```
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.
//*****************************************
```