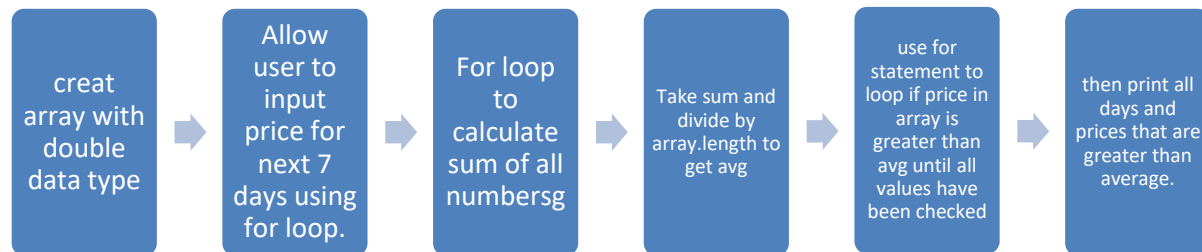# Lab Report Template

Problem

Write a program that outputs the days when the gas was above average.

Proposed Solution

Use an array code to store data for the 7 day values given by the user as a Double. Then with the values use sum += array to calculate the sum, then divide by the days. Use if statement to see what values in the array is above the average. Then print out each day with price.

| creat array with double data type | Allow user to input price for next 7 days using for loop. | For loop to calculate sum of all numbersg | Take sum and divide by array.length to get avg | use for statement to loop if price in array is greater than avg until all values have been checked | then print all days and prices that are greater than average. |

Tests and Results


```
<terminated> Lab05 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (Oct 10, 2022, 9:49:20 PM – 9:49:46 PM) [pid: 18228]
Enter the gas price(per gallon) on Day 1:

4.35
Enter the gas price(per gallon) on Day 2:

7.12
Enter the gas price(per gallon) on Day 3:

4.23
Enter the gas price(per gallon) on Day 4:

3.45
Enter the gas price(per gallon) on Day 5:

5.67
Enter the gas price(per gallon) on Day 6:

6.87
Enter the gas price(per gallon) on Day 7:

3.96

The average price for 1 gallon of gas during the last 7 days = $5.09
The price is above average on

Days 2 : $7.12

Days 5 : $5.67

Days 6 : $6.87
```

```
<terminated> Lab05 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (Oct 10, 2022, 9:54:06 PM – 9:54:10 PM)
Enter the gas price(per gallon) on Day 1:

-1.11
Invalid value for price.
```

```
<terminated> Lab05 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (Oct 10, 2022, 9:57:36 PM – 9:58:00 PM)
Enter the gas price(per gallon) on Day 1:

3.45
Enter the gas price(per gallon) on Day 2:

3.67
Enter the gas price(per gallon) on Day 3:

5.67
Enter the gas price(per gallon) on Day 4:

4.57
Enter the gas price(per gallon) on Day 5:

5.63
Enter the gas price(per gallon) on Day 6:

3.87
Enter the gas price(per gallon) on Day 7:

2.45
|
The average price for 1 gallon of gas during the last 7 days = $4.19
The price is above average on

Days 3 : $5.67

Days 4 : $4.57

Days 5 : $5.63
```

Problems Encountered

I couldn't remember how to make array with a double data-type and that took most of my time
and mental power.

Conclusions and Discussion

This lab lets us understand how to use arrays more accurately and how a for loop is used hand in
hand.

Additional Questions

1. In the proposed solution section, draw a flow chart to represent your solution.
   Did it!
2. What is wrong with the code below? Explain and, rewrite the correct code.

   double[ ] m = new double[4];

   for(int i = 1; i <= m.length; i++)

   {

        m[i] = 3* i;

   }

The code currently says that the array can store 4 data values, this means 0, 1, 2, 3. The for-loop states that it will start at 1. But the array needs to start at 0, so it spits out a huge error, fixed with a simple change. Adding a new variable and using that variable in m[], than writing k++ to add one each time it loops.

```java
//Paksh Patel
public class Lab05Question {

    public static void main(String[] args) {

        /*

        Original Code with Error
        double[] m = new double[4];

        for (int i = 1; i <= m.length; i++) {

            m[i] = 3*i;

        }
        */

        //fixed code
        int k = 0;

        double[] m = new double[4];

        for (int i = 1; i <= m.length; i++) {

            m[k] = 3*i;

            k++;
        }

    }
}
```