Lab Report 03

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**Problem**

Write a program that takes in temperatures for 10 days and stores it in an array.  Find the average temperature for those 10 days, and then print the number of days and the temperatures that were strictly below the average.

Requirements:

* Must use an Array of type “double”.
* Must correctly calculate the average temperature.
* Must print the average and all days and temperatures that were strictly below the average.

**Solution**

No

END

j<10

arr[i]=input

Print welcome text

Yes

total/10>arr[j]

total=total+arr[i]

double[10] arr(unsorted), double total=0

i=0

Yes

i=i+1

i<10

Print j+1 day’s temperature

No

Yes

Print average temperature(total/10)

Prompt for temperature in i+1 day

j=0

I declare array arr (size 10) and total(double) first. Use for to store every input to arr and add to total. Then total/10 I can get the average temperature. Finally, use for and if to check every value in arr if they higher than the average temperature. If so, print them and correspond days out.

**Implementation Problems Encountered**

arr[i-1] is incorrect because index cannot be negative.

**Lab Report Questions**

1. Draw a flow chart to solve this problem in the proposed solution section.
2. Are arrays able to change size as in grow or shrink length?

Arrays cannot be resized

1. What is the last valid index in an array with a given length?

Length-1