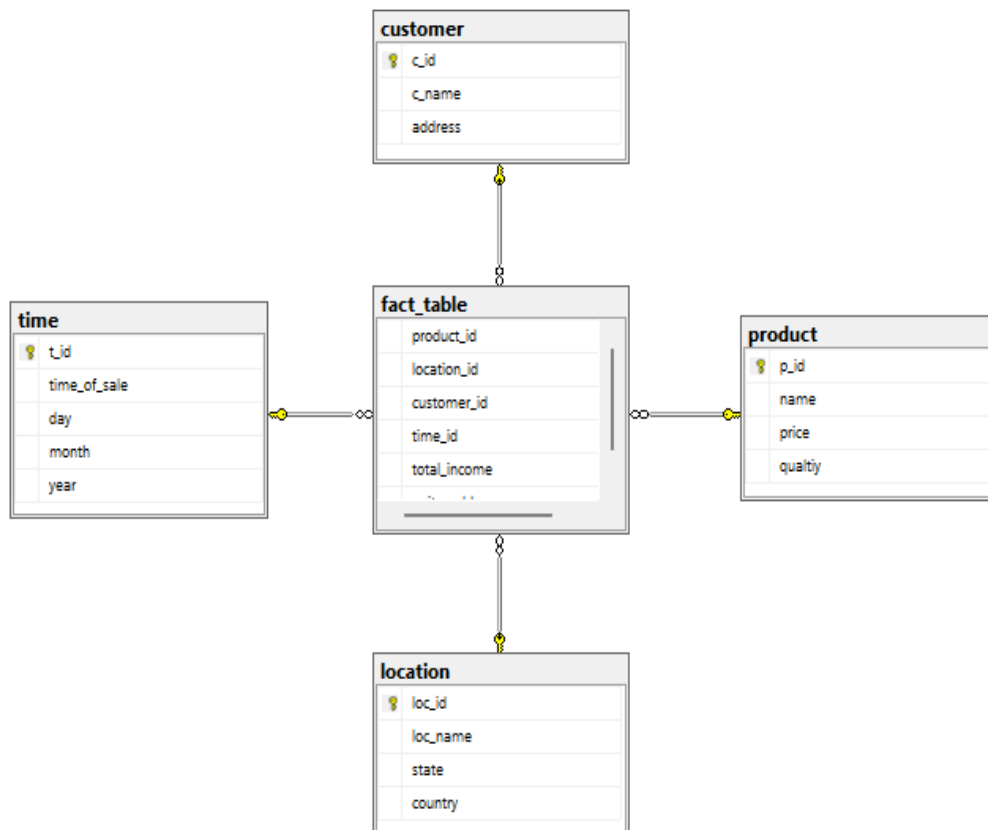
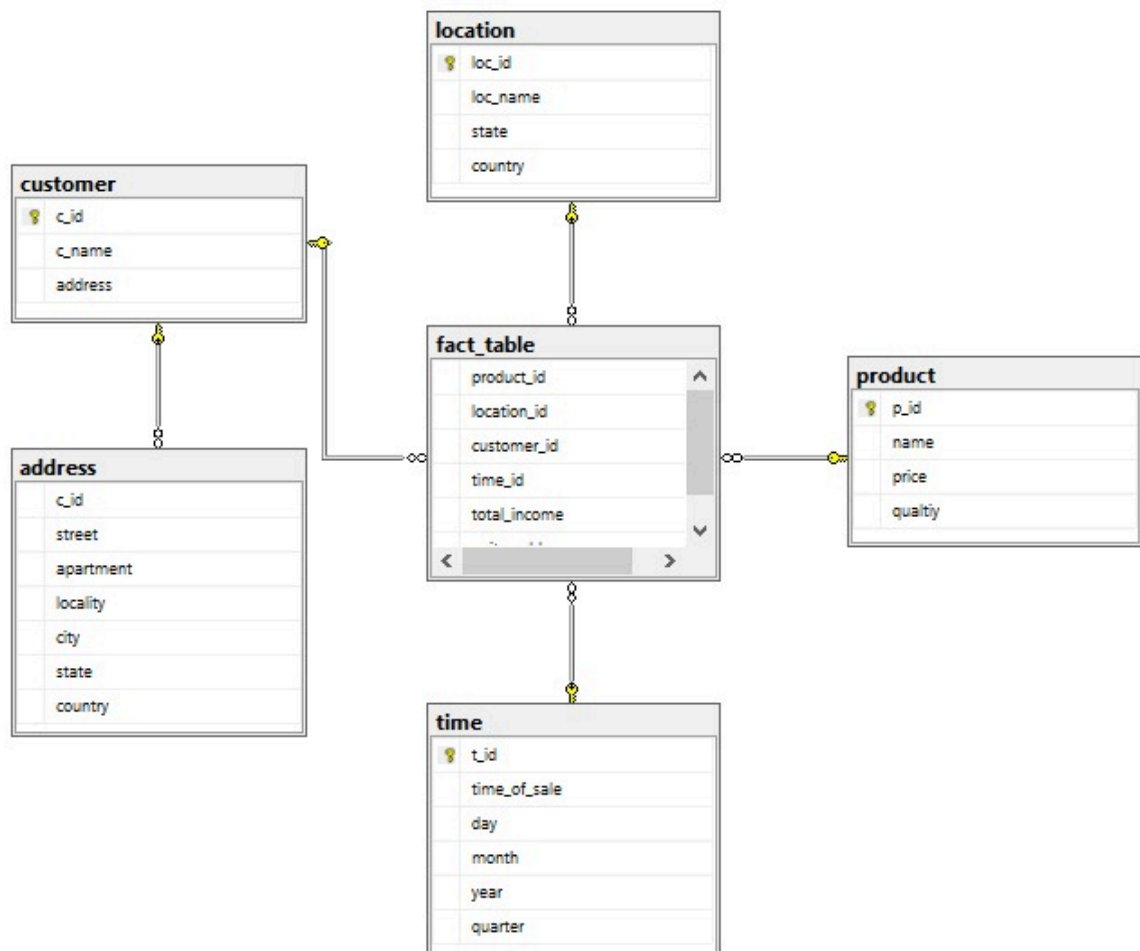


EXPERIMENT NO : 2

- Star Schema :



- Snow Flex Schema



EXPERIMENT NO : 3

/*slice operation*/

SELECT

l.loc_name,

p.name AS product_name,

f.total_income

FROM

fact_table f

JOIN product p ON f.product_id = p.p_id

JOIN location l ON f.location_id = l.loc_id

JOIN time t ON f.time_id = t.t_id

WHERE

t.quarter = 'Q3';

SELECT

l.loc_name,

p.name AS product_name,

t.quarter,

f.total_income

FROM

fact_table f

JOIN product p ON f.product_id = p.p_id

JOIN location l ON f.location_id = l.loc_id

JOIN time t ON f.time_id = t.t_id;

/*rollup operation*/

SELECT

l.country,

t.quarter,

SUM(f.total_income) AS total_income

FROM

fact_table f

JOIN location l ON f.location_id = l.loc_id

JOIN time t ON f.time_id = t.t_id

GROUP BY

l.country, t.quarter

/*drill down operation*/

SELECT

l.state,

t.month,

p.name,

SUM(f.units_sold) AS units_sold

FROM

fact_table f

JOIN location l ON f.location_id = l.loc_id

JOIN time t ON f.time_id = t.t_id

JOIN product p ON f.product_id = p.p_id

WHERE

l.country = 'USA'

GROUP BY

l.state, t.month, p.name;

| | p_id | name | price | qualtiy | |
|---|------|------------|-------|---------|--|
| 1 | 1 | Laptop | 1200 | 9 | |
| 2 | 2 | Smartphone | 800 | 8 | |
| 3 | 3 | Tablet | 500 | 7 | |
| 4 | 4 | Monitor | 300 | 8 | |
| 5 | 5 | Keyboard | 50 | 7 | |
| 6 | 6 | Mouse | 30 | 6 | |
| 7 | 7 | Printer | 200 | 7 | |
| 8 | 8 | Speaker | 100 | 6 | |

| | loc_id | loc_name | state | country | |
|---|--------|---------------|------------|---------|--|
| 1 | 1 | New York City | New York | USA | |
| 2 | 2 | Los Angeles | California | USA | |
| 3 | 3 | Houston | Texas | USA | |
| 4 | 4 | Miami | Florida | USA | |
| 5 | 5 | Seattle | Washin... | USA | |
| 6 | 6 | Las Vegas | Nevada | USA | |
| 7 | 7 | Chicago | Illinois | USA | |
| 8 | 8 | Columbus | Ohio | USA | |

| | c_id | c_name | address | |
|---|------|--------|--------------------|--|
| 1 | 1 | Alice | 123 Main St, NY | |
| 2 | 2 | Bob | 456 Maple Ave, CA | |
| 3 | 3 | Carol | 789 Elm St, TX | |
| 4 | 4 | David | 321 Oak Rd, FL | |
| 5 | 5 | Eve | 654 Pine St, WA | |
| 6 | 6 | Frank | 987 Birch St, NV | |
| 7 | 7 | Grace | 147 Cedar Ln, IL | |
| 8 | 8 | Hank | 258 Spruce Rd, ... | |

| | t_id | time_of_sale | day | month | year |
|---|------|------------------|-----|-------|------|
| 1 | 1 | 10:30:00.0000000 | 12 | 5 | 2023 |
| 2 | 2 | 14:15:00.0000000 | 13 | 5 | 2023 |
| 3 | 3 | 16:45:00.0000000 | 14 | 6 | 2023 |
| 4 | 4 | 09:20:00.0000000 | 15 | 7 | 2023 |
| 5 | 5 | 13:00:00.0000000 | 16 | 7 | 2023 |
| 6 | 6 | 11:50:00.0000000 | 17 | 8 | 2023 |
| 7 | 7 | 15:10:00.0000000 | 18 | 9 | 2023 |
| 8 | 8 | 08:05:00.0000000 | 19 | 9 | 2023 |