SAMPLE QUERIES

1. For each employee class, list the employees belonging to that class.

Query:

```
select e.type, e.e_id, p.f_name, p.l_name, p.gender from employee e, person p
where p.p_id = e.e_id ORDER BY e.type
```

OUTPUT:

type ▲ 1	e_id	f_name	l_name	gender
Bus Driver	P017	Darbee	Ghost	Male
Bus Driver	P008	Aimee	Sackler	Female
Staff	P001	Cornelle	Ebbitt	Female
Staff	P003	Hastie	Peteri	Male
Staff	P014	Antonia	Slayford	Female
Ticket Collector	P019	Evyn	Heakins	Male
Ticket Collector	P016	Sharity	Shalloe	Female
Ticket Collector	P015	Ailina	Worg	Female
Ticket Collector	P013	Monro	Ashford	Male
Ticket Collector	P012	Gregoor	Shewon	Male
Ticket Collector	P007	Evan	Hartmann	Male
Ticket Collector	P006	Dannel	Highton	Male
Ticket Collector	P005	Kissie	Lasselle	Female
Ticket Collector	P004	Kincaid	Mussington	Male
Ticket Collector	P020	Eziechiele	Loud	Male

2. Find the names of employees who are also an A-Class Passenger.

```
SELECT p.p_id, p.f_name FROM employee e, person p, astar_passenger a where
e.e_id = a.p_id AND e.e_id = p.p_id
```

p_id	f_name
P001	Cornelle
P004	Kincaid
P005	Kissie
P007	Evan
P008	Aimee
P012	Gregoor
P013	Monro
P014	Antonia
P015	Ailina
P017	Darbee
P019	Evyn

3. Find the average number of bookings made by the top five A-Star Passengers.

```
select AVG(no_of_bookings) from ( SELECT * from view1_top_astarpassengers
LIMIT 5) as ct
```

AVG(no_of_bookings)
106.3333

4. Find the Bus ID and Route names of the bus that is booked the most.

```
SELECT b.bus_no, r.route_name, MAX(v.no_of_bookings) FROM view2_popular_bus
v, bus b, route r WHERE b.bus_no = v.bus_no AND r.route_id AND b.route_id
```

bus_no	route_name	MAX(v.no_of_bookings)
1003	Meadow Ridge	537

5. Find Bus ID that is cancelled more than 3 times in the past month.

```
select * from (SELECT s.bus_no, COUNT(s.bus_no) as counts FROM status s WHERE
s.date > DATE(CURRENT_DATE - INTERVAL 1 MONTH) AND s.status = 'cancelled'
GROUP BY s.bus_no) as ct WHERE ct.counts>30
```

bus_no	counts
1001	45
1002	32
1003	39
1004	51
1005	46
1007	49

6. Find the total number bookings for each bus in the system.

```
SELECT t.bus_id, COUNT(t.bus_id) FROM ticket t GROUP BY t.bus_id
```

bus_id	COUNT(t.bus_id)
1001	760
1002	746
1003	782
1004	774
1005	357
1006	384
1007	390
1008	392
1009	389
1010	406

7. Find the driver details who has driven every day of the past week.

```
select ct.e_id, p.f_name, p.l_name, p.p_address, p.gender, p.date_of_birth
FROM (SELECT d.e_id, COUNT(d.e_id) as counts FROM drives d WHERE d.date >
DATE(CURRENT_DATE - INTERVAL 7 DAY) GROUP BY d.e_id) as ct, person p WHERE
ct.counts = 7 AND ct.e_id = p.p_id;
```

e_id	f_name	l_name	p_address	gender	date_of_birth

8. Find the count of passengers who booked the most popular bus.

```
SELECT COUNT(DISTINCT(s.p_id)) FROM view2_popular_bus v, ticket t, sell s
WHERE s.ticket_id = t.ticket_id AND t.bus_id = v.bus_no
```

COUNT(DISTINCT(s.p_id))
20

9. List all the booking details issued after the most current employee was hired.

```
select t.date, t.ticket_id, t.bus_id, t.start_time, p.payment_id,
p.payment_method, p.payment_amount, s.e_id from (SELECT max(e.start_date) as
date FROM employee e) as dt, sell s, ticket t, payment p WHERE s.ticket_id =
t.ticket_id AND s.payment_id = p.payment_id AND t.date > dt.date
```

date	ticket_id	bus_id	start_time	payment_id	payment_method	payment_amount	e_id
2019-10-21	5190	1007	14:00:00	5190	cash	8.15	P001
2019-10-21	5191	1007	16:00:00	5191	card	2.11	P001
2019-10-21	5192	1009	12:00:00	5192	card	2.25	P003
2019-10-22	5193	1002	11:00:00	5193	cash	9.19	P014
2019-10-22	5194	1002	15:00:00	5194	cash	3.14	P001
2019-10-22	5195	1002	11:00:00	5195	cash	4.63	P001
2019-10-22	5196	1002	13:00:00	5196	cash	1.44	P014
2019-10-22	5197	1002	14:00:00	5197	card	4.64	P003
2019-10-22	5198	1002	12:00:00	5198	cash	1.12	P003
2019-10-23	5199	1005	15:00:00	5199	cash	8.39	P014
2019-10-23	5200	1010	12:00:00	5200	card	8.81	P003
2019-10-23	5201	1010	15:00:00	5201	cash	8.6	P001
2019-10-23	5202	1010	12:00:00	5202	card	1.51	P003
2019-10-23	5203	1005	15:00:00	5203	card	2.92	P003
2019-10-24	5204	1008	15:00:00	5204	card	7.15	P003
2019-10-24	5205	1008	13:00:00	5205	cash	3.91	P014
2019-10-24	5206	1006	11:00:00	5206	card	9.95	P003
2019-10-24	5207	1006	12:00:00	5207	cash	4.17	P003
2019-10-25	5208	1003	13:00:00	5208	cash	1.11	P001
2019-10-25	5209	1003	16:00:00	5209	card	4.32	P003
2019-10-25	5210	1003	15:00:00	5210	cash	1.15	P003
2019-10-25	5211	1003	13:00:00	5211	cash	2.48	P014
2019-10-25	5212	1003	16:00:00	5212	cash	9.05	P003
2019-10-25	5213	1003	14:00:00	5213	cash	6.98	P014
2019-10-25	5214	1003	14:00:00	5214	cash	9.45	P003

(Note: These are only first 25 records, total 191 records were generated in database)

10. List all the employees that have enrolled as A-Star Passengers within a month of being employed.

```
SELECT e.e_id, e.start_date, t.date_of_issue, t.card_id FROM employee e,
astar_passenger a, travelcard t WHERE e.e_id = a.p_id AND t.card_id =
a.card_id AND t.date_of_issue < DATE(e.start_date + INTERVAL 1 MONTH)
```

e_id	start_date	date_of_issue	card_id
P004	2019-10-20	2019-10-23	8
P013	2014-10-16	2014-11-01	15

11. Find the route with the highest number of bus stops.

```
SELECT route_id, COUNT(*) total FROM bus_stop GROUP BY route_id ORDER BY
COUNT(*) DESC LIMIT 1
```

route_id	total
3	9

12. Find the name of passengers who have been A-Star Passengers for over 5 years.

```
select e.e_id, p.f_name, p.l_name from employee e, astar_passenger a, person
p where e.e_id = a.p_id AND p.p_id = e.e_id AND e.start_date >
DATE(CURRENT_DATE - INTERVAL 5 YEAR)
```

e_id	f_name	l_name
P001	Cornelle	Ebbitt
P004	Kincaid	Mussington
P005	Kissie	Lasselle

13. Find the bookings made by the potential A-Star Passengers in the last year.

```
SELECT v.p_id, p.f_name, p.l_name, t.ticket_id, t.date, t.bus_id,
t.start_time FROM view4_top_employees v, person p, sell s, ticket t WHERE
v.p_id = s.p_id AND p.p_id = v.p_id AND t.ticket_id = s.ticket_id AND t.date
> DATE(CURRENT_DATE - INTERVAL 1 YEAR)
```

p_id	f_name	l_name	ticket_id	date	bus_id	start_time
P007	Evan	Hartmann	3557	2018-11-29	1006	11:00:00
P007	Evan	Hartmann	3564	2018-12-01	1004	14:00:00
P007	Evan	Hartmann	3569	2018-12-02	1001	16:00:00
P007	Evan	Hartmann	3603	2018-12-10	1007	12:00:00
P007	Evan	Hartmann	3614	2018-12-12	1010	16:00:00
P007	Evan	Hartmann	3616	2018-12-13	1008	12:00:00
P007	Evan	Hartmann	3622	2018-12-14	1003	15:00:00
P007	Evan	Hartmann	3633	2018-12-17	1009	11:00:00
P007	Evan	Hartmann	3650	2018-12-20	1008	14:00:00
P007	Evan	Hartmann	3651	2018-12-20	1008	14:00:00
P007	Evan	Hartmann	3681	2018-12-25	1002	14:00:00
P007	Evan	Hartmann	3695	2018-12-28	1003	16:00:00
P007	Evan	Hartmann	3698	2018-12-28	1003	12:00:00
P007	Evan	Hartmann	3712	2018-12-30	1001	14:00:00
P007	Evan	Hartmann	3720	2019-01-02	1005	11:00:00
P007	Evan	Hartmann	3750	2019-01-08	1002	14:00:00
P007	Evan	Hartmann	3755	2019-01-09	1010	13:00:00
P007	Evan	Hartmann	3762	2019-01-11	1003	11:00:00
P007	Evan	Hartmann	3775	2019-01-13	1001	15:00:00
P007	Evan	Hartmann	3857	2019-01-29	1002	14:00:00
P007	Evan	Hartmann	3869	2019-02-01	1003	12:00:00
P007	Evan	Hartmann	3889	2019-02-05	1002	14:00:00
P007	Evan	Hartmann	3905	2019-02-08	1003	11:00:00
P007	Evan	Hartmann	3917	2019-02-10	1001	15:00:00
P007	Evan	Hartmann	3950	2019-02-17	1001	15:00:00

(Note: These are only first 25 records, total 345 records were generated in database)