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Course: Programming 1
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Module 5 Critical Thinking Assignment: Option 1 - Get Weekly Temperatures

[Git Project Folder](#)

Develop a Java program that will store data in the form of daily average temperatures for one week. Store the day and average temperature in two different arrays. Your program should prompt the user for the day of the week (Monday through Sunday) and display both the day and temperature for each day. If "week" is entered, the output for your program should provide the temperature for each day and the weekly average.

Pseudocode

```
Declare class:
  Declare main method:
    Declare variables:
      Weekdays array
      Daily temperature array
      Scanner for user input
      String to store user input
    Ask user to input temperatures for each day
    Print guidance for how to view temperature data
    While loop to allow repeated viewing of temperature data until user quits loop
      if user inputs 'weekly temps', display temps by day and weekly average
      else, display temps for specific day desired
```

Source Code

```
import java.util.Scanner;

public class App {
    public static void main(String[] args) throws Exception {
        final int DAYS_PER_WEEK = 7;
        String[] weekDays = {
            "Monday",
            "Tuesday",
            "Wednesday",
            "Thursday",
            "Friday",
            "Saturday",
            "Sunday"
        };
        int[] avgTemps = new int[DAYS_PER_WEEK];
        Scanner scnr = new Scanner(System.in);
        String userInput = "-";
```

```

        System.out.println("\nenter average temps for each weekday: ");
        for (int i = 0; i < weekDays.length; i++) {
            System.out.print(weekDays[i] + ": ");
            avgTemps[i] = scnr.nextInt();
        }

        System.out.println("\nCommands: '<WEEKDAY>' print temps for given
weekday,");
        System.out.println("'weekly temps' print temps for all weekdays with
average");
        System.out.println("'q' quit program");
        while (!userInput.equalsIgnoreCase("q")) {
            System.out.print("\nCommand: ");
            userInput = scnr.nextLine();

            // if user inputs "weekly temps"; display temps by day and weekly
            average
            if (userInput.equalsIgnoreCase("weekly temps")) {
                int tempSum = 0;
                for (int i = 0; i < weekDays.length; i++) {
                    System.out.printf("%s: %d %n", weekDays[i], avgTemps[i]);
                    tempSum += avgTemps[i];
                }
                System.out.printf("Weekly avg temp: %d %n", tempSum/DAYS_PER_WEEK);
            }

            // else, if user inputs a day of week, display temps for that week day
            else {
                for (int i = 0; i < weekDays.length; i++) {
                    if (userInput.equalsIgnoreCase(weekDays[i])) {
                        System.out.printf("%s: %d %n", weekDays[i], avgTemps[i]);
                        break; // exit loop once a match is found
                    }
                }
            }
        }
        scnr.close();
    }
}

```

Result

Input Example

```

enter average temps for each weekday:
Monday: 11
Tuesday: 22
Wednesday: 33
Thursday: 44
Friday: 55

```

Saturday: 66
Sunday: 77

Output Example

Commands: '<WEEKDAY>' print temps for given weekday,
'weekly temps' print temps for all weekdays with average
'q' quit program

Command: weekly temps

Monday: 11

Tuesday: 22

Wednesday: 33

Thursday: 44

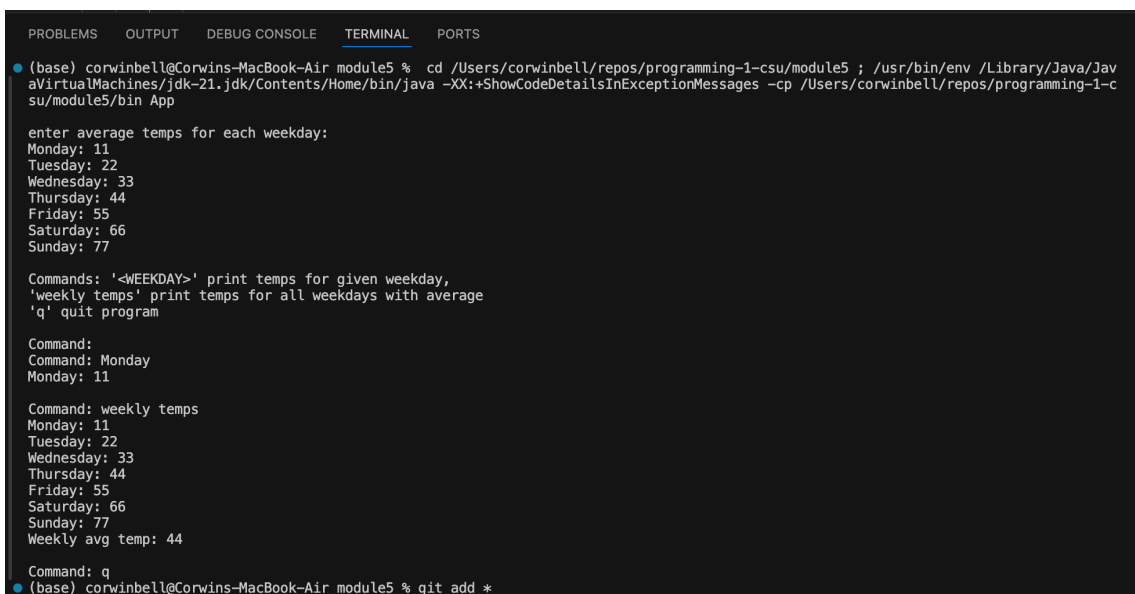
Friday: 55

Saturday: 66

Sunday: 77

Weekly avg temp: 44

Screenshot of Execution



```
(base) corwinbell@Corwins-MacBook-Air module5 % cd /Users/corwinbell/repos/programming-1-csu/module5 ; /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-21.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/corwinbell/repos/programming-1-csu/module5/bin App

enter average temps for each weekday:
Monday: 11
Tuesday: 22
Wednesday: 33
Thursday: 44
Friday: 55
Saturday: 66
Sunday: 77

Commands: '<WEEKDAY>' print temps for given weekday,
'weekly temps' print temps for all weekdays with average
'q' quit program

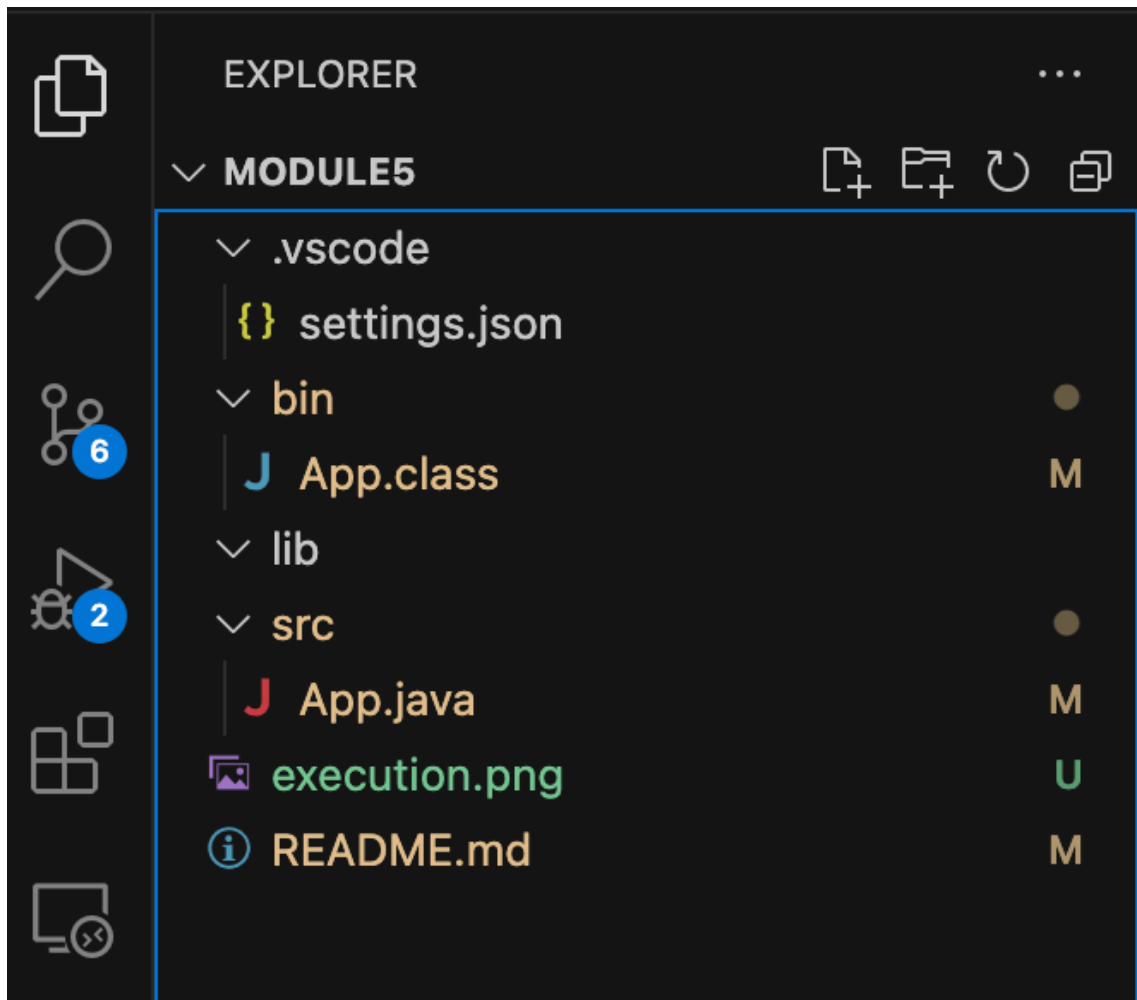
Command:
Command: Monday
Monday: 11

Command: weekly temps
Monday: 11
Tuesday: 22
Wednesday: 33
Thursday: 44
Friday: 55
Saturday: 66
Sunday: 77
Weekly avg temp: 44

Command: q
(base) corwinbell@Corwins-MacBook-Air module5 % git add *
```

Git Repo path and project folder Screenshot

<https://github.com/corwin-bell/programming-1-csu.git>



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