

TEAM ID	PNT2022TMID39941
TOPIC	SMART SOLUTION FOR RAILWAYS

SOFTWARE:

The screenshot displays the Spyder Python IDE interface. The left pane shows a Python script for a railway reservation system. The script includes classes for price changes, seats declaration, and refund percentages, along with a reservation class that handles user input and booking logic. The right pane shows the console output, which simulates a user booking a ticket, including prompts for name, age, gender, compartment, and payment mode, followed by a confirmation message and refund policy details.

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7
8
9 # importing the qrcode library
10
11 # three parent classes to follow SRP where all the changes are done in one place. (three rea
12 class price_changes():
13     def price_declare(self):
14         #creating a dictionary with compartment names as keys and its prices as values.
15         self.price = {'First_AC_Class': 2000,
16                       'Second_AC_Class': 1500,
17                       'Third_AC_Class': 1000,
18                       'Sleeper': 500};
19
20 class seats_declare(self):
21     #creating a dictionary with compartment names as keys and its number of total seats i
22     self.seats = {'First_AC_Class': 50,
23                  'Second_AC_Class': 100,
24                  'Third_AC_Class': 150,
25                  'Sleeper': 200};
26
27 class refund_percent_changes():
28     def refund_percent_declare(self):
29         self.confirm_refund_percent = 5
30         self.waiting_refund_percent = 10
31
32 #parent class
33 class reservation():
34     # input function to input informations which is common to both child classes
35     def input(self):
36         #taking passengers information from user
37         self.fname = input("Enter your first name: ");
38         self.lname = input("Enter your last name: ");
39         self.age = int(input("Enter your age: "));
40         self.gender = input("Enter your gender: ");
41
42     def choice(self):
43         #asking for either to book or cancel a ticket. This line is executed before entering
44         option = input("Enter 'book' to book a ticket, 'cancel' to cancel your ticket: ");
45
46

```

Console Output:

```

Enter your last name: v
Enter your age: 19
Enter your gender: male
Enter choice of compartment to book: First_AC_Class
Seats Available.
Your booking code is CmmvFirst_AC_Class .
You have to pay 2000 rupees.
Payment Mode : Cash or Card or Internet Banking?cash
DEMAND FOR BOOKING TICKET
Passenger's first name: melwin
Passenger's last name: v
Passenger's age: 19
Passenger's gender: male
Booked in compartment: First_AC_Class
Availability of compartment: Available
You have to pay 2000 rupees.
Payment mode: cash
Your Coupon Code: CmmvFirst_AC_Class
Process completed.
There is a refund on cancellation of your ticket.
For confirmed ticket - 5 % of ticket price refund.
For waiting ticket - 10 % of ticket price refund.
You just have to remember the Coupon Code.
Enter 1 continue with railway reservations, 0 to stop:

```