#include <stdio.h>

#include <stdlib.h>

struct BankAccount {

int accountNumber;

char accountHolder[100];

float balance;

};

void createAccount() {

struct BankAccount account;

printf("Enter account number: ");

scanf("%d", &account.accountNumber);

printf("Enter account holder name: ");

scanf("%s", account.accountHolder);

account.balance = 0.0;

FILE \*file = fopen("accounts.txt", "a");

if (file == NULL) {

printf("Error opening file.\n");

return;

}

fprintf(file, "%d %s %.2f\n", account.accountNumber, account.accountHolder, account.balance);

fclose(file);

printf("Account created successfully.\n");

}

void deposit() {

int accountNumber;

float amount;

printf("Enter account number: ");

scanf("%d", &accountNumber);

printf("Enter amount to deposit: ");

scanf("%f", &amount);

FILE \*file = fopen("accounts.txt", "r");

FILE \*tempFile = fopen("temp.txt", "w");

if (file == NULL || tempFile == NULL) {

printf("Error opening file.\n");

return;

}

struct BankAccount account;

int found = 0;

while (fscanf(file, "%d %s %f", &account.accountNumber, account.accountHolder, &account.balance) != EOF) {

if (account.accountNumber == accountNumber) {

account.balance += amount;

found = 1;

}

fprintf(tempFile, "%d %s %.2f\n", account.accountNumber, account.accountHolder, account.balance);

}

fclose(file);

fclose(tempFile);

remove("accounts.txt");

rename("temp.txt", "accounts.txt");

if (found) {

printf("Amount deposited successfully.\n");

} else {

printf("Account not found.\n");

}

}

void withdraw() {

int accountNumber;

float amount;

printf("Enter account number: ");

scanf("%d", &accountNumber);

printf("Enter amount to withdraw: ");

scanf("%f", &amount);

FILE \*file = fopen("accounts.txt", "r");

FILE \*tempFile = fopen("temp.txt", "w");

if (file == NULL || tempFile == NULL) {

printf("Error opening file.\n");

return;

}

struct BankAccount account;

int found = 0;

while (fscanf(file, "%d %s %f", &account.accountNumber, account.accountHolder, &account.balance) != EOF) {

if (account.accountNumber == accountNumber) {

if (account.balance >= amount) {

account.balance -= amount;

found = 1;

} else {

printf("Insufficient balance.\n");

}

}

fprintf(tempFile, "%d %s %.2f\n", account.accountNumber, account.accountHolder, account.balance);

}

fclose(file);

fclose(tempFile);

remove("accounts.txt");

rename("temp.txt", "accounts.txt");

if (found) {

printf("Amount withdrawn successfully.\n");

} else {

printf("Account not found.\n");

}

}

void displayAccount() {

int accountNumber;

printf("Enter account number: ");

scanf("%d", &accountNumber);

FILE \*file = fopen("accounts.txt", "r");

if (file == NULL) {

printf("Error opening file.\n");

return;

}

struct BankAccount account;

int found = 0;

while (fscanf(file, "%d %s %f", &account.accountNumber, account.accountHolder, &account.balance) != EOF) {

if (account.accountNumber == accountNumber) {

found = 1;

printf("Account Number: %d\n", account.accountNumber);

printf("Account Holder: %s\n", account.accountHolder);

printf("Balance: %.2f\n", account.balance);

break;

}

}

fclose(file);

if (!found) {

printf("Account not found.\n");

}

}

int main() {

int choice;

do {

printf("\nBank Account System\n");

printf("1. Create Account\n");

printf("2. Deposit Amount\n");

printf("3. Withdraw Amount\n");

printf("4. Display Account Details\n");

printf("5. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

createAccount();

break;

case 2:

deposit();

break;

case 3:

withdraw();

break;

case 4:

displayAccount();

break;

case 5:

printf("Thank you for using the bank account system.\n");

break;

default:

printf("Invalid choice.\n");

}

} while (choice != 5);

return 0;

}