CODE FOR ONLINE RAILWAY TICKET BOOKING SYSTEM

MAX\_SEATS = 50

MAX\_NAME\_LENGTH = 50

# Class to store booking details

class Booking:

def \_\_init\_\_(self):

self.name = ""

self.age = 0

self.source = ""

self.destination = ""

self.seat\_number = 0

self.is\_booked = False

train = [Booking() for \_ in range(MAX\_SEATS)] # List to store booking details

# Initialize the train seats as available

def initializeSeats():

for i in range(MAX\_SEATS):

train[i].is\_booked = False # False represents available seat

# Function to display available seats

def displayAvailableSeats():

print("\nAvailable seats:")

available = False

for i in range(MAX\_SEATS):

if not train[i].is\_booked:

print(f"Seat {i + 1}")

available = True

if not available:

print("No seats available.")

# Function to book a seat

def bookSeat():

try:

seat\_number = int(input("Enter seat number to book: ")) - 1 # Adjust index

except ValueError:

print("Invalid input! Please enter a valid seat number.")

return

if seat\_number < 0 or seat\_number >= MAX\_SEATS:

print("Invalid seat number")

return

if train[seat\_number].is\_booked:

print("Seat already booked")

else:

name = input("Enter passenger name: ")

if len(name) > MAX\_NAME\_LENGTH:

print(f"Name too long! Maximum {MAX\_NAME\_LENGTH} characters allowed.")

return

try:

age = int(input("Enter passenger age: "))

except ValueError:

print("Invalid input! Age must be a number.")

return

source = input("Enter source: ")

destination = input("Enter destination: ")

train[seat\_number].is\_booked = True

train[seat\_number].seat\_number = seat\_number + 1 # Actual seat number

train[seat\_number].name = name

train[seat\_number].age = age

train[seat\_number].source = source

train[seat\_number].destination = destination

print("Seat booked successfully!")

# Function to cancel a seat booking

def cancelSeat():

try:

seat\_number = int(input("Enter seat number to cancel booking: ")) - 1

except ValueError:

print("Invalid input! Please enter a valid seat number.")

return

if seat\_number < 0 or seat\_number >= MAX\_SEATS:

print("Invalid seat number")

return

if train[seat\_number].is\_booked:

train[seat\_number].is\_booked = False

print("Seat booking cancelled successfully")

else:

print("Seat is not booked")

# Function to print ticket details

def printTicket(seat\_number):

seat\_number -= 1 # Adjust index

if seat\_number < 0 or seat\_number >= MAX\_SEATS:

print("Invalid seat number")

return

if train[seat\_number].is\_booked:

print("\nTicket Details:")

print(f"Name: {train[seat\_number].name}")

print(f"Age: {train[seat\_number].age}")

print(f"Source: {train[seat\_number].source}")

print(f"Destination: {train[seat\_number].destination}")

print(f"Seat Number: {train[seat\_number].seat\_number}")

else:

print("Seat is not booked")

def main():

initializeSeats()

choice = 0

while choice != 5:

print("\nTrain Booking System")

print("1. Display available seats")

print("2. Book a seat")

print("3. Cancel a seat booking")

print("4. Print ticket")

print("5. Exit")

try:

choice = int(input("Enter your choice: "))

except ValueError:

print("Invalid input! Please enter a number between 1 and 5.")

continue

if choice == 1:

displayAvailableSeats()

elif choice == 2:

bookSeat()

elif choice == 3:

cancelSeat()

elif choice == 4:

try:

seat\_number = int(input("Enter seat number to print ticket: "))

printTicket(seat\_number)

except ValueError:

print("Invalid input! Please enter a valid seat number.")

elif choice == 5:

print("Exiting... Thank you for using the system!")

else:

print("Invalid choice! Please enter a number between 1 and 5.")

if \_\_name\_\_ == "\_\_main\_\_":

main()