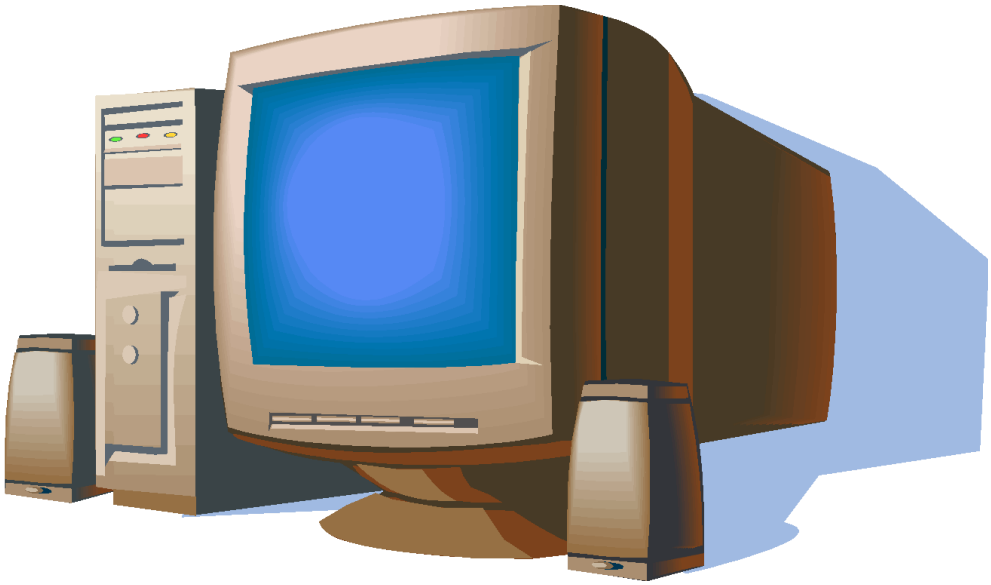
# COMPUTER SCIENCE PROJECT FILE ON TRAIN TICKET BOOKING SOFTWARE




**PROJECT PREPARED BY:**

**SANSKAR CHAUDHARY**

**Board Roll No. -**

**XII-A**

**Session: 2022-2023**

**Bharatiya Vidya Bhavan's V. M Public School**

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# SYNOPSIS

**Topic :** Train Ticket Booking Software

**Features :**

- Can be used to search trains by station.
- Can be used to book tickets for multiple passengers.
- Can be used to check pnr status and download ticket anytime.
- Can be used to cancel booking.

**Hardware/Software Requirements :** Spyder 5.3.3, MySQL 8.0, min. 32-bit processor

**Future Scope :** It is possible to search for trains online and display real time location of trains and then it can be used to book real tickets

**Limitations :** Currently cannot book tickets in between train's starting and ending station.

**Made By : SANSKAR CHAUDHARY**

**Accepted/Rejected**

# Certificate

**This is to certify that SANSKAR CHAUDHARY of Std. XII-A, Bharatiya Vidya Bhavan's V.M Public School , Vadodara has successfully completed the project entitled 'TRAIN TICKET BOOKING SOFTWARE' in computer practicals for the AISSCE as prescribed by CBSE in the year 2022-2023.**

**Date :**

**Board Roll No. :**

**Signature Examiner**

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# Acknowledgement

**I would like to express a deep sense of thanks & gratitude to my computer science teacher Ms. Sonal Sharma for guiding me immensely through the course of the project.**

**My sincere thanks to our Principal Rajeev Kumar Singhal for his co-ordination in extending every possible support for the completion of the project.**

# MODULES USED

1. tkinter
2. random
3. os
4. mysql.connector

# CODING

```
from mysql.connector import *
from tkinter import *
from random import *
import os
def createschedule():
    a=connect(host='localhost',user='root',passwd='bvb@123')
    c=a.cursor()
    c.execute('create database sanskar_train_cs')
    c.execute('use sanskar_train_cs')
    c.execute('create table schedule(name varchar(100),number int,begin varchar(20),end varchar(20))')
    c.execute("insert into schedule values('AZ EXPRESS', 10001, 'A', 'Z')")
    c.execute("insert into schedule values('PQ EXPRESS', 10002, 'P', 'Q')")
    c.execute("insert into schedule values('BT EXPRESS', 10003, 'B', 'T')")
    c.execute("insert into schedule values('AH EXPRESS', 10004, 'A', 'H')")
    c.execute("insert into schedule values('JO EXPRESS', 10005, 'J', 'O')")
    c.execute("insert into schedule values('SY EXPRESS', 10006, 'S', 'Y')")
    c.execute("insert into schedule values('BM EXPRESS', 10007, 'B', 'M')")
    c.execute("insert into schedule values('EQ EXPRESS', 10008, 'E', 'Q')")
    c.execute("insert into schedule values('FX EXPRESS', 10009, 'F', 'X')")
    c.execute("insert into schedule values('QZ EXPRESS', 10010, 'Q', 'Z')")
    c.execute('create table alltickets(pssng_dtls varchar(10000),trn_no int,pnr int)')
```

```
    c.execute('create table pnr(pnrno int)')
    a.commit()
def stationsearch():
    win.destroy()
    def submit():
        fg=f.get()
        tg=t.get()
        win1.destroy()
        a=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
        c=a.cursor()
        c.execute('select * from schedule')
        l=[]
        ok=[]
        for i in c:
            l.append(i)
        stations='ABCDEFGHIJKLMNOPQRSTUVWXYZ'
        for i in l:
            if fg in stations[stations.index(i[2]):] and tg in stations[stations.index(i[2]):stations.index(i[3])+1]:
                ok.append(i)
        win2=Tk()
        win2.title('RAIL SEVA')
```

```
    win2.attributes('-fullscreen',True)
    win2['bg']='yellow'
    if ok!=[]:
        lab='THE FOLLOWING TRAINS WERE FOUND : \n'
        for i in ok:
            lab+=str(i)+'\n'
    else:
        lab='NO TRAINS FOUND '
    Label(win2,text=lab[:-1],fg='blue',font=('Arial',25)).pack(pady=25)
    Button(win2,text='OK',fg='green',font=('Arial',25),command=win2.destroy).pack(pady=25)
    Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
win1=Tk()
win1.title('RAIL SEVA')
win1.attributes('-fullscreen',True)
win1['bg']='yellow'
f=StringVar()
t=StringVar()
Label(win1,text='ENTER STARTING POINT : ',fg='blue',font=('Arial',25)).pack(pady=25)
Entry(win1,textvariable=f,fg='purple',font=('Arial',25)).pack(pady=25)
Label(win1,text='ENTER ENDING POINT : ',fg='blue',font=('Arial',25)).pack(pady=25)
Entry(win1,textvariable=t,fg='purple',font=('Arial',25)).pack(pady=25)
```

```
    Button(win1,text='SEARCH',command=submit,fg='green',font=('Arial',25)).pack(pady=10)
    Button(win1,text='EXIT',command=win1.destroy,fg='red',font=('Arial',25)).pack(pady=25)
    win1.mainloop()
def bookticket():
    def submit():
        t=int(trn.get())
        win1.destroy()
        a=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
        c=a.cursor()
        c.execute('select * from schedule')
        l=[]
        l_no=[]
        for i in c:
            l.append(i)
            l_no.append(i[1])
        if t not in l_no:
            win2=Tk()
            win2.title('RAIL SEVA')
            win2.attributes('-fullscreen',True)
            win2['bg']='yellow'
            Label(win2,text='TRAIN NUMBER NOT VALID',fg='blue',font=('Arial',25)).pack(pady=25)
```

```
        Button(win2,text='OK',command=win2.destroy,fg='green',font=('Arial',25)).pack(pady=25)
        Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
    else:
        def submits():
            ft=fg.get()
            tt=tg.get()
            main=l[l_no.index(t)]
            stations='ABCDEFGHIJKLMNOPQRSTUVWXYZ'
            if ft not in stations[stations.index(main[2]):] and tt not in
stations[stations.index(main[2]):stations.index(main[3])]:
                Label(win2,text='TRAIN NUMBER OR STATION NOT VALID\nTRY
AGAIN',fg='blue',font=('Arial',25)).pack(pady=25)
                Button(win2,text='OK',command=win2.destroy,fg='green',font=('Arial',25)).pack(pady=25)
                Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
            else:
                win2.destroy()
                win3=Tk()
                win3.title('RAIL SEVA')
                win3.attributes('-fullscreen',True)
                win3['bg']='yellow'
                name=StringVar()
```

```
age=StringVar()
mobile=StringVar()
email=StringVar()
data_of_passengers=[]
def done():
    d={}
    d['name']=name.get()
    d['age']=age.get()
    d['mobile']=mobile.get()
    d['email']=email.get()
    data_of_passengers.append(d)
    name.set('')
    age.set('')
    mobile.set('')
    email.set('')
def alldone():
    win3.destroy()
    win4=Tk()
    win4.title('RAIL SEVA')
    win4.attributes('-fullscreen',True)
    win4['bg']='yellow'
```

```
a=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
c=a.cursor()
c.execute('select * from pnr')
pnrs=[]
for i in c:
   pnrs.append(i)
pnr_s=randint(10000,99999)
while pnr_s in pnrs:
   pnr_s=randint(10000,99999)
pnr_s=str(pnr_s)
file=open(pnr_s+'.txt','w')
content='THIS IS COMPUTER GENERATED TICKET\nNO SIGNATURE IS REQUIRED\nDATA
OF PASSENGERS : \n'
for i in data_of_passengers:
   content+=str(i)+'\n'
content+='PNR NUMBER : '+str(pnr_s)+'\n'
content+='TRAIN NUMBER : '+str(t)+'\n'
content+='FROM : '+str(ft)+'\n'
content+='TO : '+str(tt)
file.write(content)
file.close()
```

```
            c.execute('insert into alltickets values('+'"'+content+'",'+str(t)+','+str(pnr_s)+')')
            c.execute('insert into pnr values('+str(pnr_s)+')')
            a.commit()
            Label(win4,text='TICKET SAVED ON DESKTOP',fg='blue',font=('Arial',25)).pack(pady=25)
            Button(win4,text='OK',fg='green',font=('Arial',25),command=win4.destroy).pack(pady=25)
        Label(win3,text='NAME : ',fg='blue',font=('Arial',20)).pack(pady=20)
        Entry(win3,textvariable=name,fg='purple',font=('Arial',15)).pack(pady=20)
        Label(win3,text='AGE : ',fg='blue',font=('Arial',20)).pack(pady=20)
        Entry(win3,textvariable=age,fg='purple',font=('Arial',15)).pack(pady=20)
        Label(win3,text='MOBILE : ',fg='blue',font=('Arial',20)).pack(pady=20)
        Entry(win3,textvariable=mobile,fg='purple',font=('Arial',15)).pack(pady=20)
        Label(win3,text='EMAIL : ',fg='blue',font=('Arial',20)).pack(pady=20)
        Entry(win3,textvariable=email,fg='purple',font=('Arial',15)).pack(pady=20)
        Button(win3,text='DONE',fg='green',font=('Arial',20),command=done).pack(pady=20)
        Button(win3,text='DATA OF ALL PASSENGERS
ENTERED',fg='green',font=('Arial',20),command=alldone).pack(pady=20)
    win2=Tk()
    win2.title('RAIL SEVA')
    win2.attributes('-fullscreen',True)
    win2['bg']='yellow'
    Label(win2,text='FROM : ',fg='blue',font=('Arial',25)).pack(pady=25)
```

```
        fg=StringVar()
        Entry(win2,textvariable=fg,fg='purple',font=('Arial',25)).pack(pady=25)
        Label(win2,text='TO : ',fg='blue',font=('Arial',25)).pack(pady=25)
        tg=StringVar()
        Entry(win2,textvariable=tg,fg='purple',font=('Arial',25)).pack(pady=25)
        Button(win2,text='SUBMIT',command=submits,fg='green',font=('Arial',25)).pack(pady=25)
        Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
    win.destroy()
    win1=Tk()
    win1.title('RAIL SEVA')
    win1.attributes('-fullscreen',True)
    win1['bg']='yellow'
    Label(win1,text='ENTER VALID TRAIN NUMBER : ',fg='blue',font=('Arial',25)).pack(pady=25)
    trn=StringVar()
    Entry(win1,textvariable=trn,fg='purple',font=('Arial',25)).pack(pady=25)
    Button(win1,text='SUBMIT',command=submit,fg='green',font=('Arial',25)).pack(pady=25)
    Button(win1,text='EXIT',command=win1.destroy,fg='red',font=('Arial',25)).pack(pady=25)
def pnrstatus():
    a=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
    c=a.cursor()
    c.execute('select * from pnr')
```

```
l=[]
for i in c:
    l.append(i[0])
win.destroy()
win1=Tk()
win1.title('RAIL SEVA')
win1.attributes('-fullscreen',True)
win1['bg']='yellow'
p=StringVar()
def submit():
    try:
        pn=int(p.get())
    except:
        pn=0
    win1.destroy()
    win2=Tk()
    win2.title('RAIL SEVA')
    win2.attributes('-fullscreen',True)
    win2['bg']='yellow'
    if pn not in l:
        Label(win2,text='PNR NOT FOUND',fg='blue',font=('Arial',25)).pack(pady=25)
```

```
    Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
else:
    pnew=pn
    def download():
        win2.destroy()
        a1=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
        c1=a1.cursor()
        c1.execute('select * from alltickets where pnr='+str(pnew))
        l=[]
        for i in c1:
            l=list(i)
        main=l[0]
        name=str(l[2])
        file=open(name+'.txt','w')
        file.write(main)
        file.close()
        win3=Tk()
        win3.title('RAIL SEVA')
        win3.attributes('-fullscreen',True)
        win3['bg']='yellow'
        Label(win3,text='TICKET SAVED ON DESKTOP',fg='blue',font=('Arial',25)).pack(pady=25)
```

```
            Button(win3,text='EXIT',command=win3.destroy,fg='red',font=('Arial',25)).pack(pady=25)
        Label(win2,text='PNR FOUND',fg='blue',font=('Arial',25)).pack(pady=25)
        Button(win2,text='DOWNLOAD
TICKET',command=download,fg='green',font=('Arial',25)).pack(pady=25)
        Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
    Label(win1,text='ENTER PNR NUMBER : ',fg='blue',font=('Arial',25)).pack(pady=25)
    Entry(win1,textvariable=p,fg='purple',font=('Arial',25)).pack(pady=25)
    Button(win1,text='SUBMIT',command=submit,fg='green',font=('Arial',25)).pack(pady=25)
    Button(win1,text='EXIT',command=win1.destroy,fg='red',font=('Arial',25)).pack(pady=25)
def cancelbkng():
    def submit():
        win1.destroy()
        try:
            pn=int(p.get())
        except:
            pn=0
        if pn not in l:
            win2=Tk()
            win2.title('RAIL SEVA')
            win2.attributes('-fullscreen',True)
            win2['bg']='yellow'
```

```
        Label(win2,text='PNR NOT FOUND',fg='blue',font=('Arial',25)).pack(pady=25)
        Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
    else:
        win2=Tk()
        win2.title('RAIL SEVA')
        win2.attributes('-fullscreen',True)
        win2['bg']='yellow'
        a1=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
        c1=a1.cursor()
        c1.execute('delete from pnr where pnrno='+str(pn))
        c1.execute('delete from alltickets where pnr='+str(pn))
        a1.commit()
        try:
            os.remove(str(pn)+'.txt')
        except:
            pass
        Label(win2,text='BOOKING CANCELLED SUCCESSFULLY',fg='blue',font=('Arial',25)).pack(pady=25)
        Button(win2,text='EXIT',command=win2.destroy,fg='red',font=('Arial',25)).pack(pady=25)
a=connect(host='localhost',user='root',passwd='bvb@123',database='sanskar_train_cs')
c=a.cursor()
c.execute('select * from pnr')
```

```
    l=[]
    for i in c:
        l.append(i[0])
    win.destroy()
    win1=Tk()
    win1.title('RAIL SEVA')
    win1.attributes('-fullscreen',True)
    win1['bg']='yellow'
    p=StringVar()
    Label(win1,text='ENTER PNR NUMBER : ',fg='blue',font=('Arial',25)).pack(pady=25)
    Entry(win1,textvariable=p,fg='purple',font=('Arial',25)).pack(pady=25)
    Button(win1,text='SUBMIT',command=submit,fg='green',font=('Arial',25)).pack(pady=25)
    Button(win1,text='EXIT',command=win1.destroy,fg='red',font=('Arial',25)).pack(pady=25)
win=Tk()
win.title('RAIL SEVA')
win.attributes('-fullscreen',True)
win['bg']='yellow'
one=Label(win,text='USE OUR SOFTWARE TO BOOK RAIL TICKETS, SEARCH TRAINS, \nCHECK PNR
STATUS AND MUCH MORE.',fg='blue',font=('Arial',25))
one.pack(pady=25)
two=Button(win,text='SEARCH TRAINS BY STATION',command=stationsearch,fg='green',font=('Arial',25))
```

```
two.pack(pady=25)

three=Button(win,text='BOOK TICKETS',command=bookticket,fg='green',font=('Arial',25))

three.pack(pady=25)

four=Button(win,text='CHECK PNR STATUS',command=pnrstatus,fg='green',font=('Arial',25))

four.pack(pady=25)

five=Button(win,text='CANCEL BOOKING',command=cancelbkng,fg='green',font=('Arial',25))

five.pack(pady=25)

six=Button(win,text='EXIT',command=win.destroy,fg='red',font=('Arial',25))

six.pack(pady=25)

win.mainloop()
```

# OUTPUTS

USE OUR SOFTWARE TO BOOK RAIL TICKETS, SEARCH TRAINS, CHECK PNR STATUS AND MUCH MORE.

SEARCH TRAINS BY STATION

BOOK TICKETS

CHECK PNR STATUS

CANCEL BOOKING

EXIT

ENTER STARTING POINT :

ENTER ENDING POINT :

SEARCH

EXIT

NAME :

AGE :

MOBILE :

EMAIL :

DONE

DATA OF ALL PASSENGERS ENTERED

TICKET SAVED ON DESKTOP

OK

ENTER VALID TRAIN NUMBER :

SUBMIT

EXIT

BOOKING CANCELLED SUCCESSFULLY

EXIT

ENTER PNR NUMBER :

SUBMIT

EXIT

PNR FOUND

DOWNLOAD TICKET

EXIT

# BIBLIOGRAPHY

**COMPUTER SCIENCE WITH PYTHON BY :– SUMITA ARORA**