

SOURCE CODE

#PROJECT DONE FOR THE SUBMISSION OF AISSCE BOARD PRACTICAL EXAMINATION

RAILWAY TICKET RESERVATION SYSTEM

#INCLUDING HEADER FILES.

import matplotlib.pyplot as plt

import mysql.connector as sc

import numpy as np

#DEFINITION FOR HOME PAGE

def R_Homepage():

print('*****')

print("WELCOME TO INDIAN RAILWAY")

print('*****')

print("1. ADD TRAIN DETAILS")

print("2. UPDATE TRAIN DETAILS")

print("3. CANCEL TRAIN DETAILS")

print("4. SEARCH TRAIN DETAILS")

print("5. TICKET BOOKING")

print("6. CANCEL TICKET BOOKING")

print("7. SEARCH BOOKING DETAILS")

```
print("8. REPORT ")
op=int(input("Enter your option:"))
if op==1:
    AddTrain()
elif op==2:
    UpdateTrain()
elif op==3:
    RemoveTrain()
elif op==4:
    SearchTrain()
elif op==5:
    TicketBooking()
elif op==6:
    CancelTicket()
elif op==7:
    SearchBooking()
elif op==8:
    Report()
else:
    print("Invalid option")
```

#Definition for the Login ()

```
def Login():  
    print("\n\n\n\n")  
    print("*****")  
    print("WELCOME TO INDIAN RAILWAY")  
    print("*****")  
    user=input("Enter USer Name:")  
    pas=input("Enter password:")  
    if user=='Admin' and pas=='mgm':  
        print("SUCCESSFUULY LOGGED!!!!!!")  
        R_Homepage()  
    else:  
        print("INCORRECT CREDENTIALS")  
        Login()
```

#Definition for AddTrain() function

```
def AddTrain():  
    print("\n\n\n\n")  
    print("*****")  
    print("WELCOME TO INDIAN RAILWAY")  
    print("*****")  
    print("ADD TRAIN DETAILS")  
    T_id=input("Enter Train ID ")
```

```
T_name=input("Enter Train NAmE:")
T_startloc=input("Enter Starting Location:")
T_endloc=input("Enter Ending location:")
T_starttime=input("Enter starting time:")
T_endtime=input("Enter ending time:")
T_noofac=int(input("Enter number of AC "))
T_noofsleeper=int(input("Enter no of sleepers"))
T_noofgeneral=int(input("Enter no of general"))
T_priceac=int(input("Amount of AC ticket"))
T_pricesleeper=int(input("Enter price of sleeper"))
T_pricegeneral=int(input("Enter price of general"))
```

```
conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")
mycursor=conn.cursor()
query="insert into train
values('{}','{}','{}','{}','{}','{}',{}, {}, {}, {}, {}, {})".format(T_id,T_name,T_startloc,
T_endloc,T_starttime,T_endtime,T_noofac,T_noofsleeper,T_noofgeneral,T_pricea
c,T_pricesleeper,T_pricegeneral)
mycursor.execute(query)
conn.commit()
print("SUCCESSFULLY ADD TRAIN DETAILS !!!!!!!")
conn.close()
```

#Definition of UpdateTrain() function

```
def UpdateTrain():  
    print("\n\n\n\n")  
    print("*****")  
    print("WELCOME TO INDIAN RAILWAY")  
    print("*****")  
    print("UPDATE TRAIN DETAILS")  
    T_id=input("Enter Train ID to be updated ")  
    T_starttime=input("Enter updated starting time:")  
    T_endtime=input("Enter updated ending time:")  
    T_noofac=int(input("Enter updated number of AC "))  
    T_noofsleeper=int(input("Enter updated no of sleepers"))  
    T_noofgeneral=int(input("Enter updated no of general"))  
    T_priceac=int(input("Enter updated Amount of AC ticket"))  
    T_pricesleeper=int(input("Enter updated price of sleeper"))  
    T_pricegeneral=int(input("Enter updated price of general"))  
  
    conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")  
    mycursor=conn.cursor()  
    query="update train set  
starttime='{}',endtime='{}',NoofAC={},noofsleeper={},noofgeneral={},priceAc={  
},pricesleeper={},pricegeneral={} where  
Tid='{}'.format(T_starttime,T_endtime,T_noofac,T_noofsleeper,T_noofgeneral,T  
_priceac,T_pricesleeper,T_pricegeneral,T_id)
```

```
mycursor.execute(query)
conn.commit()
print("SUCCESSFULLY UPDATED TRAIN DETAILS !!!!!")
conn.close()
```

#Definition for the RemoveTrain() function

```
def RemoveTrain():
    print("\n\n\n\n")
    print("*****")
    print("WELCOME TO INDIAN RAILWAY")
    print("*****")
    print("REMOVE TRAIN DETAILS")
    T_id=input("Enter Train ID to be removed ")

conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")
mycursor=conn.cursor()
query="delete from train where Tid='{}'.format(T_id)
mycursor.execute(query)
conn.commit()
print("SUCCESSFULLY REMOVED TRAIN DETAILS !!!!!")
conn.close()
```

#Definition for SEarch Train details.

```
def SearchTrain():  
    print("\n\n\n\n")  
    print("*****")  
    print("WELCOME TO INDIAN RAILWAY")  
    print("*****")  
    print("SEARCH  TRAIN DETAILS")  
    T_id=input("Enter Train ID  to be Search  ")  
  
    conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")  
    mycursor=conn.cursor()  
    query="select *  from train where Tid='{}'.format(T_id)  
    mycursor.execute(query)  
    myrecord=mycursor.fetchall()  
    for x in myrecord:  
        print(x)  
    conn.close()
```

#Definition for TicketBooking() function

```
def TicketBooking():  
    print("\n\n\n\n")  
    print("*****")  
    print("WELCOME TO INDIAN RAILWAY")
```

```

print("*****")

print("TICKET BOOKING SECTION ")

conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")

mycursor=conn.cursor()

query="select * from train "

mycursor.execute(query)

myrecord=mycursor.fetchall()

print("TID\tTname\tSTARTINGPOINT\tENDLOC\tSTARTTIME\tENDTI
ME\tNOOFAC\tNOOFSleeper\tNOOFgeneral\tPRICEAC\tPRICESLEEPE
R\tPRICEGENERAL\t\n")

for x in myrecord:

print(x[0],"\t",x[1],"\t",x[2],"\t",x[3],"\t",x[4],"\t",x[5],"\t",x[6],"\t",x[7],"\t
\t",x[8],"\t",x[9],"\t",x[10],"\t",x[11],"\n")

conn.close()

Tid=input("Enter ID of the TRain you are Booking")

tname=input("Enter name of the train")

adharnouser=int(input("Enter your Ahdar No"))

name=input("Enter your name")

age=int(input("Enter your age"))

typeticket=input("Enter type of Ticket(AC/Sleeper/General)")

startloc=input("Starting location")

endloc=input("Enter Destination location")

```

```
conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")

fare=0

mycursor=conn.cursor()

query="select * from train where Tid='{}'.format(Tid)

mycursor.execute(query)

myrecord=mycursor.fetchall()

for x in myrecord:

    if typeticket=="AC":

        fare=x[9]

        n=x[6]-1

        query2="update train set noofAC={} where Tid='{}'.format(n,Tid)

    elif typeticket=="Sleeper":

        fare=x[10]

        n=x[7]-1

        query2="update train set noofsleeper={} where Tid='{}'.format(n,Tid)

    elif typeticket=="General":

        fare=x[11]

        n=x[8]-1

        query2="update train set noofgeneral={} where Tid='{}'.format(n,Tid)

mycursor.execute(query2)

conn.commit()
```

```
conn.close()

if age>=60 or age<=10:
    fare=fare-fare*50/100

else:
    fare=fare
```

```
conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")

mycursor=conn.cursor()

query="insert into trainbooking
values('{}','{}',{},'{}',{},'{}','{}','{}',{}).format(Tid,tname,adharnouser,name,age,t
ypeticket,startloc,endloc,fare)

mycursor.execute(query)

conn.commit()

print("SUCCESSFULLY DONE TICKET BOOKING !!!!!!!")

conn.close()
```

Definition for SearchBooking() function

```
def SearchBooking():

    print("\n\n\n\n")

    print("*****")

    print("WELCOME TO INDIAN RAILWAY")

    print("*****")

    print("TICKET BOOKING SECTION ")

    ano=int(input("Enter your adhar number for checking"))
```

```
conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")
    mycursor=conn.cursor()
    query="select * from trainbooking where adhar_no_user={}".format(ano)
    mycursor.execute(query)
    myrecord=mycursor.fetchall()
    for x in myrecord:
        print(x)
    else:
        print("No Booking in this Adhar No")
    conn.close()
```

#Definition for CancelTicket() function

```
def CancelTicket():
    print("\n\n\n\n")
    print("*****")
    print("WELCOME TO INDIAN RAILWAY")
    print("*****")
    print("TICKET BOOKING SECTION ")
    ano=int(input("Enter your adhar number for cancellation"))

conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")
```

```
mycursor=conn.cursor()
query1="select * from trainbooking where adharno_user={}".format(ano)
mycursor.execute(query1)
myrecord=mycursor.fetchall()
for x in myrecord:
    tid=x[0]
    tickettype=x[5]
query3="select * from train where Tid='{}'.format(tid)
mycursor.execute(query3)
myrecord2=mycursor.fetchall()
for x in myrecord2:
    if tickettype=="AC":
        acno=x[6]+1
        query4="update train set noofAC={} where Tid='{}'.format(acno,tid)
    elif tickettype=="Sleeper":
        slno=x[7]+1
        query4="update train set noofsleeper={} where Tid='{}'.format(slno,tid)
    elif tickettype=="GEneral":
        gno=x[8]+1
        query4="update train set noofgeneral={} where Tid='{}'.format(gno,tid)
query="delete from trainbooking where adharno_user={}".format(ano)
mycursor.execute(query)
conn.commit()
```

```
mycursor.execute(query4)
```

```
conn.commit()
```

```
conn.close()
```

#DEfinition of Report() function

```
def Report():
```

```
    print("\n\n\n\n")
```

```
    print("*****")
```

```
    print("WELCOME TO INDIAN RAILWAY")
```

```
    print("*****")
```

```
    print("TICKET BOOKING SECTION ")
```

```
    print("Different Types of REports are")
```

```
    print("1. Report BAsed on Type of seat and no of seats avilable in each type")
```

```
    print("2. Report Based on price of each Type of seat ")
```

```
    print("3. Report based on type of ticket booking ")
```

```
    op=int(input("Enter your option:"))
```

```
    if op==1:
```

```
        print("\n\n\n\n")
```

```
        print("*****")
```

```
        print("WELCOME TO INDIAN RAILWAY")
```

```
        print("*****")
```

```
        print("TICKET BOOKING SECTION ")
```

```
        tid=input("Enter train id:")
```

```

query="select * from Train where tid='{}'.format(tid)
conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")

mycursor=conn.cursor()

mycursor.execute(query)

myrecord=mycursor.fetchall()

x=["AC","Sleeper","General"]

y=[]

y1=0

y2=0

y3=0

for i in myrecord:

    y1=i[6]

    y2=i[7]

    y3=i[8]

y.append(y1)

y.append(y2)

y.append(y3)

plt.bar(x,y)

elif op==2:

    print("\n\n\n\n")

    print("*****")

    print("WELCOME TO INDIAN RAILWAY")

    print("*****")

```

```
print("TICKET BOOKING SECTION ")
tid=input("Enter train id:")
query="select * from Train where tid='{}'.format(tid)

conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")

mycursor=conn.cursor()
mycursor.execute(query)
myrecord=mycursor.fetchall()
x=["AC","Sleeper","General"]
y=[]
y1=0
y2=0
y3=0
for i in myrecord:
    y1=i[9]
    y2=i[10]
    y3=i[11]
y.append(y1)
y.append(y2)
y.append(y3)
plt.bar(x,y)
elif op==3:
    print("\n\n\n\n")
```

```

print("*****")
print("WELCOME TO INDIAN RAILWAY")
print("*****")
print("TICKET BOOKING SECTION ")
tid=input("Enter train id:")
query="select typeofseat,count(*) from Trainbooking group by typeofseat"

conn=sc.connect(host="localhost",user="root",password="mgm",database="ip12")

mycursor=conn.cursor()
mycursor.execute(query)
myrecord=mycursor.fetchall()

x=[]
y=[]

for i in myrecord:
    x.append(i[0])
    y.append(i[1])

plt.bar(x,y,width=0.5)
ply.xlabel("type of seat")
plt.ylabel("no of seats booked on each type")

```

#Calling main section

Login()

SCREEN SHOTS

Login Section:

```
*****  
WELCOME TO INDIAN RAILWAY  
*****  
  
Enter User Name:Admin  
  
Enter password:mgm  
SUCCESSFULLY LOGGED!!!!!!  
*****
```

Home page:

```
WELCOME TO INDIAN RAILWAY  
*****  
1. ADD TRAIN DETAILS  
2. UPDATE TRAIN DETAILS  
3. CANCEL TRAIN DETAILS  
4. SEARCH TRAIN DETAILS  
5. TICKET BOOKING  
6. CANCEL TICKET BOOKING  
7. SEARCH BOOKING DETAILS  
8. REPORT  
  
Enter your option:
```

Add Train Details

```
*****
WELCOME TO INDIAN RAILWAY
*****
ADD TRAIN DETAILS

Enter Train ID T900

Enter Train NAmE:Maveli

Enter Starting Location:Trivandrum

Enter Ending location:Mumbai

Enter starting time:10 am

Enter ending time:1 pm

Enter number of AC 200

Enter no of sleepers150

Enter no of general300

Amount of AC ticket600

Enter price of sleeper400

Enter price of general200
SUCCESSFULLY ADD TRAIN DETAILS !!!!!
```

Update Train Details

```
*****
WELCOME TO INDIAN RAILWAY
*****
UPDATE TRAIN DETAILS

Enter Train ID to be updated T300

Enter updated starting time:10

Enter updated ending time:9

Enter updated number of AC 300

Enter updated no of sleepers400

Enter updated no of general250

Enter updated Amount of AC ticket600

Enter updated price of sleeper400

Enter updated price of general300
SUCCESSFULLY UPDATED TRAIN DETAILS !!!!!
```

Remove Train Details

```
*****
WELCOME TO INDIAN RAILWAY
*****
REMOVE   TRAIN DETAILS

Enter Train ID to be removed T!00
SUCCESSFULLY REMOVED   TRAIN DETAILS !!!!!
```

Search Train Details

```
*****
WELCOME TO INDIAN RAILWAY
*****
SEARCH   TRAIN DETAILS

Enter Train ID to be Search  T900
('T900', 'Maveli', 'Trivandrum', 'Mumbai', '10 am', '1 pm', 200, 150, 300, 600, 400, 200)
```

Ticket Booking:

```
*****
WELCOME TO INDIAN RAILWAY
*****
TICKET BOOKING SECTION
TID      Tname      STARTINGPOINT      ENDLOC      STARTTIME      ENDTIME      NOOFAC
NOOFsleeper      NOOFgeneral      PRICEAC      PRICESLEEPER      PRICEGENERAL

300      Venad      Delhi      Trivandrum      12      1 pm      100      200
300      500      300      200

T200      Rajadhani      Trivandrum      Banglore      16:00      18:00      3
12      2      250      1000      300

T900      Maveli      Trivandrum      Mumbai      10 am      1 pm      200
150      300      600      400      200

Enter ID of the TRain you are BookingT900
Enter name of the trainMaveli
Enter your Ahdar No123
Enter your nameRahul
Enter your age17
Enter type of Ticket(AC/Sleeper/General)AC
Starting locationTrivandrum
Enter Destination locationMumbai
SUCCESSFULLY DONE TICKET BOOKING !!!!!
```

Search Booking details

```
*****
WELCOME TO INDIAN RAILWAY
*****
TICKET BOOKING SECTION

Enter your adhar number for checking123
('T900', 'Maveli', 123, 'Rahul', 17, 'AC', 'Trivandrum', 'Mumbai', 600)
No Booking in this Adhar No
```

Cancellation of Ticket Booking:

```
*****
WELCOME TO INDIAN RAILWAY
*****
TICKET BOOKING SECTION

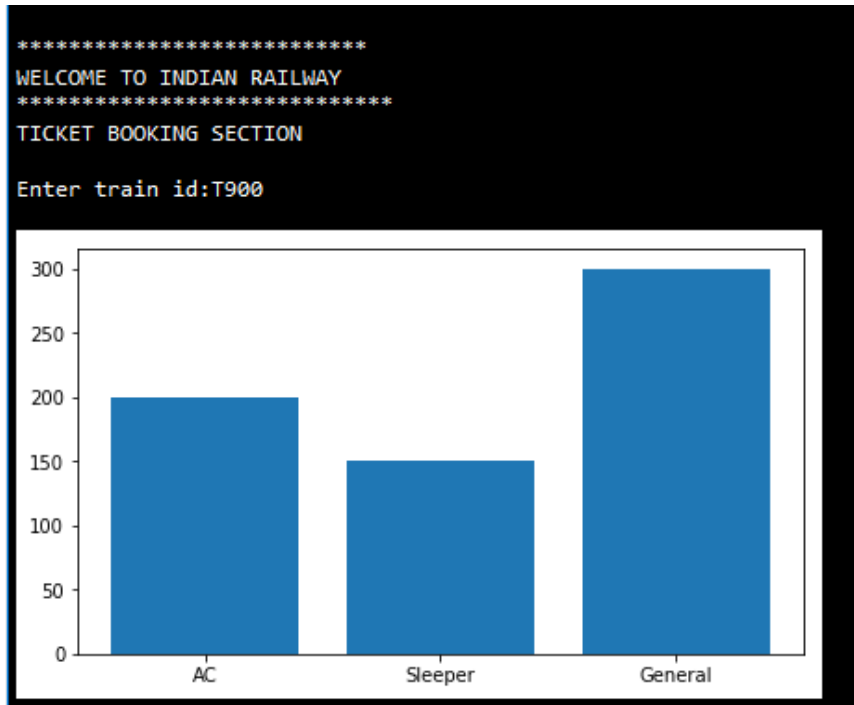
Enter your adhar number for cancellation123
```

Report Section:

```
*****
WELCOME TO INDIAN RAILWAY
*****
TICKET BOOKING SECTION
Different Types of REports are
1. Report BAsed on Type of seat and no of seats avilable in each type
2. Report Based on price of each Type of seat
3. Report based on type of ticket booking

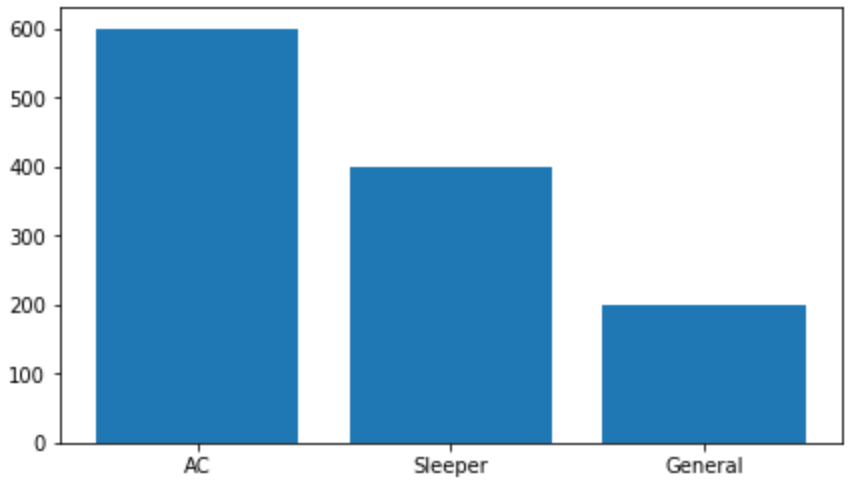
Enter your option:1
```

Report Based on Type of seat

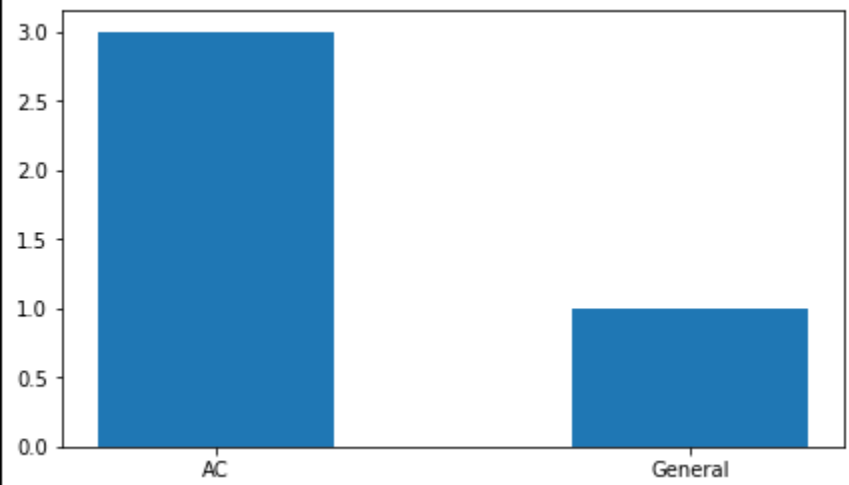


Report Based on Price

```
*****  
WELCOME TO INDIAN RAILWAY  
*****  
TICKET BOOKING SECTION  
Enter train id:T900
```



Report Based on type of Ticket booking.



CONCLUSION

This project was completed on time and is found working effectively under all circumstances that may arise in real environment. The program objective specifies on the requirement is believed to be met. Using the facilities and functionalities of python and mysql , the program has been developed in neat manner.

This program is simple and user friendly. The speed and accuracy are maintained in proper way. Testing of the program has given good result.

The program is done with an insight into necessary modifications that is required in the future.

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