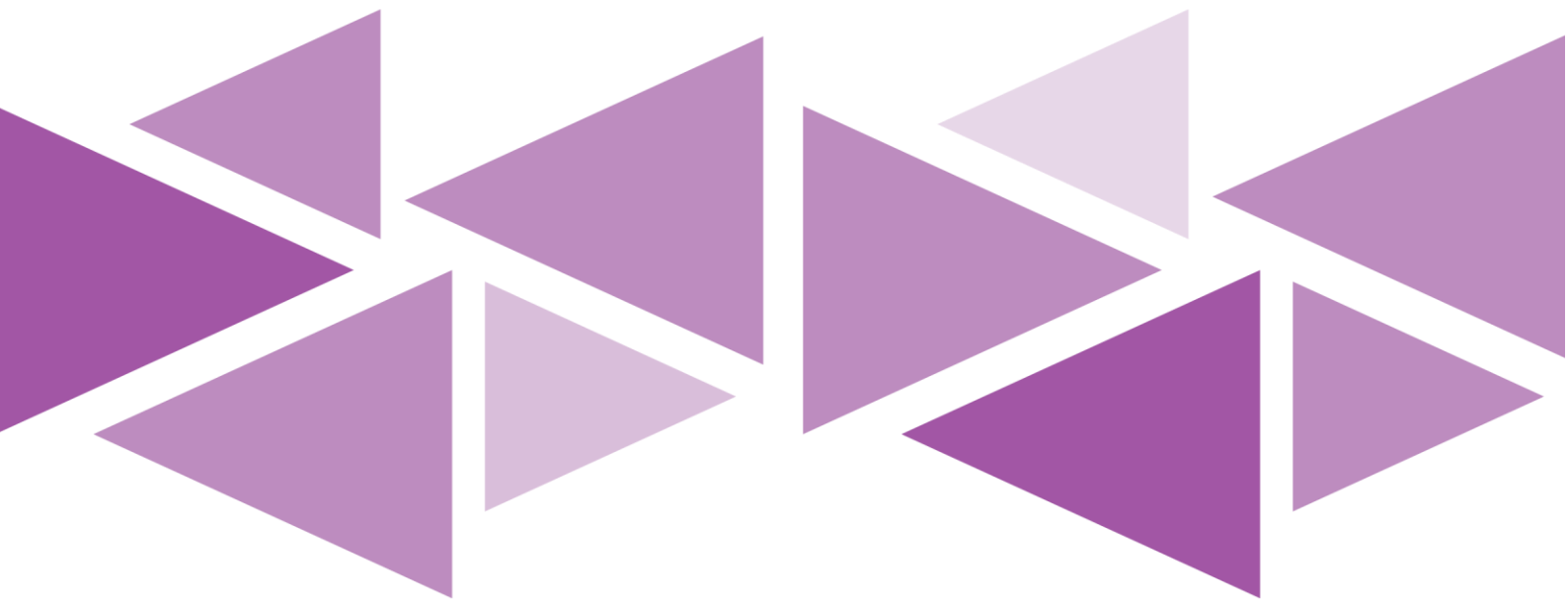
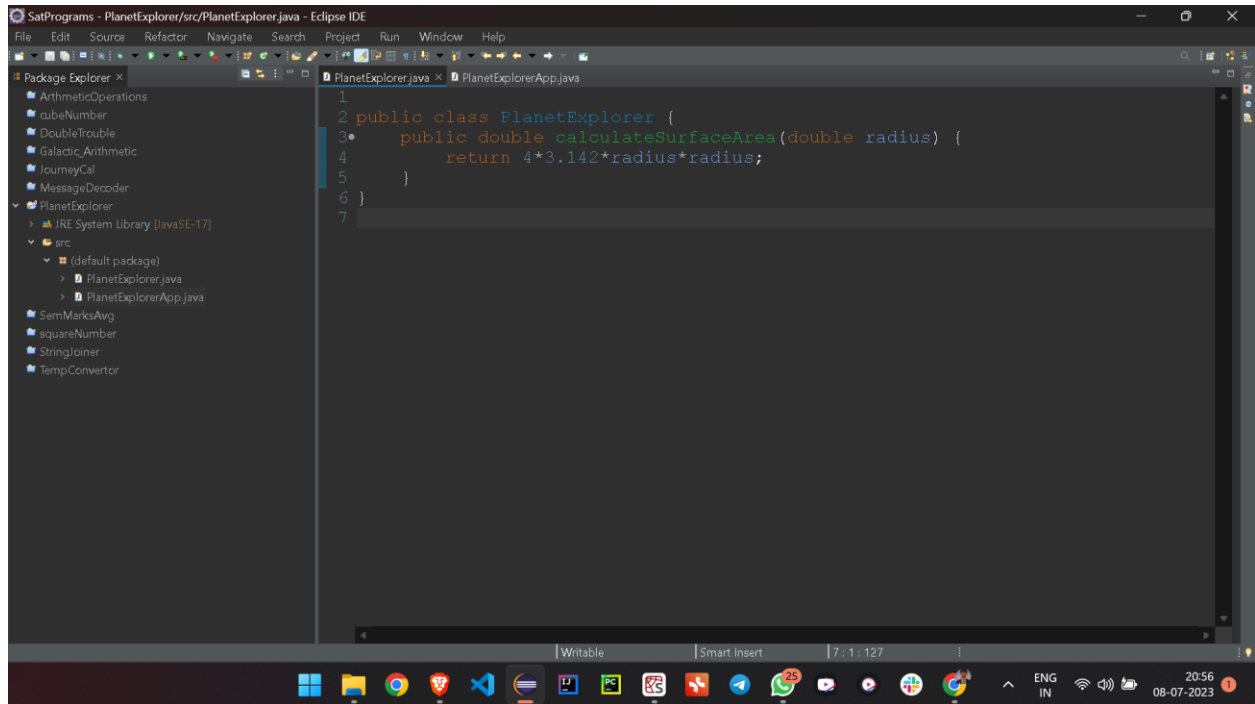


SATURDAY MARATHON ASSIGNMENT



**Submitted by
Harish Kumbhar**

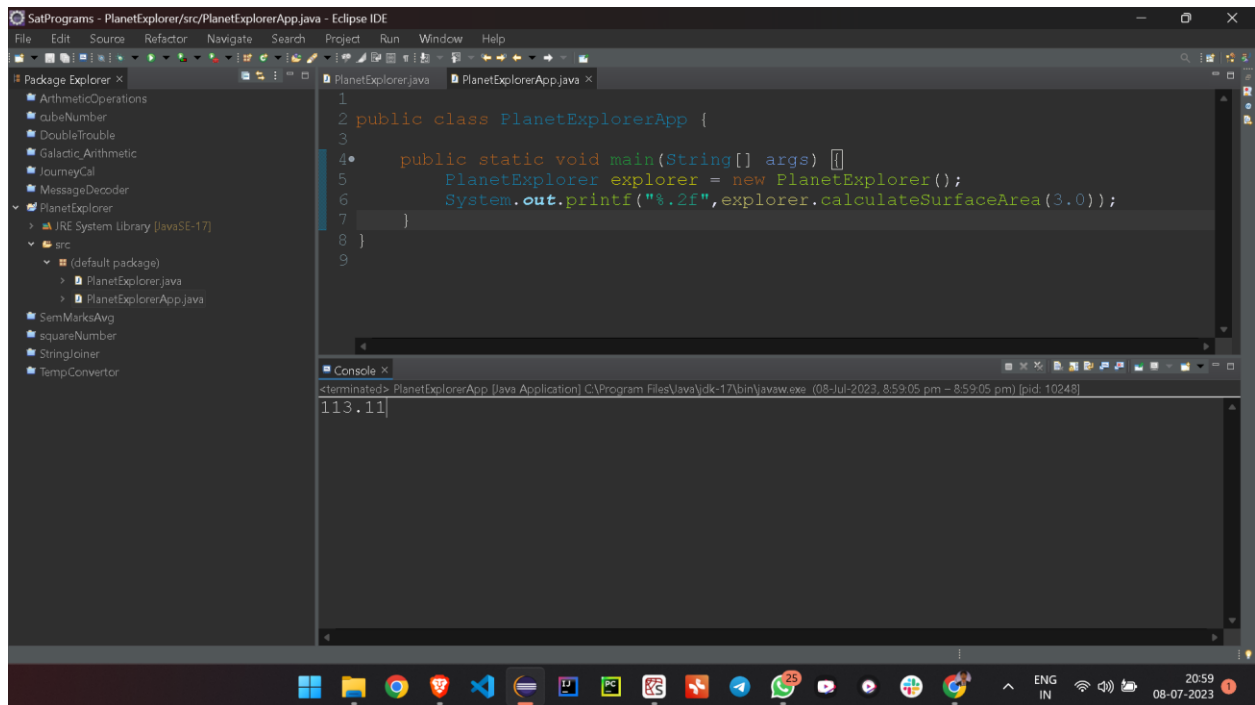
11. Problem: The Planet Explorer



The screenshot shows the Eclipse IDE with the file `PlanetExplorer.java` open. The Package Explorer on the left shows the project structure. The main editor displays the following code:

```
1
2 public class PlanetExplorer {
3     public double calculateSurfaceArea(double radius) {
4         return 4*3.142*radius*radius;
5     }
6 }
7
```

The status bar at the bottom indicates the file is writable and the cursor is at line 7, column 127. The system tray shows the date and time as 20:56 on 08-07-2023.



The screenshot shows the Eclipse IDE with the file `PlanetExplorerApp.java` open. The Package Explorer on the left shows the project structure. The main editor displays the following code:

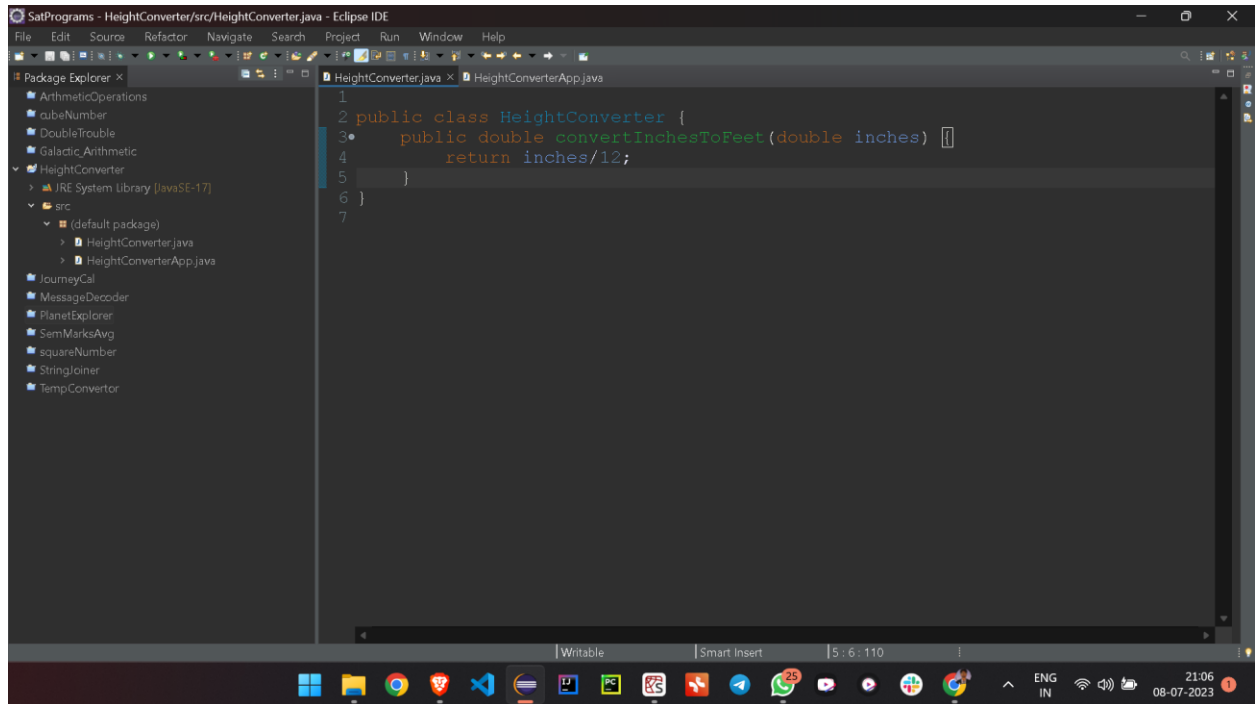
```
1
2 public class PlanetExplorerApp {
3
4     public static void main(String[] args) {
5         PlanetExplorer explorer = new PlanetExplorer();
6         System.out.printf("%.2f", explorer.calculateSurfaceArea(3.0));
7     }
8 }
9
```

The Console window at the bottom shows the output of the program:

```
<terminated> PlanetExplorerApp [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (08-Jul-2023, 8:59:05 pm - 8:59:05 pm) [pid: 10248]
113.11
```

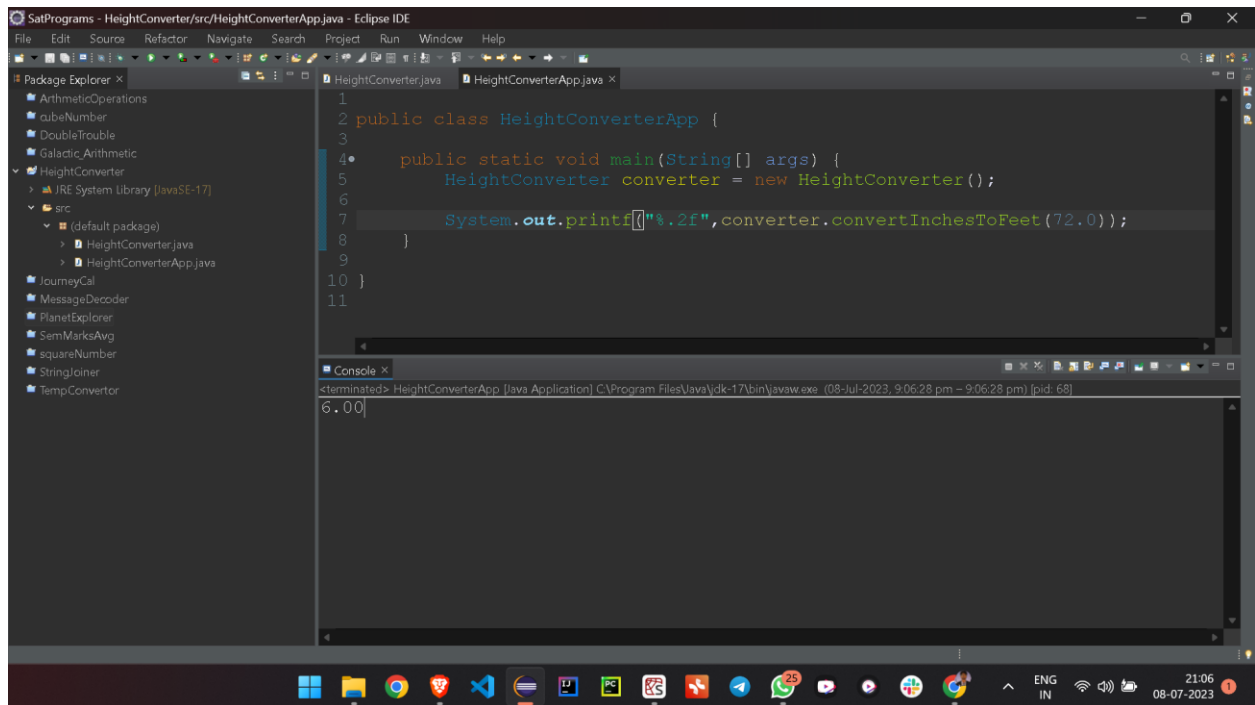
The status bar at the bottom indicates the file is writable and the cursor is at line 9, column 127. The system tray shows the date and time as 20:59 on 08-07-2023.

12. Problem: The Height Converter



The screenshot shows the Eclipse IDE with the file `HeightConverter.java` open. The Package Explorer on the left shows the project structure, including the `src` package and the `HeightConverter.java` file. The main editor displays the following code:

```
1
2 public class HeightConverter {
3     public double convertInchesToFeet(double inches) {
4         return inches/12;
5     }
6 }
7
```



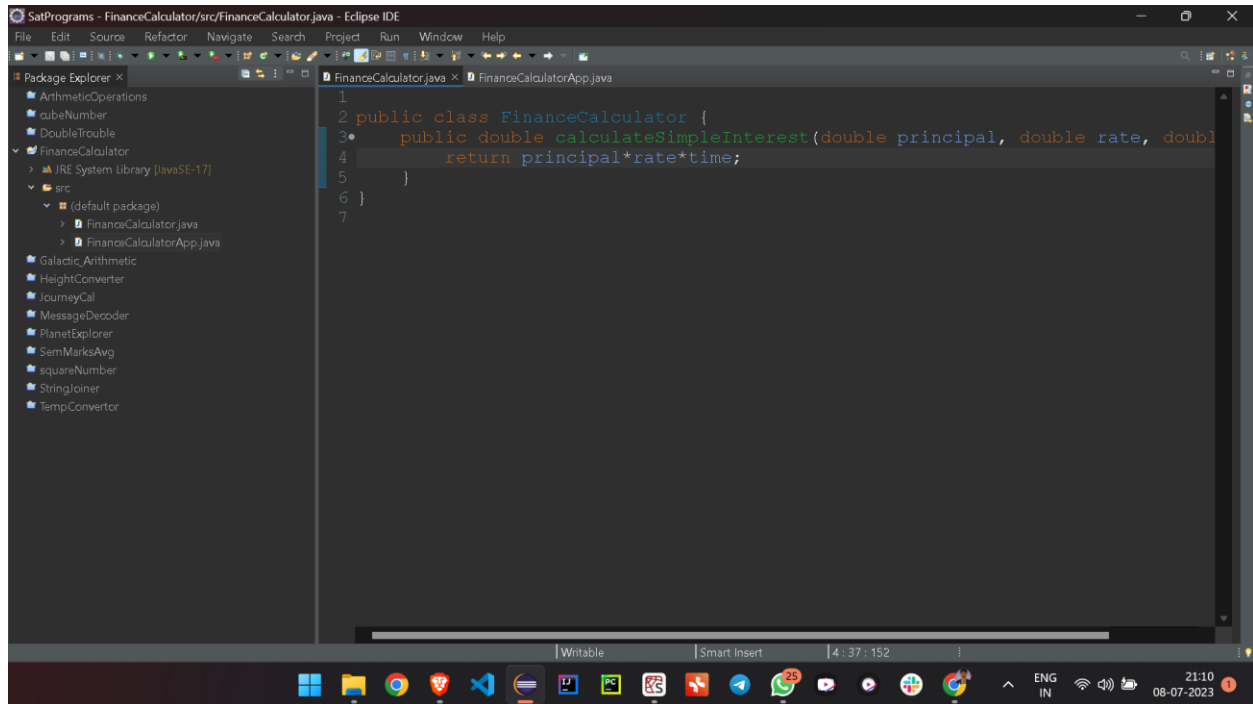
The screenshot shows the Eclipse IDE with the file `HeightConverterApp.java` open. The Package Explorer on the left shows the project structure, including the `src` package and the `HeightConverterApp.java` file. The main editor displays the following code:

```
1
2 public class HeightConverterApp {
3
4     public static void main(String[] args) {
5         HeightConverter converter = new HeightConverter();
6
7         System.out.printf("%.2f", converter.convertInchesToFeet(72.0));
8     }
9
10 }
11
```

The Console window at the bottom shows the output of the program:

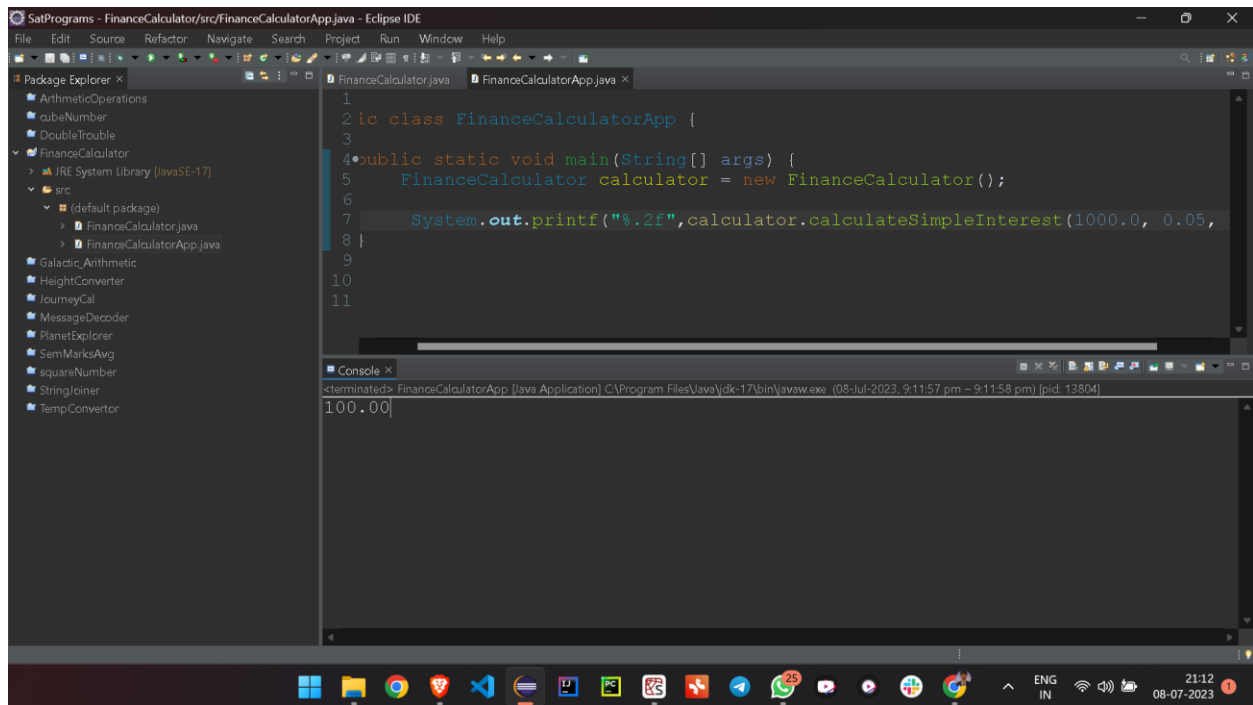
```
<terminated> HeightConverterApp [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (08-Jul-2023, 9:06:28 pm - 9:06:28 pm) [pid: 68]
6.00
```

13. Problem: The Finance Calculator



The screenshot shows the Eclipse IDE with the file `FinanceCalculator.java` open. The Package Explorer on the left shows the project structure, including the `src` package and the `FinanceCalculatorApp.java` file. The main editor displays the following Java code:

```
1
2 public class FinanceCalculator {
3     public double calculateSimpleInterest(double principal, double rate, double time) {
4         return principal*rate*time;
5     }
6 }
7
```



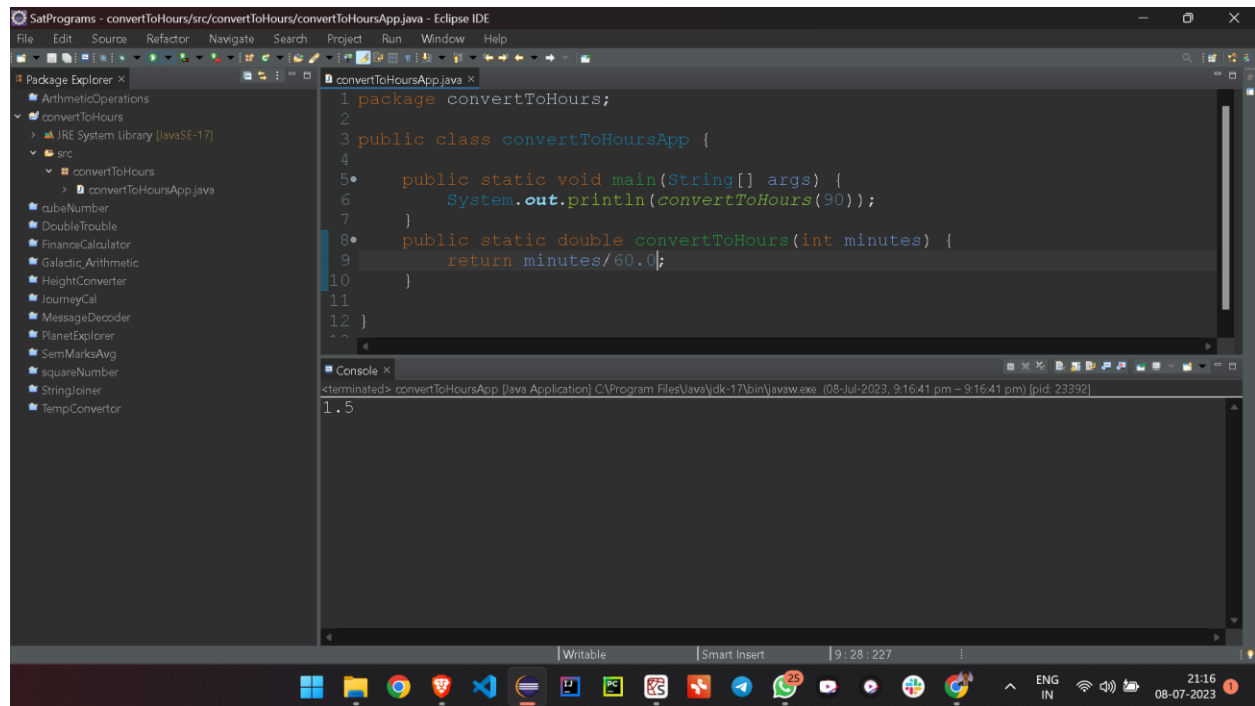
The screenshot shows the Eclipse IDE with the file `FinanceCalculatorApp.java` open. The Package Explorer on the left shows the project structure, including the `src` package and the `FinanceCalculatorApp.java` file. The main editor displays the following Java code:

```
1
2 public class FinanceCalculatorApp {
3
4     public static void main(String[] args) {
5         FinanceCalculator calculator = new FinanceCalculator();
6
7         System.out.printf("%.2f", calculator.calculateSimpleInterest(1000.0, 0.05, 2));
8     }
9 }
10
11
```

The Console window at the bottom shows the output of the program:

```
<terminated> FinanceCalculatorApp [Java Application] C:\Program Files\Java\jdk-17\bin\java.exe (08-Jul-2023, 9:11:57 pm - 9:11:58 pm) [pid: 13804]
100.00
```

14. Problem: Time Converter

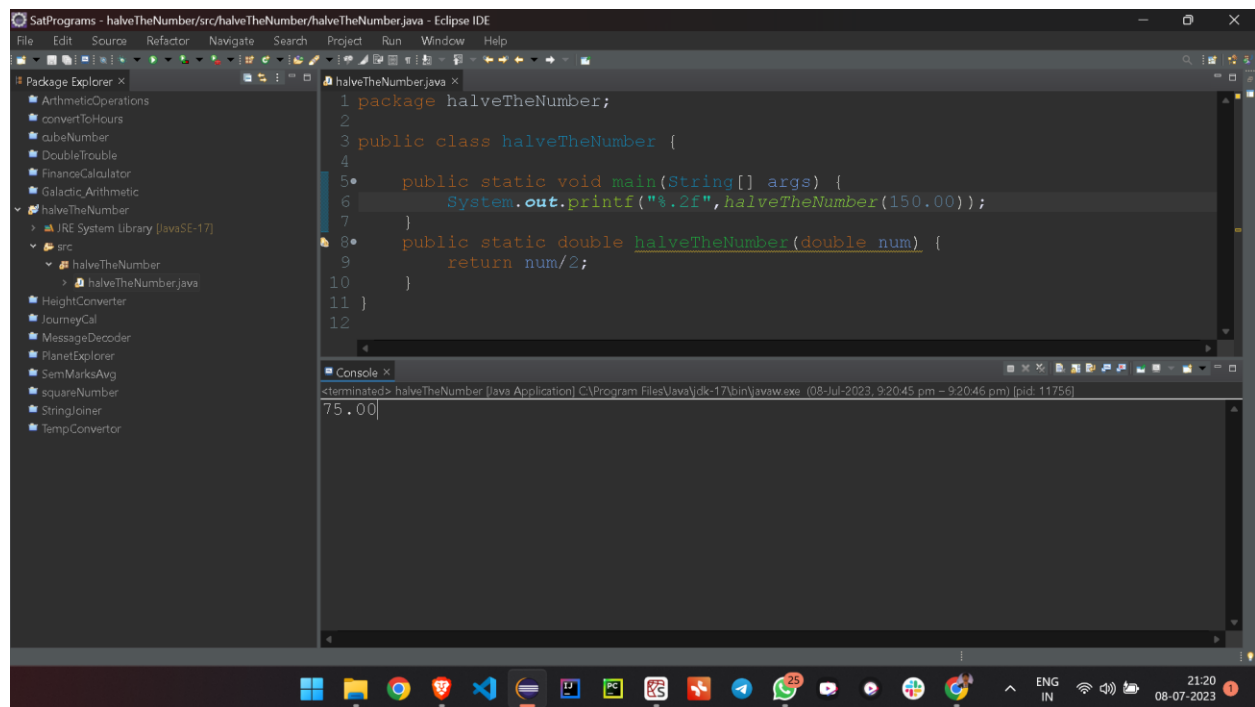


The screenshot shows the Eclipse IDE with a project named 'convertToHours'. The Package Explorer on the left shows the project structure. The main editor displays the source code for 'convertToHoursApp.java'. The code defines a package 'convertToHours', a public class 'convertToHoursApp', and a static method 'convertToHours' that takes an integer 'minutes' and returns a double 'minutes/60.0'. The 'main' method calls 'convertToHours(90)'. The Console window at the bottom shows the output '1.5'.

```
1 package convertToHours;
2
3 public class convertToHoursApp {
4
5     public static void main(String[] args) {
6         System.out.println(convertToHours(90));
7     }
8     public static double convertToHours(int minutes) {
9         return minutes/60.0;
10    }
11 }
12 }
```

Console Output: 1.5

15. Problem: Halve It



The screenshot shows the Eclipse IDE with a project named 'halveTheNumber'. The Package Explorer on the left shows the project structure. The main editor displays the source code for 'halveTheNumber.java'. The code defines a package 'halveTheNumber', a public class 'halveTheNumber', and a static method 'halveTheNumber' that takes a double 'num' and returns 'num/2'. The 'main' method calls 'halveTheNumber(150.00)'. The Console window at the bottom shows the output '75.00'.

```
1 package halveTheNumber;
2
3 public class halveTheNumber {
4
5     public static void main(String[] args) {
6         System.out.printf("%.2f", halveTheNumber(150.00));
7     }
8     public static double halveTheNumber(double num) {
9         return num/2;
10    }
11 }
12 }
```

Console Output: 75.00