Homework: 7th November 2015

# Specification: The program should be

1. Able to input a variable number of names and marks
2. Able to sort them alphabetically and by mark as required.
3. Able to edit (and delete) information after being entered in case of mistakes.
4. Able to verify data (such as ensuring the mark is a valid number)
5. Able to print out data, such that it is easily visible.

# Design

## Data Structures

* Struct for each person
  + Integer (could easily be converted to a double if decimals are required?) for the mark
  + String for the name
* Array of structs with a dynamically sized number of elements (increase the number of elements each time a new one is inputted)

## Operations

1. Deletion of an element of an array
   1. Display the data
   2. Take an input of which piece of data to delete
   3. Delete item
   4. Return to menu bar
2. Sorting of an array by mark
   1. Display resorted data
   2. Return to menu bar
3. Sorting of an array by name
   1. Display resorted data
   2. Return to menu bar
4. Display the data (name and mark)
   1. Display data
   2. Return to menu bar
5. Edit an element of an array
   1. Display the data
   2. Take an input of which piece of data to edit
   3. Input an updated name and mark
   4. Return to menu

## Menu

1. Exit
2. Add elements
3. Delete elements
4. Edit elements
5. Sort by name
6. Sort by mark
7. Display elements