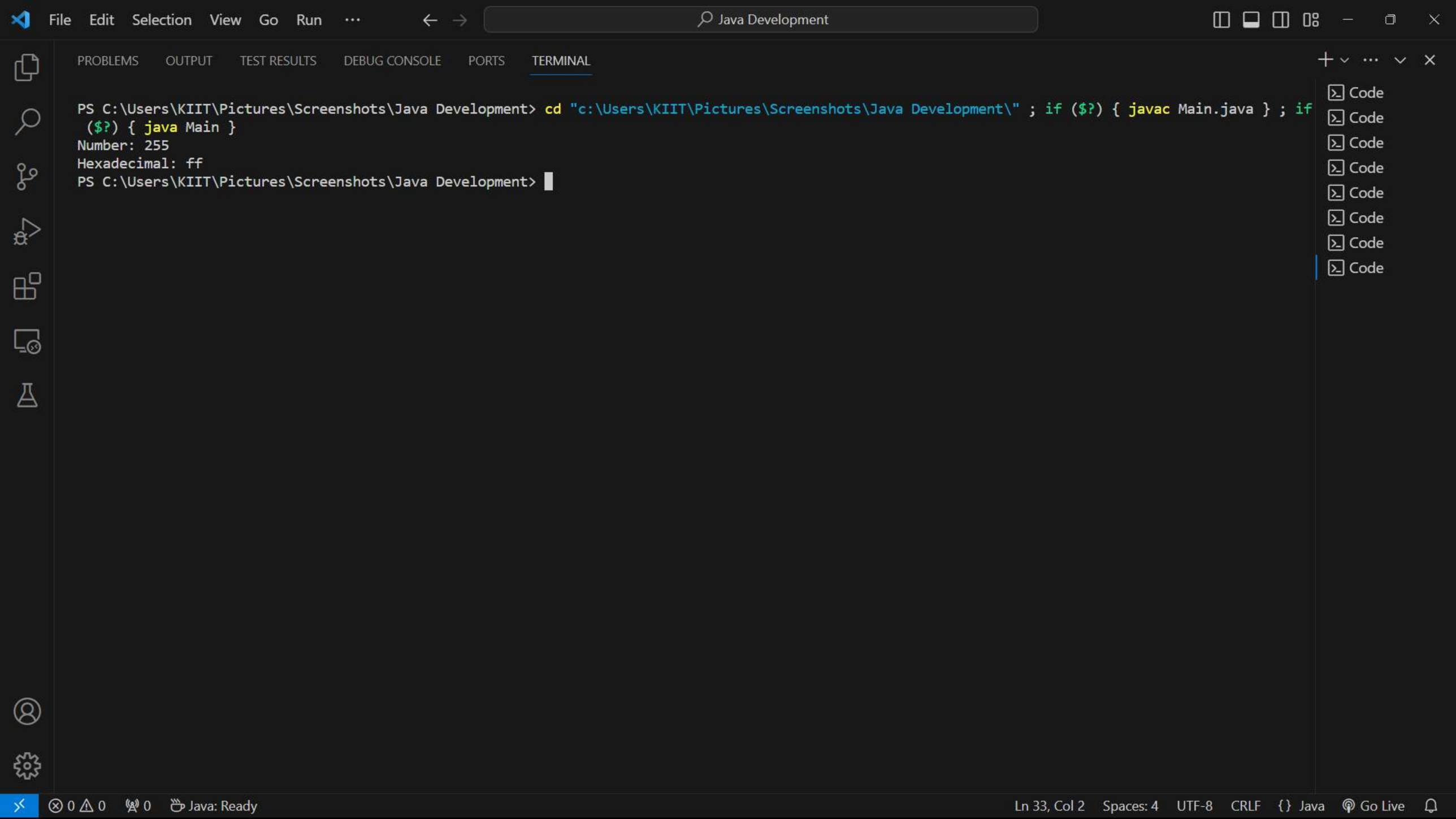
Code
0 0 0 Java: Ready
Ln 20, Col 18 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Main
class Num {
int number;
Num(int number) {
this.number = number;
}
void showNum() {
System.out.println("Number: " + number);
}
}
class HexNum extends Num {
HexNum(int number) {
super(number);
}
@Override
void showNum() {
System.out.println("Hexadecimal: " + Integer.toHexString(number));
}
}
public class Main {
Run | Debug
public static void main(String[] args) {
Num num = new Num(number:255);
num.showNum();
HexNum hexNum = new HexNum(number:255);
hexNum.showNum();
}
}
0 0 0 Java: Ready
Ln 33, Col 2 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ; if ($?) { java Main }
Number: 255
Hexadecimal: ff
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
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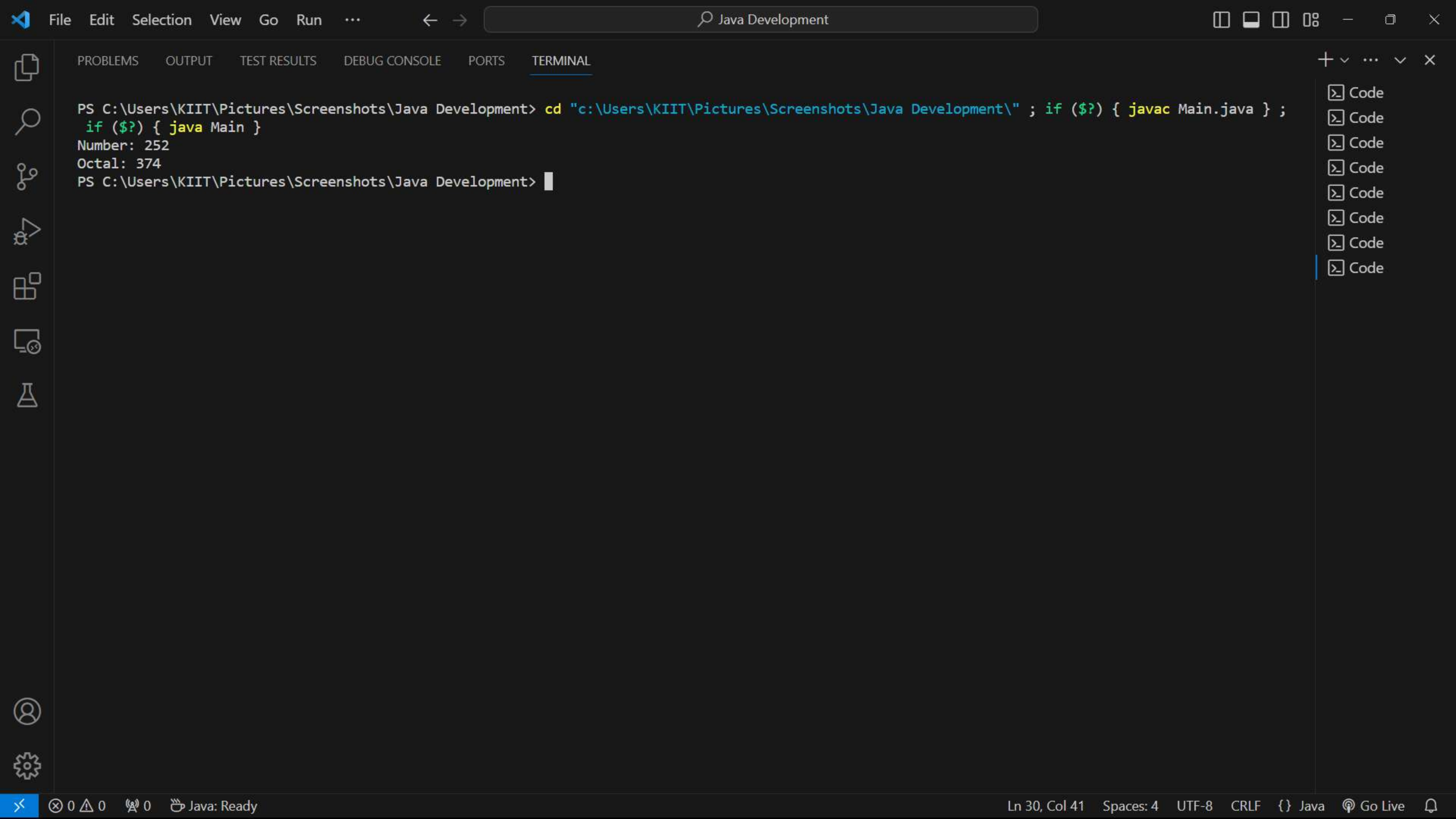
Code
Code
Code
0 0 0 Java: Ready
Ln 33, Col 2 Spaces: 4 UTF-8 CRLF {} Java Go Live


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ;
if ($?) { java Main }
Number: 252
Octal: 374
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Code
Code
Code
0 0 0 Java: Ready
Ln 30, Col 41 Spaces: 4 UTF-8 CRLF Java Go Live

File Edit Selection View Go Run Terminal Help

Java Development

Main.java

Main.java > HexNum > showNum()

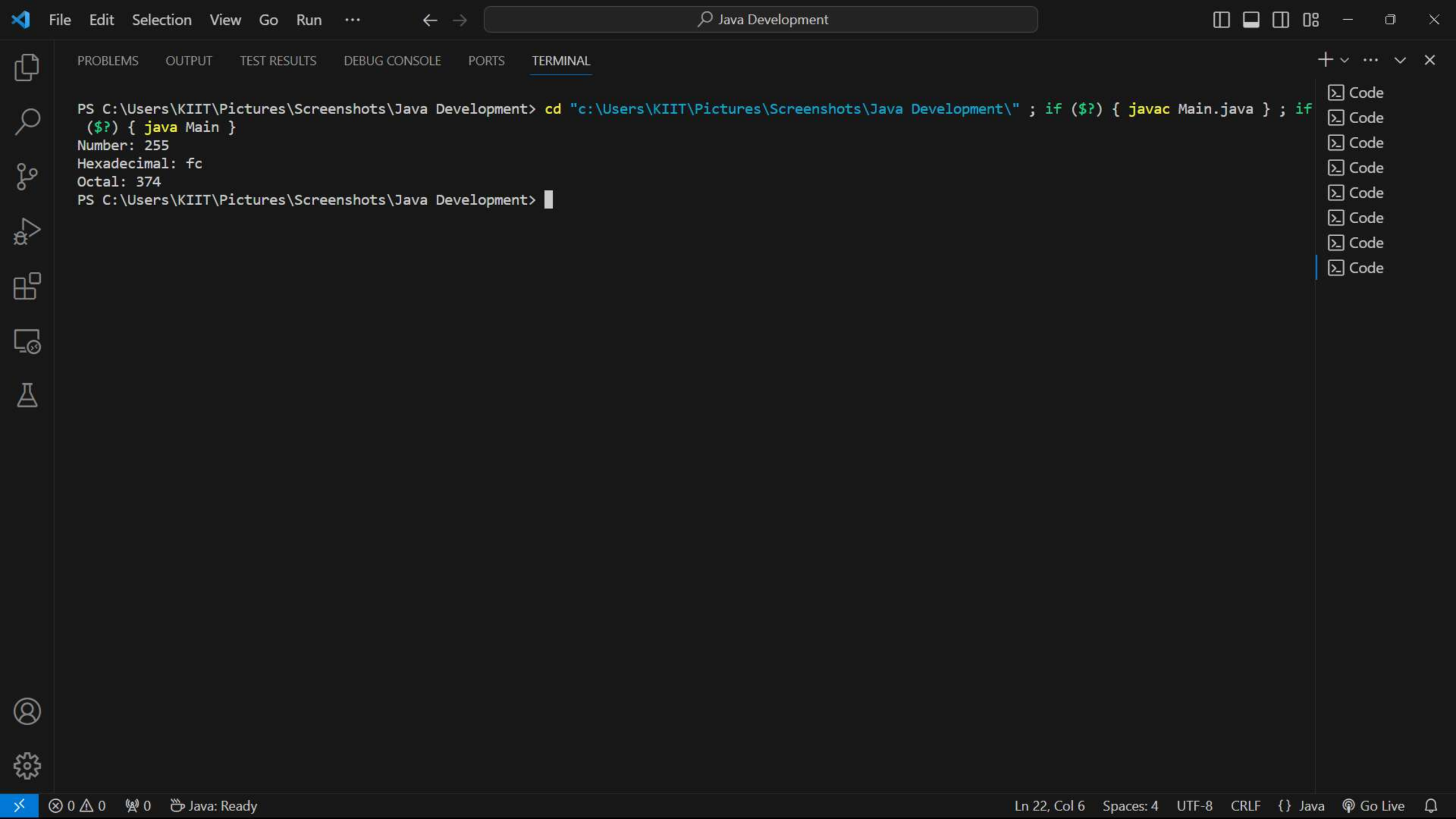
```java
class Num {
    int number;

    Num(int number) {
        this.number = number;
    }

    void showNum() {
        System.out.println("Number: " + number);
    }
}

class HexNum extends Num {

    HexNum(int number) {
        super(number);
    }

    @Override
    void showNum() {
        System.out.println("Hexadecimal: " + Integer.toHexString(number));
    }
}

class OctNum extends Num {

    OctNum(int number) {
        super(number);
    }

    @Override
    void showNum() {
        System.out.println("Octal: " + Integer.toOctalString(number));
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        Num num = new Num(number:255);
```

0 0 0 Java: Ready Ln 22, Col 6 Spaces: 4 UTF-8 CRLF {} Java Go Live

Main.java

Main.java > HexNum > showNum()

```
30
31      @Override
32      void showNum() {
33          System.out.println("Octal: " + Integer.toOctalString(number));
34      }
35  }
36
37  public class Main {
        Run | Debug
38      public static void main(String[] args) {
39          Num num = new Num(number:255);
40          num.showNum();
41
42          HexNum hexNum = new HexNum(number:252);
43          hexNum.showNum();
44
45          OctNum octNum = new OctNum(number:252);
46          octNum.showNum();
47      }
48  }
49
```


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ; if ($?) { java Main }
Number: 255
Hexadecimal: fc
Octal: 374
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
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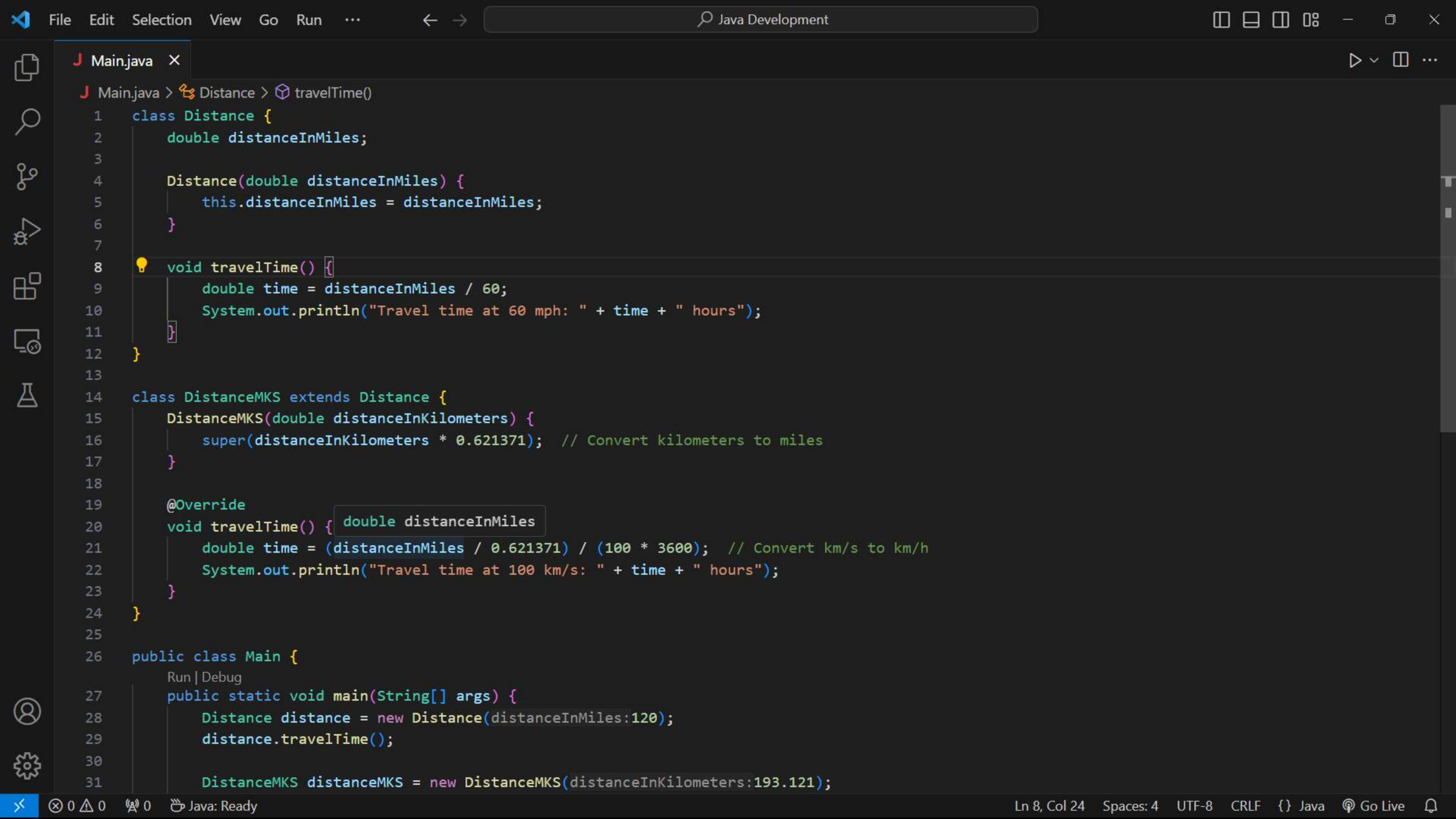
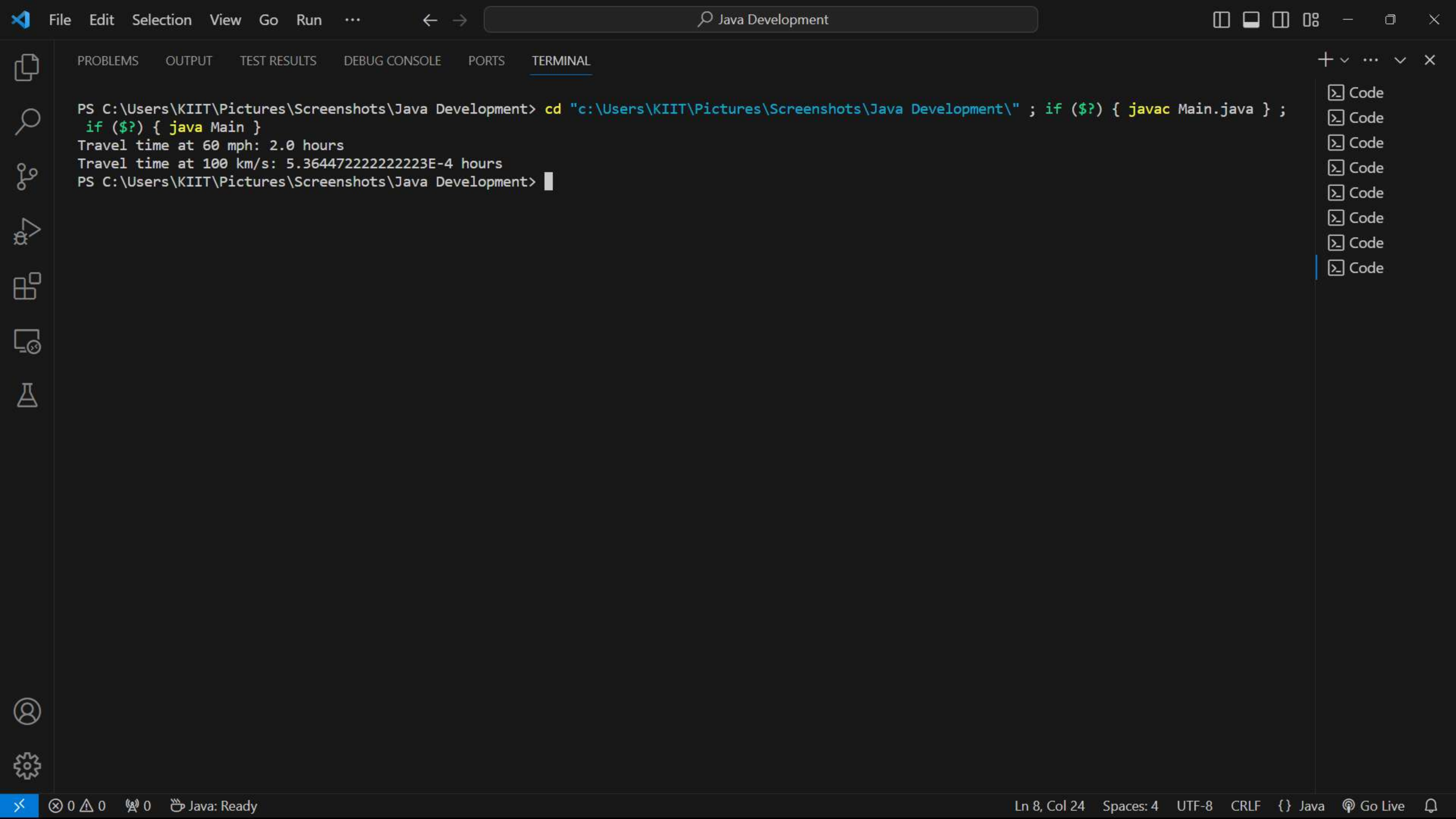
Code
Code
Code
Code
0 0 0 Java: Ready
Ln 22, Col 6 Spaces: 4 UTF-8 CRLF {} Java Go Live


File Edit Selection View Go Run ···
Java Development
Main.java
Main.java > Distance > travelTime()
class Distance {
double distanceInMiles;
Distance(double distanceInMiles) {
this.distanceInMiles = distanceInMiles;
}
void travelTime() {
double time = distanceInMiles / 60;
System.out.println("Travel time at 60 mph: " + time + " hours");
}
}
class DistanceMKS extends Distance {
DistanceMKS(double distanceInKilometers) {
super(distanceInKilometers * 0.621371); // Convert kilometers to miles
}
@Override
void travelTime() {
double distanceInMiles
double time = (distanceInMiles / 0.621371) / (100 * 3600); // Convert km/s to km/h
System.out.println("Travel time at 100 km/s: " + time + " hours");
}
}
public class Main {
Run | Debug
public static void main(String[] args) {
Distance distance = new Distance(distanceInMiles:120);
distance.travelTime();
DistanceMKS distanceMKS = new DistanceMKS(distanceInKilometers:193.121);
0 0 0 Java: Ready
Ln 8, Col 24 Spaces: 4 UTF-8 CRLF Java Go Live


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ;
if ($?) { java Main }
Travel time at 60 mph: 2.0 hours
Travel time at 100 km/s: 5.364472222222223E-4 hours
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
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Code
Code
Code
Code
0 0 0 Java: Ready
Ln 8, Col 24 Spaces: 4 UTF-8 CRLF Java Go Live

Main.java

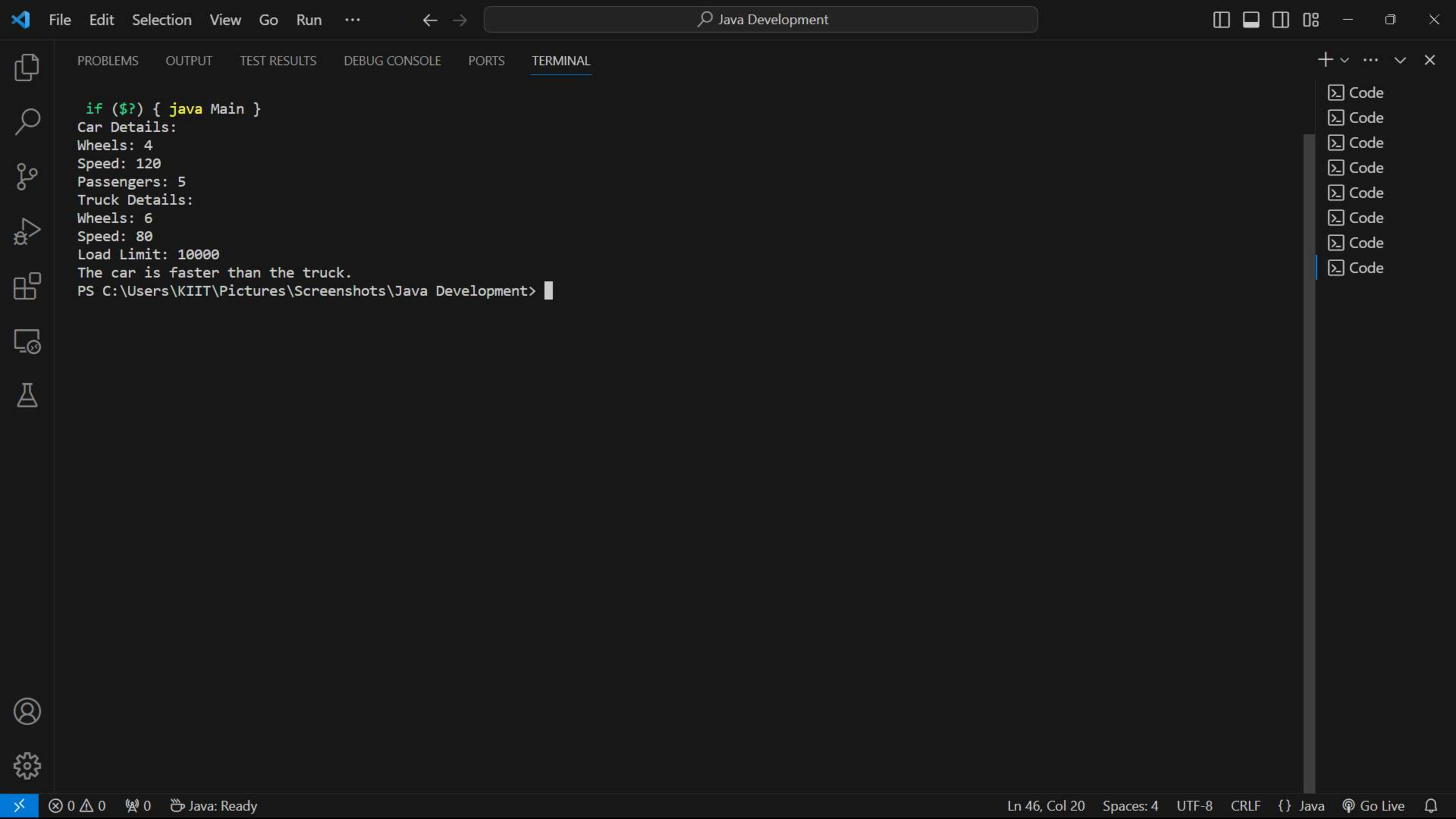
Main.java > Main

```java
class Vehicle {
    int wheels;
    int speed;

    Vehicle(int wheels, int speed) {
        this.wheels = wheels;
        this.speed = speed;
    }

    void showData() {
        System.out.println("Wheels: " + wheels);
        System.out.println("Speed: " + speed);
    }
}

class Car extends Vehicle {
    int passengers;

    Car(int wheels, int speed, int passengers) {
        super(wheels, speed);
        this.passengers = passengers;
    }

    @Override
    void showData() {
        super.showData();
        System.out.println("Passengers: " + passengers);
    }
}

class Truck extends Vehicle {
    int loadLimit;

    Truck(int wheels, int speed, int loadLimit) {
        super(wheels, speed);
        this.loadLimit = loadLimit;
    }

    @Override
```

Main.java

Main.java > Main

```
38
39      @Override
40      void showData() {
41          super.showData();
42          System.out.println("Load Limit: " + loadLimit);
43      }
44  }
45
46  public class Main {
        Run | Debug
47      public static void main(String[] args) {
48          Car car = new Car(wheels:4, speed:120, passengers:5);
49          Truck truck = new Truck(wheels:6, speed:80, loadLimit:10000);
50
51          System.out.println(x:"Car Details:");
52          car.showData();
53
54          System.out.println(x:"Truck Details:");
55          truck.showData();
56
57          if (car.speed > truck.speed) {
58              System.out.println(x:"The car is faster than the truck.");
59          } else if (truck.speed > car.speed) {
60              System.out.println(x:"The truck is faster than the car.");
61          } else {
62              System.out.println(x:"The car and the truck have the same speed.");
63          }
64      }
65  }
66
```


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
if ($?) { java Main }
Car Details:
Wheels: 4
Speed: 120
Passengers: 5
Truck Details:
Wheels: 6
Speed: 80
Load Limit: 10000
The car is faster than the truck.
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
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Code
0 0 0 Java: Ready
Ln 46, Col 20 Spaces: 4 UTF-8 CRLF { } Java Go Live

File Edit Selection View Go Run Terminal Help

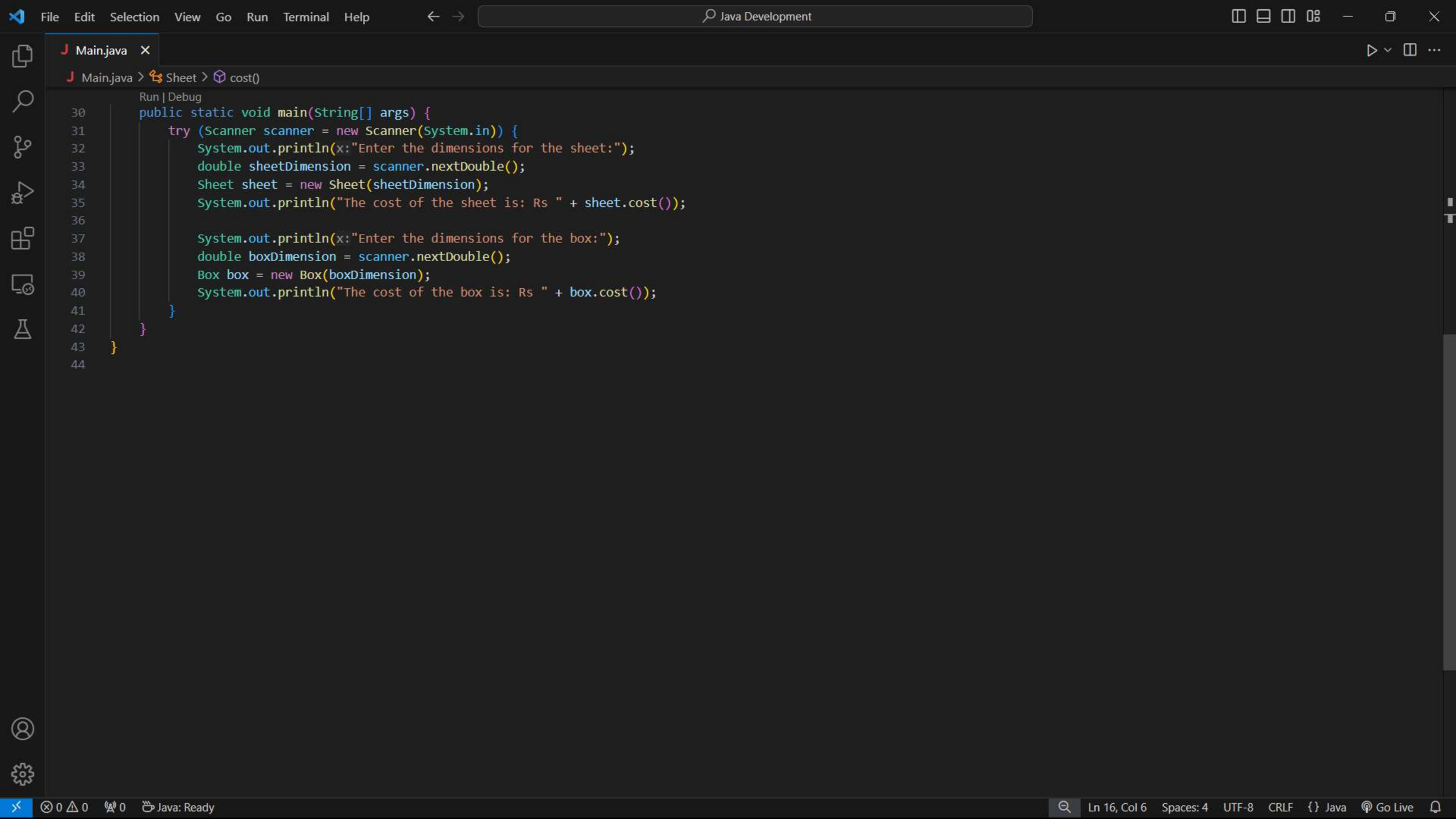
Java Development

Main.java

Main.java > Sheet > cost()

```java
import java.util.Scanner;

abstract class Plastic {
    double dimension;

    abstract double cost();
}

class Sheet extends Plastic {
    Sheet(double dimension) {
        this.dimension = dimension;
    }

    double cost() {
        return dimension * 40;
    }
}

class Box extends Sheet {
    Box(double dimension) {
        super(dimension);
    }

    double cost() {
        return dimension * 60;
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        try (Scanner scanner = new Scanner(System.in)) {
            System.out.println(x:"Enter the dimensions for the sheet:");
            double sheetDimension = scanner.nextDouble();
            Sheet sheet = new Sheet(sheetDimension);
            System.out.println("The cost of the sheet is: Rs " + sheet.cost());

            System.out.println(x:"Enter the dimensions for the box:");
            double boxDimension = scanner.nextDouble();
            Box box = new Box(boxDimension);
```

0 0 0 Java: Ready Ln 16, Col 6 Spaces: 4 UTF-8 CRLF Java Go Live


File Edit Selection View Go Run Terminal Help
Java Development
Main.java
Main.java > Sheet > cost()
Run | Debug
30 public static void main(String[] args) {
31 try (Scanner scanner = new Scanner(System.in)) {
32 System.out.println(x:"Enter the dimensions for the sheet:");
33 double sheetDimension = scanner.nextDouble();
34 Sheet sheet = new Sheet(sheetDimension);
35 System.out.println("The cost of the sheet is: Rs " + sheet.cost());
36
37 System.out.println(x:"Enter the dimensions for the box:");
38 double boxDimension = scanner.nextDouble();
39 Box box = new Box(boxDimension);
40 System.out.println("The cost of the box is: Rs " + box.cost());
41 }
42 }
43 }
44
0 0 0 Java: Ready
Ln 16, Col 6 Spaces: 4 UTF-8 CRLF { } Java Go Live

File Edit Selection View Go Run ··· Java Development

PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL

```
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ;
 if ($?) { java Main }
Enter the dimensions for the sheet:
10
The cost of the sheet is: Rs 400.0
Enter the dimensions for the box:
20
The cost of the box is: Rs 1200.0
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
```

Code
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Code

0 0 0 Java: Ready Ln 16, Col 6 Spaces: 4 UTF-8 CRLF { } Java Go Live

File Edit Selection View Go Run ··· Java Development

Main.java

Main.java > Box > Box(double, double, double)

```java
import java.util.Scanner;
class Plate {
    double length, width;

    Plate(double length, double width) {
        this.length = length;
        this.width = width;
    }

    void showDimensions() {
        System.out.println("Length: " + length + ", Width: " + width);
    }
}

class Box extends Plate {
    double height;

    Box(double length, double width, double height) {
        super(length, width);
        this.height = height;
    }

    @Override
    void showDimensions() {
        super.showDimensions();
        System.out.println("Height: " + height);
    }
}

class WoodBox extends Box {
    double thick;
```

Main.java

Main.java > Box > Box(double, double, double)

```java
class WoodBox extends Box {
    double thick;

    WoodBox(double length, double width, double height, double thick) {
        super(length, width, height);
        this.thick = thick;
    }

    @Override
    void showDimensions() {
        super.showDimensions();
        System.out.println("Thickness: " + thick);
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        try (Scanner scanner = new Scanner(System.in)) {
            System.out.println(x:"Enter the dimensions for the wood box (length, width, height, thickness):");
            double length = scanner.nextDouble();
            double width = scanner.nextDouble();
            double height = scanner.nextDouble();
            double thick = scanner.nextDouble();

            WoodBox woodBox = new WoodBox(length, width, height, thick);
            woodBox.showDimensions();
        }
    }
}
```

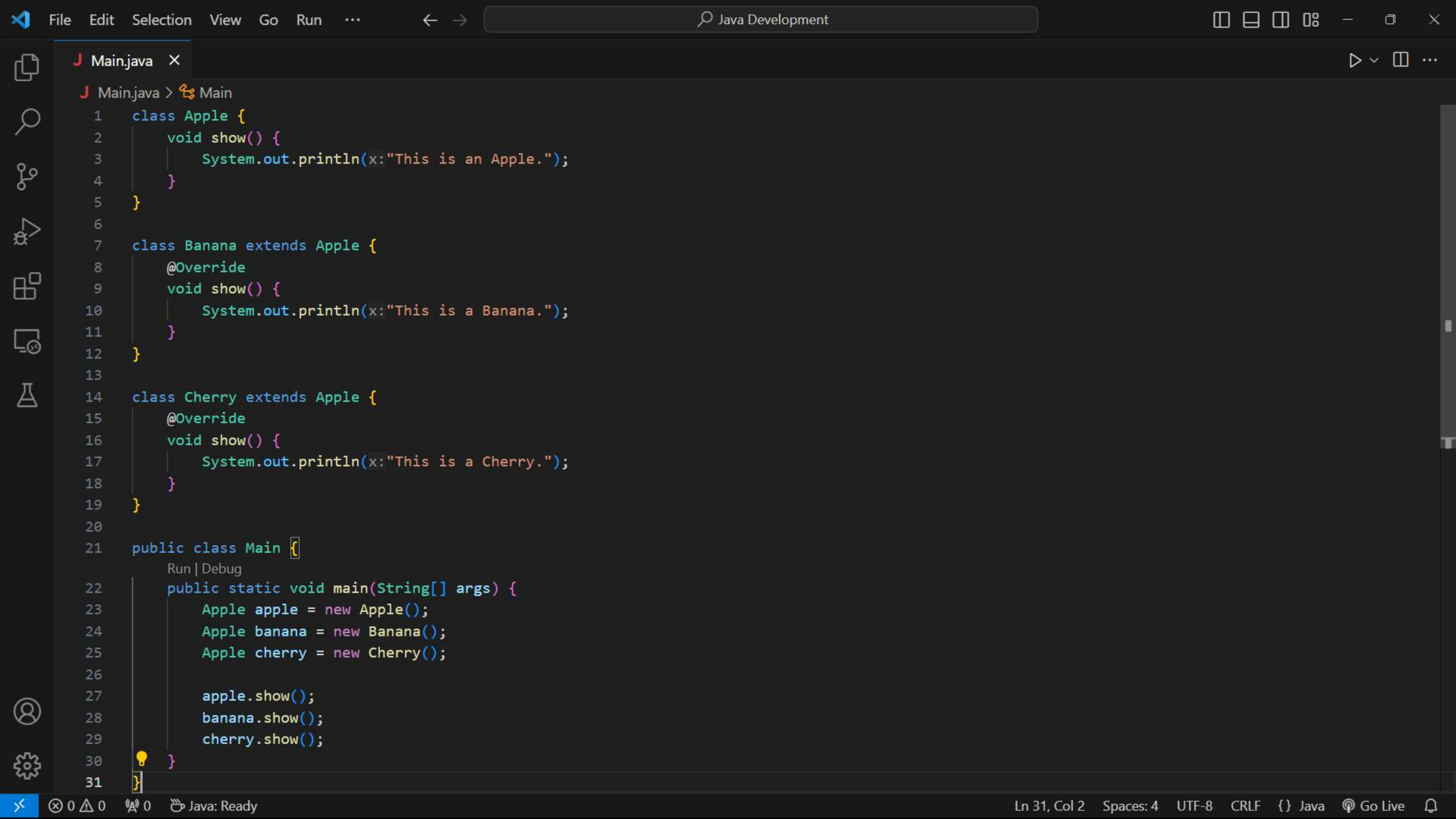
File Edit Selection View Go Run ··· Java Development

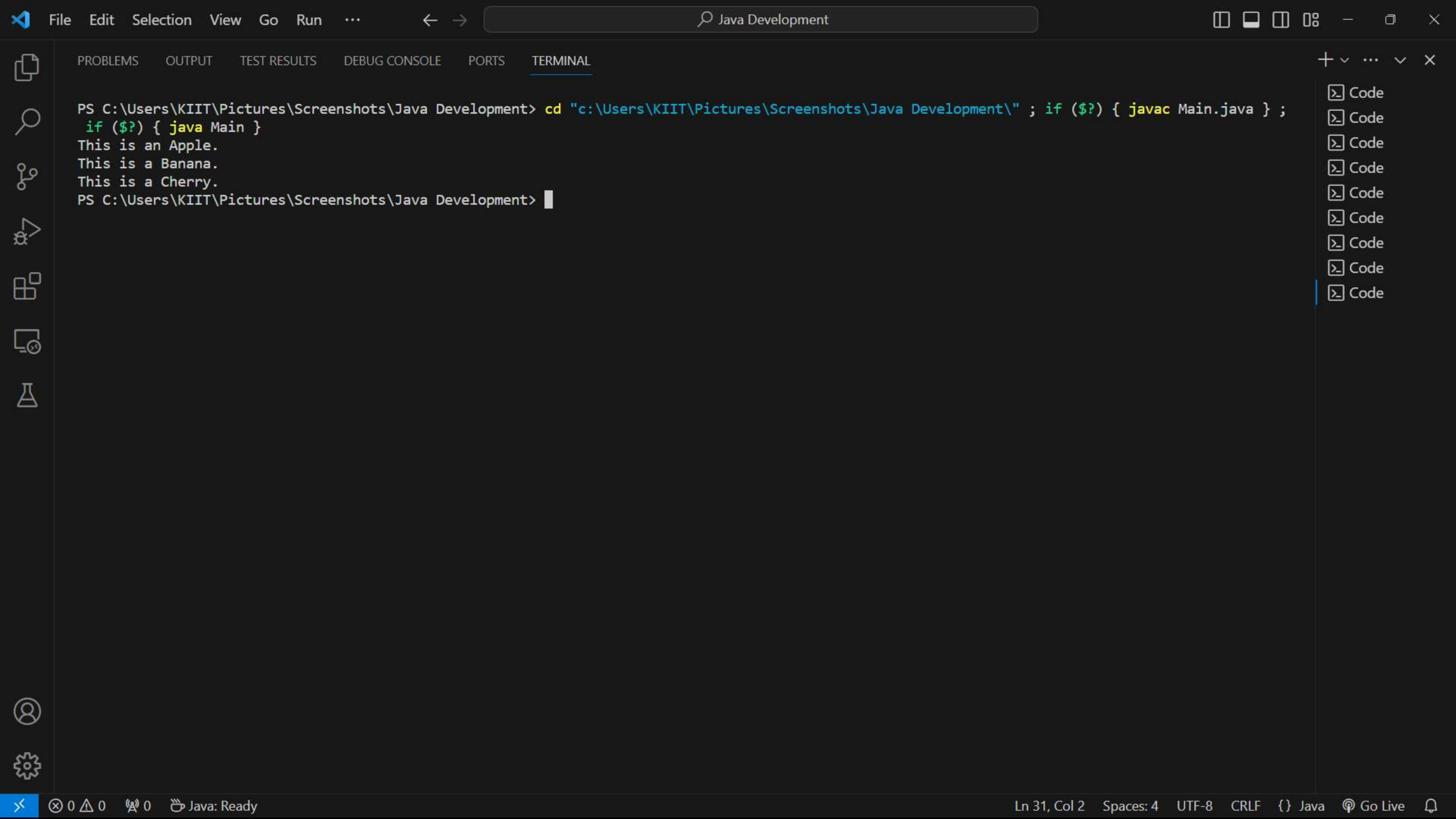
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL

```
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.j
ava } ; if ($?) { java Main }
Enter the dimensions for the wood box (length, width, height, thickness):
56
78
90
12
Length: 56.0, Width: 78.0
Height: 90.0
Thickness: 12.0
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
```

Code
Code
Code
Code
Code
Code
Code
Code
Code

0 0 0 Java: Ready Ln 18, Col 54 Spaces: 4 UTF-8 CRLF { } Java Go Live


File Edit Selection View Go Run ···
Java Development
Main.java
Main.java > Main
class Apple {
void show() {
System.out.println(x:"This is an Apple.");
}
}
class Banana extends Apple {
@Override
void show() {
System.out.println(x:"This is a Banana.");
}
}
class Cherry extends Apple {
@Override
void show() {
System.out.println(x:"This is a Cherry.");
}
}
public class Main {
Run | Debug
public static void main(String[] args) {
Apple apple = new Apple();
Apple banana = new Banana();
Apple cherry = new Cherry();
apple.show();
banana.show();
cherry.show();
}
}
0 0 0
Java: Ready
Ln 31, Col 2
Spaces: 4
UTF-8
CRLF
Java
Go Live


File Edit Selection View Go Run ···
Java Development
PROBLEMS OUTPUT TEST RESULTS DEBUG CONSOLE PORTS TERMINAL
PS C:\Users\KIIT\Pictures\Screenshots\Java Development> cd "c:\Users\KIIT\Pictures\Screenshots\Java Development\" ; if ($?) { javac Main.java } ;
if ($?) { java Main }
This is an Apple.
This is a Banana.
This is a Cherry.
PS C:\Users\KIIT\Pictures\Screenshots\Java Development>
Code
Code
Code
Code
Code
Code
Code
Code
Code
0 0 0 Java: Ready
Ln 31, Col 2 Spaces: 4 UTF-8 CRLF { } Java Go Live

File Edit Selection View Go Run Terminal Help

Java Development

Main.java

Main.java > Account

```java
import java.util.Scanner;

class Account {
    String acc_no;
    double balance;

    void input() {
        try (Scanner sc = new Scanner(System.in)) {
            System.out.println(x:"Enter account number: ");
            acc_no = sc.nextLine();
            System.out.println(x:"Enter balance: ");
            balance = sc.nextDouble();
        }
    }

    void disp() {
        System.out.println("Account Number: " + acc_no);
        System.out.println("Balance: " + balance);
    }
}

class Person extends Account {
    String name;
    String aadhar_no;

    @Override
    void input() {
        super.input();
        try (Scanner sc = new Scanner(System.in)) {
            System.out.println(x:"Enter name: ");
            name = sc.nextLine();
            System.out.println(x:"Enter Aadhar number: ");
            aadhar_no = sc.nextLine();
        }
    }

    @Override
    void disp() {
        super.disp();
```

0 0 0 Java: Ready Ln 15, Col 1 Spaces: 4 UTF-8 CRLF { } Java Go Live

```
    }

    @Override
    void disp() {
        super.disp();
        System.out.println("Name: " + name);
        System.out.println("Aadhar Number: " + aadhar_no);
    }
}

public class Main {
    Run | Debug
    public static void main(String[] args) {
        Person[] persons = new Person[3];
        for (int i = 0; i < 3; i++) {
            System.out.println("Enter details of person " + (i+1) + ":");
            persons[i] = new Person();
            persons[i].input();
        }
        System.out.println(x:"Displaying details of three persons:");
        for (Person person : persons) {
            person.disp();
        }
    }
}
```