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//Project_4
#include <iostream>
#include <string>
#include <iomanip>
using namespace std;

int main()
{
//Part_1
double width,
        length,
        area,
        perimeter;

cout << "\t" << setw(16) << setfill('-') << "" << "\n";
cout << "\t" << "|" << setw(14) << setfill(' ') << "" << "|" << "\n";
cout << "\t" << "|" << setw(14) << setfill(' ') << "" << "|" << " width" <<
"\n";
cout << "\t" << "|" << setw(14) << setfill(' ') << "" << "|" << "\n";
cout << "\t" << setw(16) << setfill('-') << "" << "\n";
cout << "\t" << setw(5) << setfill(' ') << "" << "length" << "\n";

cout << "Enter the measure of the width: ";
cin >> width;
cout << "Enter the measure of the length: ";
cin >> length;

area = length * width;
perimeter = (2 * length) + (2 * width);

cout << "\tArea = " << fixed << showpoint << setprecision(2) << area <<
endl;
cout << "\tPerimeter = " << fixed << showpoint << setprecision(2) <<
perimeter << endl;

cout << "\n";

//Part_2
int num1,
    num2,
    total,
    average;

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cout << "Enter two integer numbers: ";
cin >> num1 >> num2;

total = num1 + num2;
average = total / 2;

cout << "\t" << num1 << " + " << num2 << " = " << total << endl;
cout << "\tthe total of " << num1 << " and " << num2 << " is " << total <<
endl;
cout << "\tand their average is " << average << endl;

cout << "\n";

//Part_3
int exam_1,
    exam_2,
    exam_3,
    eAverage;

cout << "I can compute your midterm's average, try me\n";
cout << "\tEnter your scores in three exams: ";
cin >> exam_1 >> exam_2 >> exam_3;

eAverage = ((exam_1 + exam_2 + exam_3)/3);

cout << "\t\tYour average is: " << eAverage << endl;

cout << "\n";

//Part_4
string firstName,
    lastName;
char intital;

cout << "Give me your name, I will send you a birthday card\n";
cout << "\tWhat is your first name: ";
cin >> firstName;
cout << "\tWhat is your middle intital: ";
cin >> intital;
cout << "\tWhat is your last name: ";
cin >> lastName;

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cout << setw(7) << setfill('<') << "" << "Happy Birthday " << firstName <<
" " << intital << ". " << lastName << setw(7) << setfill('>') << "" <<
"\n";

cout << "\n";

//Part_5
double drinks,
      chips,
      nuts,
      totalBill;

int numDrinks,
    numChips,
    numNuts;

drinks = 1.25;
chips = 1.09;
nuts = 1.18;

cout << setw(10) << setfill('-') << "" << "MENU" << setw(10) <<
setfill('-') << "" << endl;
cout << "Drinks" << setw(14) << setfill('.') << "" << drinks << endl;
cout << "Chips" << setw(15) << setfill('.') << "" << chips << endl;
cout << "Nuts" << setw(16) << setfill('.') << "" << nuts << endl;

cout << setw(3) << setfill(' ') << "" << "How many drinks? ";
cin >> numDrinks;
cout << setw(3) << setfill(' ') << "" << "How many chips? ";
cin >> numChips;
cout << setw(3) << setfill(' ') << "" << "How many nuts? ";
cin >> numNuts;

totalBill = (drinks * numDrinks) + (chips * numChips) + (nuts * numNuts);

cout << "\tYour bill = $" << fixed << showpoint << setprecision(2) <<
totalBill << endl;

cout << "\n";

//Part_6

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double fahrenheit,  
       celsius;  
  
cout << "I can convert temperature from degrees Fahrenheit to degrees  
Celsius. Try me\n";  
cout << "\tEnter a temperature in Fahrenheit:";  
cin >> fahrenheit;  
  
celsius = (5 * (fahrenheit - 32)) / 9;  
  
cout << "\t" << fahrenheit << " Fahrenheit is " << fixed << showpoint <<  
setprecision(2) << celsius << " Celsius\n";  
  
return 0;  
}
```

Program Output:

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      +-----+
      |               |
      |               | width
      |               |
      +-----+
           length
Enter the measure of the width: 23.90
Enter the measure of the length: 44.01
      Area = 1051.84
      Perimeter = 135.82

Enter two integer numbers: 12 14
      12 + 14 = 26
      the total of 12 and 14 is 26
      and their average is 13

I can compute your midterm's average, try me
      Enter your scores in three exams: 88 79 43
      Your average is: 70

Give me your name, I will send you a birthday card
      What is your first name: Donald
      What is your middle intital: J
      What is your last name: Trump
<<<<<<<Happy Birthday Donald J. Trump>>>>>>>

-----MENU-----
Drinks.....1.25
Chips.....1.09
Nuts.....1.18
      How many drinks? 2
      How many chips? 1
      How many nuts? 2
      Your bill = $5.95

I can convert temperature from degrees Fahrenheit to degrees Celsius. Try me
      Enter a temperature in Fahrenheit:97
      97.00 Fahrenheit is 36.11 Celsius

```