INDIAN SCHOOL , AL AIN

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PROJECT REPORT ON

Online Parking Management System

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CLASS : XII-B

SUBJECT : COMPUTER SCIENCE

SUB CODE : 083

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Secondly, I would also like to thank my parents and my friends who helped me a lot in finalizing this project within the limited time frame.

Project Description

The **Online Parking Management System** is an innovative project developed using Python which helps the users mainly to book parking reservations by logging into their customer account and also to view and edit their entry stored in the database. The project also gives control to the Administrator to register and delete various entries stored in the database. Python is used as front-end language and MySQL as back-end.

Database used: parking_system

Tables used:

1) users

FIELDS: Username, Password, Type , emid(Primary Key)

Functions Used:

1) main(): To perform actions Log in as Customer, Create an account and to Login as Admin.

2) admin(): Admin Log In using admin username and password

3) admin_act(): To perform Admin actions (register and delete existing vehicle & log out).

4) customer(): Customer Log In using username and password

5) customer_act(): To perform Customer actions (view & edit profile, book parking reservations and to give feedback of service).

6) account(): To create an account.

ALGORITHM

I. Start
II. Display menu
    1. Customer Login
    2. Create Account
    3. Admin Login
III. If choice = 1, Go to step VI
IV. If choice = 2, Account can be created
V. If choice = 3, Go to step VII
VI. CUSTOMER LOGIN
    1. Display Profile
    2. Edit Profile
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        ii. Password
        iii. Car Type
        iv. EMID
    3. Book Parking Reservation
        i. First Class
        ii. Business Class
        iii. Economy Class
    4. Give Feedback
    5. Log Out- Back to Display Menu

VII. ADMIN LOGIN

    1.Register New Vehicle

    2. Delete Existing Vehicle

    3. Overall Income

    4. Log Out - Back to Display Menu

VIII. Display Menu

FLOW CHART

START

Display Main Menu

1. Customer Log In
2. Create an Account
3. Admin Log In

Enter Choice

1.customer()

- 1.Display Profile
- 2.Edit Profile
  - 2.1. Username
  - 2.2. Password
  - 2.3. Car Type
  - 2.4. EMID
- 3.Book Parking
  - 3.1. First Class
  - 3.2 Business Class
  - 3.3 Economy Class
- 4.Give Feedback
- 5.Log Out

2.account()

- 1.Create an Account

3.admin()

- 1.Register New Vehicle
- 2. Delete Existing Vehicle
- 3. Overall Collection
- 4.Log Out

SOURCE CODE

```
import mysql.connector as mysql

import time

import random

mydb=mysql.connect(host='localhost',user='root',passwd='Isalain',database='p
arking_system')

mycursor=mydb.cursor()


print("\t\t\t\t\t\t WELCOME TO MEGAPARK DIGITAL AIRPORT PARKING
MANAGAMENT  SYSTEM\t\t\t\t\t\t ")


for i in range(130):

   print("_",end="")

   time.sleep(0.00001)


First_List = []

Bus_List = []

Eco_List = []

Fcollection = 0

Bcollection = 0

Ecollection = 0

for i in range (1,101):

   First_List.append('A'+str(i))

for j in range (1,101):

   Bus_List.append('B'+str(j))

for k in range (1,101):

   Eco_List.append('C'+str(k))
```

```
def account():
    print()
    print('CREATE AN ACCOUNT AND BECOME A PART OF OUR FAMILY !')
    print()
    Username=input(str('Enter Username: '))
    Password=input(str('Enter Password: '))
    Type=input(str('Enter Type of Car:'))
    emid=input(str('Enter your EM ID:'))
    query_vals=(Username,Password,Type,emid)
    mycursor.execute("INSERT INTO users (Username,Password,Type,emid)
VALUES (%s,%s,%s,%s)",query_vals)
    mydb.commit()
    print('YOUR ACCOUNT HAS BEEN CREATED SUCCESSFULLY')



def customer_act():
    while True:
        print()
        print('1.Display Profile')
        print('2.Edit Profile')
        print('3.Book a Parking Reservation')
        print('4.Give Feedback')
        print('5.Log Out')
        user_option=input(str('OPTION :'))
        if user_option=='1':
```

```
        print()
        print('DISPLAY PROFILE')
        mycursor.execute('SELECT * FROM users WHERE Username=%s AND
Password=%s',vals)
        records=mycursor.fetchall()
        print(records)
    elif user_option=='2':
        print()
        print('EDIT PROFILE')
        mycursor.execute('SELECT * FROM users WHERE Username=%s AND
Password=%s',vals)
        records=mycursor.fetchall()
        print(records)
        while True:
            print('Select the Field you want to Edit',
'\n1.Username','\n2.Password','\n3.Car Type','\n4.EMID','\n5.Go Back')
            c=input(str(''))
            if c=='1':
                mycursor.execute('SELECT * FROM users WHERE Username=%s
AND Password=%s',vals)
                z=mycursor.fetchone()
                print(z)
                us,ps,tp,i=z
                new_user=input(str("Enter your New Username: "))
                v=(new_user,ps)
                mycursor.execute('UPDATE users SET Username = %s WHERE
Password = %s',v)
                mydb.commit()
                print('Your Username has been changed to',new_user)
```

```
        elif c=='2':
            mycursor.execute('SELECT * FROM users WHERE Username=%s
AND Password=%s',vals)
            z=mycursor.fetchone()
            print(z)
            us,ps,tp,i=z
            new_pass=input(str("Enter your New Password: "))
            v=(new_pass,us)
            mycursor.execute('UPDATE users SET Password = %s WHERE
Username = %s',v)
            mydb.commit()
            print('Your Password has been changed to',new_pass)

        elif c=='3':
            mycursor.execute('SELECT * FROM users WHERE Username=%s
AND Password=%s',vals)
            z=mycursor.fetchone()
            print(z)
            us,ps,tp,i=z
            new_type=input(str("Enter your New Car Type: "))
            v=(new_type,us)
            mycursor.execute('UPDATE users SET Type = %s WHERE Username
= %s',v)
            mydb.commit()
            print('Your Car Type has been changed to',new_type)

        elif c=='4':
            mycursor.execute('SELECT * FROM users WHERE Username=%s
AND Password=%s',vals)
```

```
                z=mycursor.fetchone()
                print(z)
                us,ps,tp,i=z
                new_emid=input(str("Enter your New ID : "))
                v=(new_emid,us)
                mycursor.execute('UPDATE users SET emid = %s WHERE Username
= %s',v)
                mydb.commit()
                print('Your New EM ID has been changed to',new_emid)
            elif user_option=='5':
                break

            else:
                print('INVALID OPTION')

        elif user_option=='3':
            print('BOOK A PARKING RESERVATION')
            place=input(str('Place :'))
            print('Finding slots, Please Wait.....')
            for i in range(130):
                print(".",end="")
                time.sleep(0.00001)
            print(' Press 1 for FIRST CLASS:100 DHS')
            print('Press 2 for BUSINESS CLASS:50 DHS')
            print('Press 3 for ECONOMY CLASS:25 DHS')
            while True:
                key = int(input('Which Parking Would You Like To Choose: '))
```

```
        if key == 1:
            print("Your parking is at",random.choice(First_List))

            global Fcollection

            Fcollection += 100
            break
        elif key == 2:
            print("Your parking is at",random.choice(Bus_List))

            global Bcollection

            Bcollection += 50
            break
        elif key == 3:
            print("Your parking is at",random.choice(Eco_List))
            global Ecollection

            Ecollection += 25
            break

    for i in range(130):
        print(".",end="")
        time.sleep(0.00001)

elif user_option=='4':
    print("GIVE YOUR HONEST FEEDBACK OF OUR SERVICE")
```

```
            fd=input(str())
            print('\t\t\t\t THANK YOU!!\t\t\t\t')
        elif user_option=='5':
            break


def customer():
    print()
    print('CUSTOMER LOGIN')
    print()
    Username=input(str('Username :'))
    Password=input(str('Password :'))
    global vals
    vals=(Username,Password)
    mycursor.execute('SELECT * FROM users WHERE Username=%s AND
Password=%s',vals)
    records=mycursor.fetchall()
    if records:
        for i in records:
            print('Welcome' +' '+ i[0])
            customer_act()
    else:
        print('User Not Detected')


def admin_act():
    while True:
        print('')
        print('ADMIN LOGIN')
```

```
        print('1.Register New Vehicle')
        print('2.Delete Existing Vehicle')
        print('3.Overall Income')
        print('4.Log Out')
        user_option=input(str('OPTION :'))
        if user_option=='1':
            print()
            print('REGISTER NEW VEHICLE')
            Username=input(str('Enter Username: '))
            Password=input(str('Enter Password: '))
            Type=input(str('Enter Type of Car:'))
            emid=input(str('Enter your EMIRATES ID:'))
            query_vals=(Username,Password,Type,emid)
            mycursor.execute("INSERT INTO users (Username,Password,Type,emid)
VALUES (%s,%s,%s,%s)",query_vals)
            mydb.commit()
            print(Username + ' has been registered as a New Vehicle')

        elif user_option=='2':
            print()
            print('DELETE EXISTING VEHICLE')
            Username=input(str('Enter Username: '))
            emid=input(str('Enter  EM ID:'))
            query_vals=(Username,emid)
            mycursor.execute('DELETE FROM users WHERE Username= %s AND
emid= %s',query_vals)
            mydb.commit()
            if mycursor.rowcount < 1:
```

```
            print('User Not Detected')
        else:
            print(Username , 'has been Deleted')

    elif user_option=='3':
        prmn = input("Do you Want to know the overall collection..?Yes/No-  ")
        if prmn == 'Yes' or 'yes':
            collection = Fcollection + Bcollection + Ecollection
            print(collection, 'DHS')
        else:
            prmn == 'No' or 'no'
            print("Then why did you log in brooo?")

    elif user_option==’4’:
        break
    else:
        print(‘No Valid Option Selected’)



def admin():
    print()
    print(‘ADMIN LOGIN’)
    print()
    username=input(str(‘Username :’))
    password=input(str(‘Password :’))
    if username==’admin’:
```

```
        if password==’123’:
            admin_act()
        else:
            print(‘Incorrect Password’)
    else:
        print(‘Admin Log In Failed’)

def main():
    while True:
        print(‘\n1. LOG IN AS CUSTOMER’)
        print(‘\n2. CREATE AN ACCOUNT’)
        print(‘\n3. LOG IN AS ADMIN’)
        user_option=input(str(‘OPTION : ‘))
        if user_option==’1’:
            customer()
        elif user_option==’2’:
            print(‘CREATE AN ACCOUNT ‘)
            account()
        elif user_option==’3’:
            admin()
        else:
            print(‘INVALID OPTION SELECTED’)

main()
```

SAMPLE OUTPUT

WELCOME TO MEGAPARK DIGITAL AIRPORT PARKING MANAGAMENT SYSTEM

1.LOG IN AS CUSTOMER

2.CREATE AN ACCOUNT

3.LOG IN AS ADMIN

OPTION : 2

CREATE AN ACCOUNT

CREATE AN ACCOUNT AND BECOME A PART OF OUR FAMILY!

Enter Username: JACOB SAM

Enter Password: jac123

Enter Type of Car: SUV

Enter your EM ID:2459875

YOUR ACCOUNT HAS BEEN CREATED SUCCESSFULLY

MYSQL :

Username	Password	Type	emid
JACOB SAM	jac123	SUV	2459875

1.LOG IN AS CUSTOMER

2.CREATE AN ACCOUNT

3.LOG IN AS ADMIN

OPTION : 1

CUSTOMER LOGIN

Username :JACOB SAM

Password :jac123

Welcome JACOB SAM

1.Display Profile

2.Edit Profile

3.Book a Parking Reservation

4.Give Feedback

5.Log Out

OPTION :1

DISPLAY PROFILE

[('JACOB SAM', 'jac123', 'SUV', 2459875)]

1.Display Profile

2.Edit Profile

3.Book a Parking Reservation

4.Give Feedback

5.Log Out

OPTION :2

EDIT PROFILE

[(‘JACOB SAM’, ‘jac123’, ‘SUV’, 2459875)]

Select the Field you want to Edit

1.Username

2.Password

3.Car Type

4.EMID

5.Go Back

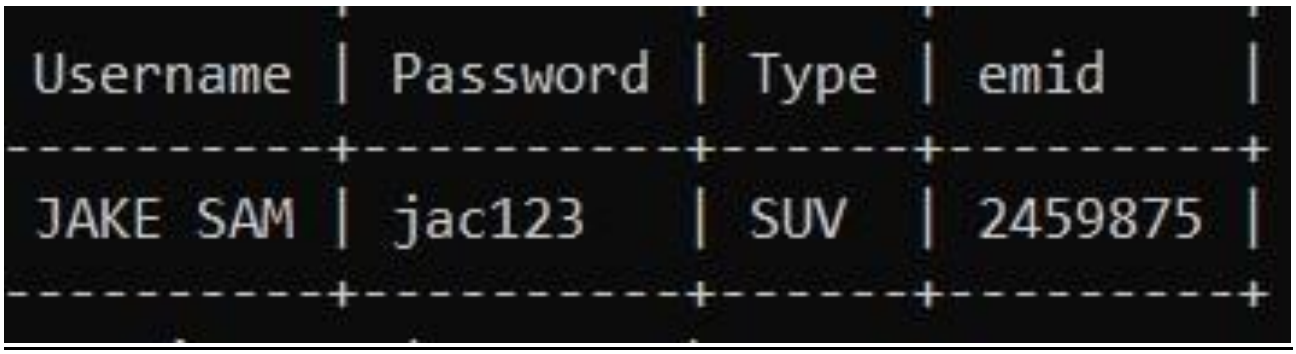
1

(‘JACOB SAM’, ‘jac123’, 'SUV', 2459875)

Enter your New Username: JAKE SAM

Your Username has been changed to JAKE SAM

MYSQL :



Username	Password	Type	emid
JAKE SAM	jac123	SUV	2459875

(Similarly, the Password, Type and emid can be edited)

1.Display Profile

2.Edit Profile

3.Book a Parking Reservation

4.Give Feedback

5.Log Out

OPTION :3

BOOK A PARKING RESERVATION

Place : JAHLI

Finding slots, Please Wait.....

.....
... Press 1 for FIRST CLASS:100 DHS

Press 2 for BUSINESS CLASS:50 DHS

Press 3 for ECONOMY CLASS:25 DHS

Which Parking Would You Like To Choose: 1

Your parking is at A75

……

1. LOG IN AS CUSTOMER

2. CREATE AN ACCOUNT

3. LOG IN AS ADMIN

OPTION : 3

ADMIN LOGIN

Username :admin

Password :123

ADMIN LOGIN

1.Register New Vehicle

2.Delete Existing Vehicle

3.Overall Income

4.Log Out

OPTION :1

REGISTER NEW VEHICLE

Enter Username: RAHUL

Enter Password: Rh87

Enter Type of Car:SPORT

Enter your EMIRATES ID:3549687

RAHUL has been registered as a New Vehicle

MYSQL :

Username	Password	Type	emid
JAKE SAM	jac123	SUV	2459875
RAHUL	Rh87	SPORT	3549687

ADMIN LOGIN

1.Register New Vehicle

2.Delete Existing Vehicle

3.Overall Income

4.Log Out

OPTION :2

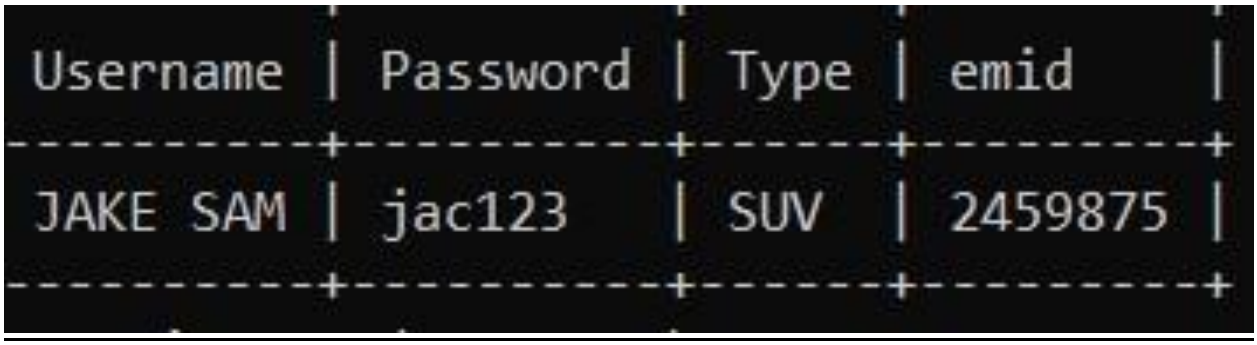
DELETE EXISTING VEHICLE

Enter Username: RAHUL

Enter EM ID:3549687

RAHUL has been Deleted

MYSQL :



Username	Password	Type	emid
JAKE SAM	jac123	SUV	2459875

(ENTRY NAMED RAHUL IS DELETED FROM DATABASE)

……

ADMIN LOGIN

1.Register New Vehicle

2.Delete Existing Vehicle

3.Overall Income

4.Log Out

OPTION :3

Do you Want to know the overall collection..?Yes/No- yes

100 DHS

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