q4-2347155

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```python
[1]: class AirlineTicketBooking:

    def __init__(self, passenger_name, destination, flight_number,
    ↪ticket_price, seat_number):
        self.passenger_name = passenger_name
        self.destination = destination
        self.flight_number = flight_number
        self.ticket_price = ticket_price
        self.seat_number = seat_number

    def display_ticket_info(self):
        print("Passenger:", self.passenger_name)
        print("Destination:", self.destination)
        print("Flight Number:", self.flight_number)
        print("Ticket Price:", self.ticket_price)
        print("Seat Number:", self.seat_number)

    def update_ticket_price(self, new_price):
        self.ticket_price = new_price
        print("Ticket price updated to:", self.ticket_price)

    def verify_seat_availability(self):
        if self.seat_number > 0:
            print("Seat is available.")
        else:
            print("Seat is not available.")

# Inheritance
class BusinessClassTicket(AirlineTicketBooking):
    def __init__(self, passenger_name, destination, flight_number,
    ↪ticket_price, seat_number, lounge_access):
        super().__init__(passenger_name, destination, flight_number,
    ↪ticket_price, seat_number)
        self.lounge_access = lounge_access

    def display_ticket_info(self):
        super().display_ticket_info()
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        print("Lounge Access:", self.lounge_access)

# Polymorphism
def print_ticket_details(ticket):
    ticket.display_ticket_info()

# Creating objects
ticket1 = AirlineTicketBooking("Shrey", "New York", "UA123", 500, 25)
ticket2 = BusinessClassTicket("Oishi", "London", "BA456", 1500, 12, True)
print("------------------------------------")
# Calling methods
ticket1.display_ticket_info()
ticket1.update_ticket_price(550)
ticket1.verify_seat_availability()


print("------------------------------------")

ticket2.display_ticket_info()
ticket2.update_ticket_price(1600)
ticket2.verify_seat_availability()


print("------------------------------------")

print("\nPolymorphism Example:")
tickets = [ticket1, ticket2]
for ticket in tickets:
    print_ticket_details(ticket)
    print("------------------------------------")
```

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----------------------------------------
Passenger: Shrey
Destination: New York
Flight Number: UA123
Ticket Price: 500
Seat Number: 25
Ticket price updated to: 550
Seat is available.
----------------------------------------
Passenger: Oishi
Destination: London
Flight Number: BA456
Ticket Price: 1500
Seat Number: 12
Lounge Access: True
Ticket price updated to: 1600
Seat is available.
----------------------------------------
```

```
Polymorphism Example:
Passenger: Shrey
Destination: New York
Flight Number: UA123
Ticket Price: 550
Seat Number: 25
---------------------------------------
Passenger: Oishi
Destination: London
Flight Number: BA456
Ticket Price: 1600
Seat Number: 12
Lounge Access: True
---------------------------------------
```