## ABUDHABI INDIAN **SCHOOL**



**BRANCH-1, AL WATHBA**

**COMPUTER SCIENCE**

**PROJECT (2020- 2021)**



**Submitted and done by: Kuldeep Pawar**

**EXAM NO:**

**ABUDHABI INDIAN SCHOOL**

**BRANCH-1, AL WATHBA**

**CERTIFICATE**

*This is to certify that Master/Miss. Kuldeep Pawar of Class 12*

*Section A\_M ExaminationN0. has*

*satisfactorily completed the project in COMPUTER SCIENCE, during the academic session 2020-2021 as prescribed by the CBSE, towards the partial fulfillment of the All India Senior Secondary School Certificate Examination conducted by CBSE, New Delhi*

*Teacher In-Charge Principal*

*Date of Examination:*

*Internal Examiner :*

*External Examiner:*

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## INDEX

|  |  |  |
| --- | --- | --- |
| **SNO** | **Topic** | **Pageno.** |
| 1 | Certificate | 2 |
| 2 | Acknowledgment | 3 |
| 3 | Overview | 5 |
| 4 | System requirements | 6 |
| 5 | Modules/functions or packages used | 7 |
| 6 | Source code | 6 |
| 7 | Output | 31 |
| 8 | Conclusion | 33 |
| 9 | Bibliography | 34 |

OVERVIEW

The project is about railway management and booking system which enables the user to view the train schedules based on filtering ,which makes it easier for him/her to find the desired train he/she wants .They can also go through the prices of each train depending on the type of seats .The user can book tickets of which he will get confirmation through email(it is an idea but not included in it ),he/she can also book meals during their travel.

This also provides the admin or the one who manages the schedule to change the schedule or view the booking that are being done and likewise make changes in the availability of seats or make changes in the train schedule

SYSTEM REQUIREMENTS

Software used:python3.8,mysql8.0,pycharm

os-windows 10,

Modules/functions/packages used

Pretty tables-helps in generating simple tables Mysql connector-helps in connecting sql and python **Functions used:**

* schedule()
  1. DISPLAY THE ENTIRE SCHEDULE

2.SEARCH BY9 YOUR DEPARTURE STATION

3.SEARCH BY YOUR FINAL DESTINATION

4.SEARCH BY BOTH YOUR STARTING POINT AND FINAL DESTINATION

5.SEARCH BY THE TYPE OF TRAIN

6.EXIT

* route()
* ticket()
* insert()
* update() view() delete()

# SOURCE CODE

# DATABASE CONNECTIVITY

import mysql.connector

from prettytable import PrettyTable

ms = mysql.connector.connect(host='localhost', user='root', password='5123578946')

cr = ms.cursor()

# CREATING DATABASES

cr.execute('create database if not exists railway') cr.execute('use railway')

# creating tables

cr.execute('create table if not exists customer1(name varchar(30),contact\_no int(12) primary key ,age int(3),gender varchar(10),email\_id varchar(30))')

cr.execute('create table if not exists train\_schedule2(s\_no int(10) unique not null,t\_id int(10) primary key,train\_type varchar(30)'' not null,dod varchar(30) ,source varchar(30) not null,final\_dest varchar(30) not null,stops\_in\_between varchar(30),seat\_available varchar(5),''departure\_time int(30),arrival\_time int(30),route\_no varchar(10))')

cr.execute('create table if not exists booking\_2(t\_id int(10) primary key,contact\_no int(10),seat\_class varchar(30),no\_of\_pass int(20),meal\_if\_any varchar(30))')

cr.execute('create table if not exists route(s\_no int(10)

primary key,route\_no int(3),route varchar(30),total\_duration varchar(30))')

cr.execute('create table if not exists fare1(sno int(20) primary key,t\_id int(10) ,fare\_normal float(4),first\_class float(5),business\_class float(4),deluxe\_class float(5),second\_class float(30),deluxe\_softsleeper float(6),soft\_sleeper float(8))')

#functions used def schedule(): while True: print('''

WHAT DO WANT TO DO: 1.DISPLAY THE ENTIRE SCHEDULE

1. SEARCH BY9 YOUR DEPARTURE STATION
2. SEARCH BY YOUR FINAL DESTINATION
3. SEARCH BY BOTH YOUR STARTING POINT AND FINAL DESTINATION
4. SEARCH BY THE TYPE OF TRAIN

6.EXIT''')

i4 = int(input('enter your choice'))

# trian schedule if i4 == 1:

xcq=PrettyTable() xcq.field\_names=['s\_no' ,'t\_id' ,'train\_type'

,'dod','source' ,'final\_dest','stops\_in\_between' ,'seat\_available','arrival\_time'

,'departure\_time' ,'route\_no']

q1 = "select \* from train\_schedule2" cr.execute(q1)

row1 = cr.fetchall() for j in row1:

xcq.add\_row(j) print(xcq)

# search by source station elif i4 == 2:

xcq = PrettyTable()

xcq.field\_names = ['s\_no', 't\_id', 'train\_type', 'dod', 'source', 'final\_dest ', 'stops\_in\_between','seat\_available', 'arrival\_time', 'departure\_time', 'route\_no']

s\_s = input('enter your source station')

q2 = "select \* from train\_schedule2 where source='{}'".format(s\_s)

cr.execute(q2)

row2 = cr.fetchall() if row2==[]:

print('THERE IS NO SCHEDULED TRAIN related to THE STATION MENTIONED ')

else:

for j in row2: xcq.add\_row(j)

print(xcq)

# search by final\_dest elif i4 == 3:

xcq = PrettyTable()

xcq.field\_names = ['s\_no', 't\_id', 'train\_type', 'dod', 'source', 'final\_dest ', 'stops\_in\_between',

'seat\_available', 'arrival\_time', 'departure\_time', 'route\_no']

f\_d = input('enter your final destination') q3 = "select \* from train\_schedule2 where

final\_dest ='{}'".format(f\_d) cr.execute(q3)

row3 = cr.fetchall() if row3==[]:

print('THERE IS NO SCHEDULED TRAIN related to THE STATION MENTIONED ')

else:

for j in row3: xcq.add\_row(j)

print(xcq)

# search by both elif i4 == 4:

xcq = PrettyTable()

xcq.field\_names = ['s\_no', 't\_id', 'train\_type', 'dod', 'source', 'final\_dest ', 'stops\_in\_between',

'seat\_available', 'arrival\_time', 'departure\_time', 'route\_no']

s\_s = input('enter your source station') f\_d = input('enter your final destination')

q4 = "select \* form train\_schedule2 where source = '{}' and final\_dest ='{}'".format(s\_s, f\_d)

cr.execute(q4) row4 = cr.fetchall() if row4==[]:

print('there is no train scheduled from ',s\_s,'to',f\_d)

else:

for j in row4: xcq.add\_row(j)

print(xcq)

# search by the type of train elif i4 == 5:

print('''

THE TYPES OF TRAIN ARE: 1.G-HIGH SPEED

2.C-INTERCITY

3.D-MULTIPLE CITIES

4.Z-DIRECT EXPRESS

5.T-EXPRESS

6.K-FAST TRAINS

7.Y-TOURIST TRAIN ''')

t\_t = input('enter the train type')

xcq = PrettyTable()

xcq.field\_names = ['s\_no', 't\_id', 'train\_type', 'dod', 'source', 'final\_dest ', 'stops\_in\_between',

'seat\_available', 'arrival\_time', 'departure\_time', 'route\_no']

q5 = "select \* from train\_schedule2 where t\_t='{}'".format(t\_t)

cr.execute(q5) row5 = cr.fetchall() for j in row5:

xcq.add\_row(j) print(xcq)

# exting the loop

elif i4 == 6:

print('you have exited')

break else:

print('invalid characters')

def route(): while True:

xcq=PrettyTable

xcq.field\_names=['s\_no','route\_no','route','total\_duration'] i5=int(input('enter your route no'))

w1='select \* from route where route\_no={}'.format(i5) cr.execute(w1)

r1=cr.fetchall() if r1 == []:

print('there is no SUCH ROUTE ') break

else:

for g in r1: xcq.add\_row(g)

print(xcq)

def ticket(): while True:

print('''1.TO CHECK WHETHER THE SEAT IS AVAILABLE FOR THE TRAIN

* 1. TO CHECK THE FARE OF SEAT
  2. book the ticket 4,cancel a ticket 5.exit

''')

d = int(input('enter your choice')) if d == 1:

ti = int(input('enter the train id'))

d1 = 'select seat\_available from train\_schedule2 where t\_id={}'.format(ti)

cr.execute(d1) ro = cr.fetchall() if ro==[]:

print('there is no such train with the given t\_id') else:

for h in ro: print(h)

elif d== 2:

ti1=int(input('enter the train id'))

d2='select \* from fare1 where t\_id={}'.format(ti1) cr.execute(d2)

ro1=cr.fetchall() for k in ro1:

print(k)

elif d==3:

print('enter your details ')

na=input('enter your name') cn=int(input('enter your contact no')) age=int(input('enter your age')) g=input('enter your gender') em=input('enter your mail')

c="insert into customer1(name,contact\_no,age,gender,email\_id)values('{

}',{},{},'{}','{}') ".format(na,cn,age,g,em) cr.execute(c)

tr=int(input('enter the train id ,(kindly make sure that a seat is available for the respective train ,you can get further details on our site train.com or contact us on 050023232csa)'))

cn1=int(input('enter your contact number which you gave in the above options'))

sc=input('enter the type of seat you want')

pa=int(input('enter the number of passengers'))

m=input('if u want a meal (you can know about

our meal on train meal services by contacting us at train.com or 0503231csa)')

c1="insert into booking\_2(t\_id,contact\_no,seat\_class,no\_of\_pass,meal\_if\_ any)values({},{},'{}',{},'{}')".format(tr,cn1,sc,pa,m)

print('when the ticket is booked you will receive its detail through your submitted email id or your contact number,PLEASE PAY THE TICKET FARE AT OUR E- PORTAL LINK PROVIDED IN THE MAIL ')

cr.execute(c1) ms.commit()

elif d==4:

cntn=int(input('enter your contact no.')) d4="delete from booking\_2 where

contact\_no={}".format(cntn) cr.execute(d4)

print('your booking has been cancelled') ms.commit()

elif d==5:

print('thank you for using our services') break

else:

print('invalid characters')

def insert(): while True:

print('''which table do you want to insert values in

* + 1. train\_schedule 2.route

1. fare1
2. exit ''')

st=int(input('enter your choice')) if st==1:

sno=int(input('enter the s\_no')) tid=int(input('enter the train id')) t\_t=input('enter the train type')

dod=input('enter the day of departures') ss=input('enter the source station') fd=input('enter the final destination') sp=input('stops in between') sa=input('enter if the seats are available') sno2=int(input('enter the serial number')) dp=input('enter the departure time') ar=input('enter the arrival time') ro=input('enter the route\_no')

fr1="insert into train\_schedule2(s\_no,t\_id,train\_type,dod,source,final\_des t,stops\_in\_between,seat\_available,departure\_time,arrival\_ time,route\_no)values({},{},'{}','{}','{}','{}','{}','{}','{}','{}','{}')".f

ormat(sno,tid,t\_t,dod,ss,fd,sp,sa,dp,ar,ro) cr.execute(fr1)

ms.commit()

elif st==2:

sno1=int(input('enter the serial no')) rn=int(input('enter the route number')) rn1=input('enter the route') td=input('enter total duration') c3="insert into

route(s\_no,route\_no,route,total\_duration)values({},{},'{}',{

})".format(sno1,rn,rn1,td) cr.execute(c3) ms.commit()

elif st==3:

tid=int(input('enter the train id')) nf=int(input('enter the normal fare')) fc=int(input('enter the first class fare')) bsc=int(input('enter the business class fare ')) dlc=int(input('enter the deluxe class fare')) ssc=int(input('enter the second class fare')) dlcss=int(input('enter the deluxe soft sleeper fare')) ssc2=int(input('enter the cost of soft sleeper')) st3="insert into

fare1({},{},{},{},{},{},{},{})".format(tid,nf,fc,bsc,dlc,ssc,dlcss,s sc2)

cr.execute(st3) ms.commit()

elif st==4:

print('you have exited') break

else:

print('invalid option') def update():

while True:

print('''which table do you want to update: 1.train\_schedule

2.route

3. exit''')

ft = int(input('enter your choice')) if ft == 1:

print('''what do you want to update: 1.train\_type

2.date of departure 3.source station 4.final destination 5.stops between 6.exit

''')

u1 = int(input('enter the options')) if u1==1:

tt3=input('enter the new train type') tid3=int(input('enter the train id also ')) u5="update train\_schedule2 set train\_type='{}'

where t\_id={}".format(tt3,tid3)

cr.execute(u5)

print('the table has been updated') ms.commit()

elif u1==2:

dod3=int(input('enter the new date')) tid3=int(input('enter the train id'))

u5="update train\_schedule2 set dod='{}' where t\_id={}".format(dod3,tid3)

cr.execute(u5)

print('the table has been updated') ms.commit()

elif u1==3:

surce=input('enter the new source station') tid3=int(input('enter the train id'))

u5="update train\_schedule2 set source='{}' where t\_id={}".format(surce,tid3)

cr.execute(u5)

print('the table has been updated') ms.commit()

elif u1==4:

finldest=input('enter the final destination') tid3=int(input('enter the train id')) u5="update train\_schedule2 set

final\_destination='{}' where t\_id={} ".format(finldest,tid3) cr.execute(u5)

print('the table has been updated') ms.commit()

elif u1==5:

stpsbtwn=input('enter the new stops ') tid3=int(input('enter the train\_id')) u5="update train\_schedule2 set

stops\_in\_between ='{}' where t\_di={}".format(stpsbtwn,tid3)

cr.execute(u5)

print('the table has been updated') ms.commit()

elif u1==6: print('exited')

else:

print('invalid option') elif ft==2:

print('enter the new route ') rt1=input('enter the new route') tid3=int(input('enter train id')) rou="update route set route='{}' where

t\_id={}".format(rt1,tid3) cr.execute(rou) ms.commit()

elif ft==3:

print('you have exited') break

else:

print('invalid characters') def view():

while True:

print('''which tables data do u want to view 1.customer

* 1. route
  2. train schedule 4.booking 5.fare

6.exit''')

v1 = int(input('enter your option')) if v1 == 1:

xcq=PrettyTable()

xcq.field\_names=['name','contact\_no','age','gender','email

\_id']

v2 = "select \* from customer1 " cr.execute(v2)

v4 = cr.fetchall() for i in v4:

xcq.add\_row(i) print(xcq)

elif v1 == 2:

xcq = PrettyTable

xcq.field\_names = ['s\_no', 'route\_no', 'route', 'total\_duration']

v2 = "select \* from route" cr.execute(v2)

v4 = cr.fetchall() for i in v4:

xcq.add\_row(i) print(xcq)

elif v1 == 3:

xcq = PrettyTable()

xcq.field\_names = ['s\_no', 't\_id', 'train\_type', 'dod', 'source', 'final\_dest ', 'stops\_in\_between',

'seat\_available', 'arrival\_time', 'departure\_time', 'route\_no']

v2 = "select \* from train\_schedule2" cr.execute(v2)

v4=cr.fetchall() for i in v4:

xcq.add\_row(i) print(xcq)

elif v1 == 4: xcq=PrettyTable(2) xcq.field\_names =

['t\_di','contact\_no','seat\_class','no\_of\_pass','meal\_if\_any'] v2 = "select \* from booking\_2"

cr.execute(v2) v4 = cr.fetchall() for i in v4:

xcq.add\_row(i) print(xcq)

elif v1 == 5: xcq=PrettyTable()

xcq.field\_names=['sno','t\_id','fare\_normal','first\_class','bus iness\_class','deluxe\_class','second\_class','deluxe\_softslepp er','soft\_sleeper']

v2 = "select \* from fare1" cr.execute(v2)

v4 = cr.fetchall() for i in v4:

xcq.add\_row(i) print(xcq)

elif v1 == 6:

print('you have exited')

break else:

print('invalid option ') def delete():

while True:

print('''from which table do you want to delete data 1.customer

2.train schedule 3.route

1. fare
2. exit

''')

de1 = int(input('enter your choice')) if de1 == 1:

de3 = int(input('enter the contact number whose data should be deleted'))

de2 = "delete from customer1 where contact\_no={}".format(de3)

cr.execute(de2) ms.commit()

print('the data has been deleted') elif de1 == 2:

de3 = int(input('enter the train id whose data should be deleted'))

de2 = "delete from train\_schedule2 where

t\_id={}".format(de3)

cr.execute(de2) ms.commit()

print('the data has been deleted') elif de1 == 3:

de3 = int(input('enter the route number')) de2 = "delete from route where

route\_no={}".format(de3) cr.execute(de2) ms.commit()

print('the data has been deleted') elif de1 == 4:

de3 = int(input('enter the train id whose fare detail should be deleted'))

de2 = "delete from fare1 where t\_id={}".format(de3) cr.execute(de2)

ms.commit()

print('the data has been deleted') elif de1 == 5:

print('you have exited ') break

else:

print('invalid options') while True:

print('welcome to vilciens services ') print('''

############################################# ##

############################################# ##

############################################# ##

WHAT DO YOU WANT TO DO:

* 1. user/customer 2.admin

3.exit

############################################# ###

############################################# ###

''')

# user/customer

i = input('enter a choice') if i == '1':

while True: print('''

!!!!!!!!!!!!!!!!!WELCOME TO

SYSTEM!!!!!!!!!!!!!!!!!!

WHAT DO YOU WANT TO DO :

1. IEW THE SCHEDULE OF THE TRAINS
2. THE ROUTES
3. BOOK A TICKET/CANCEL A BOOKING
4. EXIT

''')

i1 = input('enter your choice') if i1 == '1':

schedule() elif i1 == '2':

route()

elif i1=='3': ticket() elif i1=='4':

print('!!!!!!thank you for using our services,looking forward to your next visit!!!!!!!!!')

break else:

print('invalid characters')

#admin elif i=='2':

while True: print('''

WHAT DO YOU WANT TO DO :

* 1. INSERT NEW DATA INTO THE TABLES
  2. UPDATE A TABLE
  3. IEW THE DATA IN ANY TABLE
  4. DELETE DATA
  5. exit

''')

i2 = input('enter your choice')

if i2 == '1': insert()

elif i2 == '2': update()

elif i2 == '3': view()

elif i2 == '4': delete()

elif i2== '5':

print(''''

!!!!!!!!!!!!!!YOU HAVE EXITED

!!!!!!!!!!!!!!!!!!!!!!!!!!

''')

break else:

print('invalid characters')

elif i == '3':

ms.close()

Print('''

YOU HAVE EXITED FROM THE SYSTEM !!!!!!!!!!!

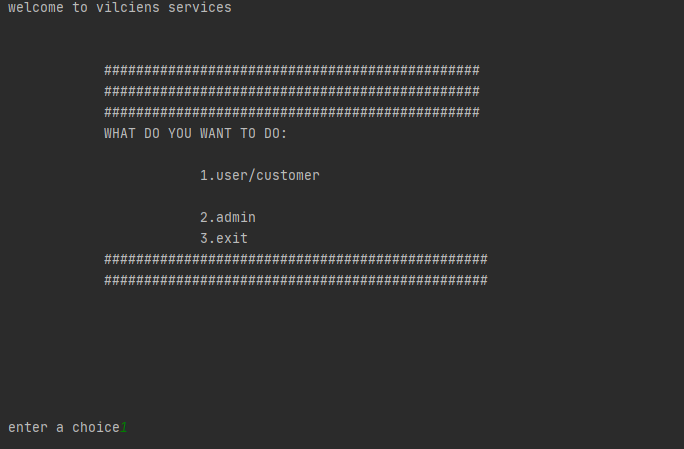
THANK YOU FOR USING VILCIENS SERVICES!!!!!!!!!!!!!!!!

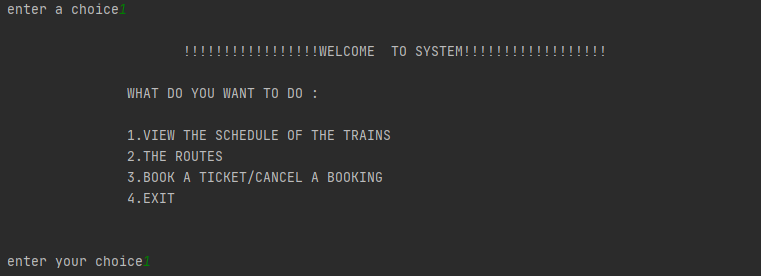
:))))

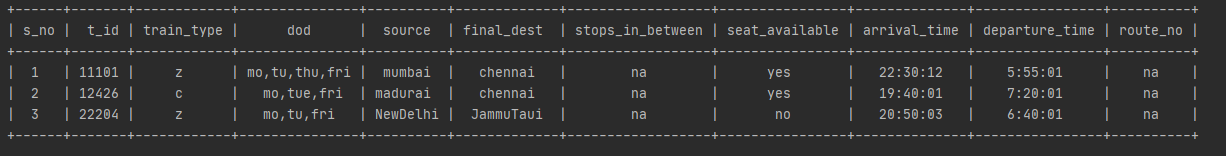
''')

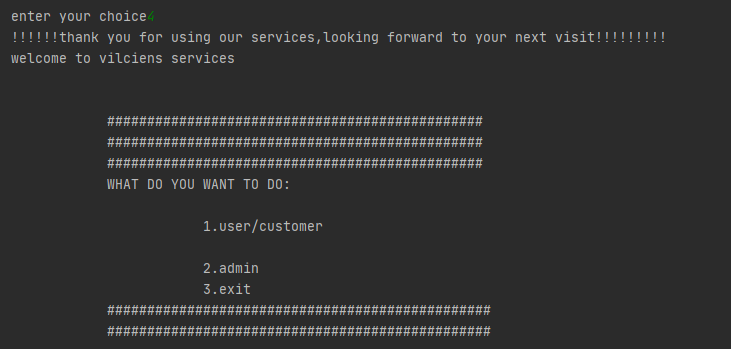
break

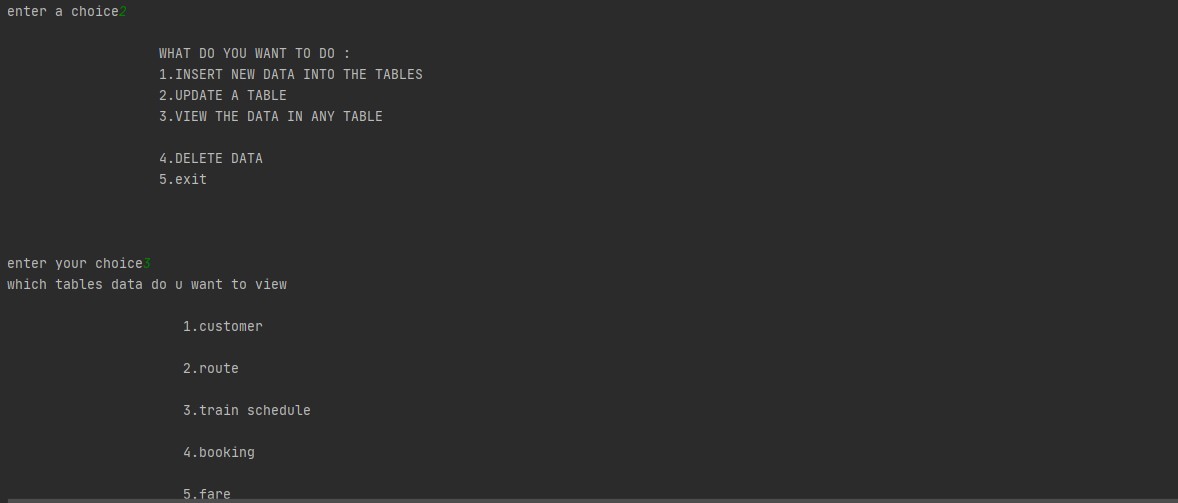
**OUTPUT**

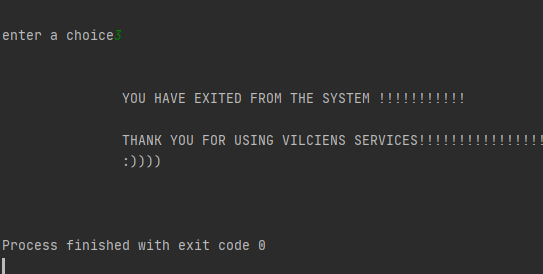












## Conclusion

**The program has been successfully compiled and executed without any errors.The desired output has been achieved**

**Although there are limitations to this program such as there is no payment system embedded in the program,rather you will get a link in the mail directing you to a portal to pay it but that itself is just an idea and not implemented in the program**

## BIBLIOGRAPHY

* Sumita Arora’s text book for Computer Science

(class12)

•stackoverflow.com

* Google.com