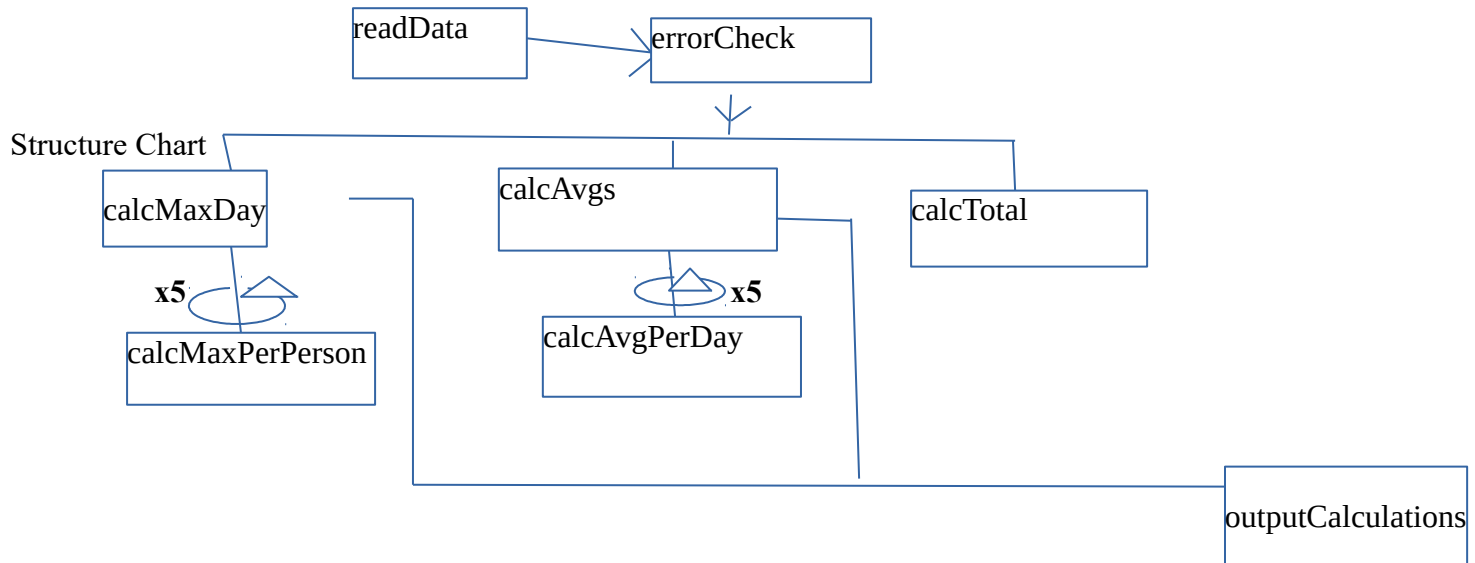# CSC 250 – Program Design Document

Structure Chart

Function Design (give the prototype and a short description for each function)

```
void readData(int[][DAYS]); //reads the input data from ex_data.txt
void errorCheck(int[][DAYS]); // check the input data for errors and zero any out
void calcMaxDay(int[][DAYS], int[]); // calculates the peak exercise day for each
//person, index of day stores in int[]
void calcAvgs(int[][DAYS], int[]); // calculates the average exercise per day per
//person, index of avg stored in int[]
int calcTotal(int[][DAYS]); //returns the total exercise done by all of the people
//throughout the week
int calcMaxDayPerPerson(int[]); //calculates the total exercise for the week for one
//person and returns it
int calcAvgPerDay(int[]); // calculates the avg exercise per person on any one day and
//returns it
void outputCalculations(int[], int[], int[], total); // prints to the screen the peak
//exercise day for each person,
// the average minutes of exercise per day for the group,
// and the total minutes of exercise for the week
```

Time Estimate

	Estimated Time	Actual Time
Program Design	**20**	
(list each function name and the time required to code each)		
readData()	**5**	
errorCheck()	**3**	
calcMaxDay()	**10**	
calcAvgs()	**3**	
calcTotal()	**3**	
calcMaxDayPerPerson()	**10**	
calcAvgPerDay()	**5**	
outputCalculations()	**10**	
Program Test	**10**	
Total Time	**79**	