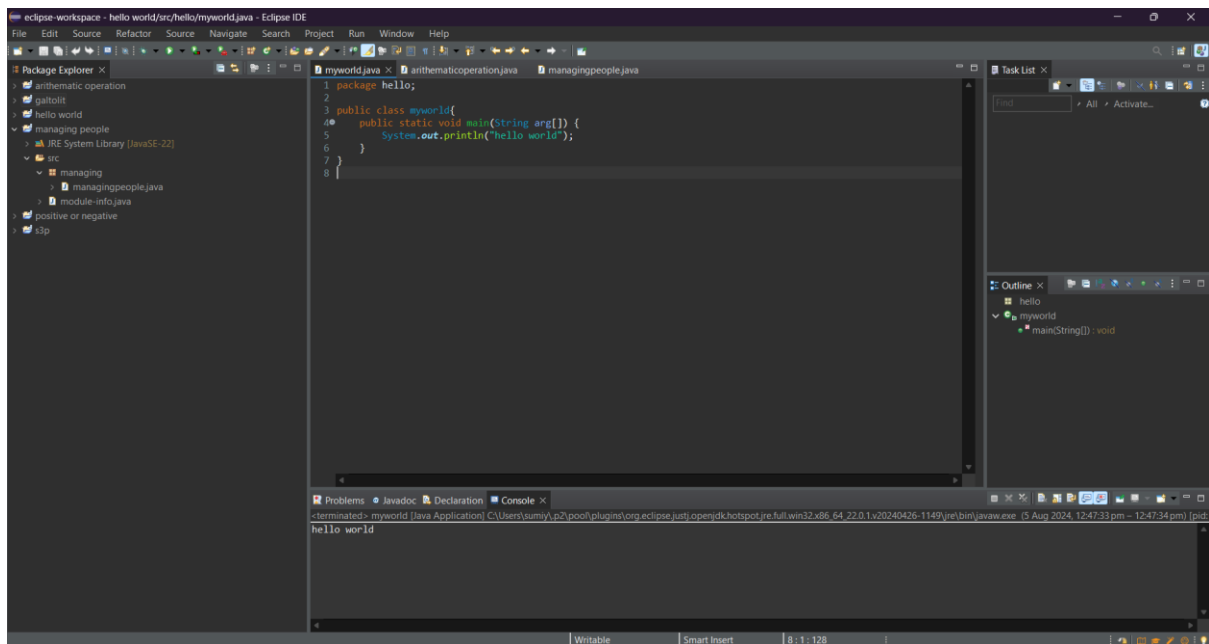
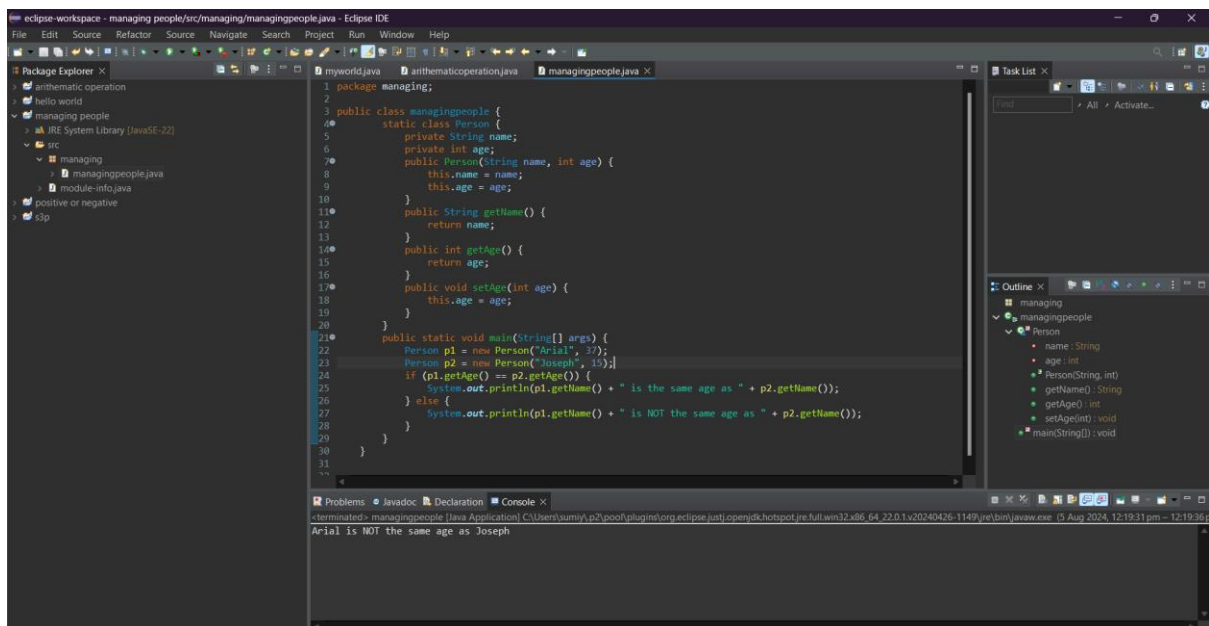


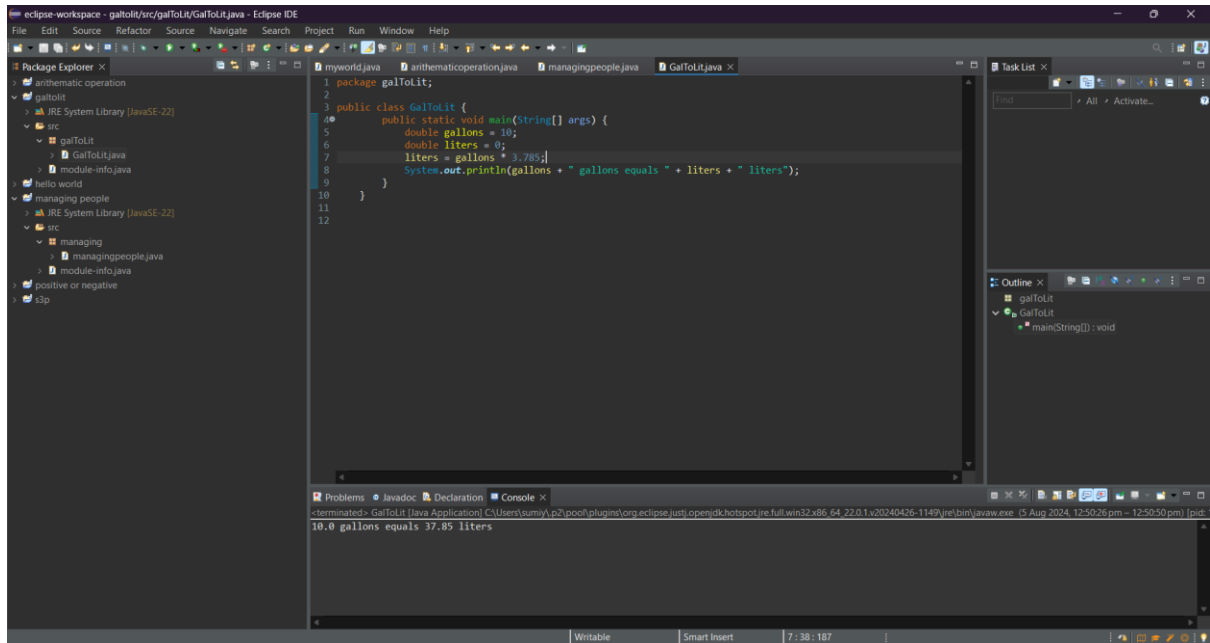
JF Section 4.2 practice:



1.



2.



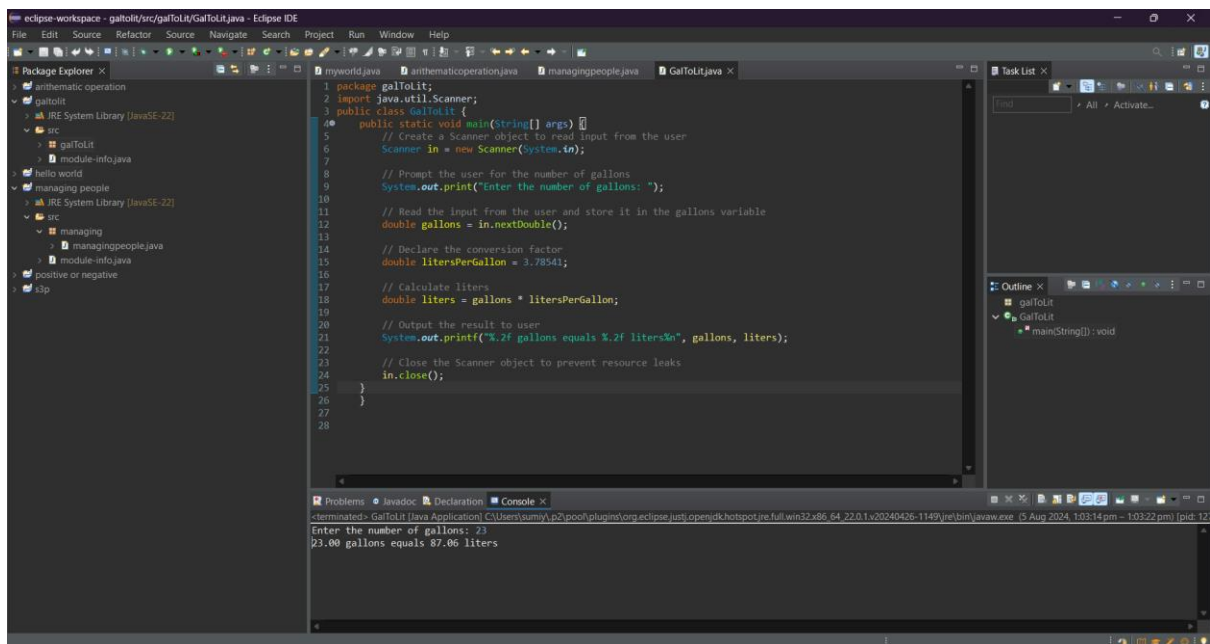
The screenshot shows the Eclipse IDE with the `GallToLit.java` file open. The code is as follows:

```
1 package gallToLit;
2
3 public class GallToLit {
4     public static void main(String[] args) {
5         double gallons = 10;
6         double liters = 0;
7         liters = gallons * 3.785;
8         System.out.println(gallons + " gallons equals " + liters + " liters");
9     }
10 }
11
12
```

The console output at the bottom shows:

```
<terminated> GallToLit [Java Application] C:\Users\sumy\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.22.0.1.v20240426-1149\jre\bin\javaw.exe (5 Aug 2024, 12:50:26 pm - 12:50:50 pm) [pid: 10.0]
10.0 gallons equals 37.85 liters
```

3.



The screenshot shows the Eclipse IDE with the `GallToLit.java` file open. The code is as follows:

```
1 package gallToLit;
2 import java.util.Scanner;
3 public class GallToLit {
4     public static void main(String[] args) {
5         // Create a Scanner object to read input from the user
6         Scanner in = new Scanner(System.in);
7
8         // Prompt the user for the number of gallons
9         System.out.print("Enter the number of gallons: ");
10
11         // Read the input from the user and store it in the gallons variable
12         double gallons = in.nextDouble();
13
14         // Declare the conversion factor
15         double litersPerGallon = 3.78541;
16
17         // Calculate liters
18         double liters = gallons * litersPerGallon;
19
20         // Output the result to user
21         System.out.printf("%.2f gallons equals %.2f liters\n", gallons, liters);
22
23         // Close the Scanner object to prevent resource leaks
24         in.close();
25     }
26 }
27
28
```

The console output at the bottom shows:

```
<terminated> GallToLit [Java Application] C:\Users\sumy\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.22.0.1.v20240426-1149\jre\bin\javaw.exe (5 Aug 2024, 1:03:14 pm - 1:03:22 pm) [pid: 12]
Enter the number of gallons: 23
23.00 gallons equals 87.06 liters
```

4.

The screenshot shows the Eclipse IDE interface with a Java project named 'person'. The Package Explorer on the left shows the project structure, including a 'src' folder with 'person.java'. The main editor displays the code for 'person.java', which is a Java class with a 'main' method that prompts the user for student details (name, roll number, age, grade) and prints them. The Console at the bottom shows the output of the program, indicating that the user entered 'sumiya' for the name, '192372090' for the roll number, '18' for the age, and 's' for the grade. The Outline view on the right shows the class structure, including the 'main' method.

```
1 package student;
2 import java.util.*;
3 public class person {
4     public static void main(String[] args) {
5         Scanner scanner = new Scanner(System.in);
6
7         System.out.print("Enter student's name: ");
8         String name = scanner.nextLine();
9
10        System.out.print("Enter student's roll number: ");
11        int rollNumber = scanner.nextInt();
12
13        System.out.print("Enter student's age: ");
14        int age = scanner.nextInt();
15
16        System.out.print("Enter student's grade: ");
17        String grade = scanner.next();
18
19        System.out.println("\nStudent Details:");
20        System.out.println("Name: " + name);
21        System.out.println("Roll Number: " + rollNumber);
22        System.out.println("Age: " + age);
23        System.out.println("Grade: " + grade);
24
25        scanner.close();
26    }
27 }
28
```

Student Details:
Name: sumiya
Roll Number: 192372090
Age: 18
Grade: s