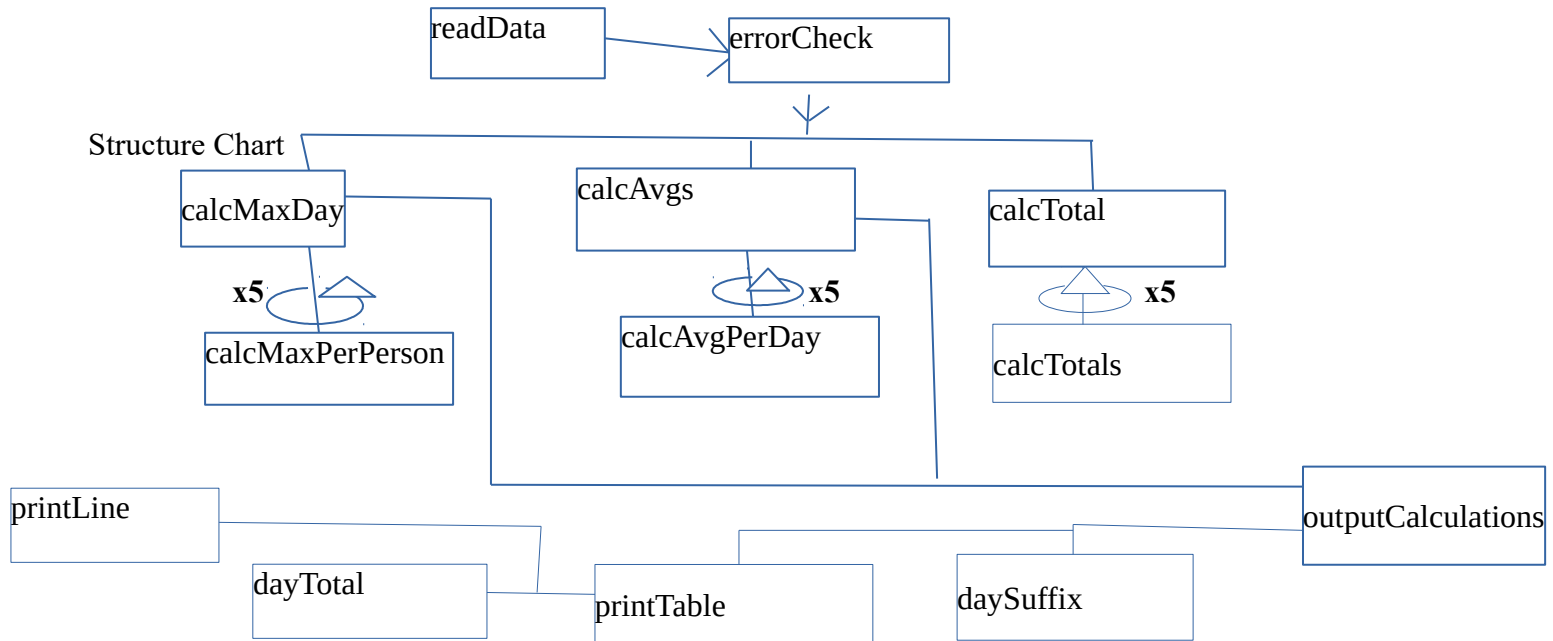


CSC 250 – Program Design Document



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

```

string daySuffix(int); // returns the suffix of the day based on index (index 1 is the
second day -> returns "nd" from "2nd")
void calcTotals(int[][DAYS], int[]); // calculates the totals per person and puts them in
an int[]
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[]); //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[][DAYS], int[], int[], int[], int); // prints to the screen
the peak exercise day and value for each person,
// the average minutes of exercise per day for the group,
// the relative contribution to the total,
// and the total minutes of exercise for the week
int dayTotal(int exDataD[][DAYS], int day); //calculates the total for the given day and
returns it
void printLine(int length); //prints a line of "-"s of the given length, no new line
void printTable(int exData[][DAYS], int dayAvgs[], int totals[], int total); //prints out
an ordered table of the exercise data
  
```

Time Estimate

	Estimated Time	Actual Time
Program Design	<u>20</u>	<u>16</u>
(list each function name and the time required to code each)		
<u>readData()</u>	<u>5</u>	<u>4</u>
<u>errorCheck()</u>	<u>3</u>	<u>2</u>
<u>calcMaxDay()</u>	<u>10</u>	<u>1</u>
<u>calcAvg()</u>	<u>3</u>	<u>1</u>
<u>calcTotal()</u>	<u>3</u>	<u>1</u>
<u>calcTotals()</u>	=====	<u>1</u>
<u>calcMaxDayPerPerson()</u>	<u>10</u>	<u>3</u>
<u>calcAvgPerDay()</u>	<u>5</u>	<u>1</u>
<u>outputCalculations()</u>	<u>10</u>	<u>12</u>
Program Test/General Debug	<u>15</u>	<u>20</u>
Logging System & Arguments	=====	<u>20</u>
daySuffix	=====	<u>2</u>
dayTotal()	=====	<u>1</u>
printLine()	=====	<u>1</u>
printTable()	=====	<u>10</u>
Total Time	<u>79</u>	<u>96</u>