

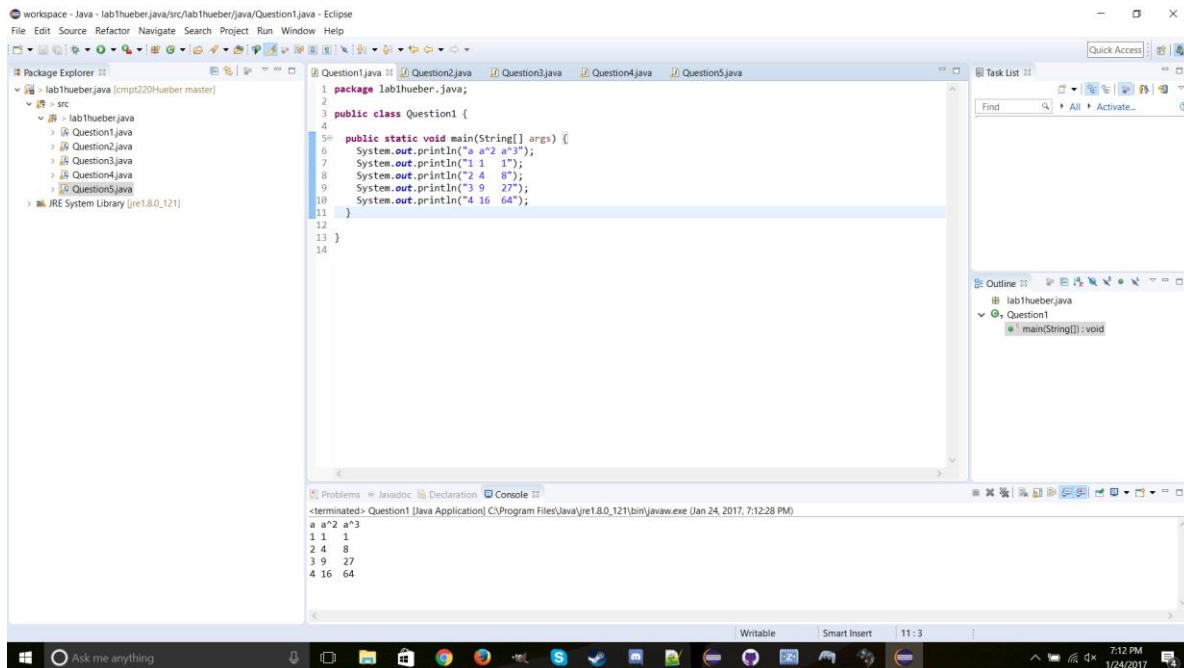
Jack Hueber

Professor Arias

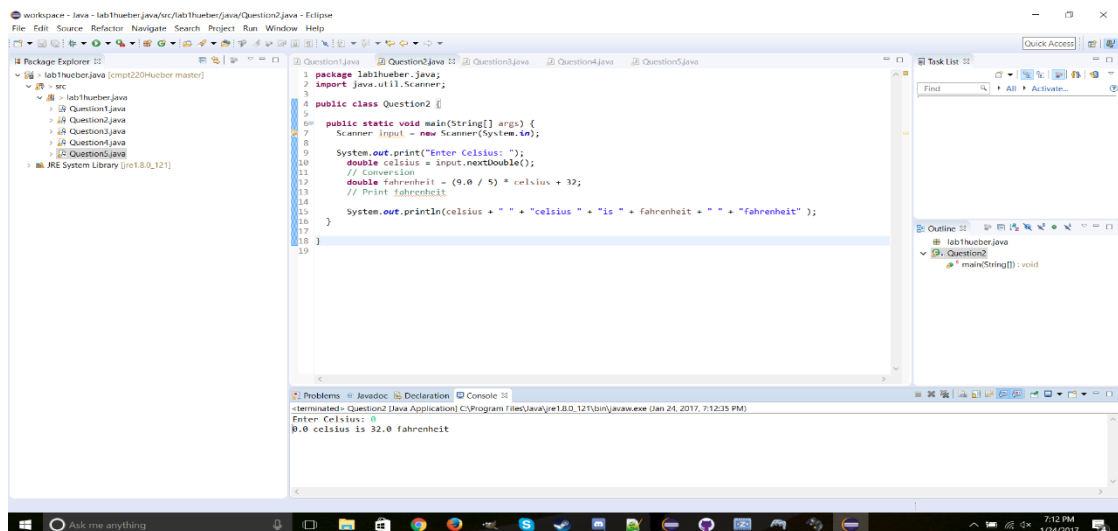
## Software Development 1

### Questions:

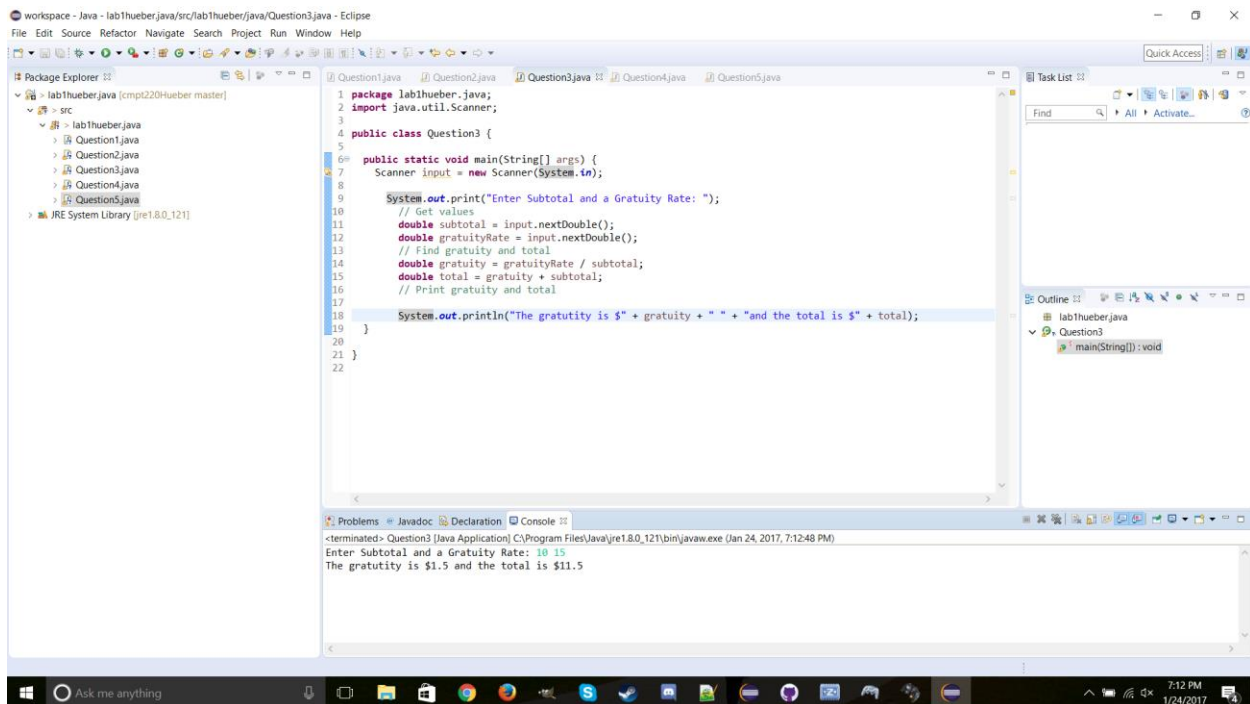
#### 1.4



#### 2.1



## 2.5



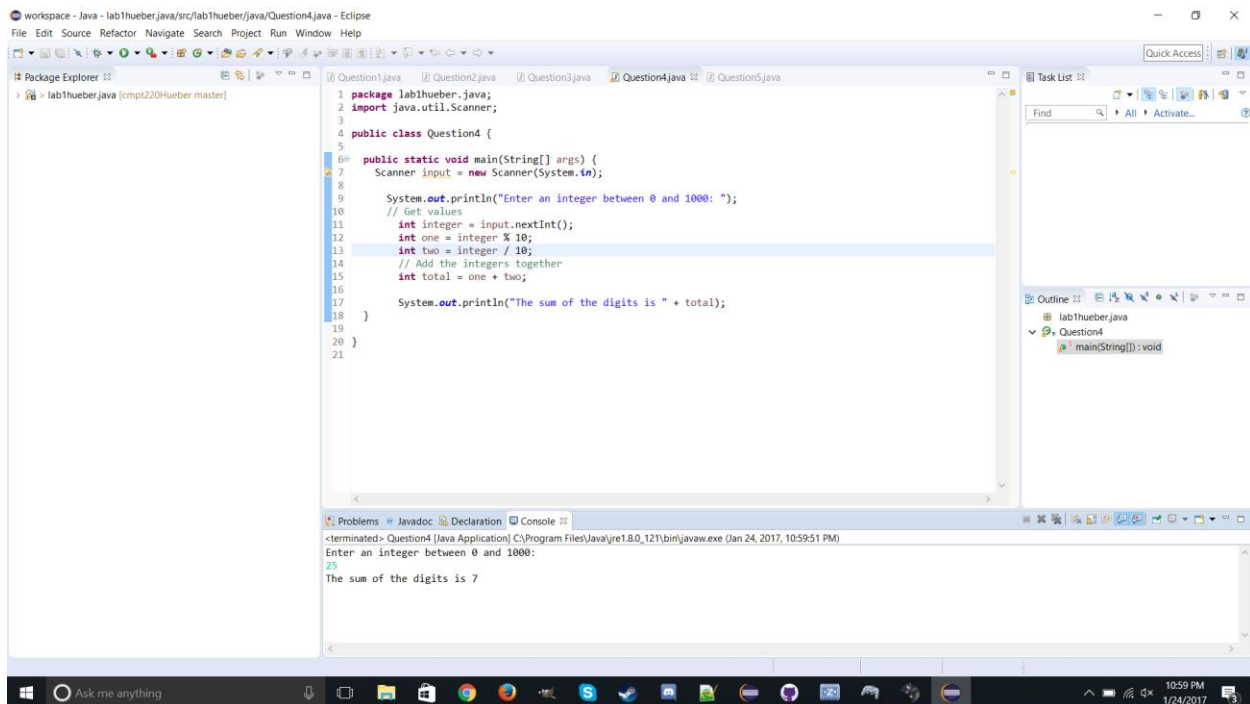
The screenshot shows the Eclipse IDE with the workspace 'lab1hueber.java/src/lab1hueber/java'. The Package Explorer on the left shows the project structure. The main editor displays the code for Question3.java. The code calculates the subtotal, gratuity rate, and total. The console output shows the program execution with input values 10 and 15, resulting in a gratuity of \$1.5 and a total of \$11.5.

```
1 package lab1hueber.java;
2 import java.util.Scanner;
3
4 public class Question3 {
5
6     public static void main(String[] args) {
7         Scanner input = new Scanner(System.in);
8
9         System.out.print("Enter Subtotal and a Gratuity Rate: ");
10        // Get values
11        double subtotal = input.nextDouble();
12        double gratuityRate = input.nextDouble();
13        // Find gratuity and total
14        double gratuity = gratuityRate / subtotal;
15        double total = gratuity + subtotal;
16        // Print gratuity and total
17
18        System.out.println("The gratuity is $" + gratuity + " and the total is $" + total);
19    }
20 }
21 }
22 }
```

Console Output:

```
<terminated> Question3 [Java Application] C:\Program Files\Java\jre1.8.0_121\bin\javaw.exe (Jan 24, 2017, 7:12:48 PM)
Enter Subtotal and a Gratuity Rate: 10 15
The gratuity is $1.5 and the total is $11.5
```

## 2.6



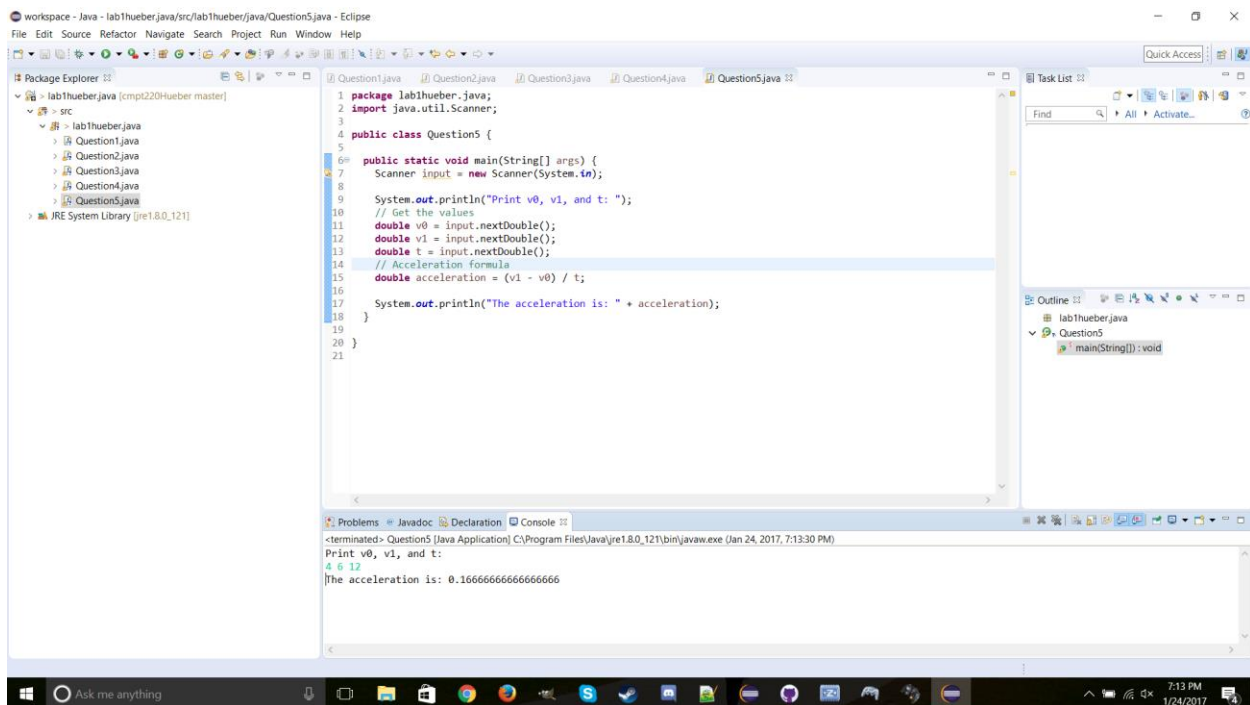
The screenshot shows the Eclipse IDE with the workspace 'lab1hueber.java/src/lab1hueber/java'. The Package Explorer on the left shows the project structure. The main editor displays the code for Question4.java. The code calculates the sum of the digits of an integer. The console output shows the program execution with input value 25, resulting in a sum of digits of 7.

```
1 package lab1hueber.java;
2 import java.util.Scanner;
3
4 public class Question4 {
5
6     public static void main(String[] args) {
7         Scanner input = new Scanner(System.in);
8
9         System.out.println("Enter an integer between 0 and 1000: ");
10        // Get values
11        int integer = input.nextInt();
12        int one = integer % 10;
13        int two = integer / 10;
14        // Add the integers together
15        int total = one + two;
16
17        System.out.println("The sum of the digits is " + total);
18    }
19 }
20 }
21 }
```

Console Output:

```
<terminated> Question4 [Java Application] C:\Program Files\Java\jre1.8.0_121\bin\javaw.exe (Jan 24, 2017, 10:59:51 PM)
Enter an integer between 0 and 1000:
25
The sum of the digits is 7
```

## 2.9



## Short Essay

Agile development is a process that involves developing and testing a product but as it is being made, once the part is completed then it is put out to the public. This differs from the waterfall model which is used to fully develop and test a product and push it out to the public all at once. The waterfall model takes longer to do but results in a finished product that does not need to have different parts worked on and ready at separate times.