

PERFORMANCE TESTING

Team ID	PNT2022TMID01080
Project Name	SMART SOLUTIONS FOR RAILWAYS

- ❖ We have done a “Python code” based on our topic “Smart Solutions For Railways”
- ❖ The code will do the following executions which are mentioned below:

- 1.Book Ticket
- 2.Cancel Ticket
- 3.Check PNR
- 4.Check seat availability
- 5.Create new account
- 6.Check previous transaction

- ❖ The steps for Booking tickets is given below:
- ❖ Firstly, we have to “Create a new account”. After creating we will receive a “User Id”.

The screenshot shows a Python IDE window with the file 'aabcp.py' open. The code implements a railway reservation system with functions for checking seat availability, creating PNR numbers, and managing user accounts. The Python Shell window shows the execution of the code, including user input for station names, train selection, and account creation, followed by a welcome message and a menu of options.

```
def check_seat_availability(flag = ''):  
    src = input("Enter the source station:- ")  
    des = input("Enter the destination station:- ")  
    flag_2 = 0  
    for i in trains:  
        if trains[i].src == src and trains[i].des == des:  
            print("Train Name :- ",trains[i].name)  
            flag_2 += 1  
    if flag_2 == 0:  
        print("\n\nNo trains found between the stations")  
        menu()  
    if flag == '':  
        choice = int(input("Enter the train number :-"))  
        trains[choice].print_seat_availability()  
        menu()  
    else:  
        pass  
  
def check_pnr(pnr_num = ''):  
    if pnr_num == '':  
        pnr_num = input("Enter the PNR number :- ")  
    if pnr_num in ticket_dict:  
        print("User name:- ",ticket_dict[pnr_num].user)  
        print("Train name:- ",ticket_dict[pnr_num].tra)  
        print("No. of Tickets Booked :- ",ticket_dict[  
    else:  
        print("\nNo such PNR number exists.\n")  
    # menu()  
  
def create_new_acc():  
    user_name = input("Enter your user name:- ")  
    pwd = input("Enter your password :- ")  
    uid = random.randint(1000,9999)  
    hometown = input("Enter your hometown :- ")  
    phl_num = input("Enter your phone number :- ")  
  
Python 3.7.0 (v3.7.0:1bf5cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32  
Type "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: D:/aabcp.py ======  
-----Welcome to Railway Reservation Portal-----  
Choose one of the following option:-  
1.Book Ticket  
2.Cancel Ticket  
3.Check PNR  
4.Check seat availability  
5.Create new account  
6.Check previous transaction  
Option = 5  
Enter your user name:- swathi  
Enter your password :- 12345  
Enter your hometown :- chennai  
Enter your phone number :- 90909090909  
Your user ID is :- 5082  
Choose one of the following option:-  
1.Book Ticket  
2.Cancel Ticket  
3.Check PNR  
4.Check seat availability  
5.Create new account  
6.Check previous transaction
```

- ❖ We have to check the seat availability in each coach and select our seats according to our requirements.

```

aabc.py - D/aabc.py (3.7.0)
File Edit Format Run Options Window Help
def check_seat_availability(flag = ''):
    src = input("Enter the source station:- ")
    des = input("Enter the destination station:- ")
    flag_2 = 0
    for i in trains:
        if trains[i].src == src and trains[i].des == des:
            print("Train Name :- ",trains[i].name)
            flag_2 += 1
    if flag_2 == 0:
        print("\n\nNo trains found between the station")
        menu()
    if flag == '':
        choice = int(input("Enter the train number :-"))
        trains[choice].print_seat_availability()
        menu()
    else:
        pass

def check_pnr(pnr_num = ''):
    if pnr_num == '':
        pnr_num = input("Enter the PNR number :- ")
    if pnr_num in ticket_dict:
        print("User name:- ",ticket_dict[pnr_num].user)
        print("Train name:- ",ticket_dict[pnr_num].train)
        print("No. of Tickets Booked :- ",ticket_dict[pnr_num].count)
    else:
        print("\nNo such PNR number exists.\n")
    menu()

def create_new_acc():
    user_name = input("Enter your user name:- ")
    pwd = input("Enter your password :- ")
    uid = random.randint(1000,9999)
    hometown = input("Enter your hometown :- ")
    cell_num = input("Enter your phone number :- ")
    u = user(uid, user_name, hometown, cell_num, pwd)
    print("Your user ID is :- ",uid)
    users.update({u.uid : u})
    menu()

t1 = train('odisha',12345,'12:34','22:12','ctc','kgp','Wed',30)
t2 = train('howrah',12565,'02:34','23:12','hwh','kol','Mon',33)
t3 = train('bangalore',22353,'11:56','03:12','ctc','ban','Fri')

```

```

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Option = 5
Enter your user name:- swathi
Enter your password :- 12345
Enter your hometown :- chennai
Enter your phone number :- 9090909090
Your user ID is :- 5082
Choose one of the following option:-
1.Book Ticket
2.Cancel Ticket
3.Check PNR
4.Check seat availability
5.Create new account
6.Check previous transaction
Option = 4
Enter the source station:- odisha
Enter the destination station:- howrah
No trains found between the stations you entered.

Choose one of the following option:-
1.Book Ticket
2.Cancel Ticket
3.Check PNR
4.Check seat availability
5.Create new account
6.Check previous transaction
Option = 6
Enter the train number :- 12345
No. of seats available in JAC :- 30
No. of seats available in 2AC :- 23
No. of seats available in SL :- 43
Choose one of the following option:-
1.Book Ticket
2.Cancel Ticket
3.Check PNR
4.Check seat availability
5.Create new account

```

- ❖ After confirming our coach we can proceed with the booking process. Finally after booking we will receive the “Booking Confirmation”.

```

aabc.py - D/aabc.py (3.7.0)
File Edit Format Run Options Window Help
def check_seat_availability(flag = ''):
    src = input("Enter the source station:- ")
    des = input("Enter the destination station:- ")
    flag_2 = 0
    for i in trains:
        if trains[i].src == src and trains[i].des == des:
            print("Train Name :- ",trains[i].name)
            flag_2 += 1
    if flag_2 == 0:
        print("\n\nNo trains found between the station")
        menu()
    if flag == '':
        choice = int(input("Enter the train number :-"))
        trains[choice].print_seat_availability()
        menu()
    else:
        pass

def check_pnr(pnr_num = ''):
    if pnr_num == '':
        pnr_num = input("Enter the PNR number :- ")
    if pnr_num in ticket_dict:
        print("User name:- ",ticket_dict[pnr_num].user)
        print("Train name:- ",ticket_dict[pnr_num].train)
        print("No. of Tickets Booked :- ",ticket_dict[pnr_num].count)
    else:
        print("\nNo such PNR number exists.\n")
    menu()

def create_new_acc():
    user_name = input("Enter your user name:- ")
    pwd = input("Enter your password :- ")
    uid = random.randint(1000,9999)
    hometown = input("Enter your hometown :- ")
    cell_num = input("Enter your phone number :- ")
    u = user(uid, user_name, hometown, cell_num, pwd)
    print("Your user ID is :- ",uid)
    users.update({u.uid : u})
    menu()

t1 = train('odisha',12345,'12:34','22:12','ctc','kgp','Wed',30)
t2 = train('howrah',12565,'02:34','23:12','hwh','kol','Mon',33)
t3 = train('bangalore',22353,'11:56','03:12','ctc','ban','Fri')

```

```

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Option = 1
Enter your User ID = 5082
Enter your password :- 12345
Welcome swathi !
Enter the source station:- howrah
Enter the destination station:- howrah
No trains found between the stations you entered.

Choose one of the following option:-
1.Book Ticket
2.Cancel Ticket
3.Check PNR
4.Check seat availability
5.Create new account
6.Check previous transaction
Option = 6
Enter the train number :- 12345
No. of seats available in JAC :- 30
No. of seats available in 2AC :- 23
No. of seats available in SL :- 43
Enter the coach :- JAC
Enter the number of tickets :- 1
Confirm ticket(s) (y/n) ? :- y
Booking Successful!

Please note PNR number :- 123455002254

```

- ❖ After successful booking of our seat we will receive a “PNR number”. We can use the “Check PNR” option to verify the booking details.

```

aabc.py - D:/aabc.py (3.7.0)
File Edit Format Run Options Window Help
def check_seat_availability(flag = ''):
    src = input("Enter the source station:- ")
    des = input("Enter the destination station:- ")
    flag_2 = 0
    for i in trains:
        if trains[i].src == src and trains[i].des == des:
            print("Train Name :- ",trains[i].name)
            flag_2 += 1
    if flag_2 == 0:
        print("\n\nNo trains found between the station")
        menu()
    if flag == '':
        choice = int(input("Enter the train number :-"))
        trains[choice].print_seat_availability()
        menu()
    else:
        pass
def check_pnr(pnr_num = ''):
    if pnr_num == '':
        pnr_num = input("Enter the PNR number :- ")
    if pnr_num in ticket_dict:
        print("User name:- ",ticket_dict[pnr_num].user)
        print("Train name:- ",ticket_dict[pnr_num].train)
        print("No. of Tickets Booked :- ",ticket_dict[pnr_num].no_of_tickets)
    else:
        print("\nNo such PNR number exists.\n")
    # menu()
def create_new_acc():
    user_name = input("Enter your user name:- ")
    pwd = input("Enter your password :- ")
    uid = random.randint(1000,9999)
    hometown = input("Enter your hometown :- ")
    cell_num = input("Enter your phone number :- ")
    u = user(uid, user_name, hometown, cell_num, pwd)
    print("Your user ID is :- ",uid)
    users.update({u.uid : u})
    menu()

```

Python 3.7.0 Shell

```

File Edit Shell Debug Options Window Help
4.Check seat availability
5.Create new account
6.Check previous transaction
Option = 6
Enter the train number :- 12345
No. of seats available in JAC :- 30
No. of seats available in 2AC :- 23
No. of seats available in SL :- 43
Enter the train number :- 12345
Enter the number of tickets :- 1
Confirm Ticket(s) (y/n) ? :- y
Booking Successful!

```

Please note PNR number :- 123455082254

Choose one of the following option:-

- 1.Book Ticket
- 2.Cancel Ticket
- 3.Check PNR
- 4.Check seat availability
- 5.Create new account
- 6.Check previous transaction

Option = 3

Enter the PNR number :- 123455082254

User name:- swathi

Train name:- odisha

No. of Tickets Booked :- 1

Enter the train number :- 12345

No. of seats available in JAC :- 29

No. of seats available in 2AC :- 23

No. of seats available in SL :- 43

- ❖ When you wish to cancel the ticket, you can use the “Cancel Ticket” option to cancel to booking.

```

aabc.py - D:/aabc.py (3.7.0)
File Edit Format Run Options Window Help
def check_seat_availability(flag = ''):
    src = input("Enter the source station:- ")
    des = input("Enter the destination station:- ")
    flag_2 = 0
    for i in trains:
        if trains[i].src == src and trains[i].des == des:
            print("Train Name :- ",trains[i].name)
            flag_2 += 1
    if flag_2 == 0:
        print("\n\nNo trains found between the station")
        menu()
    if flag == '':
        choice = int(input("Enter the train number :-"))
        trains[choice].print_seat_availability()
        menu()
    else:
        pass
def check_pnr(pnr_num = ''):
    if pnr_num == '':
        pnr_num = input("Enter the PNR number :- ")
    if pnr_num in ticket_dict:
        print("User name:- ",ticket_dict[pnr_num].user)
        print("Train name:- ",ticket_dict[pnr_num].train)
        print("No. of Tickets Booked :- ",ticket_dict[pnr_num].no_of_tickets)
    else:
        print("\nNo such PNR number exists.\n")
    # menu()
def create_new_acc():
    user_name = input("Enter your user name:- ")
    pwd = input("Enter your password :- ")
    uid = random.randint(1000,9999)
    hometown = input("Enter your hometown :- ")
    cell_num = input("Enter your phone number :- ")
    u = user(uid, user_name, hometown, cell_num, pwd)
    print("Your user ID is :- ",uid)
    users.update({u.uid : u})
    menu()

```

Python 3.7.0 Shell

```

File Edit Shell Debug Options Window Help
3.Check PNR
4.Check seat availability
5.Create new account
6.Check previous transaction
Option = 4
Enter the PNR number :- 123455082254
User name:- swathi
Train name:- odisha
No. of Tickets Booked : 1
Enter the train number :- 12345
No. of seats available in JAC :- 29
No. of seats available in 2AC :- 23
No. of seats available in SL :- 43
Choose one of the following option:-
```

- 1.Book Ticket
- 2.Cancel Ticket
- 3.Check PNR
- 4.Check seat availability
- 5.Create new account
- 6.Check previous transaction

Option = 2

Enter the PNR number :- 123455082254

User name:- swathi

Train name:- odisha

No. of Tickets Booked : 1

Do you want to cancel(y/n):- y

Enter your id :- 5082

Enter the password :- 12345

Ticket Cancelled.

Choose one of the following option:-

- 1.Book Ticket
- 2.Cancel Ticket
- 3.Check PNR
- 4.Check seat availability
- 5.Create new account
- 6.Check previous transaction

Option =

- ✓ Successfully, we can executed our code by performing all the features specified.