Banking System

```
// C program to implement
// the above approach
#include <conio.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <windows.h>

// Declaring all the functions
void checkbalance(char*);
void transfermoney(void);
void display(char*);
void person(char*);
void login(void);
void loginsu(void);
void account(void);
void accountcreated(void);
void afterlogin(void);
void logout(void);

// Declaring gotoxy
// function for setting
// cursor position
void gotoxy(int x, int y)
{
   COORD c;
   c.X = x;
   c.Y = y;
```

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```
    SetConsoleCursorPosition(
        GetStdHandle(STD_OUTPUT_HANDLE), c);
}

// Creating a structure to store
// data of the user
struct pass {
    char username[50];
    int date, month, year;
    char pnumber[15];
    char adharnum[20];
    char fname[20];
    char lname[20];
    char fathname[20];
    char mothname[20];
    char address[50];
    char typeaccount[20];
};

// Structure to keep track
// of amount transfer
struct money {
    char usernameto[50];
    char userpersonfrom[50];
    long int money1;
};

struct userpass {
```

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```
    char password[50];
};

// Driver Code
int main()
{
    int i, a, b, choice;
    int passwordlength;

    gotoxy(20, 3);

    // Creating a Main
    // menu for the user
    printf("WELCOME TO BANK ACCOUNT SYSTEM\n\n");
    gotoxy(18, 5);

    printf("************");
    gotoxy(25, 7);

    printf("DEVELOPER-Naman kumar");

    gotoxy(20, 10);
    printf("1.... CREATE A BANK ACCOUNT");

    gotoxy(20, 12);
    printf("2.... ALREADY A USER? SIGN IN");
    gotoxy(20, 14);
    printf("3.... EXIT\n\n");
```

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```
    printf("\n\nENTER YOUR CHOICE..");

    scanf("%d", &choice);

    switch (choice) {
    case 1:
        system("cls");
        printf("\n\n USERNAME 50 CHARACTERS MAX!!");
        printf("\n\n PASSWORD 50 CHARACTERS MAX!!");
        account();
        break;

    case 2:
        login();
        break;

    case 3:
        exit(0);
        break;

        getch();
    }
}

// Function to create accounts
// of users
void account(void)
{
    char password[20];
```

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```
int passwordlength, i, seek = 0;
char ch;
FILE *fp, *fu;
struct pass u1;
struct userpass p1;


struct userpass u2;


// Opening file to
// write data of a user
fp = fopen("username.txt", "ab");


// Inputs
system("cls");
printf("\n\n!!!!!CREATE ACCOUNT!!!!!");


printf("\n\nFIRST NAME..");
scanf("%s", &u1.fname);


printf("\n\n\nLAST NAME..");
scanf("%s", &u1.lname);


printf("\n\nFATHER's NAME..");
scanf("%s", &u1.fathname);


printf("\n\nMOTHER's NAME..");
scanf("%s", &u1.mothname);


printf("\n\nADDRESS..");
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scanf("%s", &u1.address);

printf("\n\nACCOUNT TYPE");
scanf("%s", &u1.typeaccount);

printf("\n\nDATE OF BIRTH..");
printf("\nDATE-");
scanf("%d", &u1.date);
printf("\nMONTH-");
scanf("%d", &u1.month);
printf("\nYEAR-");
scanf("%d", &u1.year);

printf("\n\nADHAR NUMBER");
scanf("%s", u1.adharnum);

printf("\n\nPHONE NUMBER");
scanf("%s", u1.pnumber);

printf("\n\nUSERNAME.. ");
scanf("%s", &u1.username);

printf("\n\nPASSWORD..");

// Taking password in the form of
// stars
for (i = 0; i < 50; i++) {
    ch = getch();
    if (ch != 13) {
```

```
            password[i] = ch;
            ch = '*';
            printf("%c", ch);
        }
        else
            break;
    }

    // Writing to the file
    fwrite(&u1, sizeof(u1),
           1, fp);

    // Closing file
    fclose(fp);

    // Calling another function
    // after successful creation
    // of account
    accountcreated();
}

// Successful account creation
void accountcreated(void)
{
    int i;
    char ch;
    system("cls");
    printf(
        "PLEASE WAIT....\n\nYOUR DATA IS PROCESSING....");
```

```
    for (i = 0; i < 200000000; i++) {
        i++;
        i--;
    }

    gotoxy(30, 10);

    printf("ACCOUNT CREATED SUCCESSFULLY....");
    gotoxy(0, 20);

    printf("Press enter to login");

    getch();
    login();
}

// Login function to check
// the username of the user
void login(void)
{
    system("cls");

    char username[50];
    char password[50];

    int i, j, k;
    char ch;
    FILE *fp, *fu;
    struct pass u1;
```

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```
struct userpass u2;


// Opening file of
// user data
fp = fopen("username.txt",
           "rb");


if (fp == NULL) {
    printf("ERROR IN OPENING FILE");
}
gotoxy(34, 2);
printf(" ACCOUNT LOGIN ");
gotoxy(7, 5);
printf("******************"
       "************");


gotoxy(35, 10);
printf("==== LOG IN ====");


// Take input
gotoxy(35, 12);
printf("USERNAME.. ");
scanf("%s", &username);


gotoxy(35, 14);
printf("PASSWORD..");


// Input the password
for (i = 0; i < 50; i++) {
```

```
        ch = getch();
        if (ch != 13) {
            password[i] = ch;
            ch = '*';
            printf("%c", ch);
        }

        else
            break;
    }

    // Checking if username
    // exists in the file or not
    while (fread(&u1, sizeof(u1),
                 1, fp)) {
        if (strcmp(username,
                   u1.username)
            == 0) {
            loginsu();
            display(username);
        }
    }

    // Closing the file
    fclose(fp);
}

// Redirect after
// successful login
```

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```
void loginsu(void)
{
   int i;
   FILE* fp;
   struct pass u1;
   system("cls");
   printf("Fetching account details.....\n");
   for (i = 0; i < 20000; i++) {
      i++;
      i--;
   }

   gotoxy(30, 10);
   printf("LOGIN SUCCESSFUL....");
   gotoxy(0, 20);
   printf("Press enter to continue");

   getch();
}

// Display function to show the
// data of the user on screen
void display(char username1[])
{
   system("cls");
   FILE* fp;
   int choice, i;
   fp = fopen("username.txt", "rb");
   struct pass u1;
```

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```
if (fp == NULL) {
   printf("error in opening file");
}


while (fread(&u1, sizeof(u1),
           1, fp)) {
   if (strcmp(username1,
            u1.username)
       == 0) {
       gotoxy(30, 1);
       printf("WELCOME, %s %s",
            u1.fname, u1.lname);
       gotoxy(28, 2);
       printf(".....");
       gotoxy(55, 6);
       printf("==== YOUR ACCOUNT INFO ====");
       gotoxy(55, 8);
       printf("*********");
       gotoxy(55, 10);
       printf("NAME..%s %s", u1.fname,
            u1.lname);


       gotoxy(55, 12);
       printf("FATHER's NAME..%s %s",
            u1.fathname,
            u1.lname);


       gotoxy(55, 14);
```

```
        printf("MOTHER's NAME..%s",
            u1.mothname);

        gotoxy(55, 16);
        printf("ADHAR CARD NUMBER..%s",
            u1.adharnum);

        gotoxy(55, 18);
        printf("MOBILE NUMBER..%s",
            u1.pnumber);

        gotoxy(55, 20);
        printf("DATE OF BIRTH.. %d-%d-%d",
            u1.date, u1.month, u1.year);

        gotoxy(55, 22);
        printf("ADDRESS..%s", u1.address);

        gotoxy(55, 24);
        printf("ACCOUNT TYPE..%s",
            u1.typeaccount);
    }
}

fclose(fp);

gotoxy(0, 6);

// Menu to perform different
```

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```
// actions by user
printf(" HOME ");
gotoxy(0, 7);
printf("**");
gotoxy(0, 9);
printf(" 1....CHECK BALANCE");
gotoxy(0, 11);
printf(" 2....TRANSFER MONEY");
gotoxy(0, 13);
printf(" 3....LOG OUT\n\n");
gotoxy(0, 15);
printf(" 4....EXIT\n\n");

printf(" ENTER YOUR CHOICES..");
scanf("%d", &choice);

switch (choice) {
case 1:
   checkbalance(username1);
   break;

case 2:
   transfermoney();
   break;

case 3:
   logout();
   login();
   break;
```

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```
    case 4:
        exit(0);
        break;
    }
}

// Function to transfer
// money from one user to
// another
void transfermoney(void)
{
    int i, j;
    FILE *fm, *fp;
    struct pass u1;
    struct money m1;
    char usernamet[20];
    char usernamep[20];
    system("cls");

    // Opening file in read mode to
    // read user's username
    fp = fopen("username.txt", "rb");

    // Creating a another file
    // to write amount along with
    // username to which amount
    // is going to be transfered
    fm = fopen("mon.txt", "ab");
```

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```
gotoxy(33, 4);
printf("---- TRANSFER MONEY ----");
gotoxy(33, 5);
printf("========================");

gotoxy(33, 11);
printf("FROM (your username).. ");
scanf("%s", &usernamet);

gotoxy(33, 13);
printf(" TO (username of person)..");
scanf("%s", &usernamep);

// Checking for username if it
// is present in file or not
while (fread(&u1, sizeof(u1),
          1, fp))

{
   if (strcmp(usernamep,
            u1.username)
       == 0) {
       strcpy(m1.usernameto,
            u1.username);
       strcpy(m1.userpersonfrom,
            usernamet);
   }
}
```

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```
gotoxy(33, 16);


// Taking amount input
printf("ENTER THE AMOUNT TO BE TRANSFERED..");
scanf("%d", &m1.money1);


// Writing to the file
fwrite(&m1, sizeof(m1),
       1, fm);


gotoxy(0, 26);
printf(
    "-------------------------------------------------"
    "-----------------------------------------");


gotoxy(0, 28);
printf(
    "-------------------------------------------------"
    "-----------------------------------------");


gotoxy(0, 29);
printf("transfering amount, Please wait..");


gotoxy(10, 27);
for (i = 0; i < 70; i++) {
    for (j = 0; j < 1200000; j++) {
        j++;
        j--;
    }
```

```
        printf("*");
    }

    gotoxy(33, 40);
    printf("AMOUNT SUCCESSFULLY TRANSFERED....");
    getch();

    // Close the files
    fclose(fp);
    fclose(fm);

    // Function to return
    // to the home screen
    display(usernamet);
}

// Function to check balance
// in users account
void checkbalance(char username2[])
{
    system("cls");
    FILE* fm;
    struct money m1;
    char ch;
    int i = 1, summoney = 0;

    // Opening amount file record
    fm = fopen("mon.txt", "rb");
```

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```
int k = 5, l = 10;

int m = 30, n = 10;

int u = 60, v = 10;


gotoxy(30, 2);

printf("==== BALANCE DASHBOARD ====");

gotoxy(30, 3);

printf("*********");

gotoxy(k, l);

printf("S no.");

gotoxy(m, n);

printf("TRANSACTION ID");

gotoxy(u, v);

printf("AMOUNT");


// Reading username to

// fetch the correct record

while (fread(&m1, sizeof(m1),

           1, fm)) {

   if (strcmp(username2,

            m1.usernameto)

       == 0) {

       gotoxy(k, ++l);

       printf("%d", i);

       i++;

       gotoxy(m, ++n);

       printf("%s", m1.userpersonfrom);


       gotoxy(u, ++v);
```

```
            printf("%d", m1.money1);
            // Adding and
            // finding total money
            summoney = summoney + m1.money1;
        }
    }

    gotoxy(80, 10);
    printf("TOTAL AMOUNT");

    gotoxy(80, 12);
    printf("%d", summoney);

    getch();

    // Closing file after
    // reading it
    fclose(fm);
    display(username2);
}

// Logout function to bring
// user to the login screen
void logout(void)
{
    int i, j;
    system("cls");
    printf("please wait, logging out");
```

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```
    for (i = 0; i < 10; i++) {
        for (j = 0; j < 25000000; j++) {
            i++;
            i--;
        }
        printf(".");
    }

    gotoxy(30, 10);
    printf("Sign out successfully..\n");

    gotoxy(0, 20);
    printf("press any key to continue..");

    getch();
}
```