#include <iostream>

#include <string>

#include <algorithm>

using namespace std;

// Arrays to store item information

string itemCode[] = {

"A1", "A2", "B1", "B2", "B3", "C1", "C2", "C3", "D1", "D2", "E1", "E2", "E3", "F1", "F2", "G1", "G2"

};

string itemCategory[] = {

"Case", "Case", "RAM", "RAM", "RAM", "Main Hard Disk Drive", "Main Hard Disk Drive", "Main Hard Disk Drive",

"Solid State Drive", "Solid State Drive", "Second Hard Disk Drive", "Second Hard Disk Drive", "Second Hard Disk Drive",

"Optical Drive", "Optical Drive", "Operating System", "Operating System"

};

string itemDescription[] = {

"A1 Compact", "A2 Tower", "B1 8 GB", "B2 16 GB", "B3 32 GB", "C1 1 TB HDD", "C2 2 TB HDD", "C3 4 TB HDD",

"D1 240 GB SSD", "D2 480 GB SSD", "E1 1 TB HDD", "E2 2 TB HDD", "E3 4 TB HDD", "F1 DVD/Blu-Ray Player",

"F2 DVD/Blu-Ray Re-writer", "G1 Standard Version", "G2 Professional Version"

};

double itemPrice[] = {

75.00, 150.00, 79.99, 149.99, 299.99, 49.99, 89.99, 129.99, 59.99, 119.99, 49.99, 89.99, 129.99, 50.00, 100.00, 100.00, 175.00

};

// Function to display available items

void displayItems() {

cout << "Available Items:\n";

for (int i = 0; i < 17; i++) {

cout << "Category: " << itemCategory[i] << "\n";

cout << "Item Code: " << itemCode[i] << "\n";

cout << "Description: " << itemDescription[i] << "\n";

cout << "Price: $" << itemPrice[i] << "\n";

}

}

int main() {

// Basic set of components price

double basicComponentsPrice = 200.0;

// Variables to store user choices

string selectedCase, selectedRAM, selectedHDD;

int additionalItemsCount;

// Display available items

displayItems();

// User selects one case, one RAM, and one HDD

cout << "Select one case (Enter item code): ";

cin >> selectedCase;

cout << "Select one RAM (Enter item code): ";

cin >> selectedRAM;

cout << "Select one Main Hard Disk Drive (Enter item code): ";

cin >> selectedHDD;

// Calculate the total price

double totalPrice = basicComponentsPrice;

for (int i = 0; i < 17; i++) {

if (itemCode[i] == selectedCase || itemCode[i] == selectedRAM || itemCode[i] == selectedHDD) {

totalPrice += itemPrice[i];

}

}

// Display the chosen items and the current total price

cout << "\nChosen Items:\n";

cout << "Case: " << selectedCase << " - " << itemDescription[find(itemCode, itemCode + 17, selectedCase) - itemCode] << " ($" << itemPrice[find(itemCode, itemCode + 17, selectedCase) - itemCode] << ")\n";

cout << "RAM: " << selectedRAM << " - " << itemDescription[find(itemCode, itemCode + 17, selectedRAM) - itemCode] << " ($" << itemPrice[find(itemCode, itemCode + 17, selectedRAM) - itemCode] << ")\n";

cout << "Main Hard Disk Drive: " << selectedHDD << " - " << itemDescription[find(itemCode, itemCode + 17, selectedHDD) - itemCode] << " ($" << itemPrice[find(itemCode, itemCode + 17, selectedHDD) - itemCode] << ")\n";

cout << "Current Total Price: $" << totalPrice << endl;

// Option to add more items

char addMoreItems;

cout << "Do you want to purchase additional items? (Y/N): ";

cin >> addMoreItems;

if (addMoreItems == 'Y' || addMoreItems == 'y') {

string selectedItem;

int additionalItemsCount = 0;

do {

cout << "Enter the item code of the additional item you want to purchase: ";

cin >> selectedItem;

for (int i = 0; i < 17; i++) {

if (itemCode[i] == selectedItem) {

totalPrice += itemPrice[i];

cout << "Added Item: " << selectedItem << " - " << itemDescription[i] << " ($" << itemPrice[i] << ")\n";

additionalItemsCount++;

break;

}

}

cout << "Do you want to add another item? (Y/N): ";

cin >> addMoreItems;

} while ((addMoreItems == 'Y' || addMoreItems == 'y') && additionalItemsCount < 2); // Allow up to two additional items

}

// Apply discounts based on the number of additional items

double discount = 0.0;

if (additionalItemsCount == 1) {

discount = 0.05 \* totalPrice; // 5% discount for one additional item

} else if (additionalItemsCount >= 2) {

discount = 0.10 \* totalPrice; // 10% discount for two or more additional items

}

totalPrice -= discount;

// Display the amount of money saved and the updated total price

cout << "Amount Saved: $" << discount << endl;

cout << "Updated Total Price: $" << totalPrice << endl;

return 0;

}