Problem Description:

A car branch need to have a bus ticket reservation system. The bus ticket reservation system should contain the following data:

The car branch manage a lot of agents. Each agent has: agent id, address, agent name

A agent can have many employees. Each employee has: employee id, name, address, phone number, identity number, salary, email, birth. Each employee is provided a account ( user name and password ). Each employee has the difference position and power.

The information of position group has: position id, type. There are several types:travel planner,travel supervisor, driver, ticket seller, service guide, security guard, porter

Each position group has separately privileges. The information of privileges group has: privilege id, name.

The agent manage passengers. Each passenger has: passenger id, name, phone number, address, identity number, gender, email.

To easy to mange and filter the address of stations in the general local area, there is the information of places: place id, name

Each passenger can choose a pickup station and drop-off station. Each station has: station id,place id, detail address, name, capacity, parked bus number.

The bus of the branch has: bus id, registration number, model, capacity.

Routes involve to the passenger journey has: route id, start bus station id , end bus station id, distance

Each trip is set up by travel planner has: trip id, driver id, bus id, route id, departure time, duration, number of booked seat, direction.

The agent distribute ticket to the passenger. Each ticket has: ticket id, trip id, passenger id, fare, type, seat number.

The agent manage the booking transaction. Each booking transaction has: transaction id, ticket id, passenger id, employee id, booking time.

Each employee can take on more than 1 position.

A passenger can booking more than 1 ticket.

A trip can have more than 1 driver.

A route is bi-directional. Determine the direction of a route base on the direction attribute of the trip.