**Section 1**

**Part 1: GIthub**

**A screenshot of a computer

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**Part 2: JDK Installation**

**A screenshot of a computer screen

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**Part 3: Eclipse Installation**

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**Task 4: Eclipse Activities**

Vocabulary

|  |  |
| --- | --- |
| CamelCase | A naming convention to eliminate spaces in a name, but to ease readability with capitalization. |
| Changing file path | To change the different physical location onto which you will store and save your files. |
| Packages | Stored inside a project, a mechanism for organizing Java classes into namespaces, or containers. |
| Main | The method inside a class that runs when the class is compiled and ran. |
| Class | A construct that is used as a blueprint to create objects. Also a construct in which objects are created. |
| Editor | An option to choose a combination of views and editors. |
| Views | Areas within the Eclipse IDE that provide a way to navigate a hierarchy of information and allow modifications to elements. |

1. See powerpoint presentation attached

2. **Gallons to Liters**

public class GallonsToLitersConverter {

public static void main(String[] args) {

// Assign a fixed number of gallons

float gallons = 5.0f; // Change this value to the desired number of gallons

// Conversion factor: 1 gallon = 3.78541 liters

float liters = gallons \* 3.78541f;

// Display the result

System.out.println(gallons + " gallons is equal to " + liters + " liters");

}

}

1. **Gallons to Liter with input**

import java.util.Scanner;

public class GallonsToLitersConverter {

public static void main(String[] args) {

// Create a Scanner object to read user input

Scanner scanner = new Scanner(System.in);

// Prompt the user to enter the number of gallons

System.out.print("Enter the number of gallons: ");

// Read the input as a float

float gallons = scanner.nextFloat();

// Close the scanner

scanner.close();

// Conversion factor: 1 gallon = 3.78541 liters

float liters = gallons \* 3.78541f;

// Display the result

System.out.println(gallons + " gallons is equal to " + liters + " liters");

}

}

1. **Test the program**

* Regular number input with expected conversion e.g. 10
* Limit testing with extreme number e.g. 1000
* Error handling testing with unexpected/invalid input e.g. “hello world”