#include <stdio.h>

#include <stdlib.h>

#include <string.h>

struct Product {

int id;

char name[50];

float price;

};

struct CartNode {

int productId;

int quantity;

struct CartNode\* next;

};

#define PRODUCT\_COUNT 5

struct Product products[PRODUCT\_COUNT] = {

{1, "Laptop", 75000.00},

{2, "Headphones", 1500.00},

{3, "Keyboard", 700.00},

{4, "Monitor", 12000.00},

{5, "Mouse", 500.00}

};

struct CartNode\* cartHead = NULL;

struct Product\* findProduct(int id) {

for (int i = 0; i < PRODUCT\_COUNT; i++) {

if (products[i].id == id) return &products[i];

}

return NULL;

}

void addToCart(int productId, int quantity) {

struct CartNode\* current = cartHead;

while (current != NULL) {

if (current->productId == productId) {

current->quantity += quantity;

printf("Updated quantity for Product ID %d.\n", productId);

return;

}

current = current->next;

}

struct CartNode\* newNode = (struct CartNode\*)malloc(sizeof(struct CartNode));

newNode->productId = productId;

newNode->quantity = quantity;

newNode->next = cartHead;

cartHead = newNode;

printf("Product ID %d added to cart.\n", productId);

}

void showProducts() {

printf("ID Name Price\n");

for (int i = 0; i < PRODUCT\_COUNT; i++) {

printf("%-3d %-12s ₹%.2f\n", products[i].id, products[i].name, products[i].price);

}

}

void showCart() {

struct CartNode\* current = cartHead;

if (current == NULL) {

printf("Cart is empty.\n");

return;

}

float total = 0.0;

printf("ID Name Qty Price\n");

while (current != NULL) {

struct Product\* p = findProduct(current->productId);

if (p != NULL) {

float cost = p->price \* current->quantity;

printf("%-3d %-12s %-3d ₹%.2f\n", p->id, p->name, current->quantity, cost);

total += cost;

}

current = current->next;

}

printf("Total: ₹%.2f\n", total);

}

void checkout() {

showCart();

printf("Thank you for shopping!\n");

struct CartNode\* current = cartHead;

while (current != NULL) {

struct CartNode\* temp = current;

current = current->next;

free(temp);

}

cartHead = NULL;

}

int main() {

int choice, productId, quantity;

do {

printf("\n1.Show Products 2.Add to Cart 3.View Cart 4.Checkout 0.Exit\nEnter choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

showProducts();

break;

case 2:

printf("Enter Product ID: ");

scanf("%d", &productId);

printf("Enter Quantity: ");

scanf("%d", &quantity);

if (findProduct(productId)) addToCart(productId, quantity);

else printf("Invalid Product ID.\n");

break;

case 3:

showCart();

break;

case 4:

checkout();

break;

case 0:

printf("Goodbye!\n");

break;

default:

printf("Invalid choice.\n");

}

} while (choice != 0);

return 0;

}