#include <stdio.h>

#include <string.h>

#include <stdbool.h>

void restaurant(int n);

float calculateBill(float prices[], int numItems);

bool isValidEmail(const char \*email);

char registeredUsername[20];

char registeredEmail[50];

char registeredPassword[20];

char deliveryAddress[100];

bool isValidEmail(const char \*email) {

int atSymbol = -1, dotSymbol = -1;

int length = strlen(email);

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

if (email[i] == '@') {

atSymbol = i;

} else if (atSymbol != -1 && email[i] == '.') {

dotSymbol = i;

}

}

return (atSymbol > 0 && dotSymbol > atSymbol + 1 && dotSymbol < length - 1);

}

void signUp() {

printf("\t\t\t\t\t\tWELCOME TO FOODIES\n\n\n");

printf("---- Sign Up ----\n");

printf("Enter username: ");

scanf("%s", registeredUsername);

do {

printf("Enter email: ");

scanf("%s", registeredEmail);

if (!isValidEmail(registeredEmail)) {

printf("Invalid email format. Please enter a valid email.\n");

}

} while (!isValidEmail(registeredEmail));

do {

printf("Enter password: ");

scanf("%s", registeredPassword);

if (strcmp(registeredUsername, registeredPassword) == 0) {

printf("Username and password cannot be the same. Please enter different values.\n");

}

} while (strcmp(registeredUsername, registeredPassword) == 0);

printf("Signup successful!\n\n");

}

int login() {

char input[50], password[20];

printf("---- Login ----\n");

printf("Enter username or email: ");

scanf("%s", input);

printf("Enter password: ");

scanf("%s", password);

if ((strcmp(input, registeredUsername) == 0 || strcmp(input, registeredEmail) == 0) && strcmp(password, registeredPassword) == 0) {

printf("Login successful!\n\n");

return 1;

} else {

printf("Invalid username/email or password. Try again.\n\n");

return 0;

}

}

void restaurant(int n) {

if (n == 1) {

printf("\nYou chose KFC\n\nFood Menu of KFC");

printf("\n 1. Snack box Price 312 BDT");

printf("\n 2. Zinger meal Price 733 BDT");

printf("\n 3. Hot wings Price 460 BDT");

printf("\n 4. Fried chicken Price 200 BDT");

printf("\n\n");

} else if (n == 2) {

printf("\nYou chose Chillox\n\nFood Menu of Chillox");

printf("\n 1. Mushroom chicken burger Price 180 BDT");

printf("\n 2. Beef cheese Price 200 BDT");

printf("\n 3. Naga drums Price 90 BDT");

printf("\n 4. Oreo shake Price 150 BDT");

printf("\n\n");

} else if (n == 3) {

printf("\nYou chose Pizza Hut\n\nFood Menu of Pizza Hut");

printf("\n 1. Classic beef pizza Price 859 BDT");

printf("\n 2. Beef pepperoni Price 549 BDT");

printf("\n 3. Mushroom pasta Price 329 BDT");

printf("\n 4. Garlic bread slice Price 119 BDT");

printf("\n\n");

} else if (n == 4) {

printf("\nYou chose Crimson Cup\n\nFood Menu of Crimson Cup");

printf("\n 1. French toast Price 200 BDT");

printf("\n 2. Flavored Latte Price 200 BDT");

printf("\n 3. Cappuccino Price 180 BDT");

printf("\n 4. Espresso Price 130 BDT");

printf("\n\n");

} else if (n == 5) {

printf("\nYou chose Sultan's Dine\n\nFood Menu of Sultan's Dine");

printf("\n 1. Kacchi Biriani Price 250 BDT");

printf("\n 2. Jali Kabab Price 50 BDT");

printf("\n 3. Mutton Korma Price 460 BDT");

printf("\n 4. Leg Roast Price 150 BDT");

printf("\n\n");

} else {

printf("Restaurant not in this list. Input correctly.\n");

}

}

float calculateBill(float prices[], int numItems) {

int itemNumber, quantity;

float vat = 0.15, total = 0.0;

while (1) {

printf("Enter item number: ");

scanf("%d", &itemNumber);

if (itemNumber < 1 || itemNumber > numItems) {

printf("\nItem is not in this list. Input correctly.\n");

continue;

}

printf("Enter quantity: ");

scanf("%d", &quantity);

total += (prices[itemNumber - 1] \* quantity) + ((prices[itemNumber - 1] \* quantity) \* vat);

printf("\nTotal Amount = %.2f Taka (including 15%% VAT)\n", total);

printf("\nEnter your delivery address: ");

scanf(" %[^\n]", deliveryAddress);

printf("\nWould you like to:\n1. Add more quantity\n2. Proceed to payment method\n");

printf("Enter your choice: ");

int selection;

scanf("%d", &selection);

if (selection == 1) {

continue;

} else if (selection == 2) {

return total;

} else {

printf("Invalid selection.\n");

}

}

}

int main() {

int choice;

int loggedIn = 0;

int method;

float totalAmount;

int returnToHomePage;

signUp();

while (!loggedIn) {

loggedIn = login();

}

do {

printf("\t\t \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n");

printf("\t\t\t Welcome to our online food ordering system \n");

printf("\t\t\t Hey FOODIES! Are you hungry? Want some food?\n");

printf("\nChoose a restaurant\n\n");

printf("1. KFC \n2. Chillox \n3. Pizza Hut \n4. Crimson Cup \n5. Sultan's Dine\n");

printf("\nEnter your choice by serial number: ");

scanf("%d", &choice);

if (choice >= 1 && choice <= 5) {

restaurant(choice);

float prices1[] = {312, 733, 460, 200};

float prices2[] = {180, 200, 90, 150};

float prices3[] = {859, 549, 329, 119};

float prices4[] = {200, 200, 180, 130};

float prices5[] = {250, 50, 460, 150};

switch (choice) {

case 1: totalAmount = calculateBill(prices1, 4); break;

case 2: totalAmount = calculateBill(prices2, 4); break;

case 3: totalAmount = calculateBill(prices3, 4); break;

case 4: totalAmount = calculateBill(prices4, 4); break;

case 5: totalAmount = calculateBill(prices5, 4); break;

default: printf("Invalid restaurant choice. Exiting...\n"); return 0;

}

printf("\n\nSelect payment method:\n");

printf("1. Bkash \n2. Cash \n3. Credit card \n4. Rocket \n5. Nagad");

printf("\nEnter method number: ");

scanf("%d", &method);

if (method >= 1 && method <= 5) {

if (method == 2) {

printf("\nYour order has been received. Thank you!\n");

printf("Your order will be delivered to: %s\n", deliveryAddress);

printf("\nTotal Payable Amount: %.2f Taka", totalAmount);

} else {

char accountNumber[20];

printf("\nEnter your account/phone number: ");

scanf("%s", accountNumber);

printf("\nProcessing payment...\n\nPayment successful!\n");

}

printf("\n\nOrder successful! Your order is on the way. Expected delivery: 30 minutes.\n");

printf("Your order will be delivered to: %s\n", deliveryAddress);

} else {

printf("\nInvalid payment method. Order cancelled.\n");

}

} else {

printf("\nInvalid restaurant choice.\n");

}

printf("\nPress 1 to return to the home page, or 0 to exit: ");

scanf("%d", &returnToHomePage);

} while (returnToHomePage == 1);

printf("\nThank you for using our service!\n");

return 0;

}