// ========================

// Attached: HW\_2abcd

// ========================

// Program: HW\_2a.ccp

// ========================

// Programmer: Milo Fisher

// Class: CS 1B

// ========================

#include<iostream>

using namespace std;

void displayInfo(int,char[]);

int main()

{

int age;

char firstName[10] = "John";

char lastName[10];

char fullName[20];

cout << "Enter your age: ";

cin >> age;

cout << "Enter your last name: ";

cin.ignore();

cin.getline(lastName,10);

strcpy(fullName,firstName);

strcat(fullName," ");

strcat(fullName,lastName);

displayInfo(age,fullName);

return 0;

}

void displayInfo(int age, char fullName[])

{

cout << "\nHello " << fullName << ". You are " << age << " years old.";

}

// ======= OUTPUT =========

/\*

Enter your age: 18

Enter your last name: Baker

Hello John Baker. You are 18 years old.

\*/

// ========================

// ========================

// Attached: HW\_2abcd

// ========================

// Program: HW\_2b.ccp

// ========================

// Programmer: Milo Fisher

// Class: CS 1B

// ========================

#include<iostream>

using namespace std;

void getInfo(char[],char[],char[],char[]);

void displayAddress(char[]);

int main()

{

char street[30];

char city[20];

char state[3];

char zip[6];

char address[60];

getInfo(street,city,state,zip);

strcpy(address,street);

strcat(address,", ");

strcat(address,city);

strcat(address,", ");

strcat(address,state);

strcat(address," ");

strcat(address,zip);

displayAddress(address);

return 0;

}

void getInfo(char street[],char city[], char state[], char zip[])

{

cout << "Enter your street address: ";

cin.getline(street,30);

cout << "Enter your city: ";

cin.getline(city,20);

cout << "Enter your state (2 Digits): ";

cin.getline(state,3);

cout << "Enter your 5-Digit zip code: ";

cin.getline(zip,6);

}

void displayAddress(char address[])

{

cout << "\nYour full address is:\n\n\t" << address;

}

// ======= OUTPUT =========

/\*

Enter your street address: 123 Sesame Street

Enter your city: Compton

Enter your state (2 Digits): CA

Enter your 5-Digit zip code: 92656

Your full address is:

123 Sesame Street, Compton, CA 92656

\*/

// ========================

// ========================

// Attached: HW\_2abcd

// ========================

// Program: HW\_2c.ccp

// ========================

// Programmer: Milo Fisher

// Class: CS 1B

// ========================

#include<iostream>

using namespace std;

const int ROW = 3;

const int COL = 4;

void getData(int numArray[ROW][COL]);

void displayArray(int numArray[ROW][COL]);

int main()

{

int numArray[ROW][COL];

getData(numArray);

displayArray(numArray);

return 0;

}

void getData(int numArray[ROW][COL])

{

cout << "Enter integers into the 2-Dimensional array:\n\n";

for(int row = 0; row < ROW; row++)

{

for(int col = 0; col < COL; col++)

{

cout << "Enter a number: ";

cin >> numArray[row][col];

}

}

}

void displayArray(int numArray[ROW][COL])

{

//system("CLS"); doesn't work on Macs so this is my screen clear:

for(int i = 0; i < 100; i++)

cout << "\n";

cout << "Here is the data in the 2-Dimensional array:\n\n";

for(int row = 0; row < ROW; row++)

{

for(int col = 0; col < COL; col++)

{

cout.width(4); cout << right << numArray[row][col];

}

cout << endl;

}

}

// ======= OUTPUT =========

/\*

Enter integers into the 2-Dimensional array:

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Enter a number: 6

Enter a number: 7

Enter a number: 8

Enter a number: 9

Enter a number: 10

Enter a number: 11

Enter a number: 12

Here is the data in the 2-Dimensional array:

1 2 3 4

5 6 7 8

9 10 11 12

\*/

// ========================

// ========================

// Attached: HW\_2abcd

// ========================

// Program: HW\_2d.ccp

// ========================

// Programmer: Milo Fisher

// Class: CS 1B

// ========================

#include<iostream>

#include<fstream>

#include<iomanip>

using namespace std;

const int ROW = 5;

const int COL = 3;

int main()

{

char grades[ROW][COL];

double gradeValues[ROW][COL];

double avgEng = 0;

double avgHis = 0;

double avgMath = 0;

ifstream inFile;

inFile.open("C:\\Users\\Milo\\Desktop\\grades.dat.txt");

for (int row = 0; row < ROW; row++)

{

for (int col = 0; col < COL; col++)

{

inFile >> grades[row][col];

}

}

inFile.close();

cout << "All Grades\nStudent" << setw(9) << "English" << setw(9) << "History" << setw(8) << "Math\n";

for (int row = 0; row < ROW; row++)

{

cout << "#" << (row + 1);

for (int col = 0; col < COL; col++)

{

cout << setw(8 + col) << grades[row][col];

}

cout << endl;

}

cout << "\nStudent GPAs\nStudent\n";

for (int row = 0; row < ROW; row++)

{

for (int col = 0; col < COL; col++)

{

gradeValues[row][col] = 69 - (int)grades[row][col];

if (gradeValues[row][col] < 0)//for F value which makes it -1

gradeValues[row][col] = 0;

}

cout << "#" << (row + 1) << fixed << setprecision(2) << setw(11) << ((gradeValues[row][0] + gradeValues[row][1] + gradeValues[row][2]) / COL) << endl;

}

cout << "\nAverage GPA by Subject\nEnglish" << setw(9) << "History" << setw(8) << "Math\n";

for (int row = 0; row < ROW; row++)

{

avgEng += gradeValues[row][0];

avgHis += gradeValues[row][1];

avgMath += gradeValues[row][2];

}

cout << fixed << setprecision(2) << (avgEng / ROW) << setw(9) << (avgHis / ROW) << setw(10) << (avgMath / ROW) << "\n\n";

system("pause");

return 0;

}

// ======= OUTPUT =========

/\*

All Grades

Student English History Math

#1 A A B

#2 C C F

#3 C D B

#4 B A C

#5 B A B

Student GPAs

Student

#1 3.67

#2 1.33

#3 2.00

#4 3.00

#5 3.33

Average GPA by Subject

English History Math

2.80 3.00 2.20

Press any key to continue . . .

\*/

// ========================