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

// Division Program

// Divisend and divisor are prompted for and read.

// If divisor is 0, division is not performed;

// otherwise, division is performed and result is printed.

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

#include <iostream>

using namespace std;

int main()

{

int dividend;

int divisor;

int result;

cout << "Enter dividend and divisor" << endl;

cin >> dividend >> divisor;

if (divisor != 0)

{

result = dividend / divisor;

cout << "Result is " << result << endl;

}

else

{

cout << "Division by zero is not allowed." << endl;

result = 9999;

}

system("PAUSE");

return 0;

}

---------------------------------------------------------------------------------------------

// This program uses an if/else if statement to assign a

// letter grade (A, B, C, D, or F) to a numeric test score.

// It validates the user's input using try - catch exception handling routine

// and also validates scores within a specified range

#include <iostream>

#include <cstdlib>

#include <stdexcept> // for exception, runtime\_error, out\_of\_range

using namespace std;

int main()

{

int testScore; // Holds a numeric test score

char grade; // Holds a letter grade

// Get the numeric score

cout << "Enter your numeric test score and I will\n";

cout << "tell you the letter grade you earned: ";

cin >> testScore;

/\* if(!cin){

cerr <<"INCORRECT INPUT"<<endl;

//keep\_window\_open();

return 1;

}\*/

// a simple exception handling routine

try{

if(!cin)

throw runtime\_error ("an input error");

}

catch (runtime\_error &e) {

cout << "Caught a runtime\_error exception: "

<< e.what () << '\n';

system("PAUSE");

exit(1);

}

if ((testScore < 0) || (testScore > 100)) // Input validation

{ // testScore is invalid

cout << testScore << " is an invalid score.\n";

cout << "Run the program again and enter a value\n";

cout << "in the range of 0 to 100.\n";

}

else

{ // testScore is valid so determine the letter grade

if (testScore < 60)

grade = 'F';

else if (testScore < 70)

grade = 'D';

else if (testScore < 80)

grade = 'C';

else if (testScore < 90)

grade = 'B';

else // If we got this far, testScore must be >= 90

grade = 'A';

// Display the letter grade

cout << "Your grade is " << grade << endl;

}

return 0;

}

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

// Notices program: This program determines (1) a student's average based on three

// test scores and (2) the student's passing/failing status

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

#include <iostream>

#include <iomanip> // For setprecision()

using namespace std;

int main()

{

float average; // Average of three test scores

long studentID; // Student's identification number

int test1; // Score for first test

int test2; // Score for second test

int test3; // Score for third test

bool dataOK; // True if data is correct

cout << fixed << showpoint; // Set up floating pt.

// output format

// Get data

cout << "Enter a Student ID number and three test scores:"

<< endl;

cin >> studentID >> test1 >> test2 >> test3;

cout << "Student number: " << studentID << " Test Scores: "

<< test1 << ", " << test2 << ", " << test3 << endl;

// Test data

if (test1 < 0 || test2 < 0 || test3 < 0)

dataOK = false;

else

dataOK = true;

if (dataOK)

{

// Calculate average

average = float(test1 + test2 + test3) / 3.0;

// Print message

cout << "Average score is "

<< setprecision(2) << average << "--";

if (average >= 60.0)

{

cout << "Passing"; // Student is passing

if (average < 70.0)

cout << " but marginal"; // But marginal

cout << '.' << endl;

}

else // Student is failing

cout << "Failing." << endl;

}

else // Invalid data

cout << "Invalid Data: Score(s) less than zero." << endl;

system ("PAUSE");

return 0;

}

--------------------------------------------------------------------------------------

// Program Area demonstrates stream testing

#include <iostream>

#include <fstream>

using namespace std;

int main()

{

int side1; // one side of a rectangle

int side2; // the other side of a rectangle

ifstream inData; // file stream

int area; // area of rectangle

inData.open("myData.dat");

if (!inData)

{

cout << "Input file not found." << endl;

return 1;

}

inData >> side1 >> side2;

if (!inData)

{

cout << "Data format incorrect.";

return 2;

}

area = side1 \* side2;

cout << "Area is " << area << endl;

return 0;

}

CONTENTS OF DATA FILE myData.dat

5 5

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

/\*Program LowScore reads data from an input file and prints three test scores.

The lowest value of the three is printed with an appropriate message.

Assumption: You are to create a data file with three scores and that the three scores are unique.\*/

#include <iostream>

using namespace std;

int main ()

{

int test1Score;

int test2Score;

int test3Score;

//add fstream variables

/\* cout << "Enter score for test 1; press return." << endl;

cin >> test1Score;

cout << "Enter score for test 2; press return." << endl;

cin >> test2Score;

cout << "Enter score for test 3; press return." << endl;

cin >> test3Score;\*/

/\*WRITE CODE TO OPEN AND READ DATA FROM FILE\*/

/\*VALIDATE THE INPUT FILE STREAM TO CHECK IF DATA FILE HAS BEEN

OPENED AND THAT THE DATA MATCHES THE VARIABLES IN WHICH THEY WILL BE STORED\*/

//see CCCConfer Illuminiate "live" lab recording of 9/19/2012

cout << "The three test scores are: " << endl;

cout << test1Score << endl;

cout << test2Score << endl;

cout << test3Score << endl;

/\*WRITE LOGICAL EXPRESSIONS IE., IF-THEN-ELSE STATEMENTS TO DETERMINE LOWEST SCORE\*/

system("PAUSE");

return 0;

}