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1  #include <iostream>
2  #include <iomanip>
3  #include <map>
4  #include <cmath>
5  #include <string>
6
7  using namespace std;
8
9
10 void user_info() {
11     cout << "\tAuthor: James Abreu." << endl;
12     cout << "\t" << __DATE__ << endl;
13     cout << "\t" << __TIMESTAMP__ << endl;
14     cout << endl;
15 }
16
17 int main() {
18     user_info();
19     map<string, float> items;
20     float monthly_budget{0};
21     cout << "Enter Monthly Budget: ";
22     cin >> monthly_budget;
23
24     float total{0};
25     float expenses{0};
26     string item_name;
27     cout << "Enter -1 to exit" << endl;
28     int current_item {0};
29     do {
30         cout << "Enter expense: ";
31         cin >> expenses;
32         if (expenses == -1) { continue; }
33         cout << "Name of product: ";
34         cin.ignore();
35         getline(cin, item_name);
36         items[item_name] = expenses;
37         total += expenses;
38     } while (expenses != -1);
39
40     float difference = abs(total - monthly_budget);
41     if (total < monthly_budget){
42         cout << "Your expenses were less than the monthly budget by: ";
43     }else if (total > monthly_budget){
44         cout << "Your expenses were more than the monthly budget by: ";
45     }else {
46         cout << "Your expenses break even: ";
47     }
48
49     cout << "$" << setprecision(2) << fixed << difference << endl;
50     cout << "Total Expenses: $" << setprecision(2) << fixed << total << endl;
51     cout << "Monthly budget: $" << setprecision(2) << fixed << monthly_budget
    << endl;
52     cout << "Budget Left: $" << setprecision(2) << fixed << monthly_budget -
    total << endl;
53
54 // Range base loops
55     cout << endl << "Items: " << endl;
56     for(const auto& item: items){
57         cout << item.first << ": $" << item.second << endl;
58     }

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59     return 0;  
60 }
```