[Ravi Patel] Instructor: Dr. Hindo

[CPSC 230]

Chapter 6- lab assignment

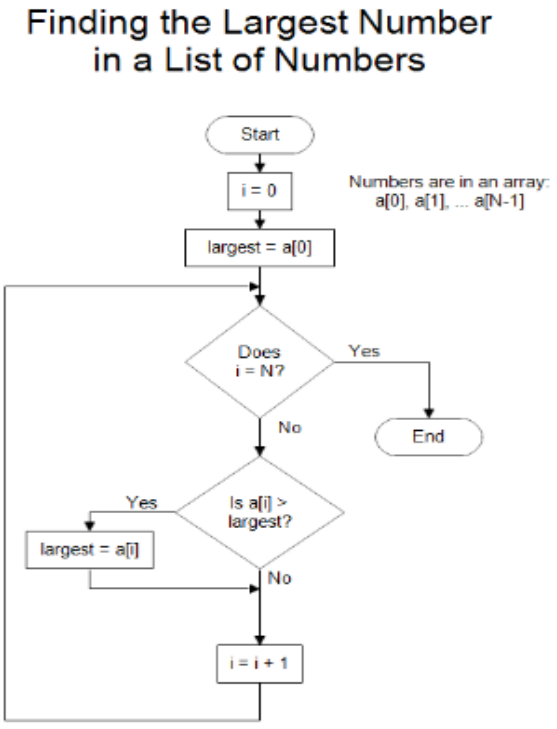
(15 points)

Due date: End of this class

Note: Submit your assignment in the inbox

Part 1:

1. For a list of double numbers in a file, find the difference between the largest and smallest numbers. Then append the largest number, the smallest number and the difference value at the end of your file. Show your results on the output window.



```
//CPSC 230 RAVI PATEL ASSIGNMENT 6 PART 1 MINMAX DIFFERENCE
#include <iostream> //for display functions
#include <fstream> //for file functions
#include <cstdlib> //for exit function
using namespace std;
int main(int argc, char *argv[]) {
     double a; //declare double a for display below
     double max; //declare max as a double
     double min; //declare min as a double
     double difference;
     ifstream inf; //declare input file
     ofstream ouf; //declare output file
     inf.open("itextfile.txt"); //input file open itextfile.txt
     ouf.open("otextfile.txt", ios::app); //open output file as an append
     if (ouf.fail()) //if opening input file fails
          {
               cout << "Error opening output file!" << endl; //display error
opening file
               exit(1); //exit program
          }
     if (inf.fail()) //if opening input file fails
          {
               cout << "Error opening input file!" << endl; //display error
opening file
               exit(1); //exit program
          }
inf >> a; //read input file a
max = a; //assign max to a
min = a; //assign min to a
     while (!inf.eof()) //while not at the end of the file
          {
               inf >> a; //read values line by line, assign to a
               if (a > max) //if value is greater than max
               {
                    max = a; //max = a
               }
               if (a < min) //if value is less than min
               {
                    min = a; //min = a
               }
          }
          difference = max - min;
          ouf << "Maximum value in file: " << max << endl; //output values to
output file
          cout << "Maximum value in file: " << max << endl; //display value of max
          ouf << "Minimum value in file: " << min << endl; //output values to
output file
          cout << "Minimum value in file: " << min << endl; //display value of min
          ouf << "Difference between max and min: " << difference << endl; //
output value of difference to output file
          cout << "Difference between max and min: " << difference << endl; //
display value of difference
     inf.close(); //input file close
     ouf.close(); //close output file
}
```

In OUTPUT file:
Maximum value in file: 100
Minimum value in file: 1
Difference between max and min: 99

In INPUT file:
10
20
30
100
1
2
3