**Code:**

#include <iostream>

#include <string>

#include <iomanip>

using namespace std;

int main() {

const int MONTHS = 12;

double rainfall[MONTHS];

string monthNames[MONTHS] = {

"January", "February", "March", "April", "May", "June",

"July", "August", "September", "October", "November", "December"

};

// Collect rainfall data for each month

for (int i = 0; i < MONTHS; i++) {

while (true) {

cout << "Enter the total rainfall for " << monthNames[i] << " (in inches): ";

cin >> rainfall[i];

if (cin.fail() || rainfall[i] < 0) {

cin.clear(); // Clear the error flag

cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // Discard invalid input

cout << "Invalid input. Please enter a non-negative number." << endl;

} else {

break; // Valid input, exit the loop

}

}

}

// Calculate total rainfall, average rainfall, highest and lowest months

double totalRainfall = 0;

double highestRainfall = rainfall[0];

double lowestRainfall = rainfall[0];

int highestMonthIndex = 0;

int lowestMonthIndex = 0;

for (int i = 0; i < MONTHS; i++) {

totalRainfall += rainfall[i];

if (rainfall[i] > highestRainfall) {

highestRainfall = rainfall[i];

highestMonthIndex = i;

}

if (rainfall[i] < lowestRainfall) {

lowestRainfall = rainfall[i];

lowestMonthIndex = i;

}

}

double averageRainfall = totalRainfall / MONTHS;

// Display results

cout << fixed << setprecision(2); // Format output to 2 decimal places

cout << "\nTotal rainfall for the year: " << totalRainfall << " inches" << endl;

cout << "Average monthly rainfall: " << averageRainfall << " inches" << endl;

cout << "Month with highest rainfall: " << monthNames[highestMonthIndex] << " (" << highestRainfall << " inches)" << endl;

cout << "Month with lowest rainfall: " << monthNames[lowestMonthIndex] << " (" << lowestRainfall << " inches)" << endl;

return 0;

}

**Explanation:**

1. **Array Initialization**: The program uses an array rainfall to store rainfall amounts for each month and another array monthNames to hold the names of the months.
2. **User Input**: It prompts the user for input for each month, using a while loop to validate input and ensure only non-negative numbers are accepted.
3. **Calculations**: It calculates total rainfall, average rainfall, and identifies the months with the highest and lowest rainfall.
4. **Output**: The results are displayed with a fixed decimal format.