

A REPORT
ON
“BANK MANAGEMENT SYSTEM”

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BY
AHSAN
SIDRA
USMAN

EMPEROR BANK

Abstract

Emperor bank management system is a program that maintains person's account in a bank. In this project, we have shown the basic functionalities of how bank management system works.

We have developed a system that gives the applications required by both customer and employee in a bank environment. Also we have added some additional functions to give user a better bank environment.

About the Project

Analysis:

Emperor Bank has two modes: one for digital banking and other for manual banking.

In B2C mode, you get the functions which are found in a normal ATM machine. In which bank customer can withdraw cash in two ways; one by selecting amount from the list provided by machine and other is by entering manual amount.

On the other hand, in manual banking, first of all system will ask the **User Name** and **Password** and then employee simple tasks will be shown, which are: Add a New Customer, Cash Depositing, Cash Withdraw, Online Cash Transfer, Search Account Through CNIC, Edit customer details.

Moreover, we have added some other functions, which are to let the system pay Utility Bills and collect University Student's fees.

Research:

I have given the task to prepare the data base for bank accounts. He like asked prepared the complete database of 15 accounts; 5 Business and 5 Asaan accounts of EMPEROR BANK and 5 Current accounts of MEZAAN BANK. Also he was the one to come up with the idea of adding utility and fees collections functions in our program. So, Ahsan also prepared the database for utility bills. Moreover, he also was the one to finish the deposit function and utility bills function.

Sidra as she was a beginner I have handed her to prepare Fee collection function and add new customer function. Which she done very genuinely.

After receiving all their efforts I combined their separate contribution into one platform and fixed the bugs I was capable of fixing. I have put cash withdraw, online cash deposit, online cash withdraw, debit card, search and edit account and Account statement functions and all the tax calculations in our system as well.

Methodology:

Debit Card: Using this function, user can withdraw certain amount of cash provided by the system or any amount of cash he/she wants. Note: certain amount of tax will be charges on both Emperor Bank account holders and Mezaan Bank.

Adding a New Customer: In this option, employee can add a new customer by simple assigning his basic information such as account number, account title, customer name, customer contact number, customer email address and customer mailing address.

Cash Deposit: In this option, employee can withdraw cash on the information provided by a customer and if the information provided is incorrect or not found the system will be terminated. While if found employee will choose an option from: 1. EBL account holder, 2. Self and 3. Walk in Customer.

1. *EBL account Holder:* Employee will ask customer account number if found same program will be terminated and if different, system will generate the receipt for customer.
2. *Self:* Employee will only input the customer name and system will generate the receipt.
3. *Walk in customer:* Employee will ask Customer's CNIC and contact number and system will generate the receipt.
Note: only **two Business accounts** holding account numbers, "1102226712" and "1102127861 and **two Asaan accounts** holding account numbers, "1108751000" and "1107671112" are added in cash deposit function.

Cash Withdraw: In this option, system will simply search the account number written in the check and if found, it will then check if the asked amount is less than the balance in respected account. System will show "Insufficient Balance" if the cashing amount is greater and will generate receipt for customer if the amount is within balance. On the other hand system will show "Incorrect Account Number" if the account number entered is incorrect.

Online Cash Deposit: User can transfer his/her balance from one banking establishment to another for example if the user has an account in Emperor bank he/she can deposit that money into Meezan bank. User can deposit amount in accounts consisting account numbers: "1102101455" and "1104590231". Moreover, certain amount of tax will be charge.

Online Cash Withdraw: User can withdraw balance from their preferred banking establishment with the help of this program. For example if the user has a bank in mezzan he/she can also withdraw money from a different bank such as the Emperror bank. Moreover, certain amount of tax will be charge.

Search Account Through CNIC: Employee can searching any details regarding customer just by entering CNIC number.

Edit Account: Employee can edit customer's contact number and customer's address using account number provided by the user.

Account Statement: Customer will be given his/her account statement upon providing his/her account number.

Assumptions:

Moreover we add some extra functions, which are:

Utility Bills: In this function, customer will be asked of customer number and account number by which he want to pay his/her bills.

Fee Collection: In this function, student will be asked to provide his/her university name, roll number, father's name, semester, batch and student's fees. And student will be provided a receipt afterwards.

Background:

Emperor Bank:

Business Accounts	
Account 1:	1102226712
CINC:	4230188812125
PIN:	1203
Account 2:	1102127861
CINC:	4240134357687
PIN:	7722
Account 3:	1101265321
CINC:	4230188812126
PIN:	1209
Account 4:	1105630912
CINC:	1730154365325
PIN:	3333
Account 5:	1105832814
CNIC:	4150132376329
PIN:	1117

Asaan Accounts	
Account 1:	1107671112
CINC:	4230143412321
PIN:	1511
Account 2:	1109107832
CINC:	4250165389765
PIN:	2601
Account 3:	1100100915
CINC:	1710160138201
PIN:	2312
Account 4:	1102100401
CINC:	4290178420181
PIN:	2106
Account 5:	1108751000
CNIC:	4210191277783
PIN:	4444

Mezaan Bank:

Current Accounts	
Account 1:	1102348761
CINC:	4410111143281
PIN:	1029
Account 2:	1107663318
CINC:	4210109059381
PIN:	5723
Account 3:	1101167231
CINC:	4560187823686
PIN:	1207
Account 4:	1102101455
CINC:	4420132888731
PIN:	4647
Account 5:	1104590231
CINC:	4230130959437
PIN:	4321

K ELECTRIC	
Customer 1:	0400012345678
Customer 2:	0400002345678
Customer 3:	0400020532113
Customer 4:	0400007891012
Customer 5:	0400067121013
PTCL	
Customer 1:	1212034239
Customer 2:	1201234541
Customer 3:	1301223871
Customer 4:	1934549892
Customer 5:	1812901232
SSGC	
Customer 1:	3127681000
Customer 2:	3892348010
Customer 3:	1823097490
Customer 4:	8184230890
Customer 5:	3087342900

Code:

```
#include<iostream>
#include<fstream>
#include <ctime>
#include<string.h>
#include <unistd.h>
#include <Windows.h>
using namespace std;
int p=0, constant=4;

struct Student{
    char student_name[100];
    char father_name[100];
    char university_name[100];
    char department[100];
    int semester;
    int roll_num;
    char batch[100];
    int fee;
```

```

    public:
        void fee_deposite(int x);
        void fees_receipt(int y);
}s[30];
struct bills{
    string Customer_Name;
    string Account_Number;
    string Due_Date;
    int After_Due_Date;
    int Payable_Amount;
    string Billing_Month;
    int With_in_Due_Date;

}bill[14];
struct Account{
    string Acc_type;
    string Cust_Name;
    string Cust_Name2;
    string Acc_Title;
    long long Cus_CNIC;
    long long Cus_CNIC2;
    string DoB;
    string DoB2;
    string Cus_Adrs;
    string Cus_Contact;
    string Cus_Contact2;
    string Cus_Email;
    string Bank_Name;
    int Branch_Code;
    string Branch_Name;
    string Acc_Number;
    string Acc_Operated_by;
    int balance;
    string IBAN_Number;
    int pin;
}bus_acc[100], cur_acc[100], asan_acc[100];

void login();
void main_menu();
void new_customer();

```

```

void accounts();
void cash_transaction();
void cash_deposit();
void cash_withdraw();
void online_transaction();
void debit_card();
int pin_checker();
void dc_cash_withdraw();
void fund_transfer();
void online_deposit();
void online_withdraw();
void billing_info();
void utility_bill();
void fee_collection();
void account_search();
void account_statement();
void edit();


int asan_tax(int x);
int debit_tax(int x);
int online_withdraw_tax(int x);
int online_deposit_tax(int x);


void time(){
time_t ttime = time(0);

char* dt = ctime(&ttime);
cout << dt;
}

void line()
{
    int j;
    for(j=1;j<=100;j++)
        cout << "*";
}

///accounts data
void accounts()
{
    ///Business Accounts
    bus_acc[0].Acc_Title = "Emperor Transport Company";

```

```
bus_acc[0].Acc_type = "Business Account";
bus_acc[0].Acc_Number = "1102226712";
bus_acc[0].balance = 5064000;
bus_acc[0].Bank_Name = "EMPEROR BANK";
bus_acc[0].Acc_Operated_by = "Single";
bus_acc[0].Branch_Code = 1212;
bus_acc[0].IBAN_Number = "PK10EMPR0012121102226712";
bus_acc[0].Branch_Name = "Cilifton BR-KHI";
bus_acc[0].Cust_Name = "Ahsan Ali";
bus_acc[0].Cus_CNIC = 4230188812125;
bus_acc[0].DoB = "03/12/1995";
bus_acc[0].Cus_Contact = "0347-1234567";
bus_acc[0].Cus_Contact2 = "0313-1234567";
bus_acc[0].Cus_Email = "ahsan@etc.com";
bus_acc[0].Cus_Adrs = "Ramzan Tower Block A Jinnahabad # 1 Karachi";
bus_acc[0].pin = 1203;
```

```
bus_acc[1].Acc_Title = "Khan Traders";
bus_acc[1].Acc_type = "Business Account";
bus_acc[1].Acc_Number = "1102127861";
bus_acc[1].balance = 3500000;
bus_acc[1].Bank_Name = "EMPEROR BANK";
bus_acc[1].Acc_Operated_by = "Single";
bus_acc[1].Branch_Code = 1212;
bus_acc[1].IBAN_Number = "PK11EMPR0012121102127861";
bus_acc[1].Branch_Name = "Cilifton BR-KHI";
bus_acc[1].Cust_Name = "Haseeb Khan";
bus_acc[1].Cus_CNIC = 4240134357687;
bus_acc[1].DoB = "04/04/1992";
bus_acc[1].Cus_Contact = "0344-0137843";
bus_acc[1].Cus_Email = "haseeb888@gmail.com";
bus_acc[1].Cus_Adrs = "Emporium Tower Block D North Nazimabad Karachi";
bus_acc[1].pin = 7722;
```

```
bus_acc[2].Acc_Title = "A & M Electronics";
bus_acc[2].Acc_type = "Business Account";
bus_acc[2].Acc_Number = "1101265321";
bus_acc[2].balance = 4854300;
bus_acc[2].Bank_Name = "EMPEROR BANK";
bus_acc[2].Acc_Operated_by = "Joint";
bus_acc[2].Branch_Code = 1722;
bus_acc[2].IBAN_Number = "PK12EMPR0017221101265321";
```

```
bus_acc[2].Branch_Name = "Hala Naka BR-HYD";
bus_acc[2].Cust_Name = "Ahsan Ali";
bus_acc[2].Cust_Name2 = "Mohsin Ali";
bus_acc[2].Cus_CNIC = 4230188812126;
bus_acc[2].Cus_CNIC2 = 4230176834637;
bus_acc[2].DoB = "03/12/1995";
bus_acc[2].DoB2 = "28/09/1997";
bus_acc[2].Cus_Contact = "0347-1234567";
bus_acc[2].Cus_Contact2 = "0313-1234567";
bus_acc[2].Cus_Email = "ame@gmail.com";
bus_acc[2].Cus_Adrs = "House no A-521 Sahafi Colony Hyderabad";
bus_acc[2].pin = 1209;
```

```
bus_acc[3].Acc_Title = "Danish Motors";
bus_acc[3].Acc_type = "Business Account";
bus_acc[3].Acc_Number = "1105630912";
bus_acc[3].balance = 1020800;
bus_acc[3].Bank_Name = "EMPEROR BANK";
bus_acc[3].Acc_Operated_by = "Single";
bus_acc[3].Branch_Code = 1011;
bus_acc[3].IBAN_Number = "PK13EMPR0010111105630912";
bus_acc[3].Branch_Name = "Saddar BR-KHI";
bus_acc[3].Cust_Name = "Muhammad Danish";
bus_acc[3].Cus_CNIC = 1730154365325;
bus_acc[3].DoB = "18/06/1985";
bus_acc[3].Cus_Contact = "0305-2292251";
bus_acc[3].Cus_Contact2 = "0319-9876543";
bus_acc[3].Cus_Email = "danish@dmotors.com";
bus_acc[3].Cus_Adrs = "House no M-95 DHA Phase 6 Karachi";
bus_acc[3].pin = 3333;
```

```
bus_acc[4].Acc_Title = "King Cargo Service";
bus_acc[4].Acc_type = "Business Account";
bus_acc[4].Acc_Number = "1105832814";
bus_acc[4].balance = 6545801;
bus_acc[4].Bank_Name = "EMPEROR BANK";
bus_acc[4].Acc_Operated_by = "Single";
bus_acc[4].Branch_Code = 9812;
bus_acc[4].IBAN_Number = "PK14EMPR0098121105832814";
bus_acc[4].Branch_Name = "Khyber Rd BR-PSW";
bus_acc[4].Cust_Name = "Hamza Mehmood";
bus_acc[4].Cus_CNIC = 4150132376329;
```

```
bus_acc[4].DoB = "17/11/1996";
bus_acc[4].Cus_Contact = "0334-5657794";
bus_acc[4].Cus_Contact2 = "0309-1215569";
bus_acc[4].Cus_Email = "hamza@kcs.com";
bus_acc[4].Cus_Adrs = "House no 901 Chaman Road Peshawar";
bus_acc[4].pin = 1117;
```

//Asaan Accounts

```
asan_acc[0].Acc_Title = "Rajab Ali";
asan_acc[0].Acc_type = "Asaan Account";
asan_acc[0].Acc_Number = "1107671112";
asan_acc[0].balance = 54050;
asan_acc[0].Bank_Name = "EMPEROR BANK";
asan_acc[0].Acc_Operated_by = "Single";
asan_acc[0].Branch_Code = 1212;
asan_acc[0].IBAN_Number = "PK20EMPR0012121107671112";
asan_acc[0].Branch_Name = "Cilifton BR-KHI";
asan_acc[0].Cust_Name = "Rajab Ali";
asan_acc[0].Cus_CNIC = 4230143412321;
asan_acc[0].DoB = "15/11/1994";
asan_acc[0].Cus_Contact = "0390-1532091";
asan_acc[0].Cus_Contact2 = "0340-2131231";
asan_acc[0].Cus_Email = "rajabali@gmail.com";
asan_acc[0].Cus_Adrs = "Ramzan City Flat B-16 Karachi";
asan_acc[0].pin = 1511;
```

```
asan_acc[1].Acc_Title = "Raja Kamran";
asan_acc[1].Acc_type = "Asaan Account";
asan_acc[1].Acc_Number = "1109107832";
asan_acc[1].balance = 320500;
asan_acc[1].Bank_Name = "EMPEROR BANK";
asan_acc[1].Acc_Operated_by = "Single";
asan_acc[1].Branch_Code = 1074;
asan_acc[1].IBAN_Number = "PK21EMPR0010741109107832";
asan_acc[1].Branch_Name = "Keamari BR-KHI";
asan_acc[1].Cust_Name = "Raja Kamran";
asan_acc[1].Cus_CNIC = 4250165389765;
asan_acc[1].DoB = "26/01/1991";
asan_acc[1].Cus_Contact = "0305-19909832";
asan_acc[1].Cus_Email = "rajakamran@gmail.com";
asan_acc[1].Cus_Adrs = "Shumail Building Flat no F-29 Karachi";
```

```
asan_acc[1].pin = 2601;
```

```
asan_acc[2].Acc_Title = "Saqib Shah";  
asan_acc[2].Acc_type = "Asaan Account";  
asan_acc[2].Acc_Number = "1100100915";  
asan_acc[2].balance = 480000;  
asan_acc[2].Bank_Name = "EMPEROR BANK";  
asan_acc[2].Acc_Operated_by = "Single";  
asan_acc[2].Branch_Code = 1221;  
asan_acc[2].IBAN_Number = "PK22EMPR0012211100100915";  
asan_acc[2].Branch_Name = "Nazimabad BR-KHI";  
asan_acc[2].Cust_Name = "Saqib Shah";  
asan_acc[2].Cus_CNIC = 1710160138201;  
asan_acc[2].DoB = "23/12/1997";  
asan_acc[2].Cus_Contact = "0349-5310911";  
asan_acc[2].Cus_Email = "saqib@gmail.com";  
asan_acc[2].Cus_Adrs = "House no 45 Blue Sky City Karachi";  
asan_acc[2].pin = 2312;
```

```
asan_acc[3].Acc_Title = "Saad Yousuf";  
asan_acc[3].Acc_type = "Asaan Account";  
asan_acc[3].Acc_Number = "1102100401";  
asan_acc[3].balance = 500000;  
asan_acc[3].Bank_Name = "EMPEROR BANK";  
asan_acc[3].Acc_Operated_by = "Single";  
asan_acc[3].Branch_Code = 2122;  
asan_acc[3].IBAN_Number = "PK23EMPR0021221102100401";  
asan_acc[3].Branch_Name = "Lee Market BR-KHI";  
asan_acc[3].Cust_Name = "Saad Yousuf";  
asan_acc[3].Cus_CNIC = 4290178420181;  
asan_acc[3].DoB = "21/06/1981";  
asan_acc[3].Cus_Contact = "0389-541305";  
asan_acc[3].Cus_Email = "saad@gmail.com";  
asan_acc[3].Cus_Adrs = "Shahnawaz Garden Flat B-16 Karachi";  
asan_acc[3].pin = 2106;
```

```
asan_acc[4].Acc_Title = "Hameed Gul";  
asan_acc[4].Acc_type = "Asaan Account";  
asan_acc[4].Acc_Number = "1108751000";  
asan_acc[4].balance = 375600;  
asan_acc[4].Bank_Name = "EMPEROR BANK";  
asan_acc[4].Acc_Operated_by = "Single";
```

```
asan_acc[4].Branch_Code = 1212;  
asan_acc[4].IBAN_Number = "PK24EMPR0012121108751000";  
asan_acc[4].Branch_Name = "Cilifton BR-KHI";  
asan_acc[4].Cust_Name = "Hameed Gul";  
asan_acc[4].Cus_CNIC = 4210191277783;  
asan_acc[4].DoB = "01/02/1989";  
asan_acc[4].Cus_Contact = "0395-2322128";  
asan_acc[4].Cus_Email = "hameed@gmail.com";  
asan_acc[4].Cus_Adrs = "Khan Manzil Khyber Road Peshawar";  
asan_acc[4].pin = 4444;
```

//Current Accounts

```
cur_acc[0].Acc_Title = "Muhammad Usman";  
cur_acc[0].Acc_type = "Current Account";  
cur_acc[0].Acc_Number = "1102348761";  
cur_acc[0].balance = 123987;  
cur_acc[0].Bank_Name = "MEZAAN BANK";  
cur_acc[0].Acc_Operated_by = "Single";  
cur_acc[0].Branch_Code = 9201;  
cur_acc[0].IBAN_Number = "PK15EMPR0092011102348761";  
cur_acc[0].Branch_Name = "Canal Rd BR-LHR";  
cur_acc[0].Cust_Name = "Muhammad Usman";  
cur_acc[0].Cus_CNIC = 4410111143281;  
cur_acc[0].DoB = "29/10/1989";  
cur_acc[0].Cus_Contact = "0319-2221111";  
cur_acc[0].Cus_Contact2 = "0339-9090901";  
cur_acc[0].Cus_Email = "musman@gmail.com";  
cur_acc[0].Cus_Adrs = "House no B-16 St no 1 Cilifton Karachi";  
cur_acc[0].pin = 1029;
```

```
cur_acc[1].Acc_Title = "Muhammad Danial";  
cur_acc[1].Acc_type = "Current Account";  
cur_acc[1].Acc_Number = "1107663318";  
cur_acc[1].balance = 890123;  
cur_acc[1].Bank_Name = "MEZAAN BANK";  
cur_acc[1].Acc_Operated_by = "Single";  
cur_acc[1].Branch_Code = 1213;  
cur_acc[1].IBAN_Number = "PK16EMPR0012131107663318";  
cur_acc[1].Branch_Name = "II Chandrigar Rd BR-KHI";  
cur_acc[1].Cust_Name = "Muhammad Danial";  
cur_acc[1].Cus_CNIC = 4210109059381;  
cur_acc[1].DoB = "23/08/1991";
```



```
cur_acc[1].Cus_Contact = "0301-5673910";  
cur_acc[1].Cus_Email = "mdk@gmail.com";  
cur_acc[1].Cus_Adrs = "Emaar Tower Flat D-30 DHA Phase 6 Karachi";  
cur_acc[1].pin = 5723;
```

```
cur_acc[2].Acc_Title = "Sidra Sajid";  
cur_acc[2].Acc_type = "MEZAAN Account";  
cur_acc[2].Acc_Number = "1101167231";  
cur_acc[2].balance = 756400;  
cur_acc[2].Bank_Name = "EMPEROR BANK";  
cur_acc[2].Acc_Operated_by = "Single";  
cur_acc[2].Branch_Code = 1219;  
cur_acc[2].IBAN_Number = "PK17EMPR0012191101167231";  
cur_acc[2].Branch_Name = "Korangi BR-KHI";  
cur_acc[2].Cust_Name = "Sidra Sajid";  
cur_acc[2].Cus_CNIC = 4560187823686;  
cur_acc[2].DoB = "12/07/1999";  
cur_acc[2].Cus_Contact = "0332-332901";  
cur_acc[2].Cus_Email = "sidra@gmail.com";  
cur_acc[2].Cus_Adrs = "House no A-90 Korangi Karachi";  
cur_acc[2].pin = 1207;
```

```
cur_acc[3].Acc_Title = "Muhammad Umair";  
cur_acc[3].Acc_type = "Current Account";  
cur_acc[3].Acc_Number = "1102101455";  
cur_acc[3].balance = 650000;  
cur_acc[3].Bank_Name = "MEZAAN BANK";  
cur_acc[3].Acc_Operated_by = "Single";  
cur_acc[3].Branch_Code = 1212;  
cur_acc[3].IBAN_Number = "PK18EMPR0012121102101455";  
cur_acc[3].Branch_Name = "Saddar BR-KHI";  
cur_acc[3].Cust_Name = "Muhammad Umair";  
cur_acc[3].Cus_CNIC = 4420132888731;  
cur_acc[3].DoB = "09/07/1997";  
cur_acc[3].Cus_Contact = "0390-7632195";  
cur_acc[3].Cus_Email = "mumair@gmail.com";  
cur_acc[3].Cus_Adrs = "Bahria Icon Flat A-90 Karachi";  
cur_acc[3].pin = 4647;
```

```
cur_acc[4].Acc_Title = "Shahjahan Ali";  
cur_acc[4].Acc_type = "Current Account";  
cur_acc[4].Acc_Number = "1104590231";
```

```

        cur_acc[4].balance = 756030;
        cur_acc[4].Bank_Name = "MEZAAN BANK";
        cur_acc[4].Acc_Operated_by = "Single";
        cur_acc[4].Branch_Code = 1011;
        cur_acc[4].IBAN_Number = "PK19EMPR0010111104590231";
        cur_acc[4].Branch_Name = "Saddar BR-KHI";
        cur_acc[4].Cust_Name = "Shahjahan Ali";
        cur_acc[4].Cus_CNIC = 4230130959437;
        cur_acc[4].DoB = "21/03/1998";
        cur_acc[4].Cus_Contact = "0349-1003217";
        cur_acc[4].Cus_Email = "shahjahan@gmail.com";
        cur_acc[4].Cus_Adrs = "Belle View Flat G-901 Karachi";
        cur_acc[4].pin = 4321;
    }

    ///Main Function
    int main()
    {
        int choice, choice_1;
        cout<<"Options:\n";
        cout<<"1.ATM"<<endl;
        cout<<"2.Admin"<<endl;
        cout<<"Chosen option: ";
        cin>>choice;
        if(choice==1)
        {
            system("cls");
            debit_card();
        }
        else if(choice==2)
        {
            login();
            main_menu();
        }
    }

    ///Debit Card
    void debit_card()
    {
        int option,option_1;
        int amount, cash;
    }

```

```

char confirm_msg1;
cash=pin_checker();
menu:
cout<<"\n\nOptions: \n";
cout<<"1.Fast Cash"<<endl;
cout<<"2.Cash Withdraw"<<endl;
cout<<"3.Balance Inquiry"<<endl;
cout<<endl<<"Chosen Option: ";
cin>>option;
if(option==1)
{
    system("cls");
    cout<<"\n\nOptions: \n";
    cout<<"1. PKR 500\t";
    cout<<"2. PKR 1,000"<<endl;
    cout<<"3. PKR 3,000\t";
    cout<<"4. PKR 5,000"<<endl;
    cout<<"5. PKR 10,000\t";
    cout<<"6. Main Menu"<<endl;
    cout<<endl<<"Chosen Option: ";
    cin>>option_1;
    if(option_1==1)
    {
        if(cash>500)
        {
            cout<<"\nDo you want receipt?(Y/N):\n";
            cin>>confirm_msg1;
            if(confirm_msg1=='Y' || confirm_msg1=='y')
            {
                cout<<"Please Wait";
                sleep(1);
                cout<<".";
                sleep(1);
                cout<<".";
                sleep(1);
                cout<<"."<<endl;
                cout<<"Please Collect Your Cash!";
                sleep(2);
                cout<<endl<<"Please Collect Your Receipt!";
                sleep(2);
                cout<<"\nCurrent Balance: Rs"<<cash-540<<"\nCash withdraw: PKR 500";
                cout<<endl<<"Thank You So Much!";
            }
        }
    }
}

```

```

        getch();
        main_menu();
    }
    else
    {
        cout<<"Please Wait";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<"."<<endl;
        cout<<"Please Collect Your Cash!";
        cout<<endl<<"Thank You So Much!";
        getch();
        exit(0);
    }
}
else
{
    cout<<"\nInsufficient Balance!";
    getch();
    exit(0);
}
}
else if(option_1 == 2)
{
    if(cash > 1000)
    {
        cout<<"\nDo you want receipt?(Y/N):\n";
        cin>>confirm_msg1;
        if(confirm_msg1 == 'Y' || confirm_msg1 == 'y')
        {
            cout<<"Please Wait";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<"."<<endl;
            cout<<"Please Collect Your Cash!";
            sleep(2);

```

```

        cout<<endl<<"Please Collect Your Receipt!";
        sleep(2);
        cout<<"\nCurrent Balance: Rs"<<cash-1070<<"\nCASH withdraw: PKR 1000";
        cout<<endl<<"Thank You So Much!";
        getchar();
        exit(0);
    }
    else
    {
        cout<<"Please Wait";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<"."<<endl;
        cout<<"Please Collect Your Cash!";
        cout<<endl<<"Thank You So Much!";
        getchar();
        exit(0);
    }
}
else
{
    cout<<"\nInsufficient Balance!";
    exit(0);
}
}
else if(option_1==3)
{
    if(cash>3000)
    {
        cout<<"\nDo you want receipt?(Y/N):\n";
        cin>>confirm_msg1;
        if(confirm_msg1=='Y' || confirm_msg1=='y')
        {
            cout<<"Please Wait";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);

```

```

        cout<<"."<<endl;
        cout<<"Please Collect Your Cash!";
        sleep(2);
        cout<<endl<<"Please Collect Your Receipt!";
        sleep(2);
        cout<<"\nCurrent Balance: Rs"<<cash-3100<<"\nCash withdraw: PKR 3000";
        cout<<endl<<"Thank You So Much!";
        sleep(3);
        exit(0);
    }
    else
    {
        cout<<"Please Wait";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<"."<<endl;
        cout<<"Please Collect Your Cash!";
        cout<<endl<<"Thank You So Much!";
        getchar();
        exit(0);
    }
}
else
{
    cout<<"\nInsufficient Balance!";
    getchar();
    exit(0);
}
}
else if(option_1==4)
{
    if(cash>5000)
    {
        cout<<"\nDo you want receipt?(Y/N):\n";
        cin>>confirm_msg1;
        if(confirm_msg1=='Y' || confirm_msg1=='y')
        {
            cout<<"Please Wait";
            sleep(1);

```

```

        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<"."<<endl;
        cout<<"Please Collect Your Cash!";
        sleep(2);
        cout<<endl<<"Please Collect Your Receipt!";
        sleep(2);
        cout<<"\nCurrent Balance: Rs"<<cash-5130<<"\nCASH withdraw: PKR 5000";
        cout<<endl<<"Thank You So Much!";
        getchar();
        exit(0);
    }
    else
    {
        cout<<"Please Wait";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<"."<<endl;
        cout<<"Please Collect Your Cash!";
        cout<<endl<<"Thank You So Much!";
        getchar();
        exit(0);
    }
}
else
{
    cout<<"\nInsufficient Balance!";
    getchar();
    exit(0);
}
}
else if(option_1==5)
{
    if(cash>10000)
    {
        cout<<"\nDo you want receipt?(Y/N):\n";
        cin>>confirm_msg1;
    }
}

```

```

        if(confirm_msg1=='Y' || confirm_msg1=='y')
        {
            cout<<"Please Wait";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<"."<<endl;
            cout<<"Please Collect Your Cash!";
            sleep(2);
            cout<<endl<<"Please Collect Your Receipt!";
            sleep(2);
            cout<<"\nCurrent Balance: Rs"<<cash-10160<<"\nCash withdraw: PKR
10000";

            cout<<endl<<"Thank You So Much!";
            getchar();
            exit(0);
        }
        else
        {
            cout<<"Please Wait";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<"."<<endl;
            cout<<"Please Collect Your Cash!";
            cout<<endl<<"Thank You So Much!";
            getchar();
            exit(0);
        }
    }
    else
    {
        cout<<"\nInsufficient Balance!";
        exit(0);
    }
}
else if(option_1==6)
{

```



```

        goto menu;
    }
    else
    {
        exit(0);
    }
}
else if(option==2)
{
    cout<<endl<<"Enter The Amount: ";
    cin>>amount;
    amount=debit_tax(amount);
    if(amount<cash)
    {
        cout<<endl<<"Please Wait";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<"."<<endl;
        cout<<"\nDo you want receipt?(Y/N):\n";
        cin>>confirm_msg1;
        if(confirm_msg1=='Y' || confirm_msg1=='y')
        {
            cout<<"Please Wait";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<"."<<endl;
            cout<<"Please Collect Your Cash!";
            sleep(2);
            cout<<endl<<"Please Collect Your Receipt!";
            sleep(2);
            cout<<"\nCurrent Balance: Rs"<<cash-amount<<"\nCASH withdraw:
"<<amount;
            cout<<endl<<"Thank You So Much!";
            getchar();
            exit(0);
        }
    }
}

```

```

        else
        {
            cout<<"Please Wait";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<"."<<endl;
            cout<<"Please Collect Your Cash!";
            cout<<endl<<"Thank You So Much!";
            getchar();
            main_menu();
        }
    }
    else
    {
        cout<<"\nInsufficient Balance!";
        exit(0);
    }

}
else if(option==3)
{
    cout<<"Your Balance is "<<cash<<".";
    getchar();
    goto menu;
}

}
//Pin Checker
int pin_checker()
{
    accounts();
    int balance, pin, loginAttempt = 1;
    cout<<endl<<endl<<"***Debit Card***\n";
menu:
    cout<<"\t\t\tPIN: ";
    cin>>pin;
    for(int i=0;i<5;i++)
    {
        if(pin == bus_acc[i].pin)

```

```

        {
            sleep(2);
            balance = bus_acc[i].balance;
            return balance;
            break;
        }
        else if(pin==cur_acc[i].pin)
        {
            sleep(2);
            balance = cur_acc[i].balance;
            return balance;
            break;
        }
        else if(pin==asan_acc[i].pin)
        {
            sleep(2);
            balance = asan_acc[i].balance;
            return balance;
            break;
        }
    }
    if(loginAttempt<3)
    {
        loginAttempt=loginAttempt+1;
        goto menu;
    }

    if (loginAttempt == 3)
    {
        cout <<endl<<"Too many attempts! The program now terminate.";
        cout<<endl<<"Contact Your System Administration or Concern Department. \n\n";
        exit(0);
    }
}
///login
void login()
{
    int loginAttempt = 0;
    string nic,paswrд,user_name,dcn;
    while(loginAttempt < 3)
    {

```

```

        cout<<endl<<"\t\t\t\t\t***Sign in***";
        cout<<endl<<endl;
        cout<<endl<<"\t\t\t\t\tUsername: ";
        cin>>user_name;
        cout<<endl<<"\t\t\t\t\tPassword: ";
        cin>>paswr;

        if(user_name == "admin" && paswr == "1234")
        {
            cout<<endl<<endl<<"\t\t\t\t\t Sign in Successful";
            system("cls");
            break;
        }
        else
        {
            cout <<endl<< "Wrong User_Name or Password. Please try again"<<endl<<endl;
            loginAttempt++;
        }
    }

    if (loginAttempt == 3)
    {
        cout <<endl<<"Too many Sign in attempts! The program now terminate.";
        cout<<endl<<"Contact Your System Administration or Concern Department. \n\n";
        exit(0);
    }
}

///main menu
void main_menu()
{
    cout<<endl<<endl<<endl;
    line();
    cout <<endl;
    cout <<"\t\t\t\t\t *****WELCOME TO EMPEROR BANK***** ";
    cout<<endl;
    line();
    int n;
    cout<<"\n\n\tSelect from the menu: "<<endl;
    cout<<"\t1.New Customer\n";
    cout<<"\t2.Cash Transaction\n";
    cout<<"\t3.Online Cash Transfer\n";
    cout<<"\t4.Utility Bill\n";
}

```

```
cout<<"\t5.Fee Collection\n";
cout<<"\t6.Edit Account\n";
cout<<"\t7.Account Search From CNIC\n";
cout<<"\t8.Account Statement\n";
cout<<"\t9.EXIT\n\tPlease Enter Your Option"<<endl;
cin>>n;
if(n==1)
{
    new_customer(); //100%
}
else if(n==2)
{
    cash_transaction(); //100%
}
else if(n==3)
{
    fund_transfer(); //100%
}
else if(n==4)
{
    billing_info(); //100%
    utility_bill(); //100%
}
else if(n==5)
{
    fee_collection(); //100%
}
else if(n==6)
{
    edit(); //100%
}
else if(n==7)
{
    account_search(); //100%
}
else if(n==8)
{
    account_statement(); //100%
}
else if(n==9)
{
    exit(0);;
```

```

    }
}

void new_customer()
{
    accounts();
    int choice;
new_cos:
    constant=constant+1;
    cout<<"\n\n\tSelect the Type of account:"<<endl;
    cout<<"\tEmperor Bank Accounts:"<<endl;
    cout<<"\t1. Asaan Account"<<endl;
    cout<<"\t2. Business Account"<<endl;
    cout<<"\tMezaan Bank Accounts:"<<endl;
    cout<<"\t3. Current Account"<<endl;
    cout<<"\t4. Back to Main Menu"<<endl;
    cout<<endl<<"\tSelect Your Choice: ";
    cin>>choice;
    if(choice==1)
    {
        cout<<endl<<"Enter Account Title:\t";
        cin>>asan_acc[constant].Acc_Title;   ///Account number...
        cout<<endl<<"Enter Customer Name:\t";
        cin>>asan_acc[constant].Cust_Name;
        cout<<endl<<"Enter Customer CNIC(xxxxxxxxxxxxxx):\t";
        cin>>asan_acc[constant].Cus_CNIC;
        cout<<endl<<"Enter Customer Date Of Birth[dd/mm/yyyy]:\t";
        cin>>asan_acc[constant].DoB;
        cout<<endl<<"Enter Customer Contact:\t";
        cin>>asan_acc[constant].Cus_Contact;
        cout<<endl<<"Enter Customer Contact 2:\t";
        cin>>asan_acc[constant].Cus_Contact2;
        cout<<endl<<"Enter Customer Email Address:\t";
        cin>>asan_acc[constant].Cus_Email;
        cout<<endl<<"Enter Customer Address:\t";
        cin>>asan_acc[constant].Cus_Adrs;
        cout<<endl<<"Enter Initial Account Balance:\t";
        cin>>asan_acc[constant].balance;
        cout<<endl<<"Enter Bank Name:\t";
        cin>>asan_acc[constant].Bank_Name;
        cout<<endl<<"Enter Marital Status:\t";
        cin>>asan_acc[constant].Acc_Operated_by;
    }
}

```

```

        cout<<endl<<"Enter Branch Code:\t";
        cin>>asan_acc[constant].Branch_Code; ///IBAN
        cout<<endl<<"Enter Branch Name:\t";
        cin>>asan_acc[constant].Branch_Name;
    }
    else if(choice==2)
    {
        cout<<endl<<"Enter Account Title:\t";
        cin>>bus_acc[constant].Acc_Title; ///Account number...
        cout<<endl<<"Enter Customer Name:\t";
        cin>>bus_acc[constant].Cust_Name;
        cout<<endl<<"Enter Customer CNIC(xxxxxxxxxxxxxx):\t";
        cin>>bus_acc[constant].Cus_CNIC;
        cout<<endl<<"Enter Customer Date Of Birth[dd/mm/yyyy]:\t";
        cin>>bus_acc[constant].DoB;
        cout<<endl<<"Enter Customer Contact:\t";
        cin>>bus_acc[constant].Cus_Contact;
        cout<<endl<<"Enter Customer Contact 2:\t";
        cin>>bus_acc[constant].Cus_Contact2;
        cout<<endl<<"Enter Customer Email Address:\t";
        cin>>bus_acc[constant].Cus_Email;
        cout<<endl<<"Enter Customer Address:\t";
        cin>>bus_acc[constant].Cus_Adrs;
        cout<<endl<<"Enter Initial Account Balance:\t";
        cin>>bus_acc[constant].balance;
        cout<<endl<<"Enter Bank Name:\t";
        cin>>bus_acc[constant].Bank_Name;
        cout<<endl<<"Enter Marital Status:\t";
        cin>>bus_acc[constant].Acc_Operated_by;
        cout<<endl<<"Enter Branch Code:\t";
        cin>>bus_acc[constant].Branch_Code; ///IBAN
        cout<<endl<<"Enter Branch Name:\t";
        cin>>bus_acc[constant].Branch_Name;
    }
    else if(choice==3)
    {
        cout<<endl<<"Enter Account Title:\t";
        cin>>cur_acc[constant].Acc_Title; ///Account number...
        cout<<endl<<"Enter Customer Name:\t";
        cin>>cur_acc[constant].Cust_Name;
        cout<<endl<<"Enter Customer CNIC(xxxxxxxxxxxxxx):\t";
        cin>>cur_acc[constant].Cus_CNIC;
    }

```

```

        cout<<endl<<"Enter Customer Date Of Birth[dd/mm/yyyy]:\t";
        cin>>cur_acc[constant].DoB;
        cout<<endl<<"Enter Customer Contact:\t";
        cin>>cur_acc[constant].Cus_Contact;
        cout<<endl<<"Enter Customer Contact 2:\t";
        cin>>cur_acc[constant].Cus_Contact2;
        cout<<endl<<"Enter Customer Email Address:\t";
        cin>>cur_acc[constant].Cus_Email;
        cout<<endl<<"Enter Customer Address:\t";
        cin>>cur_acc[constant].Cus_Adrs;
        cout<<endl<<"Enter Initial Account Balance:\t";
        cin>>cur_acc[constant].balance;
        cout<<endl<<"Enter Bank Name:\t";
        cin>>cur_acc[constant].Bank_Name;
        cout<<endl<<"Enter Marital Status:\t";
        cin>>cur_acc[constant].Acc_Operated_by;
        cout<<endl<<"Enter Branch Code:\t";
        cin>>cur_acc[constant].Branch_Code; ///IBAN
        cout<<endl<<"Enter Branch Name:\t";
        cin>>cur_acc[constant].Branch_Name;
    }
    else if(choice==4)
    {
        main_menu();
    }
    else
    {
        cout<<"\nInvalid Choice..."<<endl;
        constant=constant-1;
        goto new_cos;
    }
    cout<<endl<<constant;
    main_menu();
}

```

///completed


```

void cash_transaction()
{
menu:
    int search_acc,br_cd,acc_num,opsion,cash_amount,Dpst_slp_no,cis,transaction_done,t_prt;
    string nic,paswrđ,user_name,dcn;

    string wnc_nam, wnc_nic;
    int sv,prt;
    int flag,limit;
    int choice=0;
    cout <<endl;
    cout <<"1. Cash Deposit"<<endl;
    cout <<"2. Cash Withdraw"<<endl;
    cout <<"3. Main Menu"<<endl;
    cout <<"4. EXIT"<<endl;
    cout <<endl<< "Select Consumer: ";
    cin >> choice;

    if(choice == 1)
    {
        cash_deposit();
    }
    else if(choice==2)
    {
        cash_withdraw();
    }
    else if(choice==3)
    {
        main_menu();
    }
    else if(choice==4)
    {
        exit(0);
    }
    else{ goto menu;}

}
void cash_deposit()
{
    accounts();
}

```

```

int
search_acc,br_cd,acc_num,option,cash_amount,Dpst_slp_no,cis,transaction_done,t_prt;
string nic,paswr,user_name,dcn;

string wnc_nam, wnc_nic;
cout<<endl<<endl<<"\t***Cash Deposit***"<<endl<<endl<<endl;
    cout<<endl<<"Enter Account Number: ";
    cin>>acc_num;

    if(acc_num == 1102226712)
    {
        cout<<endl<<"Account Title:\t"<<bus_acc[0].Acc_Title;
        cout<<endl<<"Branch Name:\t"<<bus_acc[0].Branch_Name;
        cout<<endl<<"IBAN Number:\t"<<bus_acc[0].IBAN_Number;
        cout<<endl<<"Account Type:\t"<<bus_acc[0].Acc_type;
        cout<<endl<<endl<<"Cash Deposit Amount:\t";
        cin>>cash_amount;
        cout<<endl<<"Deposit Slip:\t\t";
        cin>>Dpst_slp_no;

        cout<<endl<<"Capture Info Selection: ";
        cout<<endl<<"1. EBL.Ac.Holder";
        cout<<endl<<"2. Self";
        cout<<endl<<"3. Walk.in.Customer";
        cout<<endl<<"4. Exit";

        cout<<endl<<endl<<"Select Number: ";
        cin>>cis;
        if(cis == 1)
        {
            cout<<endl<<"Account Number:\t";
            cin>>dcn;

            if(dcn == bus_acc[0].Acc_Number)
            {
                cout<<endl<<"Same Account Not Allowed";
            }
            else if(dcn == bus_acc[1].Acc_Number)
            {
                cout<<"Account Title:\t"<<bus_acc[1].Acc_Title;
            }
        }
    }

```

```

        else if(dcn == bus_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[2].Acc_Title;
        }
        else if(dcn == bus_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[3].Acc_Title;
        }
        else if(dcn == bus_acc[4].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[4].Acc_Title;
        }
        else if(dcn == asan_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[0].Acc_Title;
        }
        else if(dcn == asan_acc[1].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[1].Acc_Title;
        }
        else if(dcn == asan_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[2].Acc_Title;
        }
        else if(dcn == asan_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[3].Acc_Title;
        }
        else if(dcn == asan_acc[4].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[4].Acc_Title;
        }
        else{
            cout<<endl<<"Invalid Account Number!";
        }
    }
    else if(cis == 2)
    {
        cout<<endl<<"Customer Name:\t"<<bus_acc[0].Cust_Name;
    }
    else if(cis == 3)
    {

```

```

        cout<<endl<<"Customer Name: ";
        cin.ignore();
        getline(cin,wnc_nam);
        cout<<endl<<"Customer CNIC: ";
        cin>>wnc_nic;
    }
    else{
        cout<<endl<<"Invalid Option!";
    }

    cout<<endl<<endl<<endl<<"Press 1 For Save \t\tPress 2 For Exit"<<endl;
    cin>>transaction_done;

    if(transaction_done == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 For Print: ";
        cin >>t_prt;

        if(t_prt == 1)
        {
            cout<<endl<<"\t\tCash Deposited";
            cout<<endl<<"\t\t";time();
            cout<<"\t\tCILIFTON BRANCH KARACHI";
            cout<<endl<<"\t\tUser ID AHSAN.110";
            cout<<endl<<"\t\tPKR "<<cash_amount;
            bus_acc[0].balance=cash_amount+asan_acc[0].balance;
            cout<<endl<<"\t\tA/C # "<<bus_acc[0].Acc_Number;
            cout<<endl<<"\t\t"<<bus_acc[0].Acc_Title;
        }
    }

}

else if(acc_num == 1102127861)
{
    cout<<endl<<"Account Title:\t"<<bus_acc[1].Acc_Title;
    cout<<endl<<"Branch Name:\t"<<bus_acc[1].Branch_Name;
    cout<<endl<<"IBAN Number:\t"<<bus_acc[1].IBAN_Number;
    cout<<endl<<"Account Type:\t"<<bus_acc[1].Acc_type;
    cout<<endl<<endl<<"Cash Deposit Amount:\t";
    cin>>cash_amount;
}

```

```

cout<<endl<<"Deposit Slip:\t\t";
cin>>Dpst_slp_no;

cout<<endl<<"Capture Info Selection: ";
cout<<endl<<"1. EBL.Ac.Holder";
cout<<endl<<"2. Self";
cout<<endl<<"3. Walk.in.Customer";
cout<<endl<<"4. Exit";

cout<<endl<<endl<<"Select Number: ";
cin>>cis;
if(cis == 1)
{
    cout<<endl<<"Account Number:\t";
    cin>>dcn;

    if(dcn == bus_acc[1].Acc_Number)
    {
        cout<<endl<<"Same Account Not Allowed";
    }
    else if(dcn == bus_acc[0].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[0].Acc_Title;
    }
    else if(dcn == bus_acc[2].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[2].Acc_Title;
    }
    else if(dcn == bus_acc[3].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[3].Acc_Title;
    }
    else if(dcn == bus_acc[4].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[4].Acc_Title;
    }
    else if(dcn == asan_acc[0].Acc_Number)
    {
        cout<<"Account Title:\t"<<asan_acc[0].Acc_Title;
    }
    else if(dcn == asan_acc[1].Acc_Number)

```

```

        {
            cout<<"Account Title:\t"<<asan_acc[1].Acc_Title;
        }
        else if(dcn == asan_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[2].Acc_Title;
        }
        else if(dcn == asan_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[3].Acc_Title;
        }
        else if(dcn == asan_acc[4].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[4].Acc_Title;
        }
        else{
            cout<<endl<<"Invalid Account Number!";
        }
    }
    else if(cis == 2)
    {
        cout<<endl<<"Customer Name:\t"<<bus_acc[1].Cust_Name;
    }
    else if(cis == 3)
    {
        cout<<endl<<"Customer Name: ";
        cin.ignore();
        getline(cin,wnc_nam);
        cout<<endl<<"Customer CNIC: ";
        cin>>wnc_nic;
    }
    else{
        cout<<endl<<"Invalid Option!";
    }

    cout<<endl<<endl<<endl<<"Press 1 For Save \t\tPress 2 For Exit"<<endl;
    cin>>transaction_done;

    if(transaction_done == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 For Print: ";
    }

```

```

cin >>t_prt;

if(t_prt == 1)
{
    cout<<endl<<"\t\tCash Deposited";
    cout<<endl<<"\t\t";time();
    cout<<"\t\tCILIFTON BRANCH KARACHI";
    cout<<endl<<"\t\tUser ID AHSAN.110";
    cout<<endl<<"\t\tPKR "<<cash_amount;
    bus_acc[1].balance=cash_amount+asan_acc[1].balance;
    cout<<endl<<"\t\tA/C # "<<bus_acc[1].Acc_Number;
    cout<<endl<<"\t\t"<<bus_acc[1].Acc_Title;
}
}

else if(acc_num == 1107671112)
{
    cout<<endl<<"Account Title:\t"<<asan_acc[0].Acc_Title;
    cout<<endl<<"Branch Name:\t"<<asan_acc[0].Branch_Name;
    cout<<endl<<"IBAN Number:\t"<<asan_acc[0].IBAN_Number;
    cout<<endl<<"Account Type:\t"<<asan_acc[0].Acc_type;
    cout<<endl<<endl<<"Cash Deposit Amount:\t";
    cin>>cash_amount;
    cout<<endl<<"Deposit Slip:\t\t";
    cin>>Dpst_slp_no;

    cout<<endl<<"Capture Info Selection: ";
    cout<<endl<<"1. EBL.Ac.Holder";
    cout<<endl<<"2. Self";
    cout<<endl<<"3. Walk.in.Customer";
    cout<<endl<<"4. Exit";

    cout<<endl<<endl<<"Select Number: ";
    cin>>cis;
    if(cis == 1)
    {
        cout<<endl<<"Account Number:\t";
        cin>>dcn;
    }
}

```

```

if(dcn == asan_acc[0].Acc_Number)
{
    cout<<endl<<"Same Account Not Allowed";
}
else if(dcn == bus_acc[0].Acc_Number)
{
    cout<<"Account Title:\t"<<bus_acc[0].Acc_Title;
}
else if(dcn == bus_acc[2].Acc_Number)
{
    cout<<"Account Title:\t"<<bus_acc[2].Acc_Title;
}
else if(dcn == bus_acc[3].Acc_Number)
{
    cout<<"Account Title:\t"<<bus_acc[3].Acc_Title;
}
else if(dcn == bus_acc[4].Acc_Number)
{
    cout<<"Account Title:\t"<<bus_acc[4].Acc_Title;
}
else if(dcn == bus_acc[1].Acc_Number)
{
    cout<<"Account Title:\t"<<bus_acc[1].Acc_Title;
}
else if(dcn == asan_acc[1].Acc_Number)
{
    cout<<"Account Title:\t"<<asan_acc[1].Acc_Title;
}
else if(dcn == asan_acc[2].Acc_Number)
{
    cout<<"Account Title:\t"<<asan_acc[2].Acc_Title;
}
else if(dcn == asan_acc[3].Acc_Number)
{
    cout<<"Account Title:\t"<<asan_acc[3].Acc_Title;
}
else if(dcn == asan_acc[4].Acc_Number)
{
    cout<<"Account Title:\t"<<asan_acc[4].Acc_Title;
}
else{
    cout<<endl<<"Invalid Account Number!";
}

```



```

        }
    }
    else if(cis == 2)
    {
        cout<<endl<<"Customer Name:\t"<<asan_acc[0].Cust_Name;
    }
    else if(cis == 3)
    {
        cout<<endl<<"Customer Name: ";
        cin.ignore();
        getline(cin,wnc_nam);
        cout<<endl<<"Customer CNIC: ";
        cin>>wnc_nic;
    }
    else{
        cout<<endl<<"Invalid Option!";
    }

    cout<<endl<<endl<<endl<<"Press 1 For Save \t\tPress 2 For Exit"<<endl;
    cin>>transaction_done;

    if(transaction_done == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 For Print: ";
        cin >>t_prt;

        if(t_prt == 1)
        {
            cout<<endl<<"\t\tCash Deposited";
            cout<<endl<<"\t\t";time();
            cout<<"\t\tCILIFTON BRANCH KARACHI";
            cout<<endl<<"\t\tUser ID AHSAN.110";
            cout<<endl<<"\t\tPKR "<<cash_amount;
            asan_acc[0].balance=cash_amount+asan_acc[0].balance;
            cout<<endl<<"\t\tA/C # "<<asan_acc[0].Acc_Number;
            cout<<endl<<"\t\t"<<asan_acc[0].Acc_Title;
        }
    }
}

}

```

```

else if(acc_num == 1108751000)
{
    cout<<endl<<"Account Title:\t"<<asan_acc[4].Acc_Title;
    cout<<endl<<"Branch Name:\t"<<asan_acc[4].Branch_Name;
    cout<<endl<<"IBAN Number:\t"<<asan_acc[4].IBAN_Number;
    cout<<endl<<"Account Type:\t"<<asan_acc[4].Acc_type;
    cout<<endl<<endl<<"Cash Deposit Amount:\t";
    cin>>cash_amount;
    cout<<endl<<"Deposit Slip:\t\t";
    cin>>Dpst_slp_no;

    cout<<endl<<"Capture Info Selection: ";
    cout<<endl<<"1. EBL.Ac.Holder";
    cout<<endl<<"2. Self";
    cout<<endl<<"3. Walk.in.Customer";
    cout<<endl<<"4. Exit";

    cout<<endl<<endl<<"Select Number: ";
    cin>>cis;
    if(cis == 1)
    {
        cout<<endl<<"Account Number:\t";
        cin>>dcn;

        if(dcn == asan_acc[4].Acc_Number)
        {
            cout<<endl<<"Same Account Not Allowed";
        }
        else if(dcn == bus_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[0].Acc_Title;
        }
        else if(dcn == bus_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[2].Acc_Title;
        }
        else if(dcn == bus_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[3].Acc_Title;
        }
        else if(dcn == bus_acc[4].Acc_Number)
    }
}

```

```

        {
            cout<<"Account Title:\t"<<bus_acc[4].Acc_Title;
        }
        else if(dcn == bus_acc[1].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[1].Acc_Title;
        }
        else if(dcn == asan_acc[1].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[1].Acc_Title;
        }
        else if(dcn == asan_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[2].Acc_Title;
        }
        else if(dcn == asan_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[3].Acc_Title;
        }
        else if(dcn == asan_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[0].Acc_Title;
        }
        else{
            cout<<endl<<"Invalid Account Number!";
        }
    }
    else if(cis == 2)
    {
        cout<<endl<<"Customer Name:\t"<<asan_acc[4].Cust_Name;
    }
    else if(cis == 3)
    {
        cout<<endl<<"Customer Name: ";
        cin.ignore();
        getline(cin,wnc_nam);
        cout<<endl<<"Customer CNIC: ";
        cin>>wnc_nic;
    }
    else{
        cout<<endl<<"Invalid Option!";
    }
}

```

```

        cout<<endl<<endl<<endl<<"Press 1 For Save \t\tPress 2 For Exit"<<endl;
        cin>>transaction_done;

        if(transaction_done == 1)
        {

                cout<<endl<<"\tSaved"<<endl;
                cout<<endl<<"Press 1 For Print: ";
                cin >>t_prt;

                if(t_prt == 1)
                {

                        cout<<endl<<"\t\tCash Deposited";
                        cout<<endl<<"\t\t";time();
                        cout<<"\t\tCILIFTON BRANCH KARACHI";
                        cout<<endl<<"\t\tUser ID AHSAN.110";
                        cout<<endl<<"\t\tPKR "<<cash_amount;
                        asan_acc[4].balance=cash_amount+asan_acc[4].balance;
                        cout<<endl<<"\t\tA/C # "<<asan_acc[4].Acc_Number;
                        cout<<endl<<"\t\t"<<asan_acc[4].Acc_Title;

                }

        }
        else{
                cout<<"\nIncorrect Account Number!\n\tTry Again...\n";
        }
        main_menu();
}

void cash_withdraw()
{
        accounts();
        string acc_num, acc_type;
        int cash, k, tax=0;
        cout<<endl<<endl<<"\t***Cash Withdraw***"<<endl<<endl<<endl;
        cout<<endl<<"Enter Account Number: ";
        cin>> acc_num;
        for( k=0;k<5;k++)
        {
                if(bus_acc[k].Acc_Number==acc_num)
                {

```

```

        cout<<"Searching";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        sleep(1);
        cout<<".";
        cout<<"\n\nAccount Found!"<<endl;
        cout<<"\n\n\tCash amount: ";
        cin>>cash;
        if(bus_acc[k].balance>cash)
        {
            bus_acc[k].balance=bus_acc[k].balance-cash;
            cout<<"Thank You!\n";
            cout<<bus_acc[k].balance<<endl;
            main_menu();
        }
        else if(bus_acc[k].balance<cash)
        {
            cout<<"Insufficient Balance...\n";
            main_menu();
        }
        else
        {
            cout<<"Error";
        }
    }
else if(asan_acc[k].Acc_Number==acc_num)
{
    cout<<"Searching";
    sleep(1);
    cout<<".";
    sleep(1);
    cout<<".";
    sleep(1);
    cout<<".";
    cout<<"\n\nAccount Found!"<<endl;
    cout<<"\n\n\tCash amount: ";
    cin>>cash;
    asan_acc[k].balance=asan_acc[k].balance-asan_tax(cash);
    if(asan_acc[k].balance>cash)

```

```

        {
            cout<<"\n(Asan)Thank You!\n";
            cout<<"Remaining Balance is:\t PKR "<<asan_acc[k].balance;
            main_menu();
        }
    else if(asan_acc[k].balance>cash)
    {
        cout<<"\nInsufficient Balance...\n";
        main_menu();
    }
    else
    {
        cout<<"\nError!\n";
    }
}
else if(cur_acc[k].Acc_Number==acc_num)
{
    cout<<"Searching";
    sleep(1);
    cout<<".";
    sleep(1);
    cout<<".";
    sleep(1);
    cout<<".";
    cout<<"\n\nAccount of Another Bank!"<<endl;
    cout<<"\nThank You!\n";
    main_menu();
}
}

}

void fund_transfer()
{
    menu:
    int search_acc,br_cd,acc_num,opsion,cash_amount,Dpst_slp_no,cis,transaction_done,t_prt;
    string nic,paswr,user_name,dcn;

    string wnc_nam, wnc_nic;
    int sv,prt;
    int flag,limit;
    int choice=0;
    cout <<endl;

```

```

        cout <<"1. Online Cash Deposit"<<endl;
        cout <<"2. Online Cash Withdraw"<<endl;
        cout <<"3. Main Menu"<<endl;
        cout <<"4. EXIT"<<endl;
        cout <<endl<< "Select Consumer: ";
        cin >> choice;

        if(choice == 1)
        {
            online_deposit();
        }
        else if(choice==2)
        {
            online_withdraw();
        }
        else if(choice==3)
        {
            main_menu();
        }
        else if(choice==4)
        {
            exit(0);
        }
        else{ goto menu;}
    }
void online_deposit()
{
    accounts();
    int
search_acc,br_cd,acc_num,option,cash_amount,Dpst_slp_no,cis,transaction_done,t_prt;
    string nic,paswr,user_name,dcn;

    string wnc_nam, wnc_nic;
    cout<<endl<<endl<<"\t***Cash Deposit***"<<endl<<endl<<endl;
        cout<<endl<<"Enter Account Number: ";
        cin>>acc_num;

        if(acc_num == 1102101455)
        {
            cout<<endl<<"Account Title:\t"<<cur_acc[3].Acc_Title;
            cout<<endl<<"Branch Name:\t"<<cur_acc[3].Branch_Name;

```

```

        cout<<endl<<"IBAN Number:\t"<<cur_acc[3].IBAN_Number;
        cout<<endl<<"Account Type:\t"<<cur_acc[3].Acc_type;
        cout<<endl<<endl<<"Cash Deposit Amount:\t";
        cin>>cash_amount;
        cout<<endl<<"Deposit Slip:\t\t";
        cin>>Dpst_slp_no;
        cout<<endl<<"Account Number to Transfer From:\t";
        cin>>dcn;

        if(dcn == cur_acc[3].Acc_Number)
        {
            cout<<endl<<"Same Account Not Allowed";
        }
        else if(dcn == bus_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[0].Acc_Title;
            bus_acc[0].balance=bus_acc[0].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == bus_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[2].Acc_Title;
            bus_acc[2].balance=bus_acc[2].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == bus_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[3].Acc_Title;
            bus_acc[3].balance=bus_acc[3].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == bus_acc[4].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[4].Acc_Title;
            bus_acc[4].balance=bus_acc[4].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == cur_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<cur_acc[0].Acc_Title;
            cur_acc[0].balance=cur_acc[0].balance-
online_deposit_tax(cash_amount);

```



```

        }
        else if(dcn == cur_acc[1].Acc_Number)
        {
            cout<<"Account Title:\t"<<cur_acc[1].Acc_Title;
            cur_acc[1].balance=cur_acc[1].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == cur_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<cur_acc[2].Acc_Title;
            cur_acc[2].balance=cur_acc[2].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == bus_acc[1].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[1].Acc_Title;
            bus_acc[1].balance=bus_acc[1].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == cur_acc[4].Acc_Number)
        {
            cout<<"Account Title:\t"<<cur_acc[4].Acc_Title;
            cur_acc[4].balance=cur_acc[4].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == asan_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[0].Acc_Title;
            asan_acc[0].balance=asan_acc[0].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == asan_acc[1].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[1].Acc_Title;
            asan_acc[1].balance=asan_acc[1].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == asan_acc[2].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[2].Acc_Title;
            asan_acc[2].balance=asan_acc[2].balance-
online_deposit_tax(cash_amount);

```

```

        }
        else if(dcn == asan_acc[3].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[3].Acc_Title;
            asan_acc[3].balance=asan_acc[3].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == asan_acc[4].Acc_Number)
        {
            cout<<"Account Title:\t"<<asan_acc[4].Acc_Title;
            asan_acc[4].balance=asan_acc[4].balance-
online_deposit_tax(cash_amount);
        }
        else{
            cout<<endl<<"Invalid Account Number!";
        }
    }
    else if(acc_num == 1104590231)
    {
        cout<<endl<<"Account Title:\t"<<cur_acc[4].Acc_Title;
        cout<<endl<<"Branch Name:\t"<<cur_acc[4].Branch_Name;
        cout<<endl<<"IBAN Number:\t"<<cur_acc[4].IBAN_Number;
        cout<<endl<<"Account Type:\t"<<cur_acc[4].Acc_type;
        cout<<endl<<endl<<"Cash Deposit Amount:\t";
        cin>>cash_amount;
        cout<<endl<<"Deposit Slip:\t\t";
        cin>>Dpst_slp_no;
        cout<<endl<<"Account Number:\t";
        cin>>dcn;

        if(dcn == cur_acc[4].Acc_Number)
        {
            cout<<endl<<"Same Account Not Allowed";
        }
        else if(dcn == bus_acc[0].Acc_Number)
        {
            cout<<"Account Title:\t"<<bus_acc[0].Acc_Title;
            bus_acc[0].balance=bus_acc[0].balance-
online_deposit_tax(cash_amount);
        }
        else if(dcn == bus_acc[2].Acc_Number)
        {

```

```

        cout<<"Account Title:\t"<<bus_acc[2].Acc_Title;
        bus_acc[2].balance=bus_acc[2].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == bus_acc[3].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[3].Acc_Title;
        bus_acc[3].balance=bus_acc[3].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == bus_acc[4].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[4].Acc_Title;
        bus_acc[4].balance=bus_acc[4].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == cur_acc[0].Acc_Number)
    {
        cout<<"Account Title:\t"<<cur_acc[0].Acc_Title;
        cur_acc[0].balance=cur_acc[0].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == cur_acc[1].Acc_Number)
    {
        cout<<"Account Title:\t"<<cur_acc[1].Acc_Title;
        cur_acc[1].balance=cur_acc[1].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == cur_acc[2].Acc_Number)
    {
        cout<<"Account Title:\t"<<cur_acc[2].Acc_Title;
        cur_acc[2].balance=cur_acc[2].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == bus_acc[1].Acc_Number)
    {
        cout<<"Account Title:\t"<<bus_acc[1].Acc_Title;
        bus_acc[1].balance=bus_acc[1].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == cur_acc[3].Acc_Number)
    {

```

```

        cout<<"Account Title:\t"<<cur_acc[3].Acc_Title;
        cur_acc[3].balance=cur_acc[3].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == asan_acc[0].Acc_Number)
    {
        cout<<"Account Title:\t"<<asan_acc[0].Acc_Title;
        asan_acc[0].balance=asan_acc[0].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == asan_acc[1].Acc_Number)
    {
        cout<<"Account Title:\t"<<asan_acc[1].Acc_Title;
        asan_acc[1].balance=asan_acc[1].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == asan_acc[2].Acc_Number)
    {
        cout<<"Account Title:\t"<<asan_acc[2].Acc_Title;
        asan_acc[2].balance=asan_acc[2].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == asan_acc[3].Acc_Number)
    {
        cout<<"Account Title:\t"<<asan_acc[3].Acc_Title;
        asan_acc[3].balance=asan_acc[3].balance-
online_deposit_tax(cash_amount);
    }
    else if(dcn == asan_acc[4].Acc_Number)
    {
        cout<<"Account Title:\t"<<asan_acc[4].Acc_Title;
        asan_acc[4].balance=asan_acc[4].balance-
online_deposit_tax(cash_amount);
    }
    else{
        cout<<endl<<"Invalid Account Number!";
    }
}

cout<<endl<<endl<<endl<<"Press 1 For Save \t\tPress 2 For Exit"<<endl;
cin>>transaction_done;

```

```

        if(transaction_done == 1)
        {
            cout<<endl<<"\tSaved"<<endl;
            cout<<endl<<"Press 1 For Print: ";
            cin >>t_prt;

            if(t_prt == 1)
            {
                cout<<endl<<"\t\tCash Deposited PKR "<<cash_amount;
                cout<<endl<<"\t\t";time();
                cout<<"\t\tCILIFTON BRANCH KARACHI";
                cout<<endl<<"\t\tUser ID AHSAN.110";
                cur_acc[4].balance=cur_acc[4].balance+cash_amount;
                cout<<endl<<"\t\tAvailable Balance PKR
"<<cur_acc[4].balance;

                cout<<endl<<"\t\tA/C # "<<cur_acc[4].Acc_Number;
                cout<<endl<<"\t\t"<<cur_acc[4].Acc_Title;

            }

        }

    }

void online_withdraw()
{
    accounts();
    string acc_num, acc_type;
    int cash, k, tax=0;
    cout<<endl<<endl<<"\t***Online Cash Withdraw***"<<endl<<endl<<endl;
    cout<<endl<<"Enter Account Number: ";
    cin>> acc_num;
    for(k=0;k<5;k++)
    {
        if(cur_acc[k].Acc_Number==acc_num)
        {
            cout<<"Searching";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
            sleep(1);
            cout<<".";
        }
    }
}

```

```

        cout<<"\n\nAccount of Mezaan Bank Found!"<<endl;
        cout<<"\n\n\tCash amount: PKR ";
        cin>>cash;
        cur_acc[k].balance=cur_acc[k].balance-online_withdraw_tax(cash);
        if(cur_acc[k].balance>cash)
        {
            cout<<"Here's Your PKR "<<cash;
            cout<<"\nThank You!\n";
            cout<<cur_acc[k].balance<<endl;
            main_menu();
        }
        else if(cur_acc[k].balance<cash)
        {
            cout<<"Insufficient Balance...\n";
            main_menu();
        }
        else
        {
            cout<<"Error";
        }
    }

}

cout<<"\n\n\n\tThank You!\n\n";
main_menu();

```

```

}

```

```

///asaan Account tax Calculator

```

```

int asan_tax(int x)

```

```

{

```

```

    if(x>50000)

```

```

    {

```

```

        cout<<"Out of limit!"<<endl;

```

```

        main_menu();

```

```

    }

```

```

    else if(x>=5000 && x<10000)

```

```

    {

```

```

        return x+300;

```

```

    }

```

```

    else if(x>=10000 && x<15000)

```

```

    {

```

```

        return x+600;

```

```

    }
    else if(x>=15000 && x<20000)
    {
        return x+900;
    }
    else if(x>=20000 && x<25000)
    {
        return x+1200;
    }
    else if(x>=25000 && x<30000)
    {
        return x+1500;
    }
    else if(x>=30000 && x<35000)
    {
        return x+1800;
    }
    else if(x>=35000 && x<40000)
    {
        return x+2100;
    }
    else if(x>=40000 && x<45000)
    {
        return x+2400;
    }
    else if(x>=45000 && x<50000)
    {
        return x+2700;
    }
    else{
        return x;
    }
}

///Bank to Bank transfer tax Calculator
int online_withdraw_tax(int x)
{
    if(x>50000)
    {
        cout<<"Out of limit!"<<endl;
        main_menu();
    }
    else if(x>=5000 && x<10000)

```

```
{
    return x+400;
}
else if(x>=10000 && x<15000)
{
    return x+700;
}
else if(x>=15000 && x<20000)
{
    return x+1000;
}
else if(x>=20000 && x<25000)
{
    return x+1300;
}
else if(x>=25000 && x<30000)
{
    return x+1600;
}
else if(x>=30000 && x<35000)
{
    return x+1900;
}
else if(x>=35000 && x<40000)
{
    return x+2200;
}
else if(x>=40000 && x<45000)
{
    return x+2500;
}
else if(x>=45000 && x<50000)
{
    return x+2800;
}
else{
    return x;
}
}
///online_deposit tax
int online_deposit_tax(int x)
{
```



```
if(x>500000)
{
    cout<<"Out of limit!"<<endl;
    main_menu();
}
else if(x>=50000 && x<100000)
{
    return x+4;
}
else if(x>=100000 && x<150000)
{
    return x+7;
}
else if(x>=150000 && x<200000)
{
    return x+10;
}
else if(x>=200000 && x<250000)
{
    return x+13;
}
else if(x>=250000 && x<300000)
{
    return x+16;
}
else if(x>=300000 && x<350000)
{
    return x+19;
}
else if(x>=350000 && x<400000)
{
    return x+22;
}
else if(x>=400000 && x<450000)
{
    return x+25;
}
else if(x>=450000 && x<500000)
{
    return x+2800;
}
else{
```

```

        return x;
    }
}
//Bank to Bank transfer tax Calculator
int debit_tax(int x)
{
    if(x>10000)
    {
        cout<<"Out of limit!"<<endl;
        main_menu();
    }
    else if(x>=500 && x<1000)
    {
        return x+40;
    }
    else if(x>=1000 && x<3000)
    {
        return x+70;
    }
    else if(x>=3000 && x<5000)
    {
        return x+100;
    }
    else if(x>=5000 && x<10000)
    {
        return x+130;
    }
    else if(x>=10000 && x<20000)
    {
        return x+160;
    }
    else{
        return x;
    }
}

///Utility
void billing_info()
{
    bill[0].Account_Number = "0400012345678";
    bill[0].Customer_Name = "Ahsan Ali";
}

```

bill[0].Due_Date = "15 Dec 2020";
bill[0].Payable_Amount = 3137;
bill[0].After_Due_Date = 3230;

bill[1].Account_Number = "0400002345678";
bill[1].Customer_Name = "Danish Mehmood";
bill[1].Due_Date = "8 Dec 2020";
bill[1].Payable_Amount = 5340;
bill[1].After_Due_Date = 5353;

bill[2].Account_Number = "0400020532113";
bill[2].Customer_Name = "Faisal Karim";
bill[2].Due_Date = "25 Dec 2020";
bill[2].Payable_Amount = 7011;
bill[2].After_Due_Date = 8004;

bill[3].Account_Number = "0400007891012";
bill[3].Customer_Name = "Muhammad Adil Khan";
bill[3].Due_Date = "18 Dec 2020";
bill[3].Payable_Amount = 1023;
bill[3].After_Due_Date = 1114;

bill[4].Account_Number = "0400067121013";
bill[4].Customer_Name = "Muhammad Usama";
bill[4].Due_Date = "26 Dec 2020";
bill[4].Payable_Amount = 890;
bill[4].After_Due_Date = 983;

bill[5].Account_Number = "1212034239";
bill[5].Customer_Name = "Muhammad Junaid";
bill[5].Due_Date = "5 Jan 2021";
bill[5].Payable_Amount = 1045;
bill[5].After_Due_Date = 1125;

bill[6].Account_Number = "1201234541";
bill[6].Customer_Name = "Muhammad Ali";
bill[6].Due_Date = "5 Jan 2021";
bill[6].Payable_Amount = 3500;
bill[6].After_Due_Date = 3580;

bill[7].Account_Number = "1301223871";
bill[7].Customer_Name = "Muhammad Jawad";

bill[7].Due_Date = "5 Jan 2021";
bill[7].Payable_Amount = 9012;
bill[7].After_Due_Date = 9092;

bill[8].Account_Number = "1934549892";
bill[8].Customer_Name = "Muhammad Waqas";
bill[8].Due_Date = "5 Jan 2021";
bill[8].Payable_Amount = 450;
bill[8].After_Due_Date = 530;

bill[9].Account_Number = "1812901232";
bill[9].Customer_Name = "Bilal Khan";
bill[9].Due_Date = "5 Jan 2021";
bill[9].Payable_Amount = 1048;
bill[9].After_Due_Date = 1128;

bill[10].Account_Number = "3127681000";
bill[10].Customer_Name = "Muhammad Rafiq";
bill[10].Due_Date = "15 Jan 2021";
bill[10].Payable_Amount = 750;
bill[10].After_Due_Date = 840;

bill[11].Account_Number = "3892348010";
bill[11].Customer_Name = "Muhammad Danial";
bill[11].Due_Date = "8 Jan 2021";
bill[11].Payable_Amount = 1580;
bill[11].After_Due_Date = 1660;

bill[12].Account_Number = "1823097490";
bill[12].Customer_Name = "Muhammad Usman";
bill[12].Due_Date = "25 Jan 2021";
bill[12].Payable_Amount = 680;
bill[12].After_Due_Date = 760;

bill[13].Account_Number = "8184230890";
bill[13].Customer_Name = "Saddam Hussain";
bill[13].Due_Date = "18 Jan 2021";
bill[13].Payable_Amount = 1590;
bill[13].After_Due_Date = 1670;

bill[14].Account_Number = "3087342900";
bill[14].Customer_Name = "Shahjahan Baloch";

```

        bill[14].Due_Date = "26 Jan 2021";
        bill[14].Payable_Amount = 1530;
        bill[14].After_Due_Date = 1610;
    }
    void utility_bill()
    {
        int choice,sv,prt;
        int flag,limit;
        string account;
        choice=0;
    menu:
        cout <<endl;
        cout <<"1. PTCL"<<endl;
        cout <<"2. K Electric"<<endl;
        cout <<"3. SSGC"<<endl;
        cout <<"4. Main Menu"<<endl;
        cout <<"5. EXIT"<<endl;

        cout <<endl<< "Select Consumer: ";
        cin >> choice;

        if(choice == 1)
        {
            cout<<endl<<"\t\t***PTCL***"<<endl;
            cout<<endl<<"Customer Number: ";
            cin >> account;

            if(account == "1212034239")
            {
                cout <<endl<<"Customer Name: "<<bill[5].Customer_Name<<endl;
                cout <<endl<<"Due Date: "<<bill[5].Due_Date<<endl;
                cout <<endl<<"After Due Date: "<<bill[5].After_Due_Date<<endl;
                cout <<endl<<"Payable Amount is: "<<bill[5].Payable_Amount<<endl;
                cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
                cin >> sv;

                if(sv == 1)
                {
                    cout<<endl<<"\tSaved"<<endl;

```

```

        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t .....";
            cout<<endl<<"\t\tBILL PAID      ";
            cout<<endl<<"\t .....";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :

"<<bill[5].Payable_Amount<<endl;

            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 690";
            cout<<endl<<"\tCustomer Name : PTCL";

        }

        else if(sv == 2)
        {
            flag = 0;

        }

    }

}

else if(account == "1201234541")
{
    cout <<endl<<"Customer Name: "<<bill[6].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[6].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[6].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[6].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;
    }
}

```

```

        if(prt == 1)
        {
            cout<<endl<<"\t`.....";
            cout<<endl<<"\t\tBILL PAID      ";
            cout<<endl<<"\t`.....";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :

"<<bill[6].Payable_Amount<<endl;

            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 691";
            cout<<endl<<"\tCustomer Name : PTCL";

        }
        else if(sv == 2)
        {
            flag = 0;

        }
    }

}
else if(account == "1301223871")
{
    cout <<endl<<"Customer Name: "<<bill[7].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[7].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[7].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[7].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t`.....";
            cout<<endl<<"\t\tBILL PAID      ";

```

```

        cout<<endl<<"\t ````````````````````";
        cout<<endl<<"\tCASH COLLECTION";
        cout<<endl<<"\t1212034239";
        cout<<endl<<"\tPKR :

"<<bill[7].Payable_Amount<<endl;

        cout<<"\t";time();
        cout<<"\tEmperor Bank 1212 Cilifton";
        cout<<endl<<"\tUser ID : AHSAN110";
        cout<<endl<<"\tCustomer Code : 692";
        cout<<endl<<"\tCustomer Name : PTCL";

    }

    else if(sv == 2)
    {
        flag = 0;
    }

}

}

else if(account == "1934549892")
{
    cout <<endl<<"Customer Name: "<<bill[8].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[8].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[8].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[8].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t ````````````````````";
            cout<<endl<<"\t\tBILL PAID          ";
            cout<<endl<<"\t ````````````````````";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";

```



```

        cout<<endl<<"\tPKR :
"<<bill[8].Payable_Amount<<endl;
        cout<<"\t";time();
        cout<<"\tEmperor Bank 1212 Cilifton";
        cout<<endl<<"\tUser ID : AHSAN110";
        cout<<endl<<"\tCustomer Code : 693";
        cout<<endl<<"\tCustomer Name : PTCL";
    }

    else if(sv == 2)
    {
        flag = 0;
    }
}
}
else if(account == "1812901232")
{
    cout <<endl<<"Customer Name: "<<bill[9].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[9].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[9].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[9].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t`~~~~~";
            cout<<endl<<"\t\tBILL PAID      ";
            cout<<endl<<"\t`~~~~~";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[9].Payable_Amount<<endl;
            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";

```

```

        cout<<endl<<"\tCustomer Code : 693";
        cout<<endl<<"\tCustomer Name : PTCL";
    }

    else if(sv == 2)
    {
        flag = 0;
    }
}

}

else{
    cout<<endl<<endl<<"Invalid Customer Account Number!"<<endl;
}

}

else if(choice == 2){
    cout<<endl<<"\t\t***K ELECTRIC***"<<endl;
    cout<<endl<<"Customer Number: ";
    cin >> account;

    if(account == "0400012345678")
    {
        cout <<endl<<"Customer Name: "<<bill[0].Customer_Name<<endl;
        cout <<endl<<"Due Date: "<<bill[0].Due_Date<<endl;
        cout <<endl<<"After Due Date: "<<bill[0].After_Due_Date<<endl;
        cout <<endl<<"Payable Amount is: "<<bill[0].Payable_Amount<<endl;
        cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
        cin >> sv;

        if(sv == 1)
        {
            cout<<endl<<"\tSaved"<<endl;
            cout<<endl<<"Press 1 for Print"<<endl;
            cin >> prt;

            if(prt == 1)
            {
                cout<<endl<<"\t` `````````````````````````````````;";
                cout<<endl<<"\t\tBILL PAID          ";
                cout<<endl<<"\t` `````````````````````````````````;";
                cout<<endl<<"\tCASH COLLECTION";
                cout<<endl<<"\t1212034239";
            }

```

```

        cout<<endl<<"\tPKR :
"<<bill[0].After_Due_Date<<endl;
//
        cout<<"\t";time();
        cout<<"\tEmperor Bank 1212 Cilifton";
        cout<<endl<<"\tUser ID : AHSAN110";
        cout<<endl<<"\tCustomer Code : 696";
        cout<<endl<<"\tCustomer Name : K ELECTRIC";
    }

    else if(sv == 2)
    {
        flag = 0;
    }
}

}

else if(account == "0400002345678")
{
    cout <<endl<<"Customer Name: "<<bill[1].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[1].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[1].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[1].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t`.....";
            cout<<endl<<"\t\tBILL PAID      ";
            cout<<endl<<"\t`.....";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[1].After_Due_Date<<endl;
            cout<<"\t";time();

```

```

        cout<<"\tEmperor Bank 1212 Cilifton";
        cout<<endl<<"\tUser ID : AHSAN110";
        cout<<endl<<"\tCustomer Code : 697";
        cout<<endl<<"\tCustomer Name : K ELECTRIC";
    }
    else if(sv == 2)
    {
        flag = 0;
    }
}

else if(account == "0400020532113")
{
    cout <<endl<<"Customer Name: "<<bill[2].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[2].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[2].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[2].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t`.....";
            cout<<endl<<"\t\tBILL PAID      ";
            cout<<endl<<"\t`.....";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[2].Payable_Amount<<endl;
            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 698";
            cout<<endl<<"\tCustomer Name : K ELECTRIC";
        }
    }
}

```

```

        else if(sv == 2)
        {
            flag = 0;
        }
    }

}

else if(account == "0400007891012")
{
    cout <<endl<<"Customer Name: "<<bill[3].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[3].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[3].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[3].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t ~~~~~~";
            cout<<endl<<"\t\tBILL PAID          ";
            cout<<endl<<"\t ~~~~~~";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[3].Payable_Amount<<endl;
            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 699";
            cout<<endl<<"\tCustomer Name : K ELECTRIC";
        }

    }

    else if(sv == 2)
    {
        flag = 0;
    }
}

```

```

    }
}

}
else if(account == "0400067121013")
{
    cout <<endl<<"Customer Name: "<<bill[4].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[4].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[4].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is: "<<bill[4].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t``````````````````````";
            cout<<endl<<"\t\tBILL PAID          ";
            cout<<endl<<"\t``````````````````````";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[4].Payable_Amount<<endl;
            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 700";
            cout<<endl<<"\tCustomer Name : K ELECTRIC";

        }

    else if(sv == 2)
    {
        flag = 0;
    }

}

}

```

```

        else{
            cout<<endl<<endl<<"Invalid Customer Account Number!"<<endl;
        }
    }
    else if(choice == 3){
        cout<<endl<<"\t\t***SSGC***"<<endl;
        cout<<endl<<"Customer Number: ";
        cin >> account;

        if(account == "3127681000")
        {
            cout <<endl<<"Customer Name: "<<bill[10].Customer_Name<<endl;
            cout <<endl<<"Due Date: "<<bill[10].Due_Date<<endl;
            cout <<endl<<"After Due Date: "<<bill[10].After_Due_Date<<endl;
            cout <<endl<<"Payable Amount is:
"<<bill[10].Payable_Amount<<endl;
            cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
            cin >> sv;

            if(sv == 1)
            {
                cout<<endl<<"\tSaved"<<endl;
                cout<<endl<<"Press 1 for Print"<<endl;
                cin >> prt;

                if(prt == 1)
                {
                    cout<<endl<<"\t`";
                    cout<<endl<<"\t\tBILL PAID";
                    cout<<endl<<"\t`";
                    cout<<endl<<"\tCASH COLLECTION";
                    cout<<endl<<"\t1212034239";
                    cout<<endl<<"\tPKR :
"<<bill[10].Payable_Amount<<endl;
                    cout<<"\t";time();
                    cout<<"\tEmperor Bank 1212 Cilifton";
                    cout<<endl<<"\tUser ID : AHSAN110";
                    cout<<endl<<"\tCustomer Code : 696";
                    cout<<endl<<"\tCustomer Name : SSGC";
                }

            else if(sv == 2)

```

```

        {
            flag = 0;
        }
    }

}

else if(account == "3892348010")
{
    cout <<endl<<"Customer Name: "<<bill[11].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[11].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[11].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is:
"<<bill[11].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t` ``````````````````````````````````";
            cout<<endl<<"\t\tBILL PAID          ";
            cout<<endl<<"\t` ``````````````````````````````````";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[11].Payable_Amount<<endl;
            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 697";
            cout<<endl<<"\tCustomer Name : SSGC";
        }
        else if(sv == 2)
        {
            flag = 0;
        }
    }
}

```



```

    }

    else if(account == "1823097490")
    {
        cout <<endl<<"Customer Name: "<<bill[12].Customer_Name<<endl;
        cout <<endl<<"Due Date: "<<bill[12].Due_Date<<endl;
        cout <<endl<<"After Due Date: "<<bill[12].After_Due_Date<<endl;
        cout <<endl<<"Payable Amount is:
"<<bill[12].Payable_Amount<<endl;
        cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
        cin >> sv;

        if(sv == 1)
        {
            cout<<endl<<"\tSaved"<<endl;
            cout<<endl<<"Press 1 for Print"<<endl;
            cin >> prt;

            if(prt == 1)
            {
                cout<<endl<<"\t`.....";
                cout<<endl<<"\t\tBILL PAID      ";
                cout<<endl<<"\t`.....";
                cout<<endl<<"\tCASH COLLECTION";
                cout<<endl<<"\t1212034239";
                cout<<endl<<"\tPKR :
"<<bill[12].Payable_Amount<<endl;
                cout<<"\t";time());
                cout<<"\tEmperor Bank 1212 Cilifton";
                cout<<endl<<"\tUser ID : AHSAN110";
                cout<<endl<<"\tCustomer Code : 698";
                cout<<endl<<"\tCustomer Name : SSGC";
            }

            else if(sv == 2)
            {
                flag = 0;
            }
        }
    }
}

```

```

else if(account == "8184230890")
{
    cout <<endl<<"Customer Name: "<<bill[13].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[13].Due_Date<<endl;
    cout <<endl<<"After Due Date: "<<bill[13].After_Due_Date<<endl;
    cout <<endl<<"Payable Amount is:
"<<bill[13].Payable_Amount<<endl;
    cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
    cin >> sv;

    if(sv == 1)
    {
        cout<<endl<<"\tSaved"<<endl;
        cout<<endl<<"Press 1 for Print"<<endl;
        cin >> prt;

        if(prt == 1)
        {
            cout<<endl<<"\t`.....`";
            cout<<endl<<"\t\tBILL PAID      ";
            cout<<endl<<"\t`.....`";
            cout<<endl<<"\tCASH COLLECTION";
            cout<<endl<<"\t1212034239";
            cout<<endl<<"\tPKR :
"<<bill[13].Payable_Amount<<endl;
            cout<<"\t";time();
            cout<<"\tEmperor Bank 1212 Cilifton";
            cout<<endl<<"\tUser ID : AHSAN110";
            cout<<endl<<"\tCustomer Code : 699";
            cout<<endl<<"\tCustomer Name : SSGC";

        }

    }

    else if(sv == 2)
    {
        flag = 0;
    }
}
}
else if(account == "3087342900")
{
    cout <<endl<<"Customer Name: "<<bill[14].Customer_Name<<endl;
    cout <<endl<<"Due Date: "<<bill[14].Due_Date<<endl;

```

```

        cout <<endl<<"After Due Date: "<<bill[14].After_Due_Date<<endl;
        cout <<endl<<"Payable Amount is:
"<<bill[14].Payable_Amount<<endl;
        cout<<endl<<endl<<"Press 1 for Save \t\tPress 2 for Exit"<<endl;
        cin >> sv;

        if(sv == 1)
        {
            cout<<endl<<"\tSaved"<<endl;
            cout<<endl<<"Press 1 for Print"<<endl;
            cin >> prt;

            if(prt == 1)
            {
                cout<<endl<<"\t` ````````````````````````````````";
                cout<<endl<<"\t\tBILL PAID          ";
                cout<<endl<<"\t` ````````````````````````````````";
                cout<<endl<<"\tCASH COLLECTION";
                cout<<endl<<"\t1212034239";
                cout<<endl<<"\tPKR :
"<<bill[14].Payable_Amount<<endl;
                cout<<"\t";time();
                cout<<"\tEmperor Bank 1212 Cilifton";
                cout<<endl<<"\tUser ID : AHSAN110";
                cout<<endl<<"\tCustomer Code : 705";
                cout<<endl<<"\tCustomer Name : SSGC";
            }

            else if(sv == 2)
            {
                flag = 0;
            }
        }

        else{
            cout<<endl<<endl<<"Invalid Customer Account Number!"<<endl;
        }
    }
    else if (choice==4)
    {

```

```

        main_menu();
    }
    else if (choice==5)
    {
        exit(0);
    }
    else
    {
        cout<<"\n\nInvalid Choice...\nTry Again.\n";
        goto menu;
    }
}

///Fee Collection
void fee_collection()
{
    int p=0;
    system("cls");
student_portal:
    int n;
    cout<<"\n\t\t*Students Portal*"<<endl;
    cout<<"\n\n\tSelect from the list: "<<endl;
    cout<<"\t1.Fees Deposite\n\t2.Total Fees Deposited\n\t3.Back to Main
Menu\n\t4.Exit\n\n\n\tEnter Your Choice Here: ";
    cin>>n;
    if(n==1)
    {
        char confirm;
fee:

        s[p].fee_deposite(p);
        cout<<"The Fees has been added to the Fees Database..."<<endl;
        cout<<"Do you want to continue adding Fees?(Y/N): ";
        cin>>confirm;
        if (confirm=='y' || confirm=='Y')
        {
            p=p+1;
            goto fee;
        }
        else if (confirm=='n' || confirm=='N')

```

```

{
    cout<<"\nPress Enter to get back to the Student Portal";
    getchar();
    goto student_portal;
}
getchar();
}
if(n==2)
{
    system("cls");
    s[p].fees_receipt(p);
    char confirm;
    cout<<"\n\n\tDo you want to go back to main menu?(Y/N): ";
    cin>>confirm;
    if (confirm=='y' || confirm=='Y')
    {
        main_menu();
    }
    else if (confirm=='n' || confirm=='N')
    {
        cout<<"\nTerminating the program...";
        getchar();
        main_menu();
    }
}
else if(n==3)
{
    main_menu();
}
else if(n==4)
{
    exit(0);
}
}
void Student::fee_deposit(int x)
{

    cout<<"\nEnter Student's Name: ";
    cin>>s[x].student_name;
    cout<<"\nEnter Student's Father's Name: ";
    cin>>s[x].father_name;
    cout<<"\nEnter Student's University Name: ";

```

```

        cin>>s[x].university_name;
        cout<<"\nEnter University Department Name: ";
        cin>>s[x].department;
        cout<<"\nEnter Semester(in digits[1,2,3,4,5,6,7,8]): ";
        cin>>s[x].semester;
        cout<<"\nEnter Student's Roll No.: ";
        cin>>s[x].roll_num;
        cout<<"\nEnter Student's Batch: ";
        cin>>s[x].batch;
        cout<<"\nEnter Student's Fee: PKR ";
        cin>>s[x].fee;
    }
    void Student::fees_receipt(int y)
    {
        int total=0;
        for(int i=0;i<y+1;i++)
        {
            cout<<"\n"<<i+1<<endl;
            cout<<"\tStudent Name: \t"<<s[i].student_name<<endl;
            cout<<"\tFather's Name: \t"<<s[i].father_name<<endl;
            cout<<"\tUniversity: \t\t"<<s[i].university_name<<endl;
            cout<<"\tDepartment: \t\t"<<s[i].department<<endl;
            cout<<"\tSemester: \t\t"<<s[i].semester<<endl;
            cout<<"\tRoll Number"<<s[i].roll_num<<endl;
            cout<<"\tBatch: "<<s[i].batch<<endl;
            cout<<"\tFees: "<<s[i].fee<<endl;
            total+=s[i].fee;
        }
        cout<<"\n\tTotal Fee: "<<total<<endl;
    }

    ///search engine
    void account_search()
    {
        system("cls");
        accounts();
        long long cnic;
        cout<<"Enter CNIC(xxxxxxxxxxxxxx): ";
        cin>>cnic;
        for(int i=0;i<100;i++){

```

```

if(cnic==bus_acc[i].Cus_CNIC)
{
    cout<<endl<<"Account Title:\t"<<bus_acc[i].Acc_Title;
    cout<<endl<<"Account Type:\t"<<bus_acc[i].Acc_type;
    cout<<endl<<"Account Number:\t"<<bus_acc[i].Acc_Number;
    cout<<endl<<"Account Balance:\t"<<bus_acc[i].balance;
    cout<<endl<<"Bank Name:\t"<<bus_acc[i].Bank_Name;
    cout<<endl<<"Branch Name:\t"<<bus_acc[i].Branch_Name;
    cout<<endl<<"Branch Code:\t"<<bus_acc[i].Branch_Code;
    cout<<endl<<"IBAN Number:\t"<<bus_acc[i].IBAN_Number;
    cout<<endl<<"CNIC:\t"<<bus_acc[i].Cus_CNIC;
    cout<<endl<<"Date Of Birth:\t"<<bus_acc[i].DoB;
    cout<<endl<<"Customer Contact:\t"<<bus_acc[i].Cus_Contact;
    cout<<endl<<"Customer Email Address:\t"<<bus_acc[i].Cus_Email;
    cout<<endl<<"Customer Mailing Address:\t"<<bus_acc[i].Cus_Adrs;
    break;
}
else if (cnic==cur_acc[i].Cus_CNIC)
{
    cout<<endl<<"Account Title:\t"<<cur_acc[i].Acc_Title;
    cout<<endl<<"Account Type:\t"<<cur_acc[i].Acc_type;
    cout<<endl<<"Account Number:\t"<<cur_acc[i].Acc_Number;
    cout<<endl<<"Account Balance:\t"<<cur_acc[i].balance;
    cout<<endl<<"Bank Name:\t"<<cur_acc[i].Bank_Name;
    cout<<endl<<"Branch Name:\t"<<cur_acc[i].Branch_Name;
    cout<<endl<<"Branch Code:\t"<<cur_acc[i].Branch_Code;
    cout<<endl<<"IBAN Number:\t"<<cur_acc[i].IBAN_Number;
    cout<<endl<<"CNIC:\t"<<cur_acc[i].Cus_CNIC;
    cout<<endl<<"Date Of Birth:\t"<<cur_acc[i].DoB;
    cout<<endl<<"Customer Contact:\t"<<cur_acc[i].Cus_Contact;
    cout<<endl<<"Customer Email Address:\t"<<cur_acc[i].Cus_Email;
    cout<<endl<<"Customer Mailing Address:\t"<<cur_acc[i].Cus_Adrs;
    break;
}
else if (cnic==asan_acc[i].Cus_CNIC)
{
    cout<<endl<<"Account Title:\t"<<asan_acc[i].Acc_Title;
    cout<<endl<<"Account Type:\t"<<asan_acc[i].Acc_type;
    cout<<endl<<"Account Number:\t"<<asan_acc[i].Acc_Number;
    cout<<endl<<"Account Balance:\t"<<asan_acc[i].balance;
    cout<<endl<<"Bank Name:\t"<<asan_acc[i].Bank_Name;
    cout<<endl<<"Branch Name:\t"<<asan_acc[i].Branch_Name;

```

```

        cout<<endl<<"Branch Code:\t"<<asan_acc[i].Branch_Code;
        cout<<endl<<"IBAN Number:\t"<<asan_acc[i].IBAN_Number;
        cout<<endl<<"CNIC:\t"<<asan_acc[i].Cus_CNIC;
        cout<<endl<<"Date Of Birth:\t"<<asan_acc[i].DoB;
        cout<<endl<<"Customer Contact:\t"<<asan_acc[i].Cus_Contact;
        cout<<endl<<"Customer Email Address:\t"<<asan_acc[i].Cus_Email;
        cout<<endl<<"Customer Mailing Address:\t"<<asan_acc[i].Cus_Adrs;
        break;
    }
}
main_menu();
}

void account_statement()
{
    system("cls");
    accounts();
    string ac;
    cout<<"Enter account number: ";
    cin>>ac;
    for(int i=0;i<100;i++){
        if(ac==bus_acc[i].Acc_Number)
        {
            cout<<endl<<"Account Title:\t"<<bus_acc[i].Acc_Title;
            cout<<endl<<"Account Type:\t"<<bus_acc[i].Acc_type;
            cout<<endl<<"Account Number:\t"<<bus_acc[i].Acc_Number;
            cout<<endl<<"Account Balance:\t"<<bus_acc[i].balance;
            cout<<endl<<"Bank Name:\t"<<bus_acc[i].Bank_Name;
            cout<<endl<<"Branch Name:\t"<<bus_acc[i].Branch_Name;
            cout<<endl<<"Branch Code:\t"<<bus_acc[i].Branch_Code;
            cout<<endl<<"IBAN Number:\t"<<bus_acc[i].IBAN_Number;
            cout<<endl<<"CNIC:\t"<<bus_acc[i].Cus_CNIC;
            cout<<endl<<"Date Of Birth:\t"<<bus_acc[i].DoB;
            cout<<endl<<"Customer Contact:\t"<<bus_acc[i].Cus_Contact;
            cout<<endl<<"Customer Email Address:\t"<<bus_acc[i].Cus_Email;
            cout<<endl<<"Customer Mailing Address:\t"<<bus_acc[i].Cus_Adrs;
            break;
        }
        else if (ac==cur_acc[i].Acc_Number)
        {
            cout<<endl<<"Account Title:\t"<<cur_acc[i].Acc_Title;

```



```

        cout<<endl<<"Account Type:\t"<<cur_acc[i].Acc_type;
        cout<<endl<<"Account Number:\t"<<cur_acc[i].Acc_Number;
        cout<<endl<<"Account Balance:\t"<<cur_acc[i].balance;
        cout<<endl<<"Bank Name:\t"<<cur_acc[i].Bank_Name;
        cout<<endl<<"Branch Name:\t"<<cur_acc[i].Branch_Name;
        cout<<endl<<"Branch Code:\t"<<cur_acc[i].Branch_Code;
        cout<<endl<<"IBAN Number:\t"<<cur_acc[i].IBAN_Number;
        cout<<endl<<"CNIC:\t"<<cur_acc[i].Cus_CNIC;
        cout<<endl<<"Date Of Birth:\t"<<cur_acc[i].DoB;
        cout<<endl<<"Customer Contact:\t"<<cur_acc[i].Cus_Contact;
        cout<<endl<<"Customer Email Address:\t"<<cur_acc[i].Cus_Email;
        cout<<endl<<"Customer Mailing Address:\t"<<cur_acc[i].Cus_Adrs;
        break;
    }
    else if (ac==asan_acc[i].Acc_Number)
    {
        cout<<endl<<"Account Title:\t"<<asan_acc[i].Acc_Title;
        cout<<endl<<"Account Type:\t"<<asan_acc[i].Acc_type;
        cout<<endl<<"Account Number:\t"<<asan_acc[i].Acc_Number;
        cout<<endl<<"Account Balance:\t"<<asan_acc[i].balance;
        cout<<endl<<"Bank Name:\t"<<asan_acc[i].Bank_Name;
        cout<<endl<<"Branch Name:\t"<<asan_acc[i].Branch_Name;
        cout<<endl<<"Branch Code:\t"<<asan_acc[i].Branch_Code;
        cout<<endl<<"IBAN Number:\t"<<asan_acc[i].IBAN_Number;
        cout<<endl<<"CNIC:\t"<<asan_acc[i].Cus_CNIC;
        cout<<endl<<"Date Of Birth:\t"<<asan_acc[i].DoB;
        cout<<endl<<"Customer Contact:\t"<<asan_acc[i].Cus_Contact;
        cout<<endl<<"Customer Email Address:\t"<<asan_acc[i].Cus_Email;
        cout<<endl<<"Customer Mailing Address:\t"<<asan_acc[i].Cus_Adrs;

        break;
    }
}
main_menu();
}
void edit()
{
    accounts();
    int choice,test=0;
    string account_number;
    cout<<"\nEnter the account no. of the customer whose info you want to change:";

```

```

cin>>account_number;
for(int i=0;i<100;i++){
if(account_number==bus_acc[i].Acc_Number)
{
    cout<<"\nWhich information do you want to change?\n1.Address\n2.Phone\n\nEnter
your choice(1 for address and 2 for phone):";
    cin>>choice;
    system("cls");
    if(choice==1)
    {cout<<"Enter the new address:";
    getline(cin,bus_acc[i].Cus_Adrs);
    cout<<"Changes saved!";
    system("cls");
    }
    else if(choice==2)
    {
    cout<<"Enter the new phone number:";
    getline(cin,bus_acc[i].Cus_Contact);
    cout<<"Changes saved!";
    system("cls");
    }
    break;
}
else if (account_number==cur_acc[i].Acc_Number)
{
    cout<<"\nWhich information do you want to change?\n1.Address\n2.Phone\n\nEnter
your choice(1 for address and 2 for phone):";
    cin>>choice;
    system("cls");
    if(choice==1)
    {cout<<"Enter the new address:";
    getline(cin,cur_acc[i].Cus_Adrs);
    cout<<"Changes saved!";
    system("cls");
    }
    else if(choice==2)
    {
    cout<<"Enter the new phone number:";
    getline(cin,cur_acc[i].Cus_Contact);
    cout<<"Changes saved!";
    system("cls");
    }
}

```

```

        break;
    }
    else if (account_number==asan_acc[i].Acc_Number)
    {
        cout<<"\nWhich information do you want to change?\n1.Address\n2.Phone\n\nEnter
your choice(1 for address and 2 for phone):";
        cin>>choice;
        system("cls");
        if(choice==1)
        {cout<<"Enter the new address:";
        getline(cin,asan_acc[i].Cus_Adrs);
        cout<<"Changes saved!";
        system("cls");
        }
        else if(choice==2)
        {
            cout<<"Enter the new phone number:";
            getline(cin,asan_acc[i].Cus_Contact);
            cout<<"Changes saved!";
            system("cls");}

        break;
    }
}
main_menu();
}

```