Project
ATM Database Management System

Database

Malak Mahmoud Aref | Artificial Intelligence | 20221445867

Faculty of Computers and Data Sciences,

Alexandria University.

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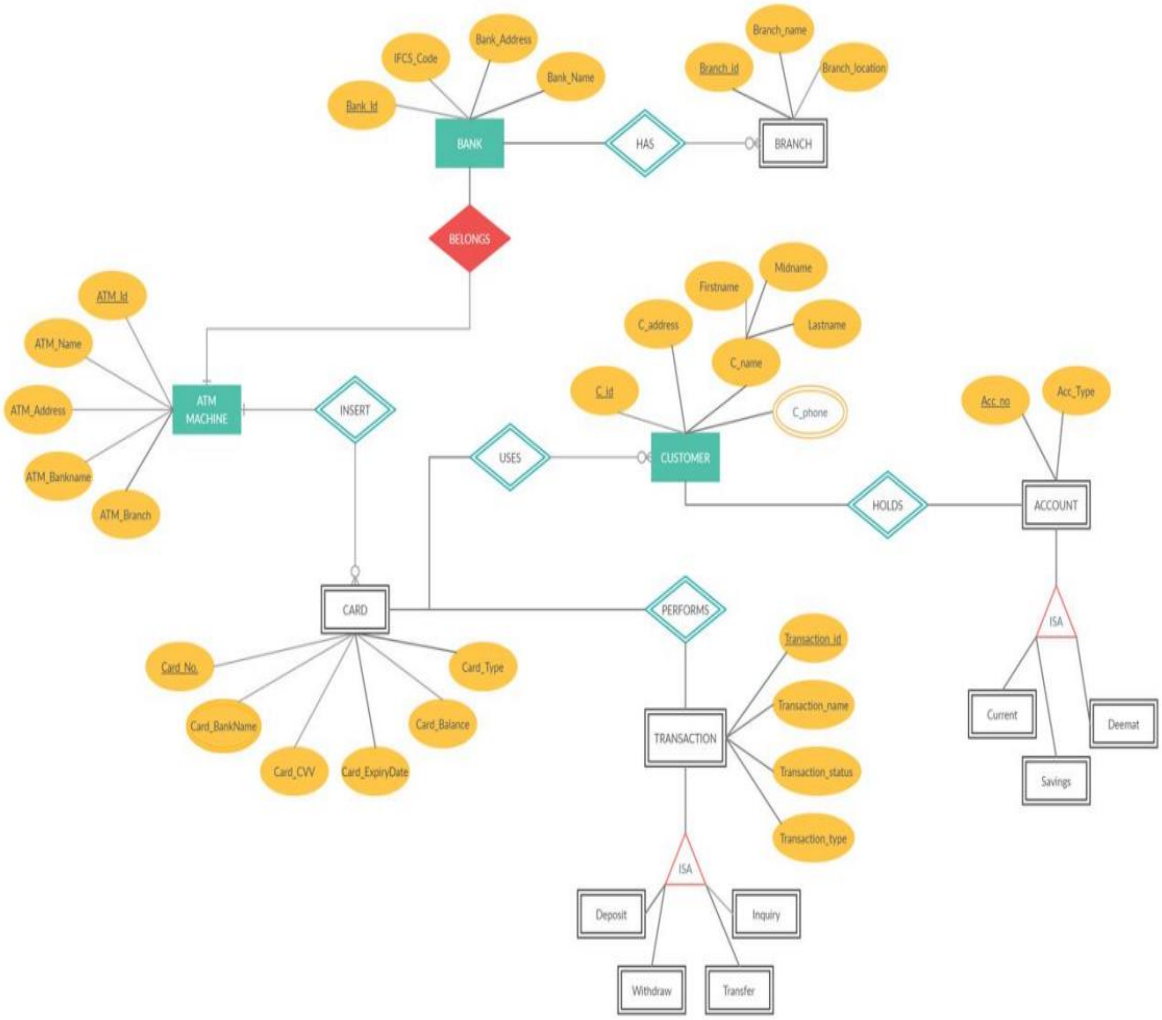
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IFCS_Code
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Bank_Name
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HAS
BRANCH
Branch_name
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ATM_Id
ATM_Name
ATM_Address
ATM_Bankname
ATM_Branch
ATM MACHINE
INSERT
USES
CUSTOMER
Firstname
Midname
Lastname
C_address
C_name
C_Id
C_phone
HOLDS
ACCOUNT
Acc_no
Acc_Type
ISA
Current
Deemat
Savings
CARD
PERFORMS
Card_No
Card_Type
Card_BankName
Card_Balance
Card_CVV
Card_ExpiryDate
TRANSACTION
Transaction_id
Transaction_name
Transaction_status
Transaction_type
ISA
Deposit
Inquiry
Withdraw
Transfer

Schema

ATM_Machine (ATM_Id, ATM_Name, ATM_Address, ATM_Bankname, ATM_Branch)

Transaction (Transaction_Id, Transaction_Name, Transaction_status, Transaction_type)

Card (Card_No, Card_Bankname, Card_CVV, Card_ExpiryDate, Card_Balance, Card_Type)

Bank (Bank_Id, BIC_Code, Bank_Address, Bank_Name, Bank_ATM_Id)

Customer (Customer_Id, Customer_address, F_name, M_name, L_name, Customer_Card_No)

Branch (Branch_Id, Branch_Name, Branch_location, Branch_Bank_Id)

Account (Acc_no, Acc_type, Acc_Customer_Id)

Current_Acc (Acc_no)

Savings_Acc (Acc_no)

Demat_Acc (Acc_no)

CustomerPhone (Phone_Customer_Id, C_phone)

Ps: the blue font is the foreign key between the entities

SQL

ATM Database

created ATM database using the following

code:

```
CREATE DATABASE atm;
```

Transaction Table

Create the transaction table using the following

code:

```
create table Transaction(

Transaction_Id int(4) UNSIGNED AUTO_INCREMENT PRIMARY KEY,

Transaction_Name varchar(10),

Transaction_status varchar(10),

Transaction_type varchar(10)

)
```

Insertion:

We don't insert a specific value in this table, it's related with the interface so it's saved in it automatic when you do operations

Output:

Transaction_Id	Transaction_Name	Transaction_status	Transaction_type
1	deposited	COMPLETED	DEPOSIT
2	withdrawn	COMPLETED	WITHDRAW
3		COMPLETED	BALANCE EN

Card Table

Create the Card table using the following

code:

```
create table Card(

Card_No int(16) primary key,

Card_Bankname varchar(10),

Card_CVV int(3),

Card_ExpiryDate date,

Card_Balance int(16),

Card_Type varchar(10)

)
```

Insertion:

```
INSERT INTO Card(Card_No,Card_Bankname,Card_CVV,Card_ExpiryDate,Card_Balance,Card_Type) VALUES (76326783,'CIB',234,'2024-4-1',44625,'debit'),(83886071,'SAAB',934,'2024-4-1',22334,'debit'),(90088110,'Bank Misr',446,'2025-12-1',4450,'credit'),(92454028,'Bank Ahly',268,'2023-10-10',23454,'pre-paid'),(235480264,'CIB',751,'2025-10-10',11890,'credit'),(58761548,'QNB',693,'2024-2-23',9764,'pre-paid'),(75314960,'Bank Misr',591,'2025-2-23',27950,'debit');
```

Output:

Card_No	Card_Bankname	Card_CVV	Card_ExpiryDate	Card_Balance	Card_Type
58761548	QNB	693	2024-02-23	9764	pre-paid
75314960	Bank Misr	591	2025-02-23	27950	debit
76326783	CIB	234	2024-04-01	44625	debit
83886071	SAAB	934	2024-04-01	22334	debit
90088110	Bank Misr	446	2025-12-01	4450	credit
92454028	Bank Ahly	268	2023-10-10	23454	pre-paid
235480264	CIB	751	2025-10-10	11890	credit

ATM-Machine Table

Create the ATM-Machine table using the following

code:

```
create table ATM_Machine(

ATM_Id varchar(10) primary key,

ATM_Name varchar(10),

ATM_Address varchar(80),

ATM_Bankname varchar(10),

ATM_Branch varchar(10)

)
```

Insertion:

```
INSERT INTO ATM_Machine(ATM_Id,ATM_Name,ATM_Address,ATM_Bankname,ATM_Branch)
VALUES (1095752,'ATM_061','Alexandria, smouha','CIB Bank','Smouha Branch'),
(1036842,'ATM_949','Alexandria, shatby','SAAB Bank','Shatby Branch'),(1028296,'ATM_324','Cairo,
tagamoa','ELBARAKA Bank','Tagamoa Branch'),(2083651,'ATM_805','Cairo, zamalek','QNB
Bank','Zamalek Branch'),(0882955,'ATM_037','Alexandria, sporting','Bank Misr','Sporting
Branch'),(1095840,'ATM_734','Alexandria, louran','Bank Ahly','Louran Branch'),
(0982060,'ATM_501','Cairo, madinat-nasr','QNB Bank','madinat-nasr Branch');
```

Output:

ATM_Id	ATM_Name	ATM_Address	ATM_Bankname	ATM_Branch
1028296	ATM_324	Cairo, tagamoa	ELBARAKA Bank	Tagamoa Branch
1036842	ATM_949	Alexandria, shatby	SAAB Bank	Shatby Branch
1095752	ATM_061	Alexandria, smouha	CIB Bank	Smouha Branch
1095840	ATM_734	Alexandria, louran	Bank Ahly	Louran Branch
2083651	ATM_805	Cairo, zamalek	QNB Bank	Zamalek Branch
882955	ATM_037	Alexandria, sporting	Bank Misr	Sporting Branch
982060	ATM_501	Cairo, madinat-nasr	QNB Bank	madinat-nasr Branch

Bank Table

Create the Bank table using the following

code:

```
create table Bank(

Bank_Id varchar(10) primary key,

BIC_Code varchar(15),

Bank_Address varchar(80),

Bank_Name varchar(20),

Bank_ATM_Id varchar(10) references ATM_Machine(ATM_Id)

)
```

Insertion:

```
INSERT INTO bank(Bank_Id,BIC_Code,Bank_Address,Bank_Name,Bank_ATM_Id) VALUES
('CIB00276','ICBK0000672','Alexandria, smouha','CIB
Bank',1095752),('BA00276','ICBK0000672','Alexandria, louran','Bank
Ahly',1095840),('QNB085246','IBBK0000836 ','Cairo, zamalek','QNB
Bank',2083651),('EBB00276','ICBK0000259','Cairo, tagamoa','ELBARAKA
Bank',1028296),('SAB00276','TBBK0000847','Alexandria, shatby','SAAB
Bank',1036842),('BM00276','HBBK0000328','Alexandria, sporting','Bank
Misr',882955),('QNB00276','IBBK0000949','Cairo, madinat-nasr','QNB Bank',982060)
```

Output:

Bank_Id	BIC_Code	Bank_Address	Bank_Name	Bank_ATM_Id
BA00276	ICBK0000672	Alexandria, louran	Bank Ahly	1095840
BM00276	HBBK0000328	Alexandria, sporting	Bank Misr	882955
CIB00276	ICBK0000672	Alexandria, smouha	CIB Bank	1095752
EBB00276	ICBK0000259	Cairo, tagamoa	ELBARAKA Bank	1028296
QNB00276	IBBK0000949	Cairo, madinat-nasr	QNB Bank	982060
QNB085246	IBBK0000836	Cairo, zamalek	QNB Bank	2083651
SAB00276	TBBK0000847	Alexandria, shatby	SAAB Bank	1036842

Customer Table

Create the customer table using the following

code:

```
create table Customer(

Customer_Id varchar(10) primary key,

Customer_address varchar(80),

F_name varchar(20),

M_name varchar(20),

L_name varchar(20),

Customer_Card_No int(16) references Card(Card_No)

)
```

Insertion:

```
INSERT INTO
Customer(Customer_Id,Customer_address,F_name,M_name,L_name,Customer_Card_No) VALUES
('CU001ER','Alexandria','Malak','Mahmoud','Aref',58761548),('CU933ER','Cairo','Marwan','Mahmoud','
Aref',75314960),('CU023ER','Cairo','Merna','Ehab','Fouad',76326783),('CU766ER','Cairo','Yara','Ehab','F
ouad',83886071),('CU038ER','Alexandria','Lara','Alaa','Omara',90088110),('CU503ER','Alexandria','Ree
m','Ibrahim','Shaker',92454028),

('CU838ER','Alexandria','Mahmoud','Medhat','Aref',23548026)
```

Output:

Customer_Id	Customer_address	F_name	M_name	L_name	Customer_Card_No
CU001ER	Alexandria	Malak	Mahmoud	Aref	58761548
CU023ER	Cairo	Merna	Ehab	Fouad	76326783
CU038ER	Alexandria	Lara	Alaa	Omara	90088110
CU503ER	Alexandria	Reem	Ibrahim	Shaker	92454028
CU766ER	Cairo	Yara	Ehab	Fouad	83886071
CU838ER	Alexandria	Mahmoud	Medhat	Aref	23548026
CU933ER	Cairo	Marwan	Mahmoud	Aref	75314960

Branch Table

We create our branch table using the following

code:

```
create table Branch(

Branch_Id varchar(15) primary key,

Branch_Name varchar(15),

Branch_location varchar(20),

Branch_Bank_Id varchar(10) references Bank(Bank_Id)

)
```

Insertion:

```
Insert INTO Branch(Branch_Id,Branch_Name,Branch_location,Branch_Bank_Id) VALUES
('BR0092','Bank ahly branch','Alexandria, louran','BA00276'),('BR8822','Bank Misr branch','Alexandria,
sporting','BM00276'),('BT7529','CIB branch','Alexandria, smouha','CIB00276'),('BR6280','ELBaraka
branch','Cairo, tagamoa','EBB00276'),('BR5282','QNB branch','Cairo, madinat-
nasr','QNB00276'),('BR1721','QNB branch','Cairo, zamalek','QNB085246'),('BR3277','SAAB
branch','Alexandria, shatby','SAB00276')
```

Output:

Branch_Id	Branch_Name	Branch_location	Branch_Bank_Id
BR0092	Bank ahly branc	Alexandria, louran	BA00276
BR1721	QNB branch	Cairo, zamalek	QNB085246
BR3277	SAAB branch	Alexandria, shatby	SAB00276
BR5282	QNB branch	Cairo, madinat-nasr	QNB00276
BR6280	ELBaraka branch	Cairo, tagamoa	EBB00276
BR8822	Bank Misr branc	Alexandria, sporting	BM00276
BT7529	CIB branch	Alexandria, smouha	CIB00276

Account Table

We create our account table using the following

code:

```
create table Account(

Acc_no int(16) primary key,

Acc_type varchar(10),

Acc_Customer_Id varchar(10) references Customer(Customer_Id)

)
```

Insertion:

```
Insert Into Account(Acc_no,Acc_type,Acc_Customer_Id) VALUES
(186549364,'Savings','CU001ER'),(88220001,'Savings','CU838ER'),(7529000,'Demat','CU933ER'),(6280
0002,'Current','CU023ER'),(52820001,'Savings','CU766ER'),(45432199,'Current','CU038ER'),(32770003
8,'Demat','CU503ER')
```

Output:

Acc_no	Acc_type	Acc_Customer_Id
75290005	Demat	CU933ER
45432199	Current	CU038ER
52820001	Savings	CU766ER
62800002	Current	CU023ER
88220001	Savings	CU838ER
18549364	Savings	CU001ER
32770380	Demat	CU503ER

Current_Acc Table

We create our Current_Acc table using the following

code:

```
create table Current_Acc(

Acc_no int(16) references Account(Acc_no)

);
```

Insertion:

```
INSERT INTO Current_Acc(Acc_no) VALUES (6280000),(45432199);
```

Output:

Acc_no
6280000
45432199

Savings_Acc Table

We create our Savings_Acc table using the following

code:

```
create table Savings_Acc(

Acc_no int(16) references Account(Acc_no)

);
```

Insertion:

```
INSERT INTO Savings_Acc(Acc_no) VALUES (18549364),(52820001),(88220001);
```

Output:

Acc_no
18549364
52820001
88220001

Demat_Acc Table

We create our Demat_Acc table using the following

code:

```
create table Demat_Acc(

Acc_no int(16) references Account(Acc_no)

);
```

Insertion:

```
INSERT INTO Demat_Acc(Acc_no) VALUES (32770380),(75290005);
```

Output:

Acc_no
32770380
75290005

Temp Table

We create our temp table using the following

code:

```
CREATE TABLE temp (

  Transaction_Id INT PRIMARY KEY AUTO_INCREMENT,

  Card_No VARCHAR(16),

  AMOUNT DECIMAL(10, 2)

);
```

Insertion:

We don't insert a specific value in this table, it's related with the interface so it's saved in it automatic when you do operations

Output:

Transaction_Id	Card_No	AMOUNT
1	90088110	1000.00
2	90088110	500.00
3	90088110	0.00

Customer_Phone Table

We create our customer_phone table using the following

code:

create table CustomerPhone(Phone_Customer_Id varchar(10) primary key, C_phone int(10))

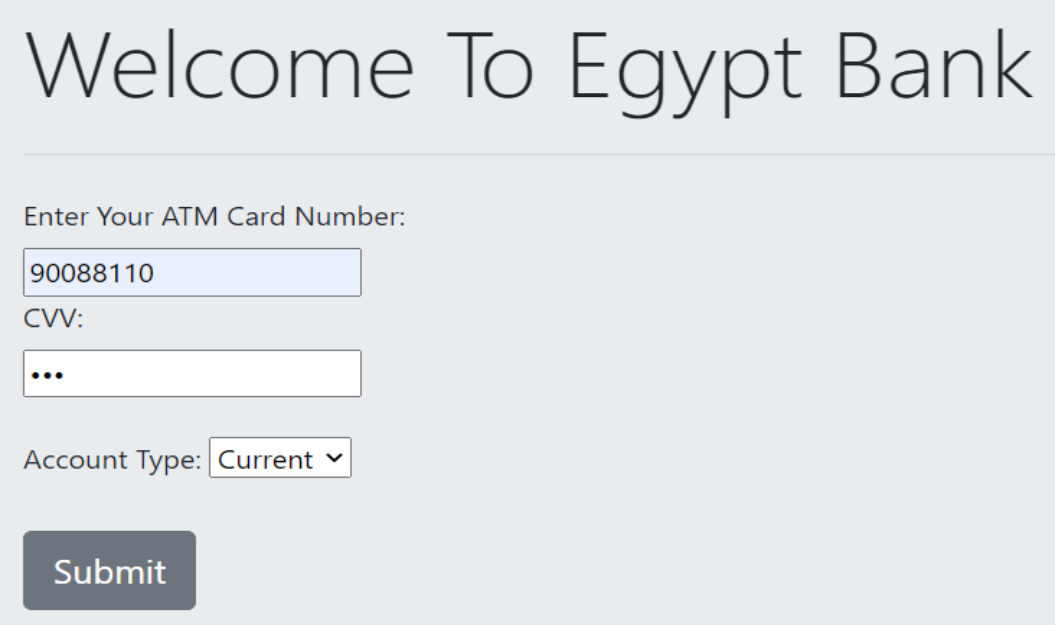
Insertion:

Insert Into CustomerPhone(Phone_Customer_Id,Customer_phone) VALUES
('CU001ER',9949996227),('CU838ER',9229737388),('CU933ER',8140727253),('CU023ER',9182936825)
,('CU766ER',9898772625),('CU038ER',9079484037),('CU503ER',7288928276)

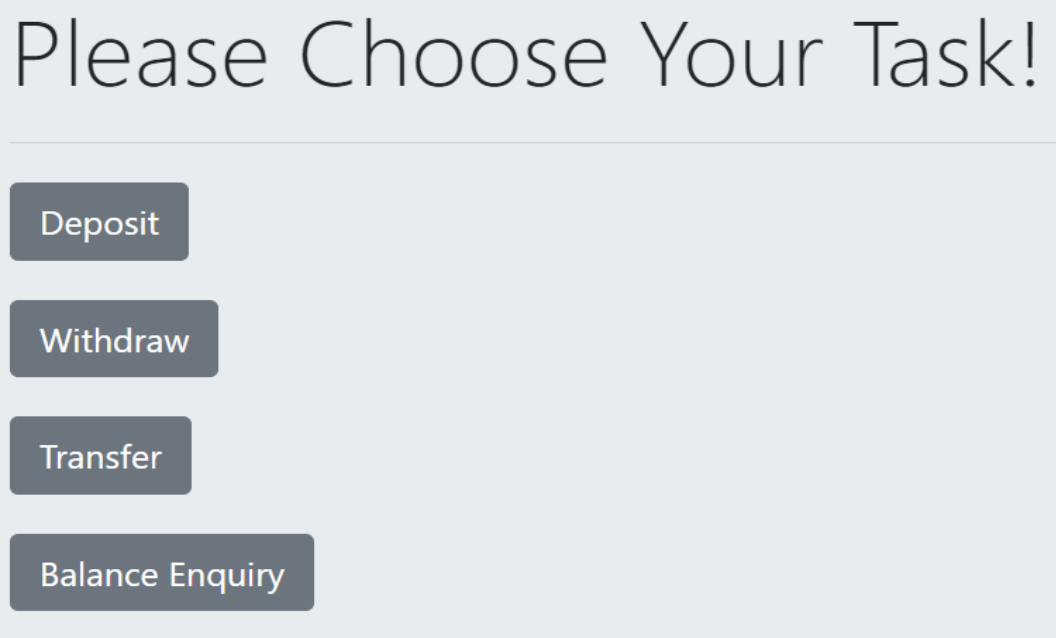
Output:

Phone_Customer_Id	Customer_phone
CU001ER	2147483647
CU023ER	2147483647
CU038ER	2147483647
CU503ER	2147483647
CU766ER	2147483647
CU838ER	2147483647
CU933ER	2147483647

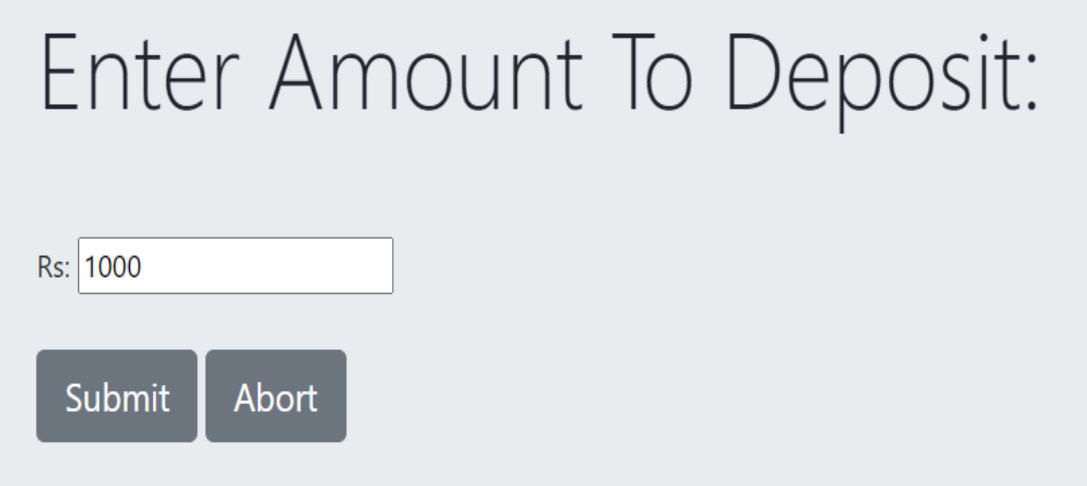
Welcome Page



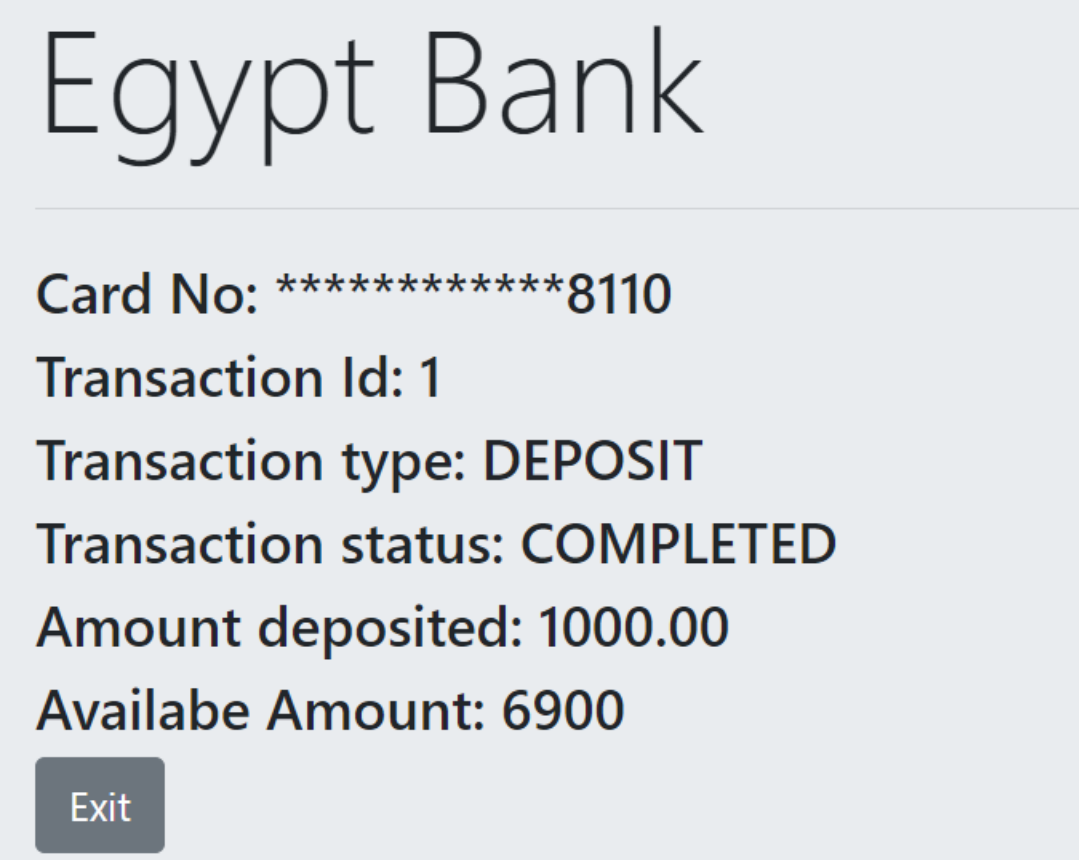
Option Page



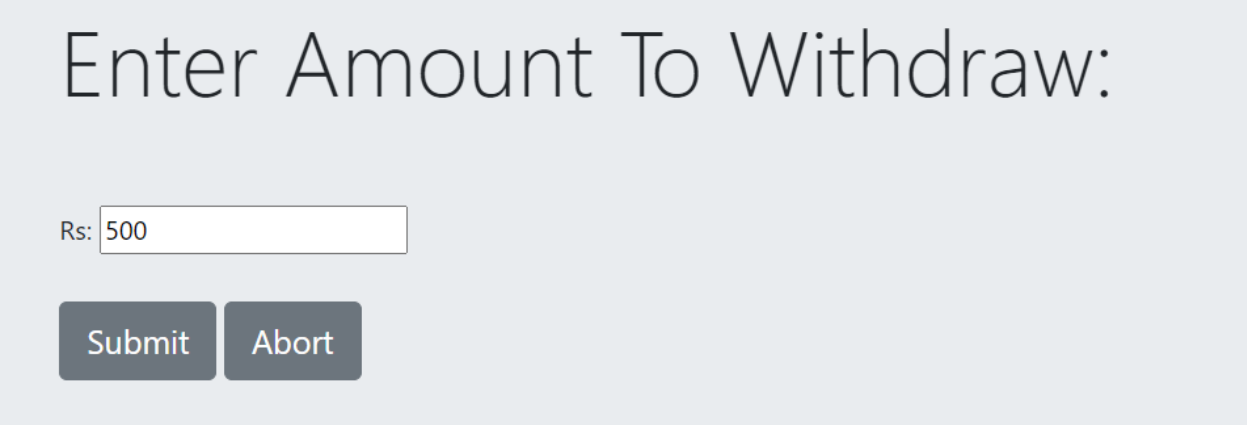
Deposit Page



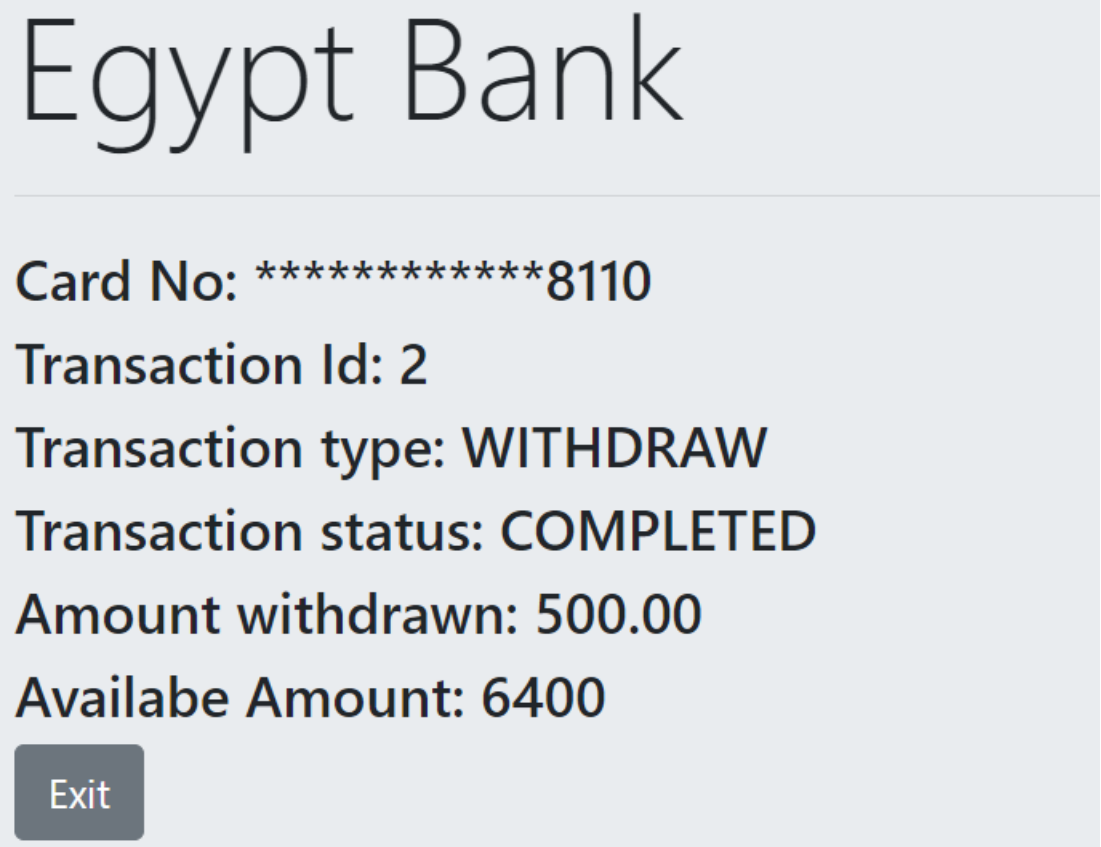
Receipt Page



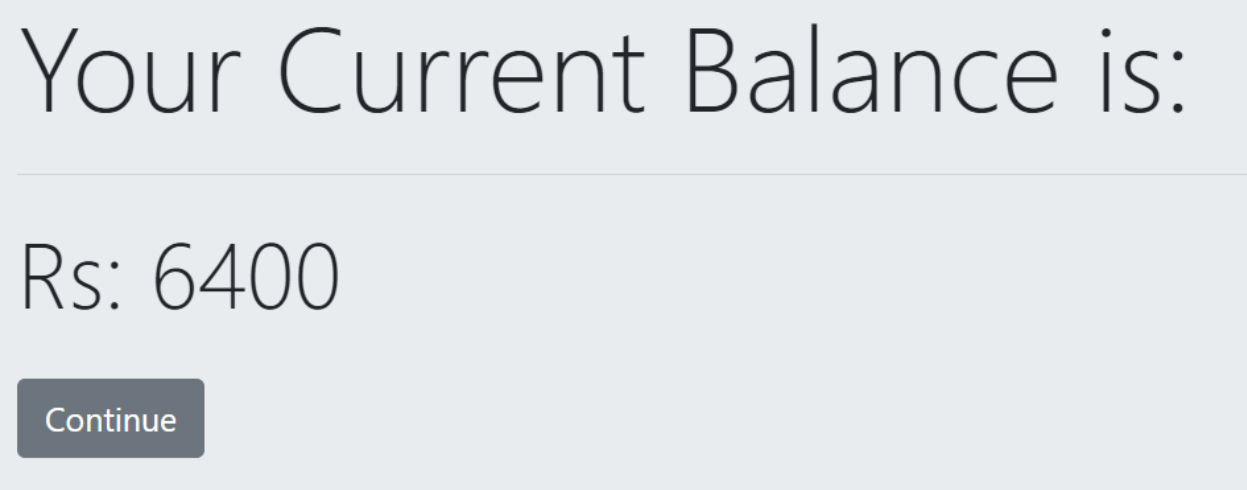
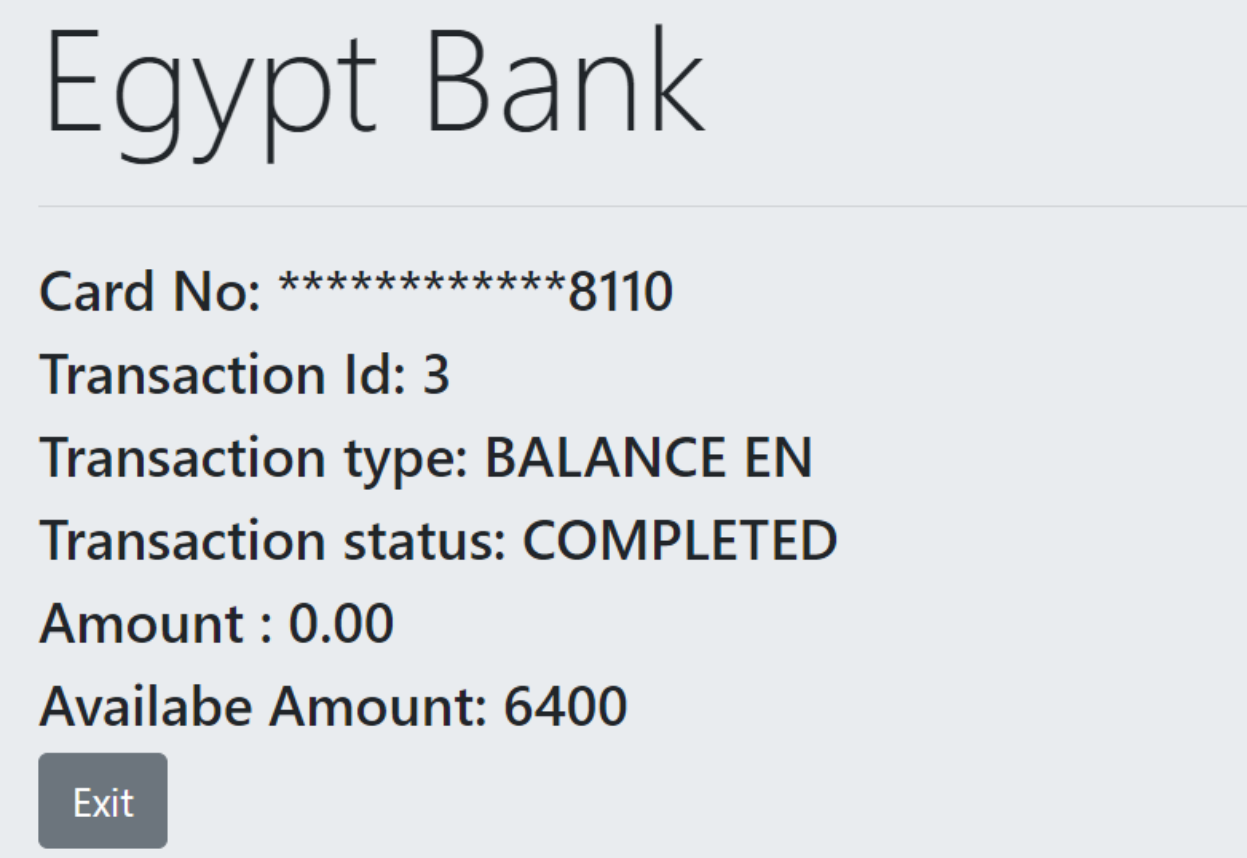
Withdraw Page



Receipt Page



Balance Page



Receipt Page