Assignment - SQL

1. Write a query to display the days which had more quantities sold on the current day than the next day.

```
select *
from
(select market_date,quantity as curr_qty,
lead(quantity) over (order by market_date) as next_day_qty
from `farmers_market.customer_purchases`) as t1
where t1.curr_qty > t1.next_day_qty
```

2. Write a query to find the number of days gap between each purchase of each customer

```
select customer_id,market_date as pur_date,
lag(market_date) over (partition by customer_id order by market_date) as prev_pur,
date_diff(market_date,lag(market_date) over (partition by customer_id order by market_date),day)
as days_gap
from `farmers_market.customer_purchases`
```

3. Write a query to find the duration between the first and last purchase of the Customer ID 4

```
select customer_id,
min(market_date) as first_pur,max(market_date) as last_pur,
date_diff(max(market_date),min(market_date),day) as duration
from `farmers_market.customer_purchases`
where customer_id=4
group by customer_id
```

4. Write a query to find the total count of Saturday's and Wednesday's of the market.

```
select format_date('%A',market_date) as day_name,
count(*) as total_count
from `farmers_market.market_date_info`
where lower(format_date('%A',market_date)) in ('wednesday','saturday')
group by day_name ;
```

Alternate way:- select market_day,count(*) as count
from `farmers_market.market_date_info`
where lower(market_day) in ('wednesday','saturday')
group by market_day ;

5. Write a Query list out the dates where customers bought more quantities or Increased their total amount spent in their next purchase.

```
select * from
(select customer_id,market_date,quantity as curr_qty,
lag(quantity) over (order by market_date) as prevs_day_qty,
quantity*cost_to_customer_per_qty as curr_total,
lag(quantity*cost_to_customer_per_qty) over (partition by customer_id order by market_date) as
prevs_day_total
from `farmers_market.customer_purchases`) as t1
where (t1.curr_qty>t1.prevs_day_qty) or (t1.curr_total > t1.prevs_day_total)
```