Sheet 2

Write a class "Tuple" which simulate tuple(a,b,c,d….n). The tuple class contain these members data:

- **int length** // the length of the tuple

- **float* array; // the tuple sequence of numbers**

 The elements of the tuple is real numbers. In the class write down these functions:

- **void add(Tuple t);**

  - A function which takes another object of type "Tuple" and add it to the current tuple inside the class. Make sure that the tuple length is the same.

- **void copy(Tuple t);**

  - A function which takes another object of type "Tuple" and copy it to the current tuple inside the class. Make sure that the tuple length is the same.

- **void subtract(Tuple t);**

  - A function which takes another object of type "Tuple" and subtract it from the current tuple inside the class. Make sure that the tuple length is the same.

- **void saveToFile(string filename);**

  - A function which takes takes a file name as input and save the tuple in this file. First integer is the length of the tuple then the sequence of integers, for example "3 0.1 2.5 8.2" is a tuple of length 3 which is the first number then the tuple itself is (0.1 , 2.5 , 8.2).

- **void loadFromFile(string filename);**

  - A function which takes takes a file name as input and load from this file the tuple. First integer is the length of the tuple then the sequence of intgers, for example "3 0.1 2.5 8.2" is a tuple of length 3 which is the first number then the tuple itself is (0.1 , 2.5 , 8.2).

- **void setLenght(int l);**

  - A function which takes takes an integer as its tuple length, set the length and create the array of the tuple and initialize it to zeros:**.**

- **void getLenght( );**

  - A function which return the length of the tuple:

- **void append(tuple t);**

  - A function which takes another tuple of maybe different length and append it to the current tuple.

- **float average();**

  - A function which compute the average of the tuple and return it.

- **float max();**

  - A function which return the maximum element of the tuple and return it.

- **float min();**

  - A function which return the minimum element of the tuple and return it.

Due date is 21-12-2017

Please follow the hints and templates given to you in the moodle file.