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- 1.** You are developing a Railway Ticket Booking System for a small town railway station. The station serves as a transportation hub for commuters traveling to nearby cities and towns. The system aims to simplify the ticket booking process for passengers and streamline the management of train schedules and bookings.

SAMPLE INPUT:

Welcome to the Railway Ticket Booking System!

Menu:

1. Add Train
2. Book Ticket
3. Cancel Ticket
4. View Booked Tickets
5. View Available Seats
6. Exit

SAMPLE OUTPUT:

Menu:

1. Add Train
2. Book Ticket
3. Cancel Ticket
4. View Booked Tickets
5. View Available Seats
6. Exit

Enter your choice: 1

Enter train ID: 221

Enter train name: panda

Enter total number of seats: 2

Train added successfully.

Menu:

1. Add Train
2. Book Ticket
3. Cancel Ticket
4. View Booked Tickets

5. View Available Seats
6. Exit
Enter your choice: 2
Enter train ID: 221
Enter passenger name: panda
Ticket booked successfully.

Menu:
1. Add Train
2. Book Ticket
3. Cancel Ticket
4. View Booked Tickets
5. View Available Seats
6. Exit
Enter your choice: 4
Booked Tickets:
Train ID: 221, Passengers: panda

Source Code:

```
trains = {}  
booked_tickets = {}  
  
def add_train():  
    tid = int(input("Enter train ID: "))  
    name = input("Enter train name: ")  
    seats = int(input("Enter total number of seats: "))  
    trains[tid] = {"name": name, "seats": seats, "available_seats": seats}  
    print("Train added successfully.")  
  
def book_ticket():  
    tid = int(input("Enter train ID: "))  
    if tid not in trains:  
        print("Train ID not found.")  
        return  
    if trains[tid]["available_seats"] == 0:  
        print("No available seats on this train.")  
        return  
    passenger = input("Enter passenger name: ")  
    booked_tickets.setdefault(tid, []).append(passenger)
```

```

trains[tid]["available_seats"] -= 1
print("Ticket booked successfully.")

def cancel_ticket():
    tid = int(input("Enter train ID: "))
    if tid not in trains or tid not in booked_tickets:
        print("Train ID not found or no tickets booked for this train.")
        return
    passenger = input("Enter passenger name: ")
    if passenger not in booked_tickets[tid]:
        print("Passenger name not found.")
        return
    booked_tickets[tid].remove(passenger)
    trains[tid]["available_seats"] += 1
    print("Ticket cancelled successfully.")

def view_booked_tickets():
    if booked_tickets:
        print("Booked Tickets:")
        for tid, passengers in booked_tickets.items():
            print(f"Train ID: {tid}, Passengers: {' , '.join(passengers)}")
    else:
        print("No tickets booked yet.")

def view_available_seats():
    tid = int(input("Enter train ID: "))
    if tid not in trains:
        print("Train ID not found.")
        return
    print(f"Available seats for Train {tid} ({trains[tid]['name']}): {trains[tid]['available_seats']}")

def main():
    print("Welcome to the Railway Ticket Booking System!")

    while True:
        print("\nMenu:")
        print("1. Add Train")
        print("2. Book Ticket")
        print("3. Cancel Ticket")
        print("4. View Booked Tickets")

```

```

print("5. View Available Seats")
print("6. Exit")

choice = input("Enter your choice: ")

if choice == "1":
    add_train()
elif choice == "2":
    book_ticket()
elif choice == "3":
    cancel_ticket()
elif choice == "4":
    view_booked_tickets()
elif choice == "5":
    view_available_seats()
elif choice == "6":
    print("Thank you for using the Railway Ticket Booking System!")
    break
else:
    print("Invalid choice. Please enter a number from 1 to 6.")

if __name__ == "__main__":
    main()

```

- 2.** You are tasked with developing a simple Quiz Marks Calculation System for a small educational institution. This system aims to assist teachers in calculating the average marks of students across three quizzes. It will provide a quick and convenient way to compute the average marks, facilitating the assessment process.

SAMPLE INPUT:

Welcome to the Quiz Marks Calculator!

Enter Quiz 1 mark: 14

Enter Quiz 2 mark: 10

Enter Quiz 3 mark: 5

SAMPLE OUTPUT:

The average marks for three quizzes is: 9.666666666666666

Source Code:

```
print("Welcome to the Quiz Marks Calculator!")
```

```
quiz1_marks = int(input("Enter Quiz 1 mark: "))
```

```
quiz2_marks = int(input("Enter Quiz 2 mark: "))
```

```
quiz3_marks = int(input("Enter Quiz 3 mark: "))
```

```
average_marks = (quiz1_marks + quiz2_marks +  
quiz3_marks) / 3
```

```
print(f"The average marks for three quizzes is:  
{average_marks}")
```