Import java.util.ArrayList;

Import java.util.Scanner;

Class Bus {

Int busId;

String destination;

Int totalSeats;

Int availableSeats;

Bus(int busId, String destination, int totalSeats) {

This.busId = busId;

This.destination = destination;

This.totalSeats = totalSeats;

This.availableSeats = totalSeats;

}

}

Class Booking {

Int busId;

String passengerName;

Int seatCount;

Booking(int busId, String passengerName, int seatCount) {

This.busId = busId;

This.passengerName = passengerName;

This.seatCount = seatCount;

}

}

Public class BusTicketBookingSystem {

Private static ArrayList<Bus> busList = new ArrayList<>();

Private static ArrayList<Booking> bookingList = new ArrayList<>();

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Adding buses

busList.add(new Bus(1, “Mbabane”, 40));

busList.add(new Bus(2, “Manzini”, 30));

busList.add(new Bus(3, “Piggs Peak”, 50));

while (true) {

System.out.println(“\n1. Book Ticket”);

System.out.println(“2. Display Booked Tickets”);

System.out.println(“3. Exit”);

System.out.print(“Enter your choice: “);

Int choice = scanner.nextInt();

Switch (choice) {

Case 1:

bookTicket(scanner);

break;

case 2:

displayBookedTickets();

break;

case 3:

System.out.println(“Exiting...”);

Return;

Default:

System.out.println(“Invalid choice. Please try again.”);

}

}

}

Private static void bookTicket(Scanner scanner) {

System.out.print(“Enter Bus ID: “);

Int busId = scanner.nextInt();

Bus bus = findBusById(busId);

If (bus == null) {

System.out.println(“Bus not found. Please enter a valid Bus ID.”);

Return;

}

System.out.print(“Enter Passenger Name: “);

String passengerName = scanner.next();

System.out.print(“Enter number of seats to book: “);

Int seatCount = scanner.nextInt();

If (bus.availableSeats < seatCount) {

System.out.println(“Not enough seats available. Please try booking fewer seats.”);

Return;

}

Bus.availableSeats -= seatCount;

bookingList.add(new Booking(busId, passengerName, seatCount));

System.out.println(“Ticket booked successfully!”);

}

Private static Bus findBusById(int busId) {

For (Bus bus : busList) {

If (bus.busId == busId) {

Return bus;

}

}

Return null;

}

Private static void displayBookedTickets() {

If (bookingList.isEmpty()) {

System.out.println(“No tickets booked yet.”);

Return;

}

System.out.println(“\nBooked Tickets:”);

For (Booking booking : bookingList) {

Bus bus = findBusById(booking.busId);

System.out.printf(“Bus ID: %d, Destination: %s, Passenger: %s, Seats: %d%n”,

Booking.busId, bus.destination, booking.passengerName, booking.seatCount);

}

}

}