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// Attached: HW 1(a-e)
// File: HW_1b.pdf
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//
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//
// Program: Display Average Temperature
//
// Description:
// After inputting three Temperatures, program finds the average and displays it
//
//
#include <iostream>
// function prototypes
void getTemps(float &temp1, float &temp2, float &temp3);
float calcAvg(float temp1, float temp2, float temp3);
void displayAvg(float temp1, float temp2, float temp3, float average);

// main

int main() {
// initialize variables
float temp1 = 0;
float temp2 = 0;
float temp3 = 0;
float average = 0;
// function to retrieve all 3 Temperatures
getTemps(temp1, temp2, temp3);
// function to calculate the average of the three temperatures
average = calcAvg(temp1, temp2, temp3);
// function to display the average and the three temperatures
displayAvg(temp1, temp2, temp3, average);
return 0;
}

// getTemps
// function accepts input 3 times for the three temperatures
// Input: temperature variables and user input
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// Output: temperature variables
void getTemps(float &temp1, float &temp2, float &temp3) {
    std::cout << "Enter temp 1: " << '\n';
    std::cin >> temp1;
    std::cout << "Enter temp 2: " << '\n';
    std::cin >> temp2;
    std::cout << "Enter temp 3: " << '\n';
    std::cin >> temp3;
}

// calcAvg
// function calculates the average of the three temperatures
// returns value to main
// Input: 3 temp variables
//
// Output: average of temp variables
float calcAvg(float temp1, float temp2, float temp3) {
    return (temp1 + temp2 + temp3) / 3;
}

// displayAvg
// function displays all important values such as average, and the three
// temperatures
//
// input: 3 temp variables and average
//
// Output: displays values to console
void displayAvg(float temp1, float temp2, float temp3, float average) {
    std::cout << "City #1 temp" << temp1 << '\n';
    std::cout << "City #2 temp" << temp2 << '\n';
    std::cout << "City #3 temp" << temp3 << '\n';
    std::cout << "Average temp: " << average << '\n';
}
```