2CS404

DATABASE MANAGEMENT SYSTEMS

INNOVATIVE ASSIGNMENT

PHASE - II

RESTAURANT MANAGEMENT SYSTEM

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USING TKINTER TO CREATE GUI

ABOUT THE PROJECT :

- Here for our restaurant we have maintained four positions and different rights for accessing database pertaining to their roles i.e.
    - Admin (Mode = 1)
    - Owner (Mode = 2)
    - Employee (Mode = 3)
    - Customer (Mode = 4)

- Initially we are providing Authentication form i.e. to login or sign-in concurrently collecting the mode.

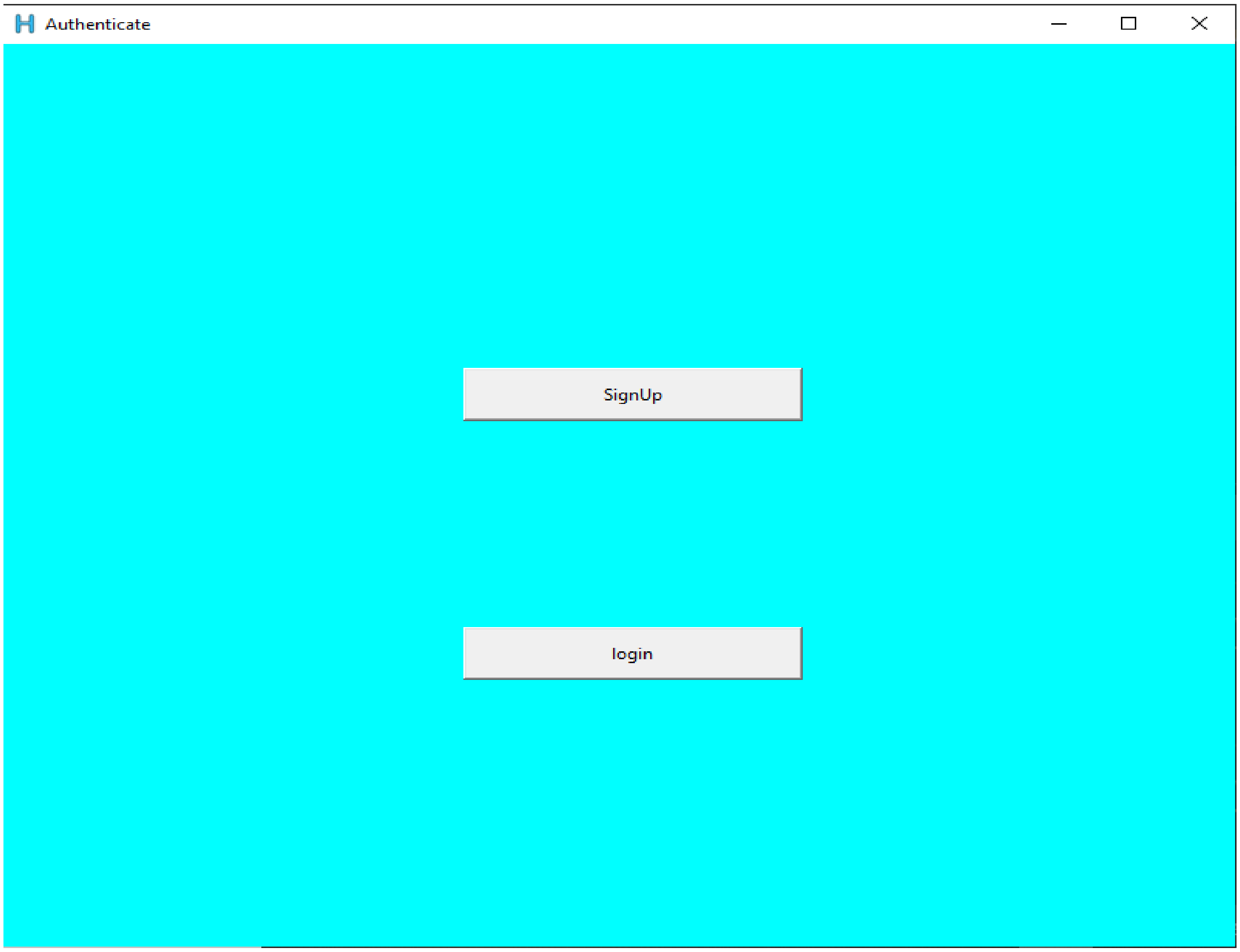
- As per the mode selected access to data accordingly will be granted.

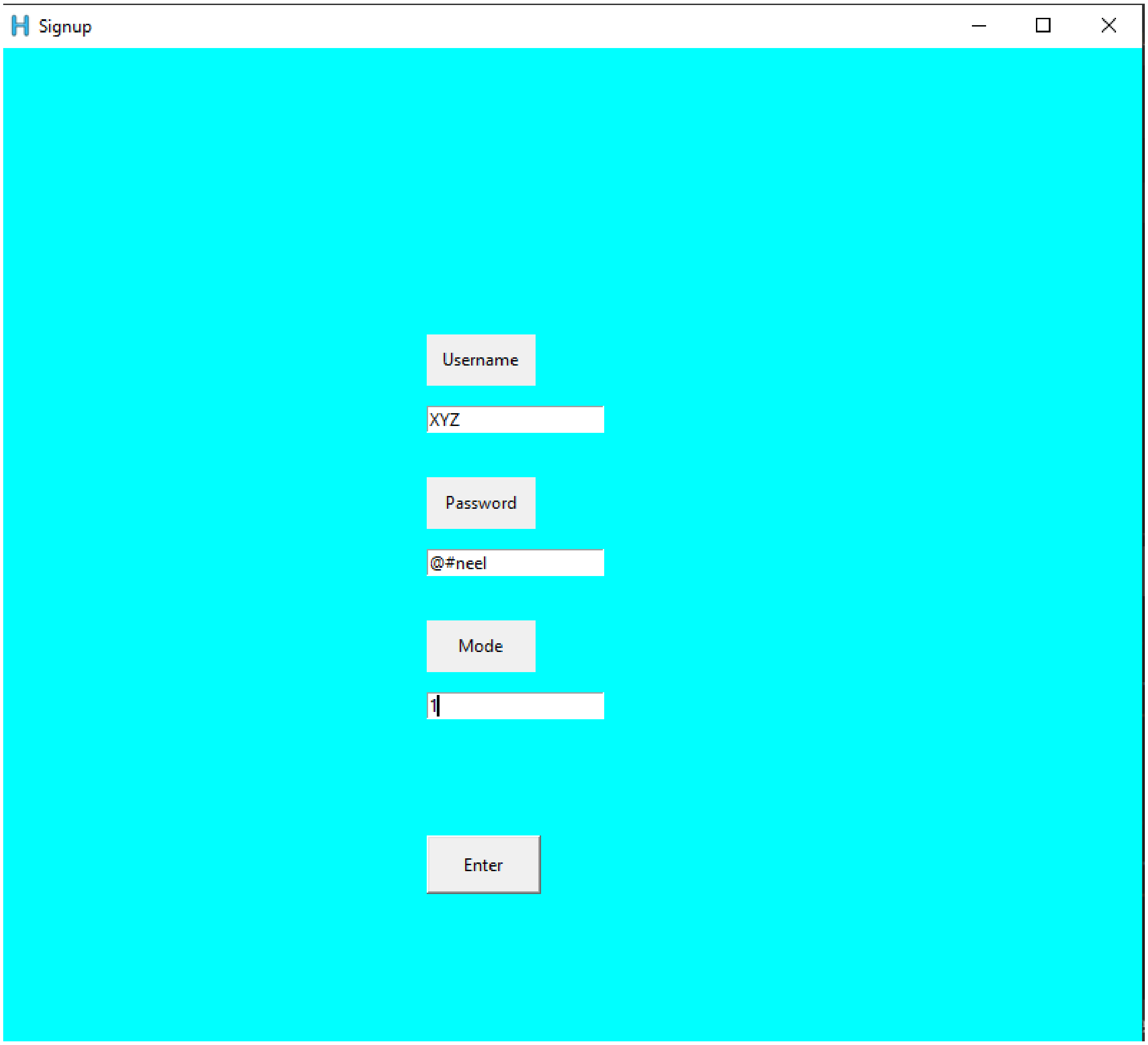
  E.g.
  If **admin** gets logged in then admin has the rights to **Insert**, **Delete**, **Update** as well as to **View** the database but if any **customer or employee** gets logged in then they can **simply view** their own details and the rest is **hidden** for them.

- We have created GUI using tkinter in order to provide functionalities.

  Following are the SQL Queries and Program Snippets to demonstrate :

AUTHENTICATION
(LOGIN AND SIGN-IN PORTAL)


Authenticate
SignUp
login



Username

XYZ

Password

@#neel

Mode

1

SQL QUERIES

Create Table

1)Employee

```
CREATE TABLE IF NOT EXISTS employee(
                        EID TEXT PRIMARY KEY,
                        EFIRSTNAME TEXT NOT NULL,
                        ELASTNAME TEXT NOT NULL,
                        ENO INTEGER UNIQUE,
                        SALARY INTEGER NOT NULL,
                        HOTELID TEXT NOT NULL,
                        WORKSHOTELID TEXT,
                        CONSTRAINT FK_HOTELID FOREIGN
KEY(HOTELID) REFERENCES hotel(HOTELID) ON DELETE CASCADE,
                        CONSTRAINT FK_WORKSHOTELID FOREIGN
KEY(WORKSHOTELID) REFERENCES hotel(HOTELID) ON DELETE CASCADE)
```

2)Hotel

```
CREATE TABLE IF NOT EXISTS hotel(
                        HOTELID TEXT PRIMARY KEY,
                        HNAME TEXT NOT NULL,
                        LOCATION TEXT NOT NULL,
                        OID TEXT,
                        CONSTRAINT FK_OID FOREIGN KEY(OID)
REFERENCES owner(OID) ON DELETE CASCADE)
```

3)Customer

```
CREATE TABLE IF NOT EXISTS customer(
                        CID TEXT PRIMARY KEY,
                        MOBILENO INTEGER UNIQUE,
                        EMAILID TEXT,
                        FNAME TEXT NOT NULL,
                        LNAME TEXT NOT NULL)
```

4)Services

```
CREATE TABLE IF NOT EXISTS services(
                        SNO TEXT PRIMARY KEY,
                        STYPE TEXT NOT NULL,
                        PRICE INTEGER NOT NULL,
                        SSTATUS TEXT NOT NULL,
                        CONSTRAIT CH1 CHECK(STYPE IN
['gym','restaurant']),
                        CONSTRAIT CH2 CHECK(SSTATUS IN
['available','not-available'])
                           )
```

5)Owner

```
CREATE TABLE IF NOT EXISTS rooms(
                        RID TEXT,
                        HOTELID TEXT,
                        RTYPE TEXT NOT NULL,
                        RSTATUS TEXT NOT NULL,
                        CONSTRAIT CH1 CHECK(RTYPE IN ['ac','non-
ac']),
                        CONSTRAIT CH2 CHECK(RSTATUS IN
['available','not-available']),
                        CONSTRAINT FK_HOTELID FOREIGN
KEY(HOTELID) REFERENCES hotel(HOTELID) ON DELETE CASCADE,
                        CONSTRAINT PK_rooms PRIMARY
KEY(RID,HOTELID)
                    )
```

6)Provides

```
CREATE TABLE IF NOT EXISTS provides(HOTELID TEXT,
                        SNO TEXT,
                        CONSTRAINT FK_HOTELID FOREIGN
KEY(HOTELID) REFERENCES hotel(HOTELID) ON DELETE CASCADE,
                        CONSTRAINT FK_SNO FOREIGN KEY(SNO)
REFERENCES services(SNO) ON DELETE CASCADE,
                        CONSTRAINT PK_provides PRIMARY
KEY(HOTELID,SNO)
                    )
```

7)Booking

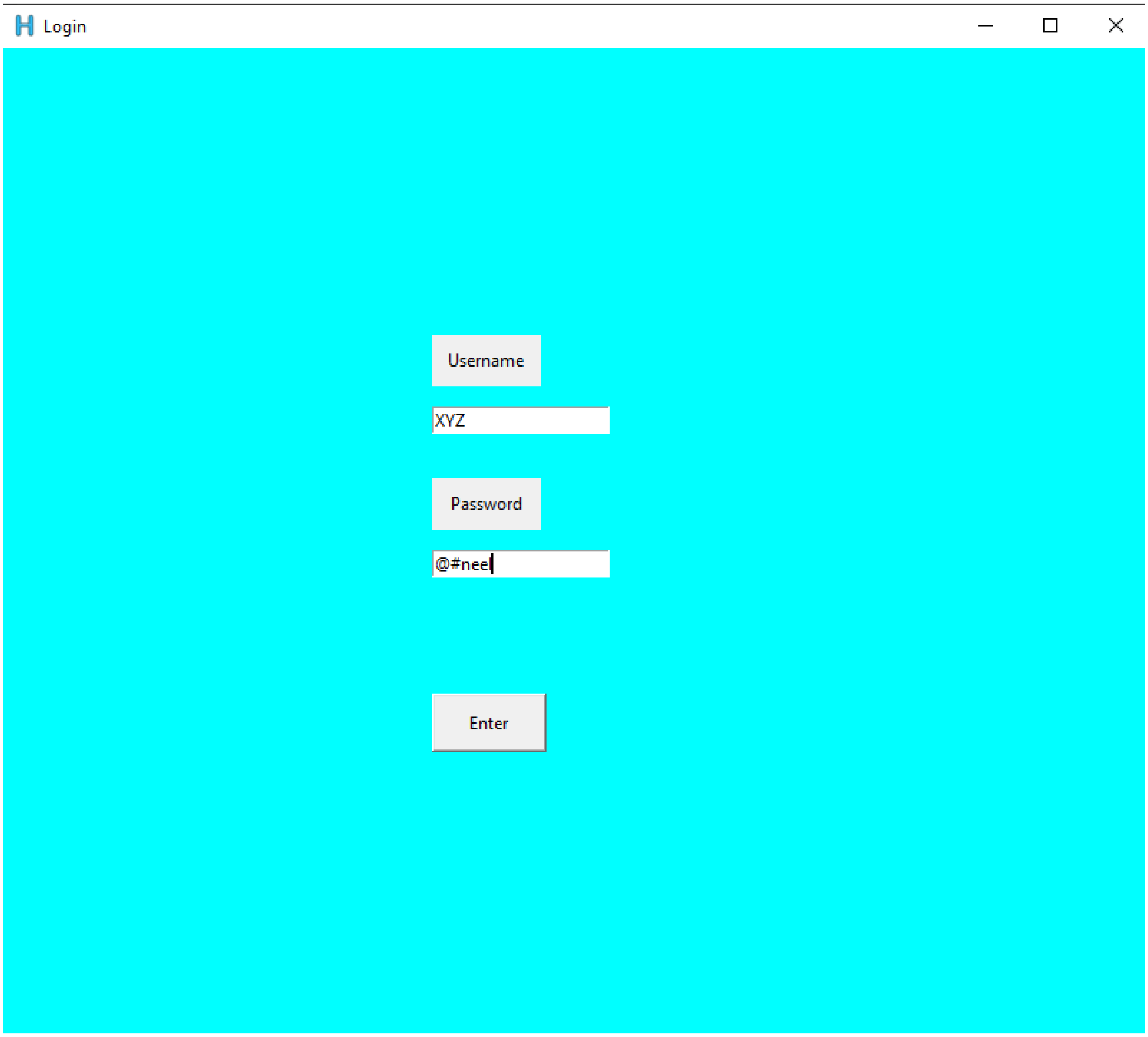
```
CREATE TABLE IF NOT EXISTS booking(
                        HOTELID TEXT,
                        CID TEXT,
                        CONSTRAINT FK_HOTELID FOREIGN
KEY(HOTELID) REFERENCES hotel(HOTELID) ON DELETE CASCADE,
                        CONSTRAINT FK_CID FOREIGN KEY(CID)
REFERENCES customer(CID) ON DELETE CASCADE,
                        CONSTRAINT PK_booking PRIMARY
KEY(HOTELID,CID)
                    )
```

8)Bill

```
CREATE TABLE IF NOT EXISTS bill(
                        BILLID TEXT,
                        CID TEXT,
                        AMOUNT INTEGER NOT NULL,
                        MODE TEXT NOT NULL,
                        CONSTRAIT CH CHECK(MODE IN
['cash','card']),
                        CONSTRAINT FK_CID FOREIGN KEY(CID)
REFERENCES customer(CID) ON DELETE CASCADE,
                        CONSTRAINT PK_bill PRIMARY
KEY(BILLID,CID)
                    )
```

9)Login

```
CREATE TABLE IF NOT EXISTS login(
                        USERNAME TEXT PRIMARY KEY,
                        PASSWORD TEXT NOT NULL,
                        MODE TEXT NOT NULL
                    )
```



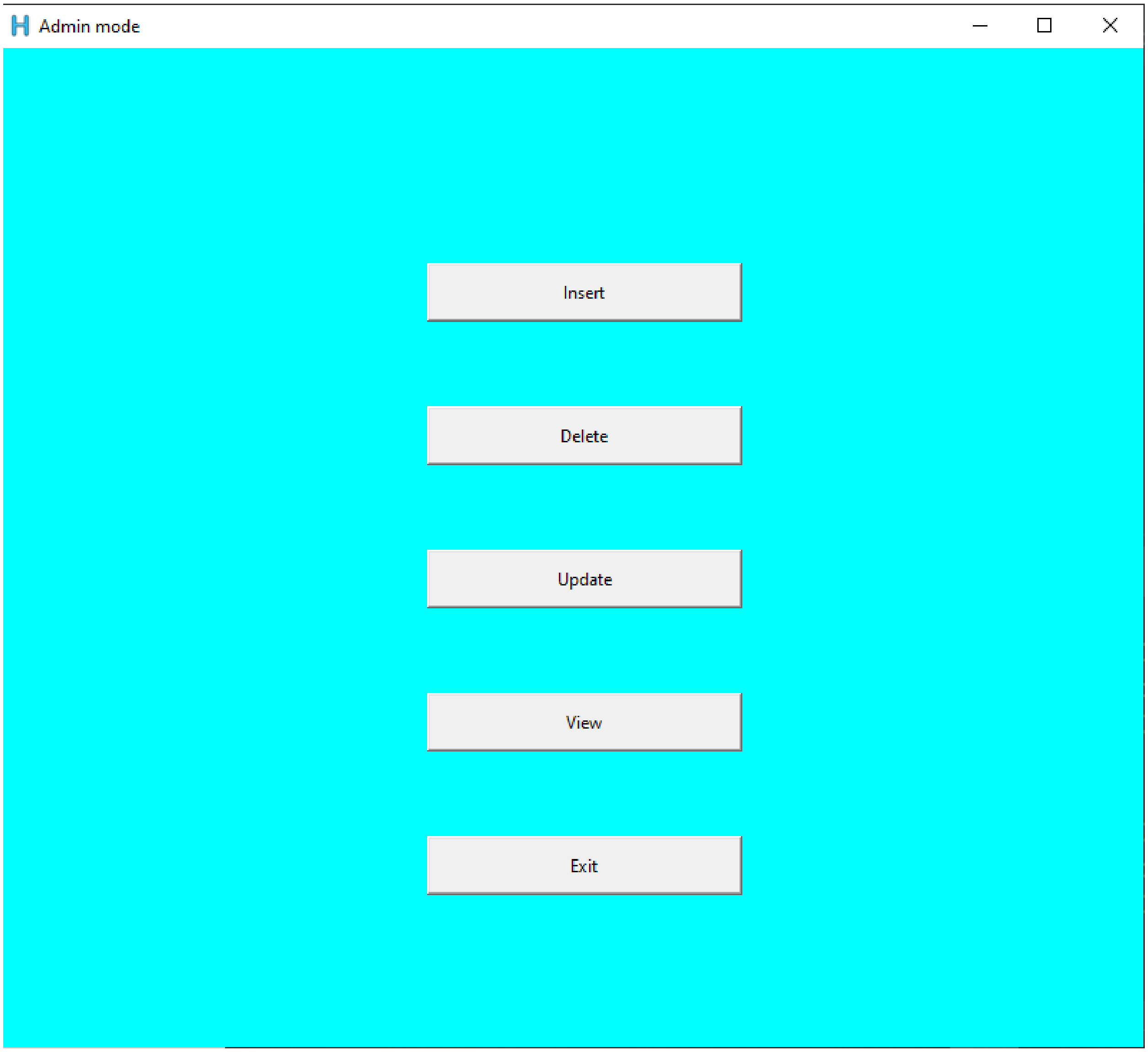
Username

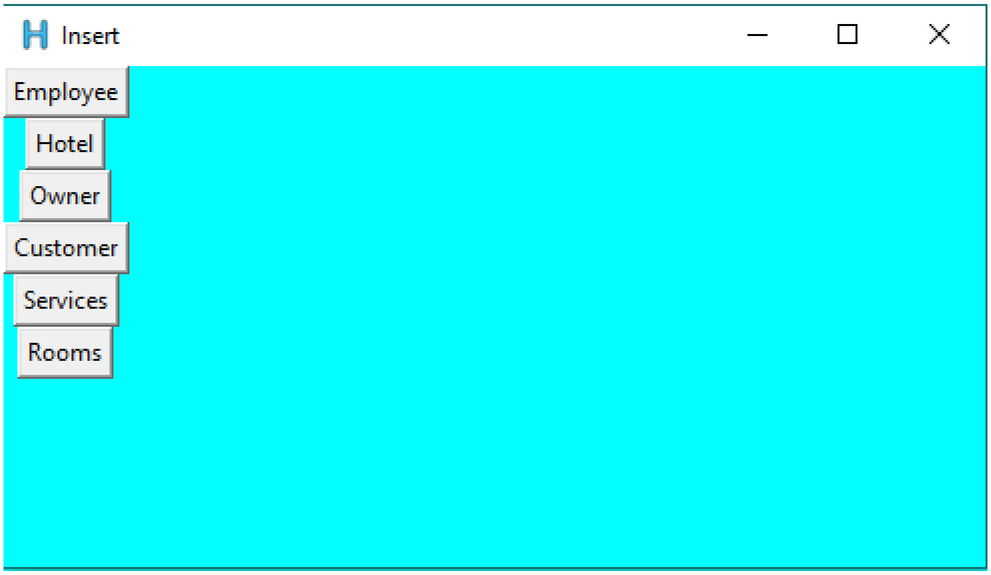
XYZ

Password

@#neel

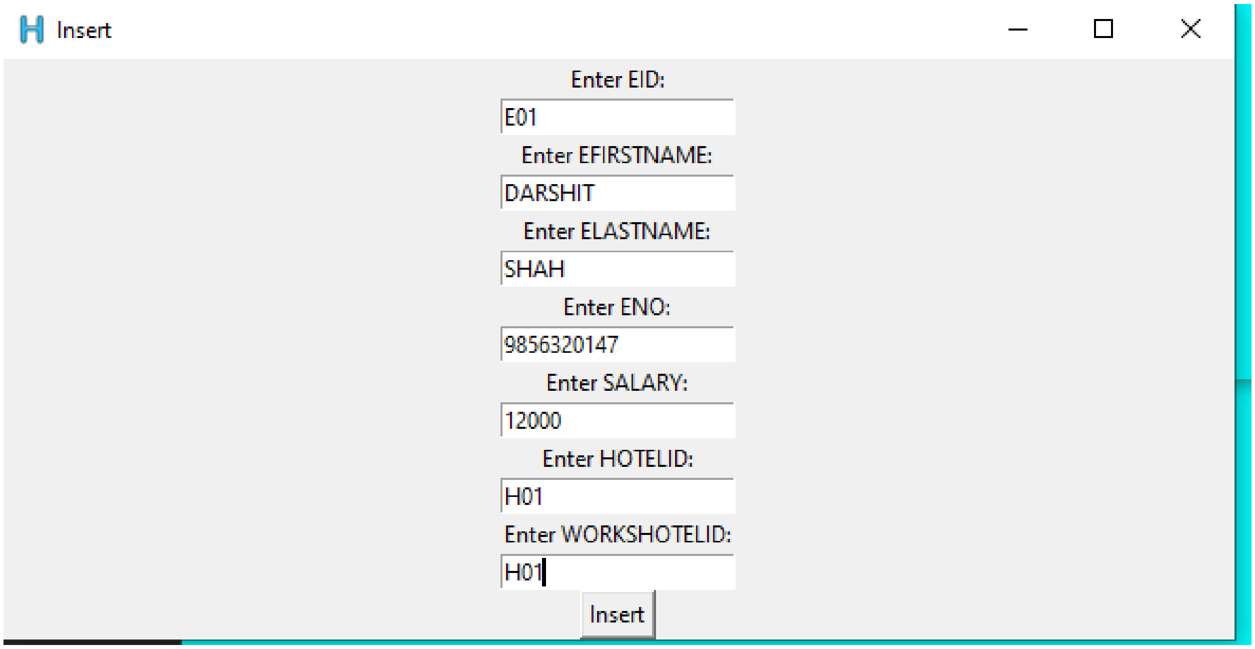
Insert Into Tables


Admin mode
Insert
Delete
Update
View
Exit


Insert
Employee
Hotel
Owner
Customer
Services
Rooms

1)Employee

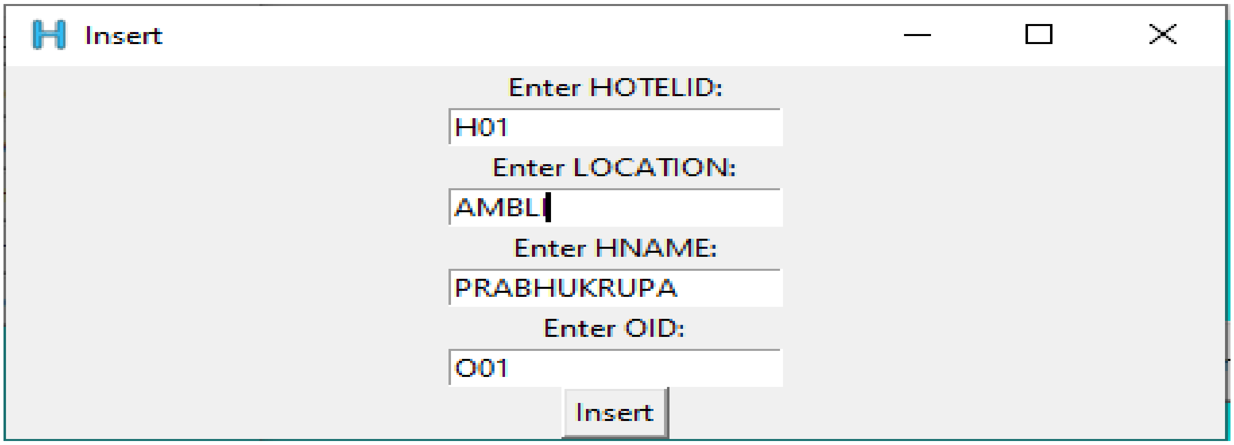
```
c.execute("INSERT INTO employee
VALUES(?,?,?,?,?,?,?);",(eid,efirstname,elastname,eno,salary,hot
elid,workshotelid))
```



Enter EID:
E01
Enter EFIRSTNAME:
DARSHIT
Enter ELASTNAME:
SHAH
Enter ENO:
9856320147
Enter SALARY:
12000
Enter HOTELID:
H01
Enter WORKSHOTELID:
H01

2)Hotel

```
c.execute("INSERT INTO hotel
VALUES(?,?,?,?);",(hotelid,location,hname,oid))
```



Enter HOTELID:

H01

Enter LOCATION:

AMBLI

Enter HNAME:

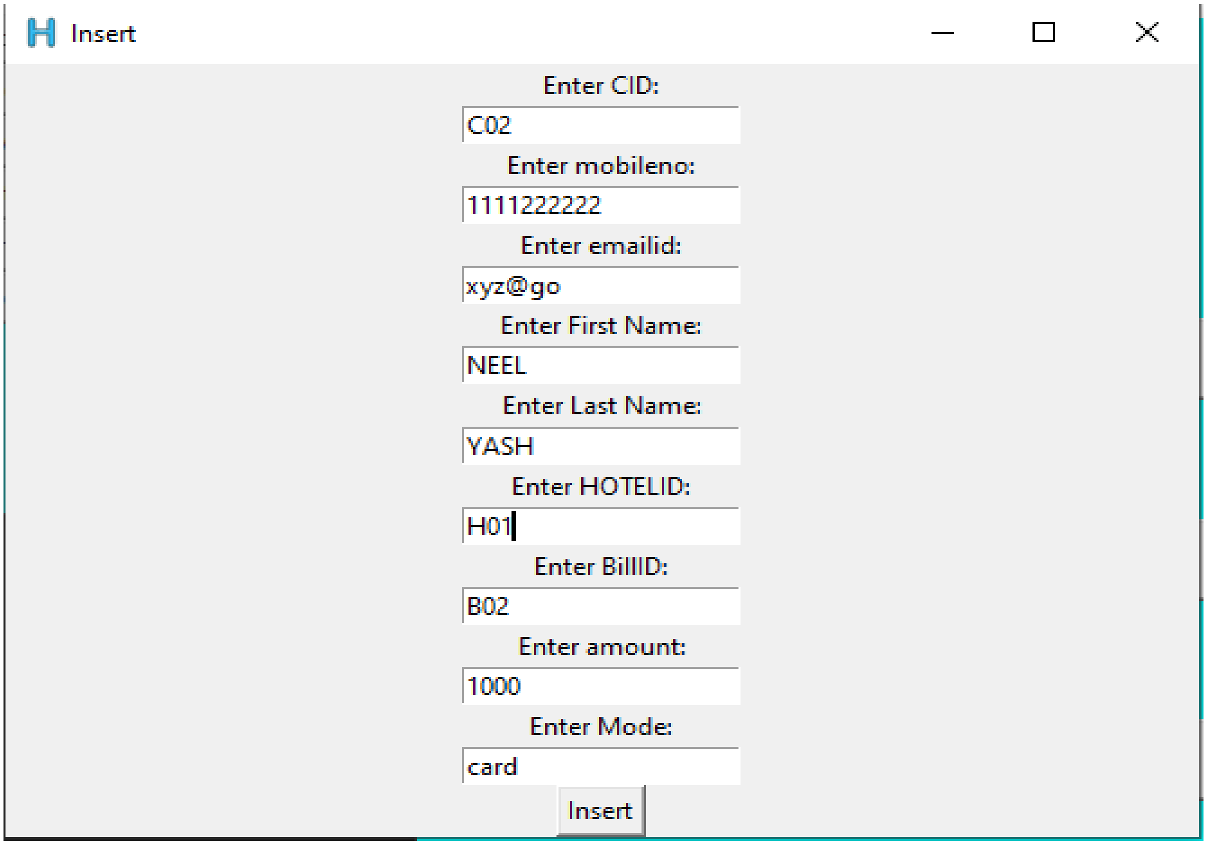
PRABHUKRUPA

Enter OID:

O01

3) Customer

```
c.execute("INSERT INTO customer
VALUES(?,?,?,?,?);",(cid,mobileno,emailid,fname,lname))
```



Enter CID:

C02

Enter mobileno:

1111222222

Enter emailid:

xyz@go

Enter First Name:

NEEL

Enter Last Name:

YASH

Enter HOTELID:

H01

Enter BillID:

B02

Enter amount:

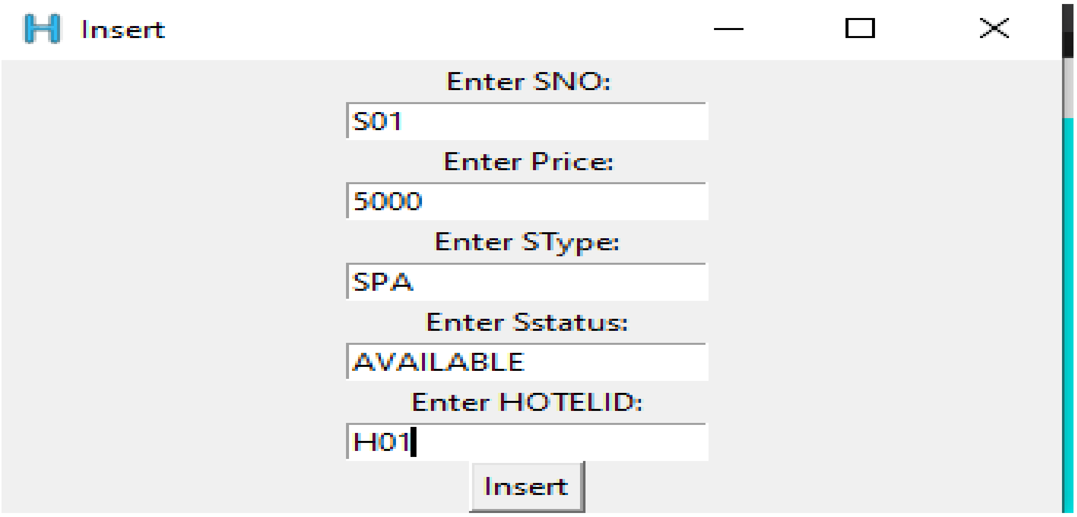
1000

Enter Mode:

card

4) Services

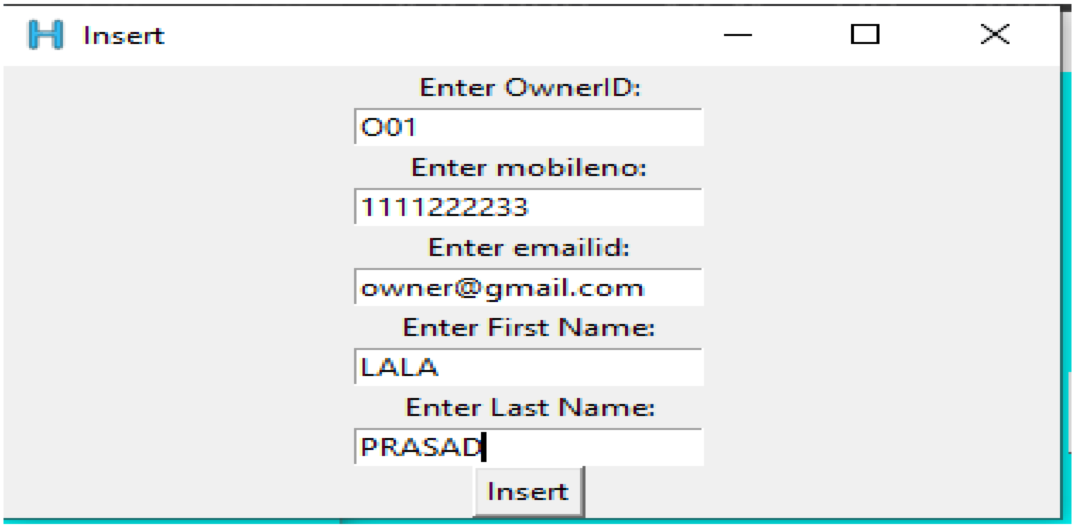
```
c.execute("INSERT INTO services
VALUES(?,?,?,?);",(sno,stype,price,sstatus))
```



Enter SNO:
S01
Enter Price:
5000
Enter SType:
SPA
Enter Sstatus:
AVAILABLE
Enter HOTELID:
H01

5)Owner

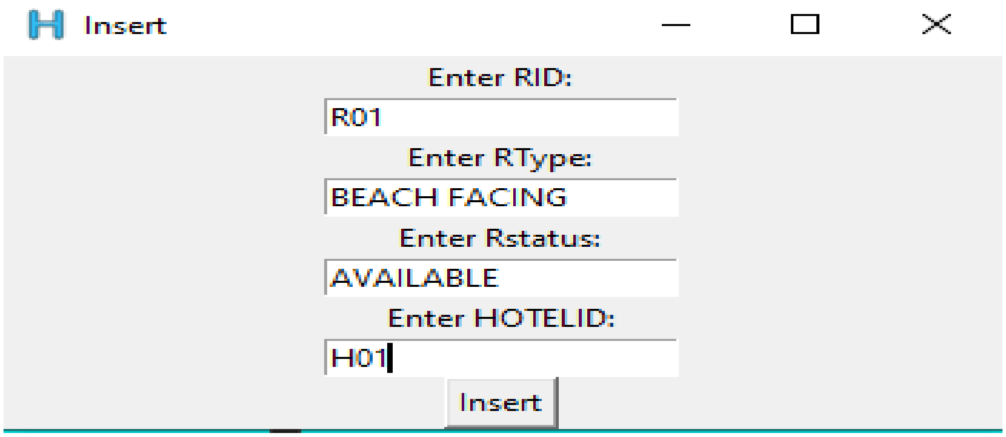
```
c.execute("INSERT INTO owner
VALUES(?,?,?,?,?);",(oid,mobileno,emailid,fname,lname))
```



Enter OwnerID:
O01
Enter mobileno:
1111222233
Enter emailid:
owner@gmail.com
Enter First Name:
LALA
Enter Last Name:
PRASAD

6)Rooms

```
c.execute("INSERT INTO rooms
VALUES(?,?,?,?);",(rid,hotelid,rtype,rstatus))
```



Enter RID:

R01

Enter RType:

BEACH FACING

Enter Rstatus:

AVAILABLE

Enter HOTELID:

H01

7) Provides

```
c.execute("INSERT INTO provides VALUES(?,?);",(hotelid,sno))
```

8) Booking

```
c.execute("INSERT INTO Booking values(?,?);",(hotelid,cid))
```

9) Bill

```
c.execute("INSERT INTO bill
values(?,?,?,?);",(billid,cid,amount,mode))
```

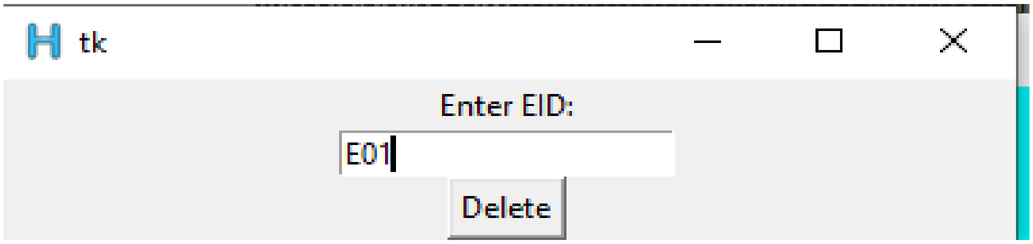
Delete From Tables

1) Employee

```
 MODE=1
     DELETE FROM employee WHERE EID=(?)

 MODE=2
     DELETE FROM employee WHERE EID=(?) AND
```

```
                        (HOTELID=(?) OR WORKSHOTELID=(?)) AND
                        (?) IN (SELECT HOTELID FROM hotel WHERE
OID=(?))
```

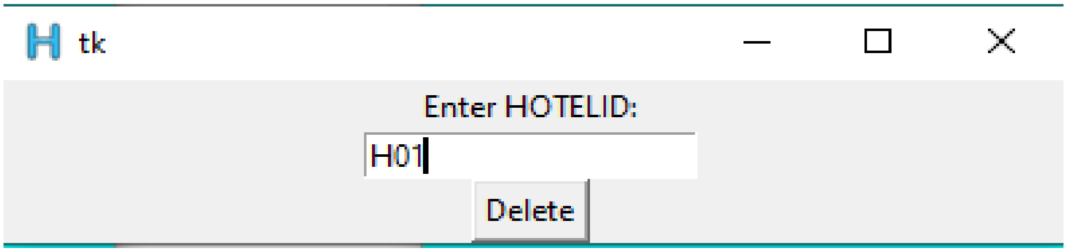


Enter EID:

E01

2)Hotel

```
DELETE FROM hotel WHERE HOTELID=(?)
```

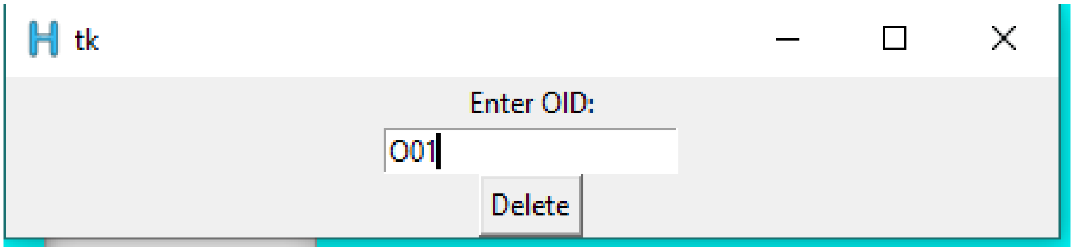


Enter HOTELID:

H01

3)Owner

```
DELETE FROM owner WHERE OID=(?)
```

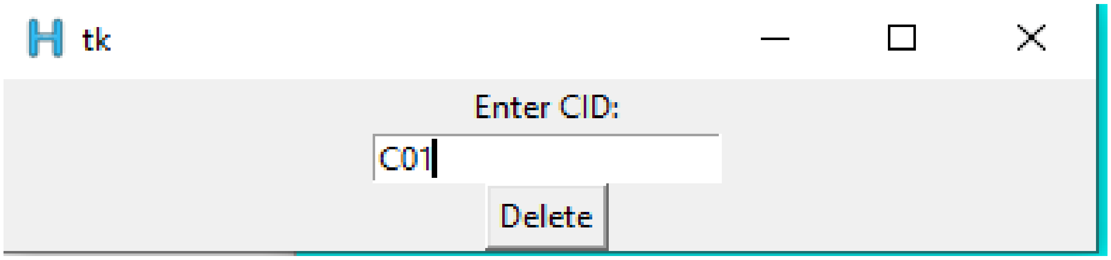


Enter OID:

O01

4)Customer

```
DELETE FROM customer WHERE CID=(?)
```

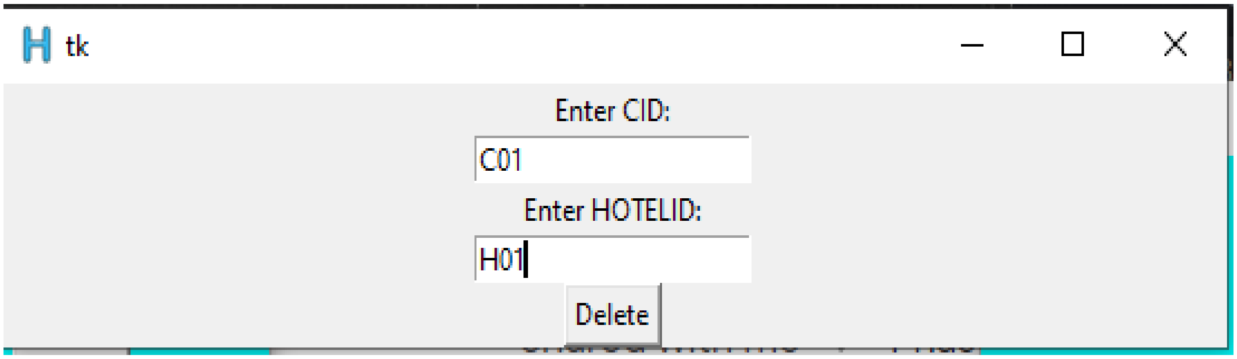


Enter CID:

C01

5) Booking

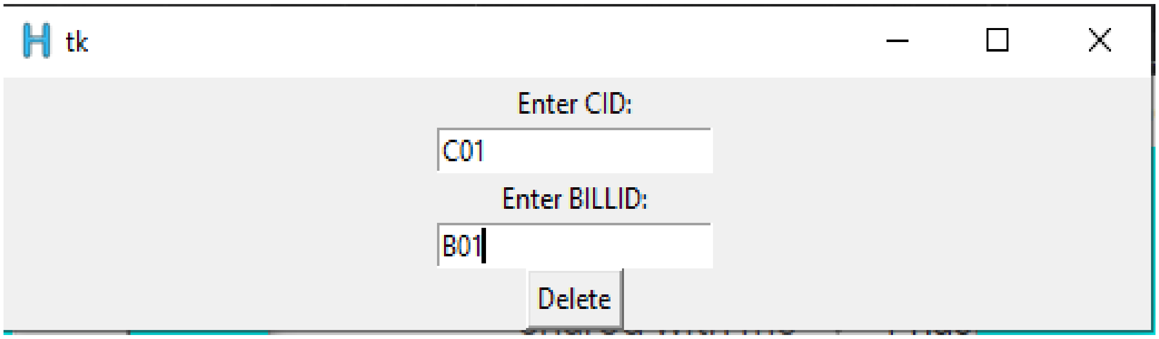
```
DELETE FROM booking WHERE CID=(?) AND HOTELID=(?)
```



Enter CID:
C01
Enter HOTELID:
H01

6) Bill

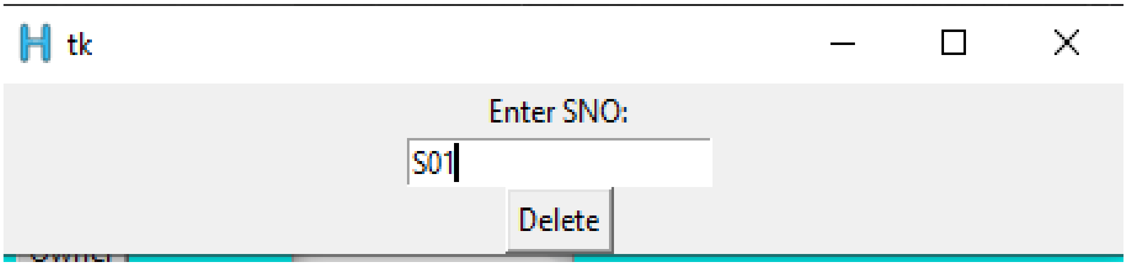
```
DELETE FROM bill WHERE CID=(?) AND BILLID=(?)
```



Enter CID:
C01
Enter BILLID:
B01

7) Services

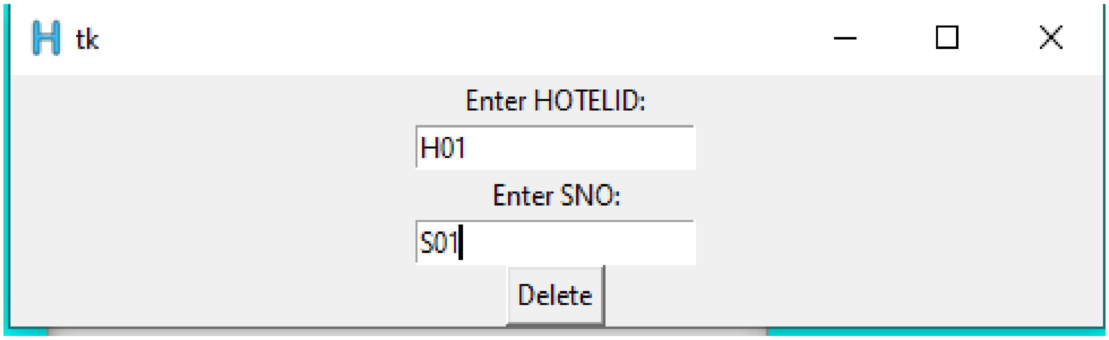
```
DELETE FROM services WHERE SNO=(?)
```



Enter SNO:
S01

8) Provides

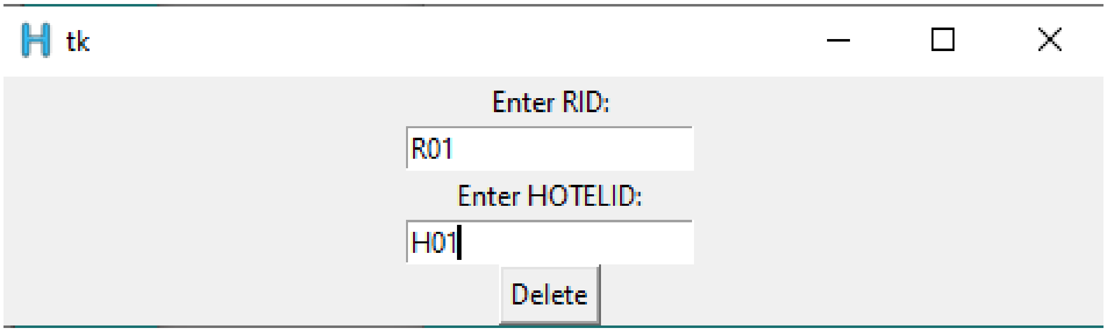
```
DELETE FROM provides WHERE SNO=(?) AND HOTELID=(?)
```



Enter HOTELID:
H01
Enter SNO:
S01

9) Rooms

```
DELETE FROM rooms WHERE RID=(?) AND HOTELID=(?)
```

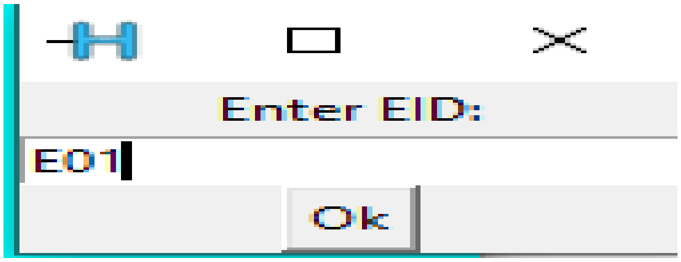


Enter RID:
R01
Enter HOTELID:
H01

UPDATE TABLE

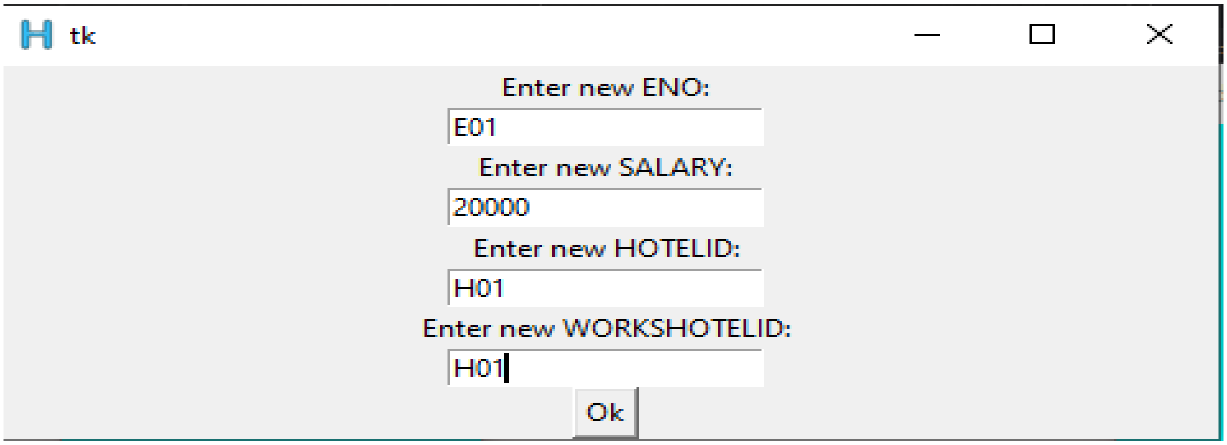
1) Employee

```
c.execute("UPDATE employee SET ENO=(?) WHERE EID=(?)",(eno,eid))
            c.execute("UPDATE employee SET SALARY=(?) WHERE
EID=(?)",(salary,eid))
            c.execute("UPDATE employee SET HOTELID=(?) WHERE
EID=(?)",(hotelid,eid))
            c.execute("UPDATE employee SET WORKSHOTELID=(?)
WHERE EID=(?)",(workshotelid,eid))
```



Enter EID:

E01



Enter new ENO:

E01

Enter new SALARY:

20000

Enter new HOTELID:

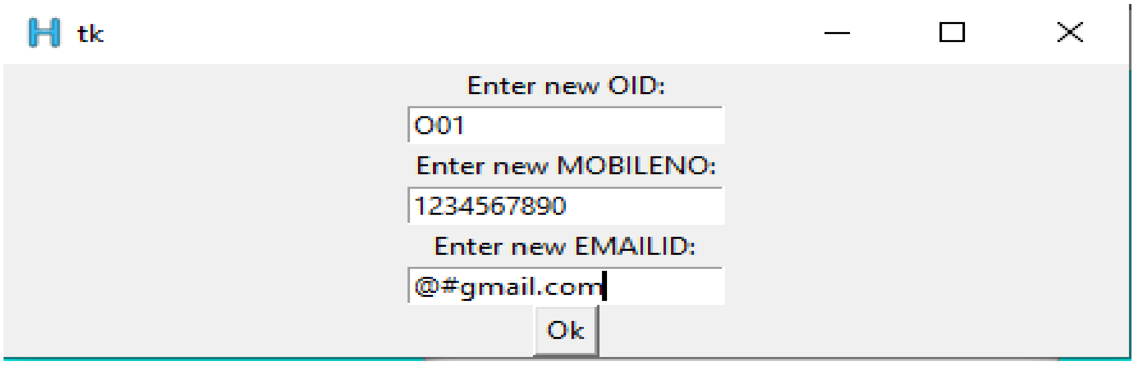
H01

Enter new WORKSHOTELID:

H01

2)Owner

```
c.execute("UPDATE owner SET MOBILENO=(?),EMAILID=(?) WHERE
OID=(?)",(ono,email,oid))
```



Enter new OID:

O01

Enter new MOBILENO:

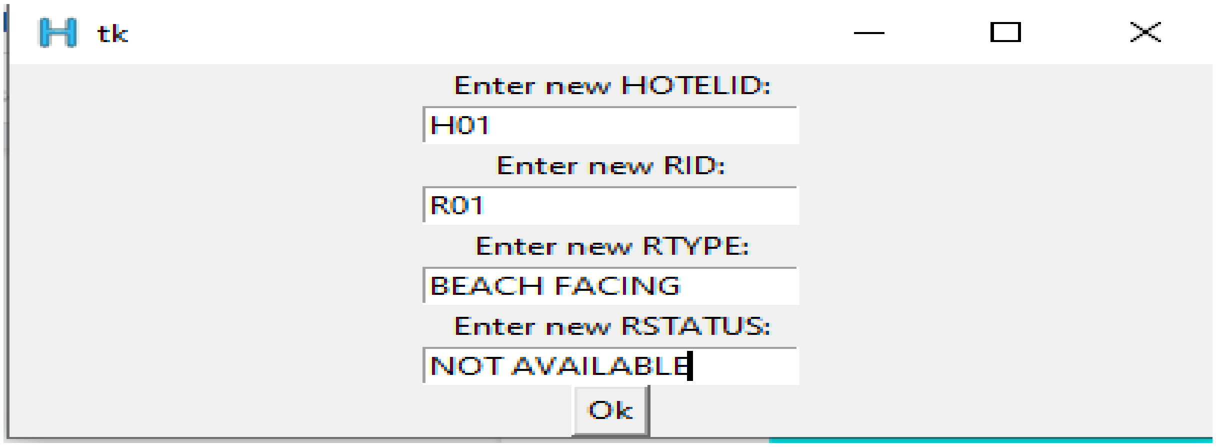
1234567890

Enter new EMAILID:

@#gmail.com

3)Rooms

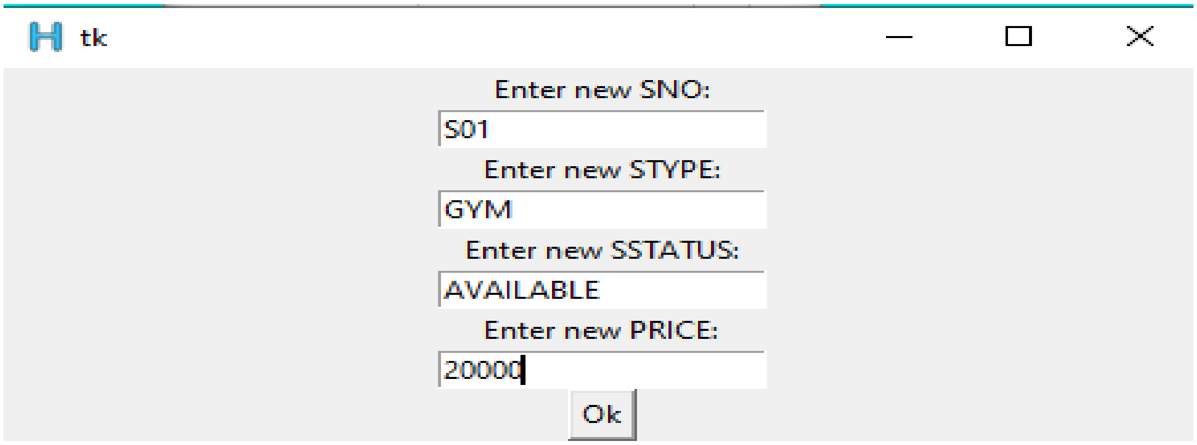
```
c.execute("UPDATE rooms SET RTYPE=(?),RSTATUS=(?) WHERE
HOTELID=(?) AND RID=(?)",(rtype,rstatus,hotelid,rid))
```



Enter new HOTELID:
H01
Enter new RID:
R01
Enter new RTYPE:
BEACH FACING
Enter new RSTATUS:
NOT AVAILABLE

4)Services

```
c.execute("UPDATE services SET STYPE=(?),SSTATUS=(?),PRICE=(?)
WHERE SNO=(?)",(stype,sstatus,price,sno))
```

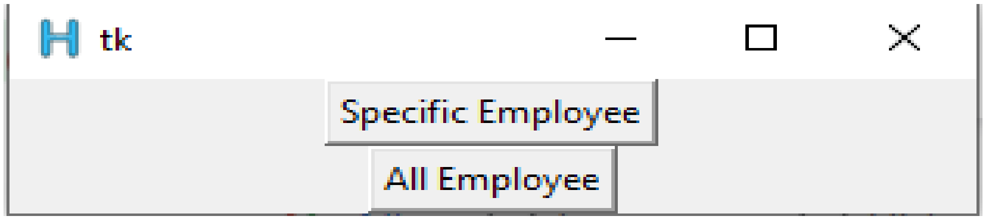


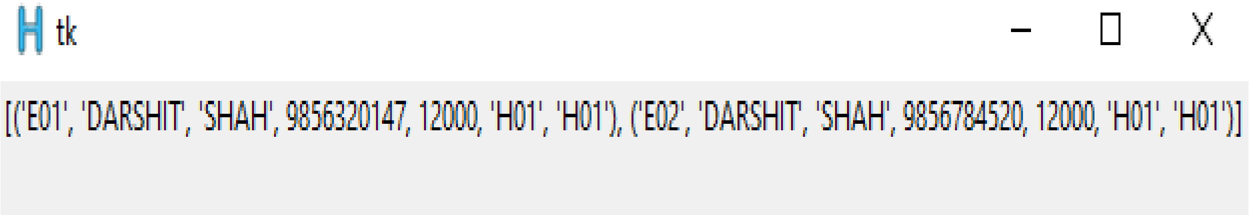
Enter new SNO:
S01
Enter new STYPE:
GYM
Enter new SSTATUS:
AVAILABLE
Enter new PRICE:
20000

VIEW TABLE

1)Employee

```
SELECT * FROM employee WHERE EID=(?);
```

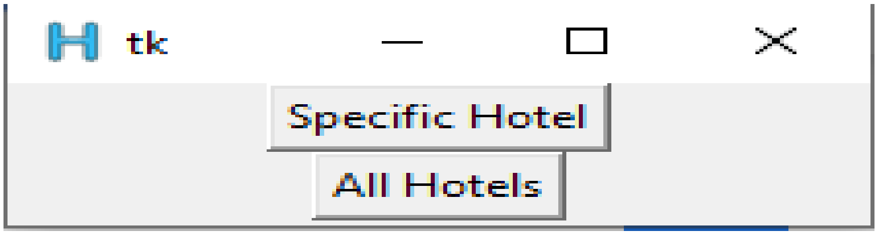


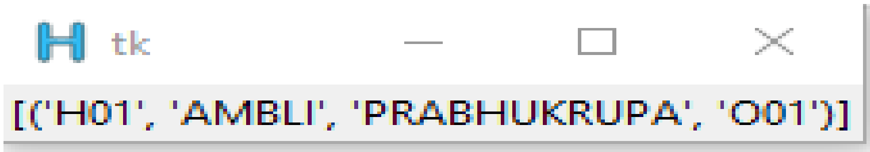


```
[('E01', 'DARSHIT', 'SHAH', 9856320147, 12000, 'H01', 'H01'), ('E02', 'DARSHIT', 'SHAH', 9856784520, 12000, 'H01', 'H01')]
```

2) Hotel

```
SELECT * FROM hotel WHERE HOTELID=(?);
```





```
[('H01', 'AMBLI', 'PRABHUKRUPA', 'O01')]
```

3) Customer

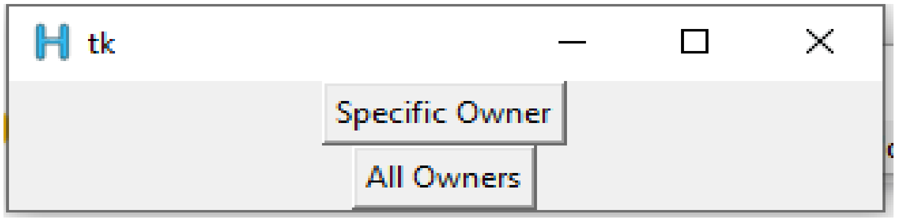
```
SELECT * FROM customer WHERE CID=(?);
```

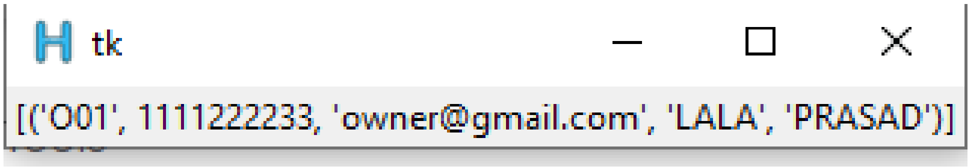
4) Services

```
SELECT * FROM services WHERE SNO=(?);
```

5) Owner

```
SELECT * FROM owner WHERE OID=(?);
```





```
[('O01', 1111222233, 'owner@gmail.com', 'LALA', 'PRASAD')]
```

6)Rooms

```
SELECT * FROM rooms WHERE RID=(?) AND HOTELID=(?);
```

7)Provides

```
SELECT * FROM provides WHERE SNO=(?) AND HOTELID=(?);
```

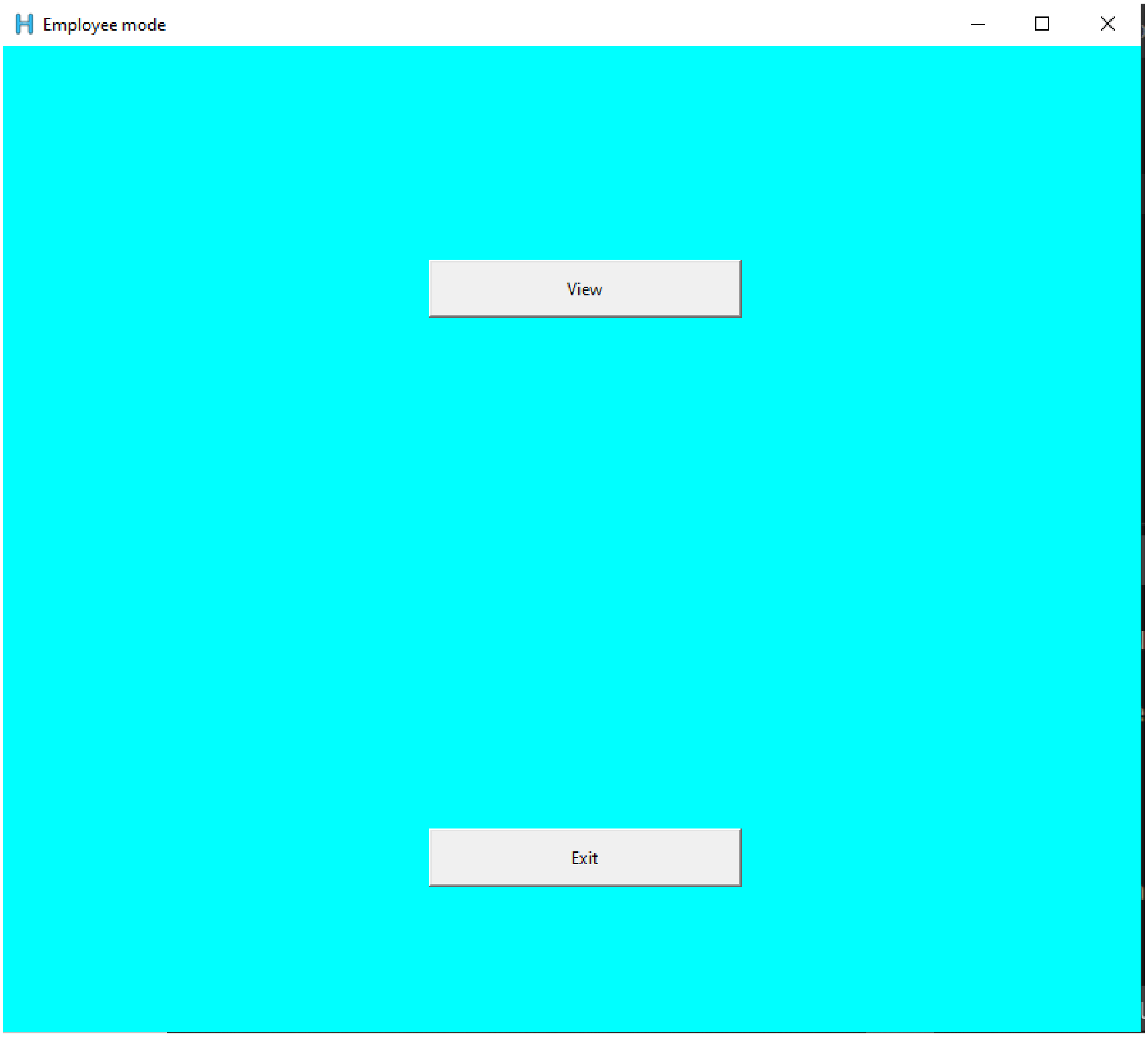
8)Booking

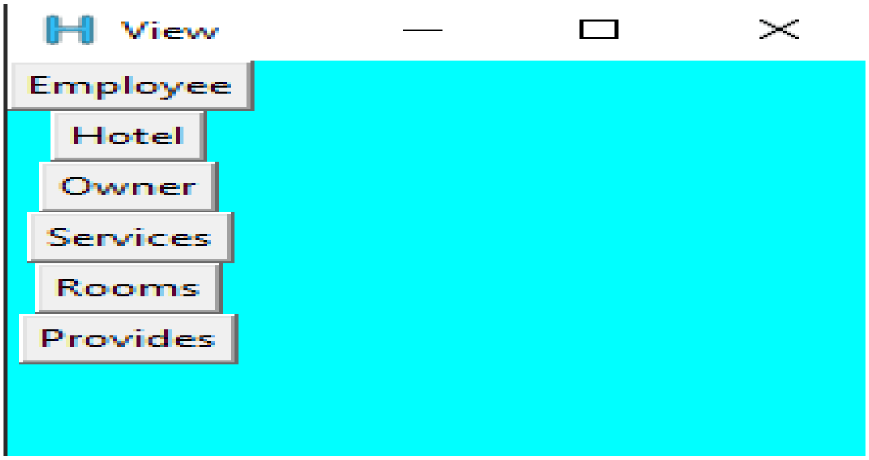
```
SELECT * FROM booking WHERE CID=(?) AND HOTELID=(?);
```

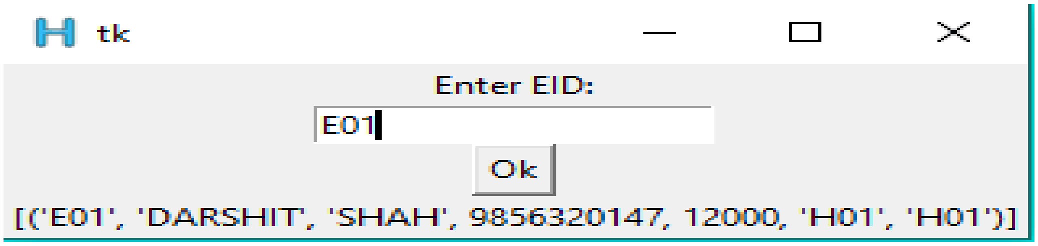
9)Bill

```
SELECT * FROM bill WHERE CID=(?) AND BILLID=(?);
```

SOME OTHER SNIPPETS

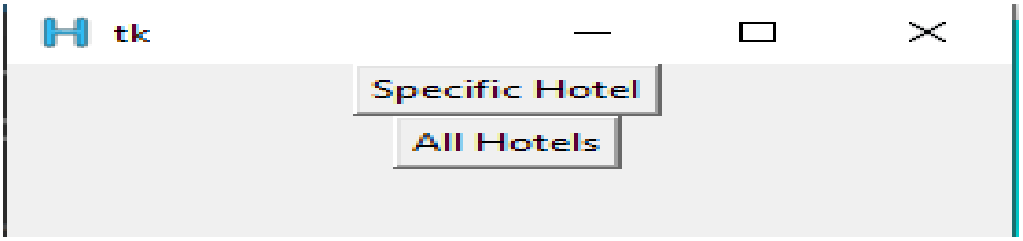

Employee mode
View
Exit

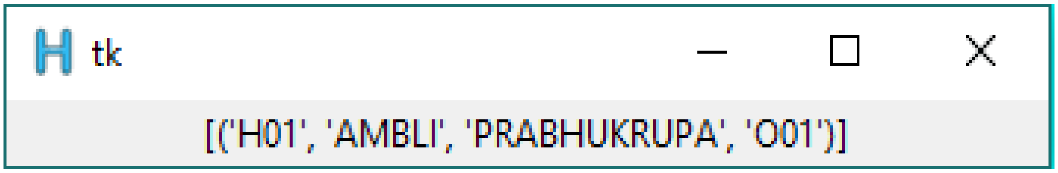

View
Employee
Hotel
Owner
Services
Rooms
Provides



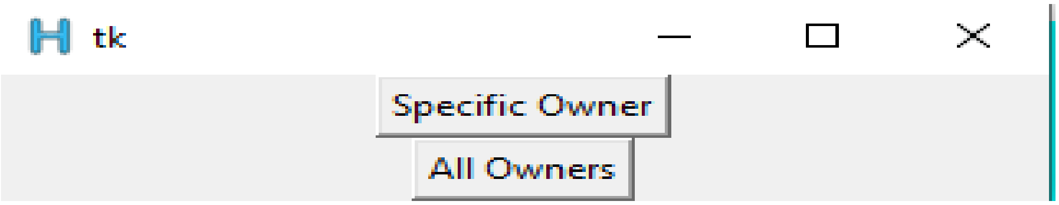
E01

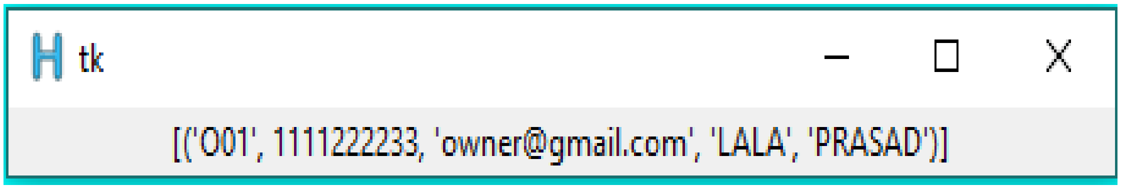
```
[('E01', 'DARSHIT', 'SHAH', 9856320147, 12000, 'H01', 'H01')]
```



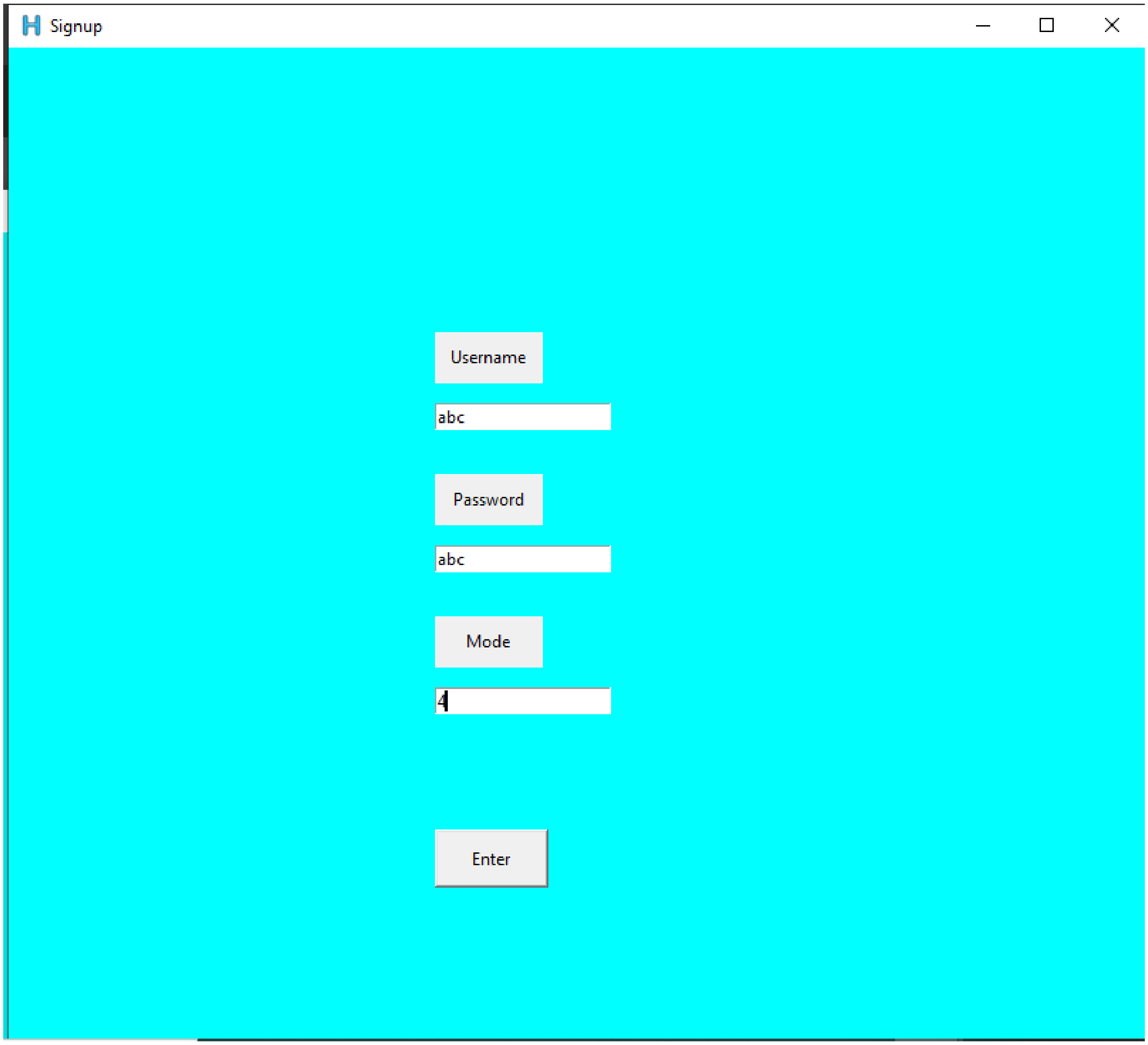


```
[('H01', 'AMBLI', 'PRABHUKRUPA', 'O01')]
```





```
[('O01', 1111222233, 'owner@gmail.com', 'LALA', 'PRASAD')]
```



Username

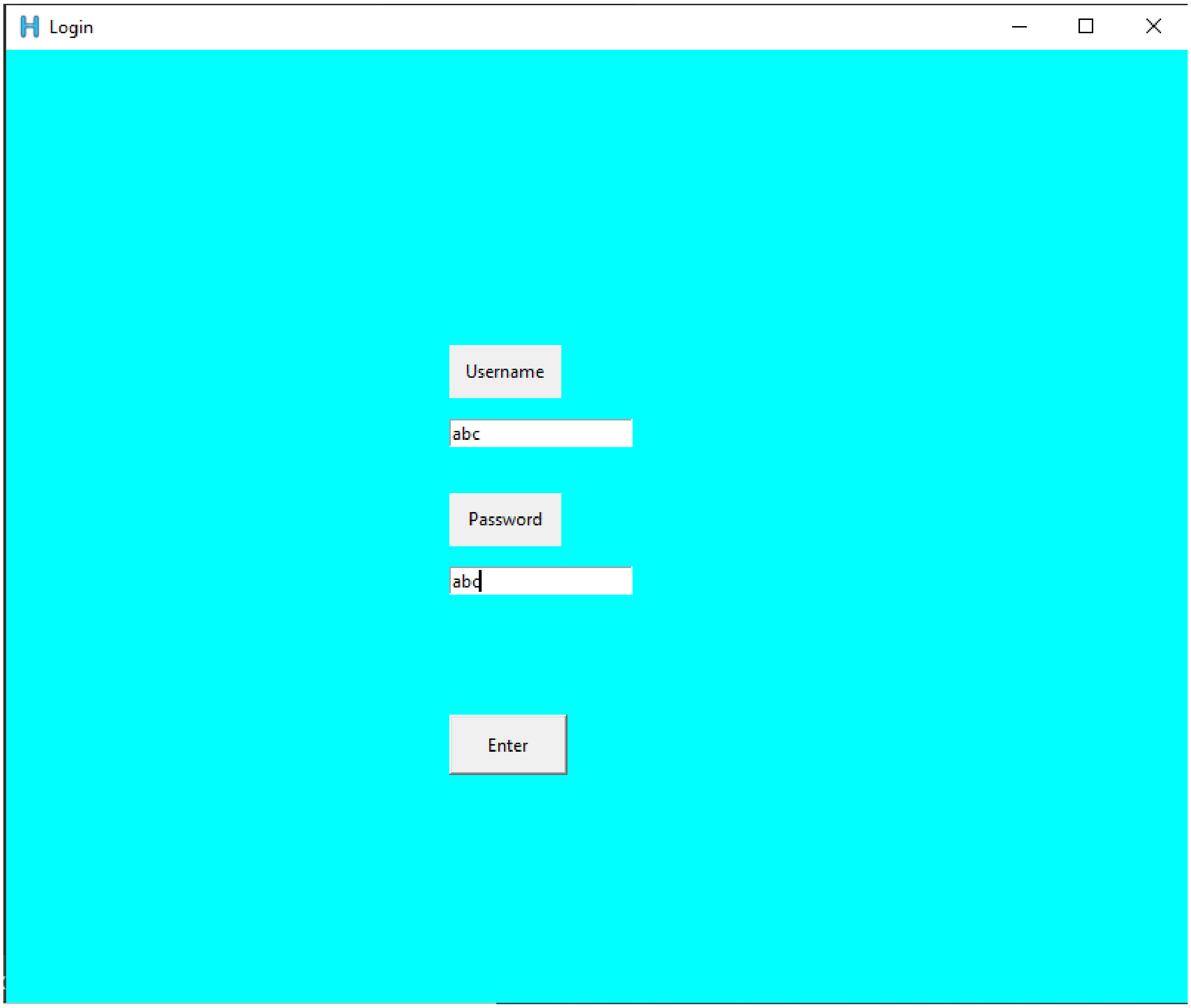
abc

Password

abc

Mode

4

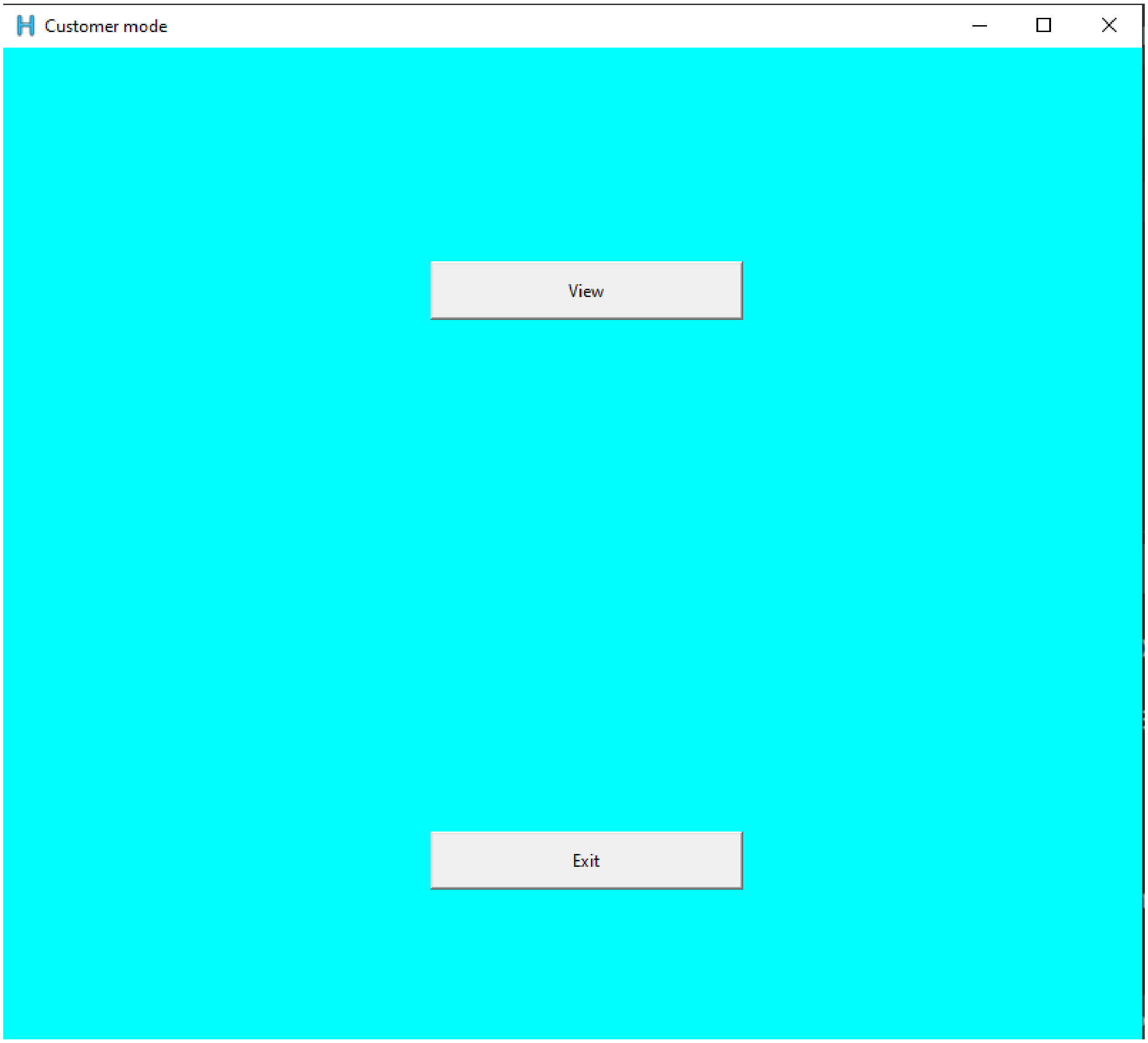


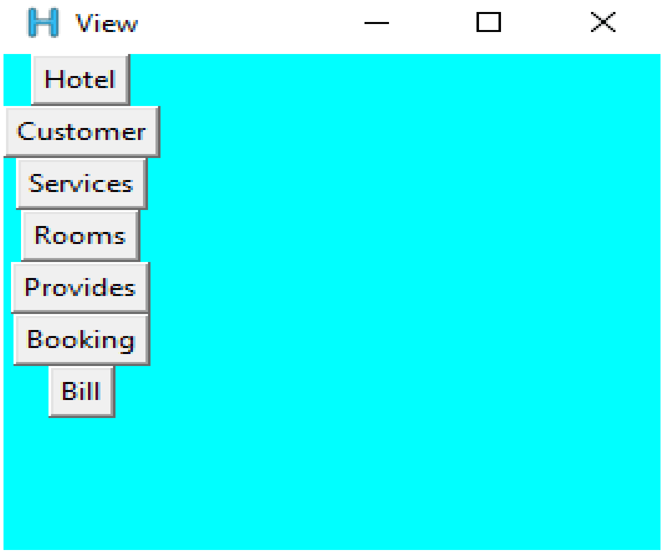
Username

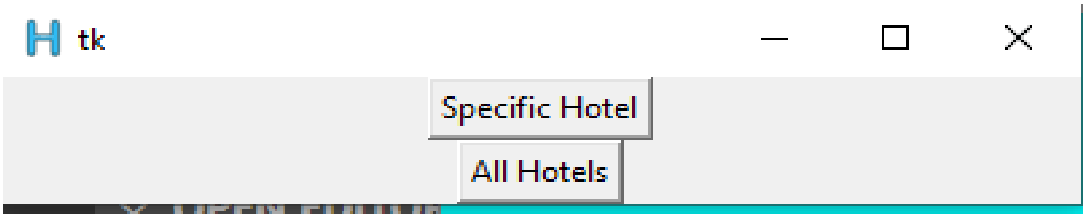
abc

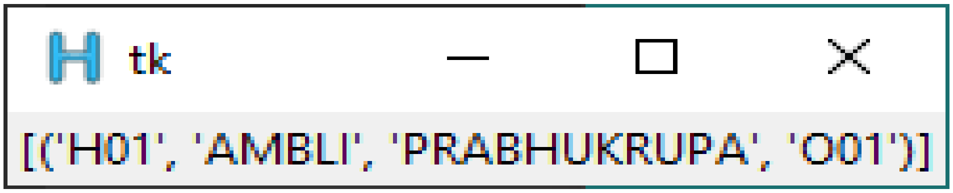
Password

abc


Customer mode
View
Exit







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[('H01', 'AMBLI', 'PRABHUKRUPA', 'O01')]
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THANK YOU