

PERFORMANCE TESTING

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| 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 image shows a screenshot of a Python script named 'aabc.py' and its execution output in a terminal window.

Python Script (aabc.py):

```
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

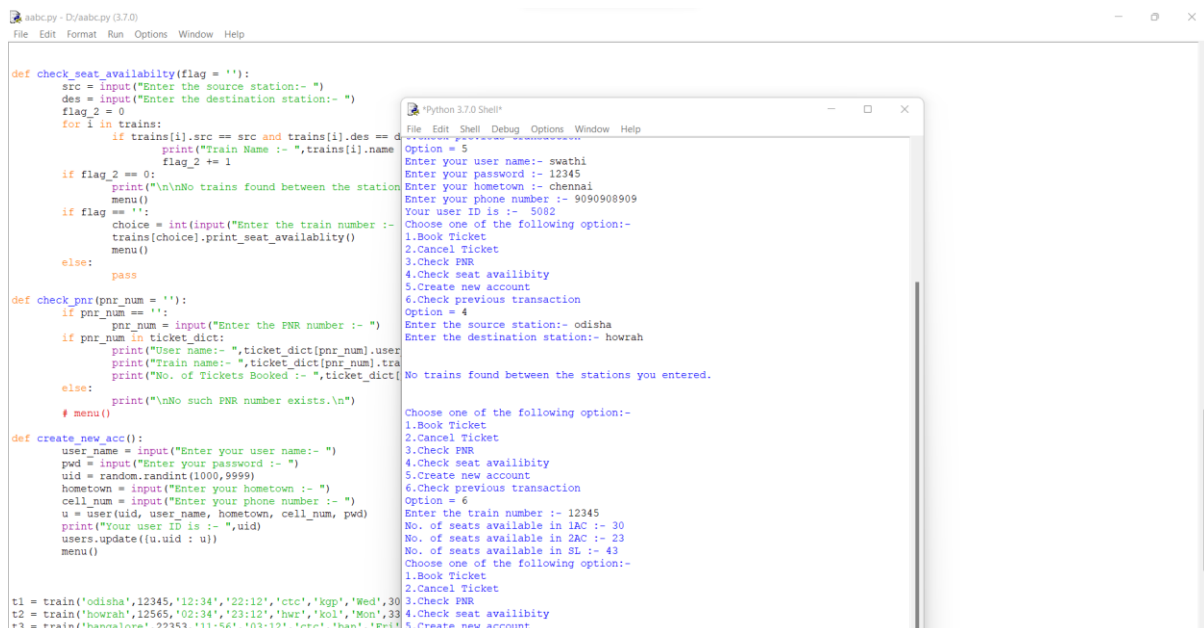
def check_pnr(pnr_num = ''):
    if pnr_num == '':
        pnr_num = input("Enter the PNR number :- ")
    if pnr_num in ticket_dict:
        print("User name:- ",ticket_dict[pnr_num].user)
        print("Train name:- ",ticket_dict[pnr_num].train)
        print("No. of Tickets Booked :- ",ticket_dict[pnr_num].tickets)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

Terminal Output:

```
Python 3.7.0 Shell
Python 3.7.0 (tags/v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/aabc.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 :- 9090908909
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.



```
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].tickets)
    else:
        print("\n\nNo such PNR number exists.\n")
    # menu()

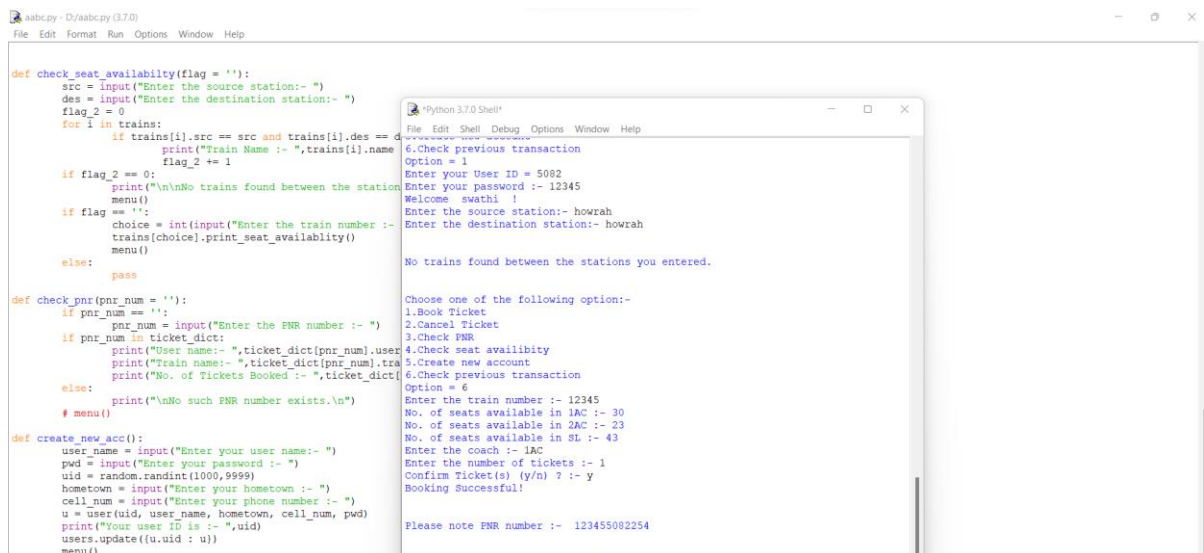
def create_new_acc():
    user_name = input("Enter your user name:- ")
    pwd = input("Enter your password :- ")
    uid = random.randint(1000,9999)
    hometown = input("Enter your hometown :- ")
    cell_num = input("Enter your phone number :- ")
    u = user(uid, user_name, hometown, cell_num, pwd)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

t1 = train('odisha',12345,'12:34','22:12','ctc','kyp','Wed',30)
t2 = train('howrah',12565,'02:34','23:12','hwr','kol','Mon',33)
t3 = train('bangalore',22353,'11:56','03:12','ctc','ban','Fri',35)
```

```
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 :- 9090908909
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 IAC :- 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”.



```
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].tickets)
    else:
        print("\n\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','kyp','Wed',30)
t2 = train('howrah',12565,'02:34','23:12','hwr','kol','Mon',33)
t3 = train('bangalore',22353,'11:56','03:12','ctc','ban','Fri',35)
```

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
-----
6.Check previous transaction
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 IAC :- 30
No. of seats available in 2AC :- 23
No. of seats available in SL :- 43
Enter the coach :- IAC
Enter the number of tickets :- 1
Confirm Ticket(s) (y/n) ? :- y
Booking Successful!

Please note PNR number :- 123455082254
```

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

```
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].tickets)
    else:
        print("\n\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','etc','knp','Wed',30)
t2 = train('howrah',12565,'02:34','23:12','hwr','kol','Mon',33)
t3 = train('bangalore',22353,'11:56','03:12','etc','ban','Fri',33)
trains = [t1.num:t1,t2.num:t2,t3.num:t3]
# trains.update({int(input("Enter the train number:- ")) : train})
# print(train_dict[12565].name)
u1 = user(1212,'dibya das','cuttack','7478021777','dibyasdas')
users={u1.uid : u1}
ticket_dict = {}
```

```
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 = 4
Enter the train number :- 12345
No. of seats available in 1AC :- 30
No. of seats available in 2AC :- 23
No. of seats available in SL :- 43
Enter the coach :- 1AC
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 1AC :- 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 =
```

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

```
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].tickets)
    else:
        print("\n\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','etc','knp','Wed',30)
t2 = train('howrah',12565,'02:34','23:12','hwr','kol','Mon',33)
t3 = train('bangalore',22353,'11:56','03:12','etc','ban','Fri',33)
trains = [t1.num:t1,t2.num:t2,t3.num:t3]
# trains.update({int(input("Enter the train number:- ")) : train})
# print(train_dict[12565].name)
u1 = user(1212,'dibya das','cuttack','7478021777','dibyasdas')
users={u1.uid : u1}
ticket_dict = {}
```

```
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 = 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 = 1
Enter the source station:- 
Enter the destination station:- 
No trains found between the station
Menu
```

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