Week 1 M1: Programming Assignment
Water Heat

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CSD402-H323 Java for Programmers (2261-DD)

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GitHub Repository Link:

https://github.com/Juan551School/csd-402

I switched to eclipse as the IDE because it made some parts simpler to get the program to run and used it a bit before.

Found this to help with the inputs by using the scanner class
https://www.w3schools.com/java/java_user_input.asp

Java Code:

Module-info.java

```java
/**
 *
 */
/**
 *
 */
module MaciasM1ProjectAssignment {
}
```

MainProject.java

```java
package mainproject;
import java.util.Scanner;

public class MainProject {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        // Ask the user for water amount
        System.out.print("Enter the amount of water in kilograms: ");
        double waterMass = input.nextDouble();

        // Ask the user for initial temperature
        System.out.print("Enter the initial temperature of the water (°C): ");
        double initialTemperature = input.nextDouble();

        // Ask the user for the final temperature
        System.out.print("Enter the final temperature of the water (°C): ");
        double finalTemperature = input.nextDouble();

        // Calculate energy using the formula Q = waterMass * (finalTemperature -
initialTemperature) * 4184
        double energy = waterMass * (finalTemperature - initialTemperature) * 4184;

        // Display the result
        System.out.println("The energy needed to heat the water is " + energy + "
Joules.");

        input.close();
    }
}
```

Picture of Code Running: