

1.The average of first 10 even numbers is?

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows a project structure with folders for Assignment\_1, Assignment\_3, and Assignment\_3\_2. Inside Assignment\_3\_2, there is a file named que\_1.java.
- Editor:** Displays the Java code for que\_1.java. The code uses a Scanner to read input from the user and calculates the sum and average of the first 10 even numbers.
- Terminal:** Shows the command "Run: que\_1" selected in the terminal dropdown.
- Bottom Status Bar:** Provides system information including weather (26°C Mostly cloudy), date (18-09-2023), and time (10:54).

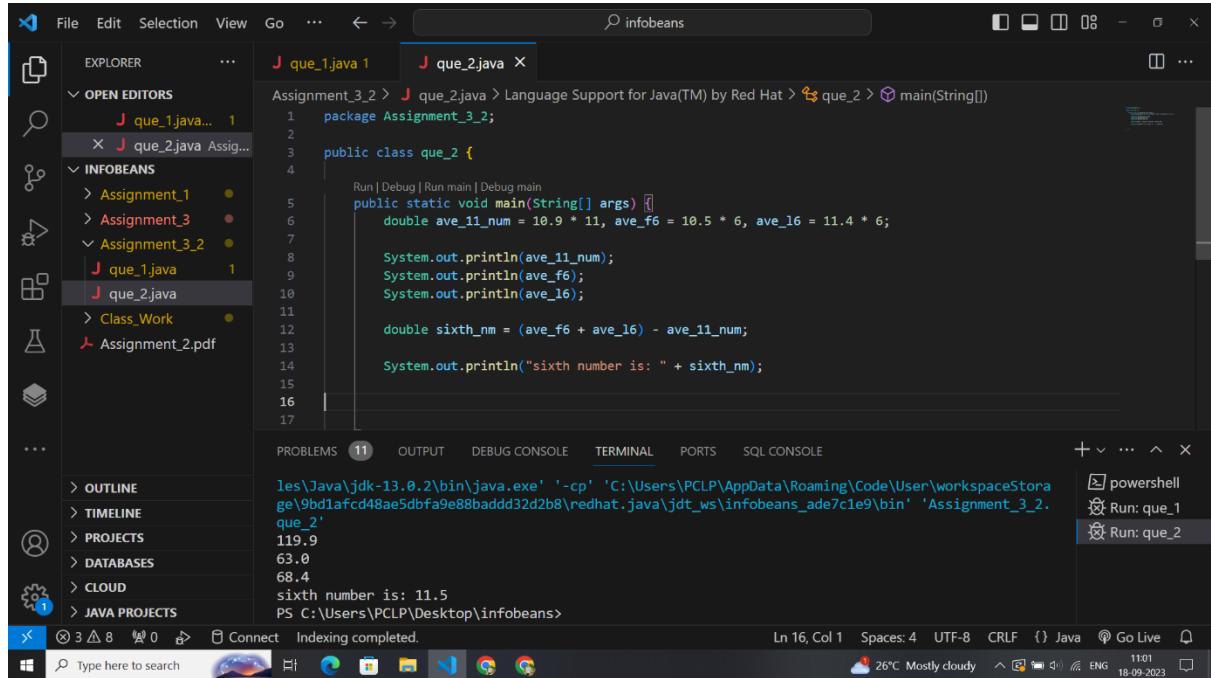
```
Assignment_3_2 > J que_1.java > Language Support for Java(TM) by Red Hat > que_1 > main(String[])
  scanner sc = new Scanner(System.in);
  int ave = 0;
  System.out.println("Enter the Number");
  int sum = 0;
  int a = sc.nextInt();
  for (int i = 0; i <= a; i = i + 2) {
    sum = sum + i;
    ave = sum / (a);
    System.out.println(i);
  }
  System.out.println(sum);
  System.out.println(ave);
```

The screenshot shows the Visual Studio Code interface with the following details:

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- Editor:** Displays the Java code for que\_1.java. The code uses a Scanner to read input from the user and calculates the sum and average of the first 10 even numbers.
- Terminal:** Shows the command "Run: que\_1" selected in the terminal dropdown.
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```
Assignment_3_2 > J que_1.java > Language Support for Java(TM) by Red Hat > que_1 > main(String[])
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  int ave = 0;
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  int sum = 0;
  int a = sc.nextInt();
  for (int i = 0; i <= a; i = i + 2) {
    sum = sum + i;
    ave = sum / (a);
    System.out.println(i);
  }
  System.out.println(sum);
  System.out.println(ave);
```

2.The average of 11 numbers is 10.9. If the average of first six is 10.5 and that of the last six is 11.4 the sixth number is?

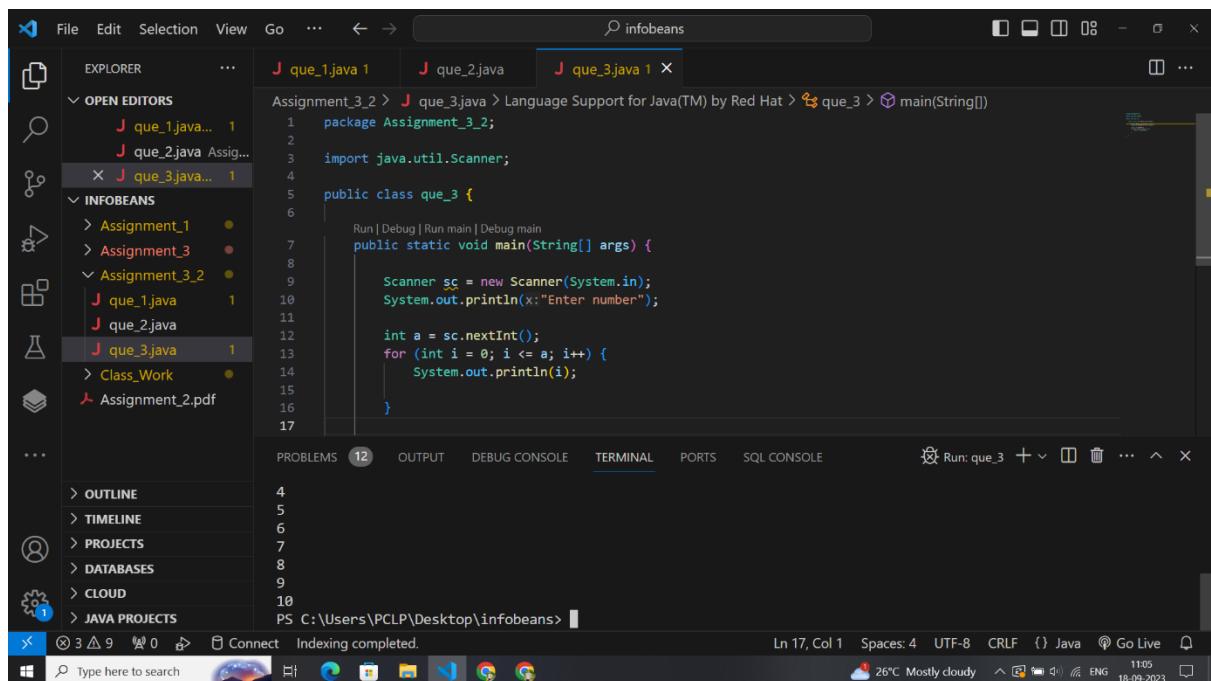


The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, ...
- Title Bar:** infobeans
- Left Sidebar (OPEN EDITORS):** que\_1.java, que\_2.java (selected), que\_3.java, Assignment\_1, Assignment\_3, Assignment\_3\_2, Class\_Work, Assignment\_2.pdf.
- Central Editor:** que\_2.java (containing Java code to calculate averages and the sixth number).
- Bottom Status Bar:** Indexing completed.
- Bottom Taskbar:** Type here to search, followed by various icons.
- Bottom Right:** Weather (26°C Mostly cloudy), Date (18-09-2023), and Time (11:01).

```
Assignment_3_2 > J que_2.java > Language Support for Java(TM) by Red Hat > que_2 > main(String[])
1 package Assignment_3_2;
2
3 public class que_2 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7         double ave_11_num = 10.9 * 11, ave_f6 = 10.5 * 6, ave_16 = 11.4 * 6;
8
9         System.out.println(ave_11_num);
10        System.out.println(ave_f6);
11        System.out.println(ave_16);
12
13        double sixth_nm = (ave_f6 + ave_16) - ave_11_num;
14
15        System.out.println("sixth number is: " + sixth_nm);
16
17    }
}
PROBLEMS 11 OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE
les\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bdd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Assignment_3_2.
que_2'
119.9
63.0
68.4
sixth number is: 11.5
PS C:\Users\PCLP\Desktop\infobeans>
Ln 16, Col 1 Spaces: 4 UTF-8 CRLF {} Java ⚡ Go Live 🔍
26°C Mostly cloudy 11:01 ENG 18-09-2023
```

3.The average of first 10 natural numbers is?



The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, ...
- Title Bar:** infobeans
- Left Sidebar (OPEN EDITORS):** que\_1.java, que\_2.java, que\_3.java (selected), Assignment\_1, Assignment\_3, Assignment\_3\_2, Class\_Work, Assignment\_2.pdf.
- Central Editor:** que\_3.java (containing Java code to read 10 numbers and calculate their average).
- Bottom Status Bar:** Indexing completed.
- Bottom Taskbar:** Type here to search, followed by various icons.
- Bottom Right:** Weather (26°C Mostly cloudy), Date (18-09-2023), and Time (11:05).

```
Assignment_3_2 > J que_3.java > Language Support for Java(TM) by Red Hat > que_3 > main(String[])
1 package Assignment_3_2;
2
3 import java.util.Scanner;
4
5 public class que_3 {
6
7     Run | Debug | Run main | Debug main
8     public static void main(String[] args) {
9
10        Scanner sc = new Scanner(System.in);
11        System.out.println("Enter number");
12
13        int a = sc.nextInt();
14        for (int i = 0; i <= a; i++) {
15            System.out.println(i);
16        }
17    }
}
PROBLEMS 12 OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE
4
5
6
7
8
9
10
PS C:\Users\PCLP\Desktop\infobeans>
Ln 17, Col 1 Spaces: 4 UTF-8 CRLF {} Java ⚡ Go Live 🔍
26°C Mostly cloudy 11:05 ENG 18-09-2023
```

4. Ratio between two numbers is 3: 4 and their sum is 420. Find the smaller number?

The screenshot shows the Visual Studio Code (VS Code) interface. The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, OUTLINE, TIMELINE, PROJECTS, DATABASES, CLOUD, and JAVA PROJECTS. The OPEN EDITORS section lists four Java files: que\_1.java, que\_2.java, que\_3.java, and que\_4.java. The que\_4.java file is currently open in the main editor area. The code for que\_4.java is as follows:

```
Assignment_3_2 > J que_4.java > Language Support for Java(TM) by Red Hat > que_4
1 package Assignment_3_2;
2
3 public class que_4 {
4
5     public static void main(String[] args) {
6
7         int a = 3, b = 4, sum = 420;
8         int c = a + b;
9
10        int ave = sum / c;
11        int d = ave * 3;
12
13        System.out.println(d);
14    }
15
16
17 }
```

The bottom status bar indicates "Indexing completed." and shows file navigation icons. The bottom right corner displays the date and time as "18-09-2023 11:12".

5. Sum of two numbers is 15. Two times of the first exceeds by 5 from the three times of the other. Then the numbers will be?

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, ...
- Search Bar:** infobeans
- Left Sidebar (OPEN EDITORS):** EXPLORER, J que\_1.java 1, J que\_2.java, J que\_3.java 1, J que\_4.java, J que\_5.java 2 (highlighted).
- Left Sidebar (INFOBEANS):** Assignment\_1, Assignment\_3, Assignment\_3\_2 (highlighted), J que\_1.java 1, J que\_2.java, J que\_3.java 1, J que\_4.java, J que\_5.java 2 (highlighted).
- Code Editor:** Assignment\_3\_2 > J que\_5.java > Language Support for Java(TM) by Red Hat > que\_5 > main(String[])
- Code Content:**

```
public static void main(String[] args) {
    int x = 10, y = 5;
    int z = x+y;
    z = 15;
    // int a = (2 * x - 3 * y);
    // int b = a-5;

    y = z - x;
    int a = 2 * x - 3 * (y);
    int b = a - 5;
    System.out.println(b);
```
- Bottom Bar:** PROBLEMS (14), OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, SQL CONSOLE, Run: que\_5.
- Terminal Output:**

```
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' -cp 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Assignment_3_2 que_5'
PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' -cp 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Assignment_3_2 que_5'
0
PS C:\Users\PCLP\Desktop\infobeans>
```
- Bottom Status Bar:** Ln 17, Col 1 (2 selected), Spaces: 4, UTF-8, CRLF, {} Java, Go Live, High UV, ENG, 1532, 18-09-2023.

6. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is:

The screenshot shows the Eclipse IDE interface. The left sidebar (Explorer) lists several Java files: que\_1.java... 1, que\_2.java Assign..., que\_3.java... 1, que\_4.java Assign..., que\_5.java... 2, que\_6.java (selected), Class\_Work, and Assignment\_2.pdf. The central editor pane displays the following Java code for que\_6.java:

```
Assignment_3_2 > J que_6.java > Language Support for Java(TM) by Red Hat > que_6 > main(String[])
1 package Assignment_3_2;
2
3 public class que_6 {
4
5     public static void main(String[] args) {
6
7         double lengthOfTrain = 130;
8         double time = 30;
9         double speedOfTrain = 12.5;
10
11        // speed = distance/time
12        // 45km/hr = 45*1000/3600 to change m/s = 12.5
13        double length_bridge = (speedOfTrain * time) - lengthOfTrain;
14
15        System.out.println(length_bridge);
16
17    }
18}
```

The bottom terminal window shows the command line output of running the program:

```
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bddd32d2b8\redhat\java\jdt_ws\infobeans_ae7c1e9\bin' 'Assignment_3_2.que_6'
245.0
PS C:\Users\PCLP\Desktop\infobeans>
```

The status bar at the bottom right indicates the date and time: 14:18 18-09-2023.

7. A train 125 m long passes a man, running at 5 km/hr in the same direction in

which the train is going, in 10 seconds. The speed of the train is:

The screenshot shows the Eclipse IDE interface. The left sidebar (Explorer) lists several Java files: que\_1.java... 1, que\_2.java Assign..., que\_3.java... 1, que\_4.java Assign..., que\_5.java... 2, que\_7.java (selected), Assignment\_1, Assignment\_3, and Assignment\_3\_2. The central editor pane displays the following Java code for que\_7.java:

```
Assignment_3_2 > J que_7.java > Language Support for Java(TM) by Red Hat > que_7 > main(String[])
1 package Assignment_3_2;
2
3 public class que_7 {
4
5     public static void main(String[] args) {
6
7         double lengthOfTrain = 125;
8         double time = 10;
9         double speedOfMan = (5 * 10) / 18;
10
11        double speedOfTrain = (lengthOfTrain + speedOfMan) / time;
12
13        System.out.println(" speed of train in : " + speedOfTrain + " meters");
14
15    }
16
17}
```

The bottom terminal window shows the command line output of running the program:

```
.java\jdt_ws\infobeans_ae7c1e9\bin' 'Assignment_3_2.que_7'
speed of train in12.7meters
PS C:\Users\PCLP\Desktop\Infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bddd32d2b8\redhat\java\jdt_ws\infobeans_ae7c1e9\bin' 'Assignment_3_2.que_7'
speed of train in : 12.7 meters
PS C:\Users\PCLP\Desktop\infobeans>
```

The status bar at the bottom right indicates the date and time: 14:47 18-09-2023.

The screenshot shows a Java code editor interface with the following details:

- File Menu:** File, Edit, Selection, View, Go, ...
- Toolbar:** Back, Forward, Search bar (infobeans), Minimize, Maximize, Close.
- Left Sidebar (EXPLORER):** OPEN EDITORS (que\_1.java... 1, que\_2.java Assign..., que\_3.java... 1, que\_4.java Assign..., que\_5.java... 2, que\_7.java Assign..., que\_9.java... 1), INFOBEANS (que\_5.java 2, que\_6.java, que\_7.java, que\_9.java 1), OUTLINE, TIMELINE, PROJECTS, DATABASES, CLOUD, JAVA PROJECTS.
- Code Editor:** Assignment\_3\_2 > que\_9.java > Language Support for Java(TM) by Red Hat > que\_9 > main(String[]).

```
1 package Assignment_3_2;
2
3 public class que_9 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         int a = 26, b = 24, c = 10;
9
10        int s = (a + b + c) / 2;
11
12        double area = Math.sqrt(s * (s - a) * (s - b) * (s - c));
13
14        System.out.println(s);
15        System.out.println("area of triangle : " + area);
16    }
17}
```
- Terminal:** Try the new cross-platform PowerShell <https://aka.ms/pscore6>  
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bddd32d2b8\redhat\java\jdt\_ws\infobeans\_ae7c1e9\bin' 'Assignment\_3\_2.que\_9'  
30  
area of triangle : 120.0  
PS C:\Users\PCLP\Desktop\infobeans>
- Bottom Bar:** PROBLEMS (15), OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, SQL CONSOLE, Run: que\_5, Run: que\_6, Run: que\_7, Run: que\_9, Java, Go Live, Indexing completed, 28°C Partly sunny, ENG, 15:01, 18-09-2023.

The screenshot shows a Java code editor interface with the following details:

- File Menu:** File, Edit, Selection, View, Go, ...
- Toolbar:** Back, Forward, Search bar (infobeans), Minimize, Maximize, Close.
- Left Sidebar (EXPLORER):** OPEN EDITORS (que\_1.java... 1, que\_2.java Assign..., que\_3.java... 1, que\_4.java Assign..., que\_5.java... 2, que\_7.java Assign..., que\_9.java... 1, que\_10.java Assign...), INFOBEANS (que\_5.java, que\_7.java, que\_9.java 1, que\_10.java), OUTLINE, TIMELINE, PROJECTS, DATABASES, CLOUD, JAVA PROJECTS.
- Code Editor:** Assignment\_3\_2 > que\_10.java > Language Support for Java(TM) by Red Hat > que\_10 > main(String[]).

```
1 package Assignment_3_2;
2
3 public class que_10 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         int perimeter_of_triangle = 28;
9         float inradius = 2.5f;
10
11         float area = (inradius * perimeter_of_triangle) / 2f;
12
13         System.out.println("Area of triangle : " + area);
14    }
15}
```
- Terminal:** Try the new cross-platform PowerShell <https://aka.ms/pscore6>  
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bddd32d2b8\redhat\java\jdt\_ws\infobeans\_ae7c1e9\bin' 'Assignment\_3\_2.que\_10'  
Area of triangle : 35.0  
PS C:\Users\PCLP\Desktop\infobeans>
- Bottom Bar:** PROBLEMS (15), OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, SQL CONSOLE, Run: que\_5, Run: que\_6, Run: que\_7, Run: que\_9, Run: que\_10, Java, Go Live, Indexing completed, 28°C Partly sunny, ENG, 15:15, 18-09-2023.

The screenshot shows a Java IDE interface with the title bar "infobeans". The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, and various system icons. In the center, an editor window displays the code for `que_11.java`:

```
Assignment_3_2 > J que_11.java > ...
1 package Assignment_3_2;
2
3 public class que_11 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         double side1 = 20, side2 = 18, distance = 15;
9         // area = a+b*h/2
10        double area_of_trapezium = ((side1 + side2) * distance) / 2;
11
12        System.out.println("area of trapezium : " + area_of_trapezium);
13    }
14 }
```

The bottom status bar shows "Indexing completed." and the terminal output:

```
.java\jdt_ws\infobeans_adefcde9\bin' 'Assignment_3_2.que_11'
285.0
PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_adefcde9\bin' 'Assignment_3_2.que_11'
area of trapezium : 285.0
PS C:\Users\PCLP\Desktop\infobeans>
```

The bottom right corner shows the date and time: "18-09-2023 15:23".

The screenshot shows a Java IDE interface with the title bar "infobeans". The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, and various system icons. In the center, an editor window displays the code for `que_12.java`:

```
Assignment_3_2 > J que_12.java > ...
1 package Assignment_3_2;
2
3 public class que_12 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         int base = 24, height = 16, area;
9
10        area = base * height;
11
12        System.out.println("area of parallelogram : " + area);
13    }
14 }
```

The bottom status bar shows "Indexing completed." and the terminal output:

```
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_adefcde9\bin' 'Assignment_3_2.que_12'
area of parallelogram : 384
PS C:\Users\PCLP\Desktop\infobeans>
```

The bottom right corner shows the date and time: "18-09-2023 15:39".

The screenshot shows the Microsoft Visual Studio Code interface. The left sidebar displays the Explorer, showing files like 'que\_12.java', 'que\_6.java', and 'que\_13.java'. The main editor area contains Java code for 'que\_13.java' under the 'Assignment\_3\_2' package. The code calculates the breadth of a rectangular plot given its area and length. The terminal below shows the command-line output of running the program.

```
Assignment_3_2 > que_13.java > ...
1 package Assignment_3_2;
2
3 public class que_13 {
4
5     public static void main(String[] args) {
6         double breadth, area = 876;
7         // double length = 3 * breadth;
8
9         // area = 3 * breadth * breadth;
10        breadth = Math.sqrt(area / 3);
11
12        System.out.println("breadth of rectangular plot :" + breadth);
13    }
14
15 }
16
```

TERMINAL

```
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C
:Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat
.java\jdt_ws\infobeans_ae07c1e9\bin' 'Assignment_3_2.que_13'
breadth of rectangular plot :17.08800749063506
PS C:\Users\PCLP\Desktop\infobeans>
```

PROBLEMS 15 OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE

Ln 16, Col 1 Spaces: 4 UTF-8 CRLF {} Java Go Live

29°C Partly sunny ENG 15:52 18-09-2023

Screenshot of Microsoft Visual Studio Code showing Java code for Assignment\_3\_2. The code calculates profit percentage based on buying and selling prices.

```
Assignment_3_2 > J que_16.java > Language Support for Java(TM) by Red Hat > que_16 > main(String[])
1 package Assignment_3_2;
2
3 public class que_16 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7         double buying = 900, selling = 1080, profit, gain_per;
8
9         profit = selling - buying;
10        // Profit % = Profit/Cost Price * 100;
11
12        gain_per = (profit / buying) * 100;
13
14    }
15 }
```

The terminal shows the output of running the code:

```
PS C:\Users\PCLP\Desktop\infobeans> c::; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88baddir32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_16'
20.0
PS C:\Users\PCLP\Desktop\infobeans> Gain percentage :20.0
PS C:\Users\PCLP\Desktop\infobeans>
```

Screenshot of Microsoft Visual Studio Code showing Java code for Assignment\_3\_2. The code calculates the surface area of a cuboid.

```
Assignment_3_2 > J que_19.java > Language Support for Java(TM) by Red Hat > que_19 > main(String[])
1 package Assignment_3_2;
2
3 public class que_19 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         int l = 4, b = 5, h = 6, surface_area;
9
10        surface_area = 2 * (l * b + b * h + h * l);
11
12        System.out.println("Surface area of cuboid : " + surface_area);
13    }
14 }
```

The terminal shows the output of running the code:

```
.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_19'
148
PS C:\Users\PCLP\Desktop\infobeans> c::; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88baddir32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_19'
Surface area of cuboid : 148
PS C:\Users\PCLP\Desktop\infobeans>
```

Run buttons for que\_16 and que\_19 are visible in the bottom right corner.

The screenshot shows a Java development environment with the following details:

- File Menu:** File, Edit, Selection, View, Go, ...
- Search Bar:** infobeans
- Editor:** que\_20.java (selected), que\_16.java, que\_17.java, que\_19.java
- Code:**

```
Assignment_3_2 > J que_20.java > Language Support for Java(TM) by Red Hat > que_20 > main(String[])
1 package Assignment_3_2;
2
3 public class que_20 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         int l = 4, b = 5, h = 6, volume;
9
10        volume = l * b * h;
11
12    }
13
14 }
```
- Terminal:**

```
.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_20'
120
PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_20'
Volume of cuboid : 120
PS C:\Users\PCLP\Desktop\infobeans>
```
- Status Bar:** Ln 11, Col 52, Spaces: 4, UTF-8, CRLF, Java, Go Live, 29°C Partly sunny, ENG, 16:56, 18-09-2023

The screenshot shows a Java code editor interface. The left sidebar has sections for EXPLORER, OPEN EDITORS, and INFOBEANS. In the OPEN EDITORS section, 'que\_20.java' and 'que\_21.java' are listed. The INFOBEANS section contains files like que\_10.java through que\_21.java, que\_21.class, and Class\_Work. The right pane displays the content of 'que\_21.java'. The code is as follows:

```
Assignment_3_2 > J que_21.java > Language Support for Java(TM) by Red Hat > que_21 > main(String[])
1 package Assignment_3_2;
2
3 public class que_21 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7         // h =2*a/b
8
9         int base = 40, area = 400, height;
10
11         height = 2 * (area / base);
12
13         System.out.println("Height of a triangle : " + height);
14     }
15
16 }
```

The code editor shows a syntax error at line 12, column 16, indicated by a yellow lightbulb icon. The status bar at the bottom shows 'Indexing completed.'

This screenshot shows another Java code editor interface, similar to the first one. The left sidebar includes EXPLORER, OPEN EDITORS, and INFOBEANS sections. The OPEN EDITORS section lists 'que\_20.java', 'que\_21.java', and 'que\_22.java'. The INFOBEANS section lists que\_13.java through que\_21.java, que\_21.class, and Class\_Work. The right pane displays the content of 'que\_22.java'. The code is as follows:

```
Assignment_3_2 > J que_22.java > ...
1 package Assignment_3_2;
2
3 public class que_22 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         int base = 4, height = 5, area;
9
10        // a =b*h/2
11        area = (base * height) / 2;
12
13        System.out.println("Area of triangle :" + area);
14    }
15 }
```

The code editor shows a syntax error at line 10, column 16, indicated by a yellow lightbulb icon. The status bar at the bottom shows 'Indexing completed.'

The screenshot shows a Java IDE interface with the title bar "infobeans". The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, and various project and system icons. In the center, the "que\_23.java" editor tab is active, displaying the following Java code:

```
Assignment_3_2 > que_23.java > Language Support for Java(TM) by Red Hat > que_23 > main(String[])
1 package Assignment_3_2;
2
3 public class que_23 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         double a = 1, b = 2, c = 3, area1;
9
10        double s = (a + b + c) / 2;
11
12        area1 = Math.sqrt(s * (s - a) * (s - b) * (s - c));
13
14        System.out.println(s);
15        System.out.println("area of triangle : " + area1);
16    }
17}
```

The terminal tab shows the output of running the program:

```
24.0
area of triangle : NaN
PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_23'
3.0
area of triangle : 0.0
PS C:\Users\PCLP\Desktop\infobeans>
```

The status bar at the bottom indicates "Indexing completed.", the date "18-09-2023", and the time "17:29".

The screenshot shows a Java IDE interface with the title bar "infobeans". The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, and various project and system icons. In the center, the "que\_24.java" editor tab is active, displaying the following Java code:

```
Assignment_3_2 > que_24.java > Language Support for Java(TM) by Red Hat > que_24 > main(String[])
1 package Assignment_3_2;
2
3 public class que_24 {
4
5     Run | Debug | Run main | Debug main
6     public static void main(String[] args) {
7
8         // Base² + height² = hypotenuse²
9         // Area of triangle = 1/2 × base × height
10        double base = 8, hypotenuse = 10, area, height;
11
12        height = Math.sqrt(hypotenuse * hypotenuse - base * base);
13
14        area = (base * height) / 2;
15        System.out.println("Height of triangle :" + height);
16        System.out.println("Area of right triangle :" + area);
17    }
18}
```

The terminal tab shows the output of running the program:

```
Area of right triangle : 24.0
PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88bddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Assignment_3_2.que_24'
Height of triangle :6.0
Area of right triangle : 24.0
PS C:\Users\PCLP\Desktop\infobeans>
```

A context menu is open on the right side of the terminal window, with options "Run: que\_23" and "Run: que\_24". The status bar at the bottom indicates "Indexing completed.", the date "18-09-2023", and the time "17:59".

The screenshot shows a Java code editor in VS Code. The code calculates the area of an equilateral triangle:

```
double a = 12, area;
area = Math.sqrt(a*3) / 4 * (a * a);
System.out.println("Area of an equilateral triangle : " + area);
```

The terminal output shows the result: Area of an equilateral triangle : 62.35382907247958.

VS Code interface elements include the Explorer sidebar, Open Editors, and Infobean projects. The bottom status bar shows indexing completed and system information like temperature and battery level.

The screenshot shows a Java code editor in VS Code. The code calculates the volume of a cuboid:

```
package Assignment_3_2;
public class que_26 {
    public static void main(String[] args) {
        int l = 30, b = 20, h = 8, volume;
        volume = l * b * h;
        System.out.println("Volume of cuboid:" + volume);
    }
}
```

The terminal output shows the result: Volume of cuboid:4800PS C:\Users\PCLP\Desktop\infobeans>.

VS Code interface elements include the Explorer sidebar, Open Editors, and Infobean projects. The bottom status bar shows indexing completed and system information like temperature and battery level.

The screenshot shows an IDE interface with the title bar "infobeans". The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, and JAVA PROJECTS. In the OPEN EDITORS section, "que\_27.java" is the active editor. The code calculates the area and perimeter of a square:

```
public class que_27 {  
    public static void main(String[] args) {  
        double s1 = 125, s2 = 64, perimeter;  
        // 5 times (area_square) = a*a,, = area of reactangle  
        // area of reactangle=a*b  
        // perimeter of square =4a  
        double area_square = 5 * (s1 * s2);  
  
        double perimeter_square = 4 * Math.sqrt(area_square);  
        // System.out.println("area of square :" + area_square);  
        System.out.println("perimwter of square : " + perimeter_square);  
    }  
}
```

The OUTPUT tab shows the terminal output:

```
area of square :40000.0  
perimwter of square : 160000.0  
PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans' & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfae88baddir32d2b8\redhat\java\jdt_ws\infobeans_ade7c1e9\bin' 'que_27'  
area of square :40000.0  
perimwter of square : 800.0  
PS C:\Users\PCLP\Desktop\infobeans>
```

The bottom status bar shows "Indexing completed.", the date "19-09-2023", and the time "12:00".

The screenshot shows an IDE interface with the title bar "infobeans". The left sidebar includes sections for EXPLORER, OPEN EDITORS, INFOBEANS, and JAVA PROJECTS. In the OPEN EDITORS section, "que\_40.java" is the active editor. The code calculates the volume of a cube:

```
public class que_40 {  
    public static void main(String[] args) {  
        // volume of cube =a*a*a;  
        // volume of cube =N*volume of small cube  
        int side_cube = 100, side_small_cube = 10, N;  
  
        int volume_cube = side_cube * side_cube * side_cube;  
  
        int volume_small_cube = side_small_cube * side_small_cube * side_small_cube;  
  
        // volume_cube= N*volume_small_cube;  
        N = volume_cube / volume_small_cube;  
  
        System.out.println("total small cubes are obtained : " + N);  
    }  
}
```

The OUTPUT tab shows the terminal output:

```
Try the new cross-platform PowerShell https://aka.ms/pscore6  
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfae88baddir32d2b8\redhat\java\jdt_ws\infobeans_ade7c1e9\bin' 'que_40'  
total small cubes are obtained : 1000  
PS C:\Users\PCLP\Desktop\infobeans>
```

The bottom status bar shows "Indexing completed.", the date "19-09-2023", and the time "12:13".