**bool filesCheck(ofstream& outFile, ifstream& inFile);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Checks if either input or output files exists.**

**//**

**// Input: none.**

**//**

**// Pre: Declaration of both input and output streams before calling this function.**

**//**

**// Output: bool.**

**//**

**// Post: return true if files are loaded successfully, false if not.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void setPrecision(ofstream& outFile, int data);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Changes quantity of numbers after decimal point.**

**//**

**// Input: data.**

**//**

**// Pre: outFile is opened & ok, data has valid value.**

**//**

**// Output: outFile.**

**//**

**// Post: Changes the quantity of numbers after decimal point to the given data in call.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void printHeading(ofstream& outFile);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Print heading for output file.**

**//**

**// Input: none.**

**//**

**// Pre: outFile is opened & ok.**

**//**

**// Output: outFile.**

**//**

**// Post: Heading is printed in outFile.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void readRd(ifstream& inFile, string& studName, int& studId, float& exam1, float& exam2, float& exam3);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Reads exams data from input file.**

**//**

**// Input: inFile.**

**//**

**// Pre: inFile is opened & ok. studName, studId, exam1, exam2, exam3 have values.**

**//**

**// Output: studName, studId, exam1, exam2, exam3.**

**//**

**// Post: studName, studId, exam1, exam2, exam3 are stored to their variables via inFile.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**bool validData(int studId, float exam1, float exam2, float exam3);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Checks if exam and student id are valid.**

**//**

**// Input: studId, exam1, exam2, exam3.**

**//**

**// Pre: studId, exam1, exam2, exam3 have values.**

**//**

**// Output: bool.**

**//**

**// Post: Returns True if data are valid, false is not.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void printRd(ofstream& outFile, string studName, int studId, float exam1, float exam2, float exam3);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Print intial row of student and exams data.**

**//**

**// Input: studName, studId, exam1, exam2, exam3.**

**//**

**// Pre: outFile is opened & ok. studName, studId, exam1, exam2, exam3 have values.**

**//**

**// Output: outFile.**

**//**

**// Post: Student name, id, exam 1, exam 2, exam3 are printed in outFile.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**float avg(float exam1, float exam2, float exam3);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Calculates avg of 3 exams.**

**//**

**// Input: exam1, exam2, exam3.**

**//**

**// Pre: exam1, exam2, exam3 are valid and have data.**

**//**

**// Output: float.**

**//**

**// Post: The avg of 3 exams is returned.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void printAvgPassedOrFailed(ofstream& outFile, float examAvg);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Prints student Fail or Pass data.**

**//**

**// Input: examAvg.**

**//**

**// Pre: outFile is opened & ok. examAvg is valid and have data.**

**//**

**// Output: outFile.**

**//**

**// Post: PASSED is printed if student has passing score, otherwise FAILED if has a failing score.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**float meanOfAvg(float examAvgSum ,int examCount);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Calculates the mean of avg of the given exam average sum and exams count.**

**//**

**// Input: examAvgSum ,examCount.**

**//**

**// Pre: examAvgSum , examCount are valid and have data, examCount is greater than zero.**

**//**

**// Output: float.**

**//**

**// Post: The mean of avg is returned.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void printMeanOfAvg(ofstream& outFile, float avgMean);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Prints mean of the avg line.**

**//**

**// Input: avgMean.**

**//**

**// Pre: outFile is opened & ok. avgMean is valid and have data and examCount > 0.**

**//**

**// Output: outFile.**

**//**

**// Post: Mean of the avg line is printed in outFile.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void printInvalidDataMsg(ofstream& outFile);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Prints invalid data line.**

**//**

**// Input: none.**

**//**

**// Pre: outFile is opened & ok.**

**//**

**// Output: outFile.**

**//**

**// Post: "~~ Invalid data~~" line is printed in outFile.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**void printNoValidMeanMsg(ofstream& outFile);**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**// Purpose: Prints invalid mean of avg line .**

**//**

**// Input: none.**

**//**

**// Pre: outFile is opened & ok.**

**//**

**// Output: outFile.**

**//**

**// Post: Invalid mean of avg line is printed in outFile.**

**//**

**// Note: none.**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***