*# OTP*

def **otp**():

    import **os**,**math**

    import **random**,**sys**

    import **smtplib**

    try:

      mailid=**input**("Enter your email ID :")

      digits="0123456789"

      OTP=""

      for i in **range**(6):

          OTP+=digits[**math**.**floor**(**random**.random()\*10)]

      msg='Your OTP for Verification on RaStAuRi is '+OTP+'\n'+'Note: Please enter otp

within 2 minutes, otherwise it will become invalid'

      s = **smtplib**.**SMTP**('smtp.gmail.com', 587)

      s.**starttls**()

      s.**login**('rastauri.management@gmail.com','jfbs cxom ttbg olfm')

*# print(msg)*

      s.**sendmail**('rastauri.management@gmail.com',mailid,msg)

      entered\_otp = **input**('Enter OTP : ')

      if OTP == entered\_otp:

        return True,mailid

      else:

        return False, mailid

    except:

**print**(f'The recipient address <{mailid}> is not valid !!!..😡')

      return False,mailid

*# to create account for rider*

def  **Rider\_data**(email\_id):

    import **mysql**.**connector**

    mycon=**mysql**.**connector**.**connect**(host="localhost",password="",user="root",database="RaStA

uRi\_Management")

    if mycon.is\_connected()==False:

**print**("Error connecting to database")

    cursor=mycon.cursor()

    name=**input**("Enter your name:")

    password=**input**("Enter your password:")

    phone\_no=**input**("Enter your phone number:")

    cursor.execute("insert into Rider\_data(Rider\_name,Password,Phone\_number,Email\_id)

values('{}','{}','{}','{}')".**format**(name,password,phone\_no,email\_id))

    mycon.commit()

    mycon.close()

*#to create account for driver*

def **Driver\_data**(email\_id):

    import **mysql**.**connector**

    mycon=**mysql**.**connector**.**connect**(host="localhost",password="",user="root",database="RaStA

uRi\_Management")

    if mycon.is\_connected()==False:

**print**("Error connecting to database")

    cursor=mycon.cursor()

    name=**input**("Enter your name:")

    password=**input**("Enter your password:")

    autorickshaw\_no=**input**("Enter your vehicle's registration number:")

    no\_of\_seats = **int**(**input**("Enter the number of seats available in your vehicle:"))

    luggage=**input**("Does your vehicle have space for luggage(yes/no):")

if luggage in ['yes','y','t','true']:

        luggage=1

    elif luggage in ['no','n','f','false']:

        luggage=0

    phone\_no=**input**("Enter your phone number:")

    cursor.execute("insert into Driver\_data (Autodriver\_name, Autorickshaw\_number,

Password, Number\_of\_seats, Luggage, Phone\_number, Email\_id)

values('{}','{}','{}',{},'{}','{}','{}')".**format**(name, autorickshaw\_no, password,

no\_of\_seats, luggage, phone\_no, email\_id))

    mycon.commit()

    mycon.close

*# to determine which type of user*

def **Which\_type\_of\_user**(email):

     user=**input**("Enter if you are Rider or Driver:")

     if user.**lower**() == "rider":

**Rider\_data**(email)

        return **Rider\_data**.\_\_name\_\_

     elif user.**lower**() == "driver":

**Driver\_data**(email)

        return **Driver\_data**.\_\_name\_\_

     else:

**print**("You have entered a wrong value.Please enter only Rider or Driver.")

*# sign\_up function*

def **sign\_up**():

    otp\_data = **otp**()

    otp\_verified = otp\_data[0]

    email\_id = otp\_data[1]

    if otp\_verified:

        user\_table = **Which\_type\_of\_user**(email\_id)

        return True, email\_id, user\_table

    else :

        return False, None, None

def **user\_in\_database**(uid,cursor):

*# fetching rider's and driver's email id and password*

    cursor.execute('select Email\_id,password from rider\_data')

    riders = {}

    for rec in cursor:

        riders[rec[0]]=rec[1]

    cursor.execute('select Email\_id,password from driver\_data')

    drivers = {}

    for rec in cursor:

        drivers[rec[0]]=rec[1]

    if uid in riders or uid in drivers:

        try:

            return True, drivers[uid], uid, 'Driver\_data'

        except **KeyError**:

            return True, riders[uid], uid, 'Rider\_data'

    else:

        return False, None, None, None

def **forgot\_password**(cursor,connection):

    otp\_verified , email\_id = **otp**()

    if otp\_verified:

        user\_table = **user\_in\_database**(email\_id,cursor)[3]

        new\_password = **input**('Enter new password : ')

        command = f"UPDATE {user\_table} set password = '{new\_password}' where Email\_id =

        '{email\_id}'"

        cursor.execute(command)

        connection.commit()

**print**('Password updated ...')

        connection.close()

        return True, new\_password

    else:

**print**('OTP not verified !')

        return False, None

def **password\_verification**(user\_pswd\_in\_db,cursor,connection):

    for i in **range**(3):

*# print(f'You have {3-i} chances ')*

        entered\_pswd = **input**('Enter password : ')

        if entered\_pswd == user\_pswd\_in\_db:

            return True

        else:

            if i<2:

**print**('Wrong password..!!\n\

                    1) Re-enter the password\

                    2) Forgot password')

                choice = **input**('Your choice (1 or 2) :')

                if choice == '2':

*# print('Abhi function banana hai')*

*# break*

**print**('FORGOT PASSWORD')

                    pswd\_updation = **forgot\_password**(cursor,connection)

                    if pswd\_updation[0]:

                        user\_pswd\_in\_db = pswd\_updation[1]

                    else:

                        pass

**print**('BACK TO LOGIN')

                elif choice == '1':

                    pass

                else:

**print**('Invalid choice..!!\nYou are Denied to Access !!')

                    break

    else:

**print**('You have entered wrong password 3 times..\nYou are denied to access !!')

        return False

*# login funcion*

def **login**():

    import **mysql**.**connector** as **mc**

    connection = **mc**.**connect**(host = 'localhost' , user = 'root' , password = '',database =

'rastauri\_management')

    cursor = connection.cursor()

    user\_id = **input**('Enter your User\_id (email\_id) : ')

    req\_data\_for\_login = **user\_in\_database**(user\_id,cursor)

    user\_exist = req\_data\_for\_login[0]

    if user\_exist:

        user\_pswd\_in\_db = req\_data\_for\_login[1]

        user\_id = req\_data\_for\_login[2]

        user\_table = req\_data\_for\_login[3]

        login\_success = **password\_verification**(user\_pswd\_in\_db,cursor,connection)

        if login\_success:

**print**('Login successful')

            return True, user\_id , user\_table    *# user\_id is email id*

    else:

**print**('SIGN-UP')

        return **sign\_up**()

*# to update or delete record in database*

def **record\_updation**(user\_table,mail\_id):

    import **mysql**.**connector**

    mycon=**mysql**.**connector**.**connect**(host="localhost",password="",user="root",database="RaStA

uRi\_Management")

    if mycon.is\_connected()==False:

**print**("Error connecting to database")

    cursor=mycon.cursor()

    if user\_table.lower() == "rider\_data":

**print**("\nPress 1 for updating username")

**print**("Press 2 for updating password")

**print**("Press 3 for deleting account\n")

        choice=(**input**("Enter your choice:"))

        email\_id=mail\_id

        if choice=='1':

            new\_name=**input**("Enter your name : ")

            cursor.execute("update rider\_data set Rider\_name='{}' where Email\_id='{}'"

.**format**(new\_name,email\_id))

        elif choice=='2':

            new\_password=**input**("Enter your password : ")

            cursor.execute("update rider\_data set Password='{}' where Email\_id='{}'"

.**format**(new\_password,email\_id))

elif choice=='3':

            cursor.execute("delete from rider\_data where Email\_id='{}'".**format**(email\_id))

        else:

**print**("Your choice is invalid")

        mycon.commit()

**print**('Your Account is Updated\n')

    elif user\_table.lower() == 'driver\_data':

**print**("\nPress 1 for updating username")

**print**("Press 2 for updating password")

**print**("Press 3 for updating Autorickshaw number")

**print**("Press 4 for updating number of seats")

**print**("Press 5 for updating luggage space")

**print**("Press 6 for deleting account\n")

        choice=(**input**("Enter your choice:"))

        email\_id=mail\_id

        if choice=='1':

            new\_name=**input**("Enter your name : ")

            cursor.execute("update driver\_data set Autodriver\_name='{}' where Email\_id =

        '{}'".**format**(new\_name,email\_id))

elif choice=='2':

            new\_password=**input**("Enter your password : ")

            cursor.execute("update driver\_data set Password='{}' where Email\_id

='{}'".**format**(new\_password,email\_id))

        elif choice=='3':

            new\_no=**input**("Enter the registered number of your vehicle : ")

            cursor.execute("update driver\_data set Autorickshaw\_number='{}' where Email\_id

='{}'".**format**(new\_no,email\_id))

        elif choice=='4':

            new\_no\_seats=**int**(**input**("Enter the number of seats in your vehicle : "))

            cursor.execute("update driver\_data set Number\_of\_seats={} where Email\_id

='{}'".**format**(new\_no\_seats,email\_id))

        elif choice=='5':

            new\_luggage=**input**("Does your vehicle have space for luggage(yes/no) : ")

            if new\_luggage in ['yes','y','t','true']:

                new\_luggage=1

            elif new\_luggage in ['no','n','f','false']:

                new\_luggage=0

            cursor.execute("update driver\_data set Luggage='{}' where Email\_id='{}'".

**format**(new\_luggage,email\_id))

        elif choice=='6':

            cursor.execute("delete from driver\_data where Email\_id='{}'".**format**(email\_id))

        else:

**print**("Your choice is invalid")

        mycon.commit()

**print**('Your Account is Updated\n')

*# extract user data function*

def **extract\_user\_data**(mail\_id, user\_table):

    import **datetime**

    import **mysql**.**connector** as **mc**

    connection = **mc**.**connect**(host = 'localhost' , user = 'root' , password = '',database =

'rastauri\_management')

    cursor = connection.cursor()

    command = f" select \* from {user\_table} where Email\_id = '{mail\_id}'; "

    cursor.execute(command)

    user\_data = []

    for records in cursor:

        for field\_data in records:

            if **type**(field\_data) == **type**(**datetime**.**timedelta**(seconds=79200)):

                user\_data.**append**(**str**(field\_data))

            else:

                user\_data.**append**(field\_data)

    return user\_data

*#to input additional details from rider on the spot*

def **additional\_data**():

    no\_of\_seats=**int**(**input**("Enter the preferred number of seats you want in the

autorickshaw : "))

    luggage=**input**("Do you have luggage with you?(yes/no):")

    destination=**input**("Enter your destination: ")

    time\_of\_arrival=**input**("Enter the time at which autorickshaw is required:")

    railway\_station = **input**("At which railway station will you arrive : ")

    platform\_no=**int**(**input**("Enter the platform number will you arrive:"))

    fuel\_type=**input**("What is your preferred fuel type : ")

    data={"no\_of\_seats":no\_of\_seats , "luggage":luggage , "destination":destination ,

"time\_of\_arrival":time\_of\_arrival , "railway\_station":railway\_station ,

"platform\_no":platform\_no , "fuel\_type":fuel\_type}

    return data

*# to consider if the time entered is 12am or 12 pm*

def **time\_12am\_12pm**(clock):

    new\_clock=''

    if clock.split(':')[0]=="12":

        new\_clock = '00' + clock[2:]

    elif clock.split(':')[0]=="24":

        new\_clock = "12" + clock[2:]

    else:

        new\_clock=clock

    return new\_clock

*#to consider if the user has entered am or pm*

def **time\_am\_pm**(time\_12):

    time\_12 = time\_12.strip()

    time\_in\_pm = time\_12[-2:].lower() == 'pm'

    time\_list = **list**(**map**(**int**, time\_12[:-2].split(':')))

    if time\_in\_pm and time\_list[0] <= 12:

        time\_list[0] += 12

    time = ':'.**join**(**map**(lambda x: **str**(x).**rjust**(2, '0'), time\_list))

    return time

*# to return the time in format of hh:mm:ss*

def **time\_format**(time):

    time = **time\_12am\_12pm**(**time\_am\_pm**(time))

    length=**len**(time)

    if length==1:

        time="0"+time+":"+"00"+":"+"00"

    elif length==2:

        time=time+":"+"00"+":"+"00"

    elif length==4:

        time=time+":"+"00"

    elif length==5:

        time=time+":"+"00"

    return time

*# to change the time slot in which autorickshaw driver will be available everyday*

def **time\_change**(mail\_id):

    import **mysql**.**connector**

    mycon=**mysql**.**connector**.**connect**(host="localhost",password="",user="root",database="RaStA

uRi\_Management")

    if mycon.is\_connected()==False:

**print**("Error connecting to database")

    cursor=mycon.cursor()

    choice=**input**("Do you want to change the time for which you are available today ?

(yes/no)")

    if choice.**lower**() in ("yes","y"):

        from\_time=**input**("Enter the time from which you will be available today:")

        actual\_from\_time=**time\_format**(from\_time)

        till\_time=**input**("Enter the time till which you will be available today:")

        time2=**time\_format**(till\_time).**split**(':')

        if **int**(time2[0]) in **range** (0,13):

            time2[0]=**str**(**int**(time2[0])+24)

        elif **int**(time2[0]) in **range** (13,24):

            if **int**(time2[0]) <= **int**(actual\_from\_time.**split**(':')[0]):

                time2[0]=**str**(**int**(time2[0])+24)

            else:

                time2=time2

else:

**print**("invalid input")

        actual\_till\_time = ':'.**join**(time2)

*# print("from\_time:",actual\_from\_time,"till\_time:",actual\_till\_time)*

        querry = f"update driver\_data set From\_time = '{actual\_from\_time}' , Till\_time =

'{actual\_till\_time}' where Email\_id='{mail\_id}'"

        cursor.execute(querry)

        mycon.commit()

    elif choice.**lower**() in ("no","n"):

        pass

    else:

**print**("your choice is invalid")

*# send\_rider\_data\_to\_driver function*

def **send\_rider\_data\_to\_driver**(ad\_data,mail\_id, user\_table,Driver\_data):

    import **math**

    import **random**

    import **smtplib**

*# driver\_mailid = 'tiwarishreeji@gmail.com'*

    driver\_mailid = Driver\_data['Email\_id']

    driver\_name = Driver\_data['Autodriver\_name']

    digits="0123456789"

    code=""

    for i in **range**(6):

        code+=digits[**math**.**floor**(**random**.random()\*10)]

    mssg = **extract\_user\_data**(mail\_id, user\_table)

    more\_data = ad\_data

    destination = more\_data['destination']

    time\_of\_arrival = more\_data['time\_of\_arrival']

    location = more\_data['railway\_station']

    platno = more\_data['platform\_no']

    message\_to\_be\_sent = f"Hello {driver\_name}\nWe have found one rider for you.\n\nHere :

is the rider details:\nRider Name :{mssg[0]}\nRider Phone Number : {mssg[2]} \n :

Destination {destination}\nTime of Arrival :{time\_of\_arrival}\nRailway Station Name

{location}\nPlatform Number :{platno}\n\nYour Verification Code : {code}\n\nTHANK YOU

\nTEAM RaStAuRi'"

    s = **smtplib**.**SMTP**('smtp.gmail.com', 587)

    s.**starttls**()

    s.**login**('rastauri.management@gmail.com','jfbs cxom ttbg olfm')

*# print(message\_to\_be\_sent)*

    s.**sendmail**('rastauri.management@gmail.com', driver\_mailid, message\_to\_be\_sent)

**print**('Driver successfully selected !!')

    return code

*# fetch\_driver functions*

def **luggage\_condition**(ad\_data):

    luggage = ad\_data['luggage'].lower()

    if luggage in ['no','n']:

        return 'luggage in (1,0)' *#agar luggage nhi bhi hai to luggage wali auto chalegi*

    elif luggage in ['yes','y']:

        return 'luggage = 1'

def **fuel\_condition**(ad\_data):

    fuel\_type = ad\_data['fuel\_type']

    if fuel\_type.lower() == 'any':

        return ''

    else:

        return f"and fuel\_type = '{fuel\_type}'"

def **time\_condition**(ad\_data):

    time = **time\_format**(ad\_data['time\_of\_arrival'])

    new\_time = time.**split**(':')

    new\_time[0] = **str**(**int**(new\_time[0])+24)

    new\_time = ':'.**join**(new\_time)

    time\_condition = f"and  ('{time}' between from\_time and till\_time or'{new\_time}'

between from\_time and till\_time)"

    return time\_condition

def **fetch\_driver**(ad\_data):

    import **mysql**.**connector**

    mycon=**mysql**.**connector**.**connect**(host="localhost",password="",user="root",database="RaStA

uRi\_Management")

    if mycon.is\_connected()==False:

**print**("Error connecting to database")

    cursor=mycon.cursor()

    SQL\_querry = f"select Autodriver\_name, Autorickshaw\_number, Phone\_number, Email\_id,

Number\_of\_seats, Fuel\_Type  from driver\_data where number\_of\_seats >=

{ad\_data['no\_of\_seats']} and {**luggage\_condition**(ad\_data)} {**fuel\_condition**(ad\_data)}

{**time\_condition**(ad\_data)}"

    fields = ['Autodriver\_name', 'Autorickshaw\_number', 'Phone\_number', 'Email\_id',

'Number\_of\_seats', 'Fuel\_Type']

    driver\_data\_list = []

    cursor.execute(SQL\_querry)

    dct={}

    sno = 1

for rec in cursor:

        dct['S.No'] = sno

        cnt=0

        for data in rec:

            dct[fields[cnt]] = **str**(data)

            cnt += 1

        driver\_data\_list.**append**(dct)

        dct={}

        sno+=1

    return driver\_data\_list

def **select\_driver**(ad\_data):

    driver\_data\_list = **fetch\_driver**(ad\_data)

**print**(f"\n\n{'S.No.':^4}  {'Autodriver\_name':^30}  {'Autorickshaw\_number':^19}

{'Phone\_number':^16}  {'Email\_id':^40}  {'Number\_of\_seats':^{**len**('Number\_of\_seats')}}

{'Fuel\_Type':^30}")

    for dicts in driver\_data\_list:

        heading\_list = **list**(dicts.keys())

    for rec in driver\_data\_list:

**print**(f'{rec[heading\_list[0]]:^4}  {rec[heading\_list[1]]:^30}

{rec[heading\_list[2]]:^19}  {rec[heading\_list[3]]:^16}

{rec[heading\_list[4]]:^40}  {rec[heading\_list[5]]:^15}

{rec[heading\_list[6]]:^30}')

    driver\_no = **int**(**input**('\nEnter which driver you want to choose(only enter serial

number) : '))

    selected\_driver\_details = driver\_data\_list[driver\_no-1]

    return selected\_driver\_details

*# Send driver data to rider*

def **send\_driver\_data\_to\_rider**(rider\_data,code,Driver\_data):

    import **math**

    import **random**

    import **smtplib**

*# rider\_mailid = 'tiwarishreeji@gmail.com'*

    rider\_mailid = rider\_data[-1]

    rider\_name = rider\_data[0]

    driver\_name = Driver\_data['Autodriver\_name']

    rickshaw\_no = Driver\_data['Autorickshaw\_number']

    seats\_avaiable = Driver\_data['Number\_of\_seats']

    phone\_number = Driver\_data['Phone\_number']

    fuel\_type = Driver\_data['Fuel\_Type']

message\_to\_be\_sent = f"Hello {rider\_name}\nWe have found one driver for you.\n\nHere

is the driver details :\nDriver Name :{driver\_name}\nDriver Phone Number :

{phone\_number} \nRickshaw number :{rickshaw\_no}\nNumber of Seats available :

{seats\_avaiable}\nFuel Type : {fuel\_type}\n\nYour Verification Code : {code}\n\nTHANK

YOU\nTEAM RaStAuRi"

    s = **smtplib**.**SMTP**('smtp.gmail.com', 587)

    s.**starttls**()

    s.**login**('rastauri.management@gmail.com','jfbs cxom ttbg olfm')

    s.**sendmail**('rastauri.management@gmail.com', rider\_mailid, message\_to\_be\_sent)

**print**('We have mailed you the details of driver that you have selected..')

*# \_main\_*