Design a Train Ticket Booking System

Consider a scenario where passengers need to book train tickets for a one-way journey or a return journey. Design a Python program using basic functions to implement a Train Ticket Booking System. The system should allow users to perform the following tasks:

1. Book One-Way Ticket:
   - Passengers should be able to select the source and destination stations.
   - Display available trains between the selected stations.
   - Allow passengers to choose a train, enter the date of the journey, and select the coach type (Sleeper/3AC/2AC/1AC). Prices will vary according to the coach type.
   - Display the passenger's name, train details, journey date, coach type, PNR, and ticket price.
2. Get Trip Info:
   - Passengers should be able to retrieve information about their booked trip using the PNR number.
   - Display the train details, source, and destination of the booked trip.
3. Book Return Journey:
   - If a passenger has booked a one-way ticket, provide an option to book a return journey.
   - Automatically swap the source and destination stations for the return journey.
   - Display available trains for the return journey.
   - Allow passengers to choose a return train, enter the return date, and select the coach type.
   - Generate a return ticket with a new PNR number.
4. Exit:
   - Allow users to exit the program.

Requirements:

- Use functions to organize the code logically.
- Ensure proper error handling for invalid inputs.
- Include sample data for at least four trains with different routes and coach prices.
- Write a Python program that fulfills the requirements mentioned above. Include comments to explain the logic and structure of your code. Test your program with various scenarios to ensure its correctness.