Case Study

You are given two tables: buses, and passengers, with the following structure:

```
create table buses (
    id integer primary key,
    origin varchar(30) not null,
    destination varchar(30) not null,
    time varchar(30) not null,
    unique (origin, destination, time)
);
create table passengers (
    id integer primary key,
    origin varchar(30) not null,
    destination varchar(30) not null,
    time varchar not null
);
```

Each row of table buses contains information about a single bus's origin(*origin*), destination (*destination*) and time of departure (*time*). Each row of table passengers describes a single passenger and contains information about the station they're traveling from (*origin*), the station they're traveling to (*destination*) and the time they will arrive at the departure station (*time*).

Passengers will board the earliest possible bus that travels directly to their desired destination. Passengers can still board a bus if it departs in the same minute that they arrive at the station. All passengers who are still at the station at 23:59 and don't board any of the 23:59 buses will leave the platform without boarding any bus.

You can assume that no two buses with the same origin and destination depart at the same time.

Write an

SQL query that, for each bus, returns the number of passengers boarding it. For each bus, you should provide its Id(*id*) and the number of passengers on board (*passengers_on_board*). Rows should be ordered by the *id* column (in ascending order).

Time is represented as a string in the format HH:MM

Examples:

1. Given tables:

buses:

id	origin	destination	time
10	Warsaw	Berlin	10.55
20	Berlin	Paris	06:20
21	Berlin	Paris	14:00
22	Berlin	Paris	21:40
30	Paris	Madrid	13:30

Passengers:

id	origin	destination	time
1	Paris	Madrid	13:30
2	Paris	Madrid	13:31
10	Warsaw	Paris	10:00
11	Warsaw	Berlin	22:31
40	Berlin	Paris	06:15
41	Berlin	Paris	06:50
42	Berlin	Paris	07:12
43	Berlin	Paris	12:03
44	Berlin	Paris	20:00

Your query should return:

id	Passengers_on_board
10	0
20	1
21	3
22	1
30	1

2. Given tables:

buses:

id	origin	destination	time
100	Munich	Rome	13:00
200	Munich	Rome	15:30
300	Munich	Rome	20:00

passengers:

id	origin	destination	time
1	Munich	Rome	10:01
2	Munich	Rome	11:30
3	Munich	Rome	11:30
4	Munich	Rome	12:03
5	Munich	Rome	13:00

Your query should return:

id	Passengers_on_board
100	5
200	0
300	0