**Group - 3\_13**

**Tiles Industry Database Project**

**Queries (Select Queries)**

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**Q1] What is the average price of tiles in a particular region or country ?**

**Ans :** select city, avg(prod\_rate) as avg\_prod\_price

from branch natural join product natural join order\_detail

group by city;

**Q2] Which tile category have the highest selling in a given time period**

**from 2022-01-01 to 2022-04-30 ?**

**Ans :** select prod\_id, prod\_name, category, sum(prod\_qty) as total\_selling

from product natural join order\_detail natural join order\_table

where ord\_date >= '2022-01-01' and ord\_date <= '2022-04-30'

group by prod\_id

order by total\_selling desc limit 1;

**Q3] What type of tiles is the least popular among customers ?**

**Ans :** select category, sum(prod\_qty) as total\_selling

from product natural join order\_detail natural join order\_table

group by category

order by total\_selling asc limit 1;

**Q4] Which top 5 tile category are currently trending in the market ?**

**Ans :** select category, sum(prod\_qty) as total\_selling

from product natural join order\_detail natural join order\_table

where ord\_date >= '2022-04-01'

group by category

order by total\_selling desc limit 5;

**Q5] Which regions have the highest demand for Floor Tiles?**

**Ans :** select city, pincode, state, country, sum(prod\_qty) as total\_selling

from customer natural join order\_table natural join order\_detail

natural join product

where category = 'Floor Tiles'

group by city, pincode, state, country

order by total\_selling desc limit 1;

**Q6] Which tile are most popular for kitchen use ?**

**Ans :**  select prod\_id, prod\_name, category, sum(prod\_qty) as total\_selling

from order\_table natural join order\_detail natural join product

where purpose = 'Kitchen tile purchase'

group by prod\_id, prod\_name, category

order by total\_selling desc limit 1;

**Q7] What are the most common sizes of tiles used in commercial**

**flooring applications ?**

**Ans :** select prod\_id, prod\_name, category, size, sum(prod\_qty) as total\_selling

from order\_detail natural join product

where category = 'Floor Tile'

group by prod\_id, prod\_name, category, size

order by total\_selling desc;

**Q8] Which 5 tiles are most profitable ?**

**Ans :** select prod\_id, prod\_name, category, size, (avg(prod\_rate) - saleprice)

as profit\_per\_tile

from order\_detail natural join product

group by prod\_id, prod\_name, category, size, saleprice

having (avg(prod\_rate) > saleprice)

order by profit\_per\_tile desc limit 5;

**Q9] Which 3 Raw\_Materials are commonly used ?**

**Ans :** select rm\_name, count(prod\_id) as total\_prod\_made\_by

from Used\_Raw\_Material natural join Raw\_Material

group by rm\_name

order by count(prod\_id) desc limit 3;

**Q10] How much Raw\_Materials are purchased in last 3 month of year**

**2022 ?**

**Ans :** select rm\_name, sum(rm\_qty) as total\_rm\_qty

from raw\_mat\_bill natural join purchase\_detail natural join raw\_material

where rm\_bill\_date >= '2022-10-01'

group by rm\_name;

**Q11] From which supplier we purchase the maximum quantity of**

**Raw\_Material and which Raw\_Material ?**

**Ans :** select sup\_no, sup\_name, rm\_name, sum(rm\_qty) as total\_rm\_qty

from supplier natural join raw\_mat\_bill natural join purchase\_detail

natural join raw\_material

group by sup\_no, rm\_name

order by total\_rm\_qty desc limit 1;

**Q12] Write a query to find the total profit of each branch, including**

**the branch name and city.**

**Ans :** select branch\_no, branch\_name, city,

sum(prod\_rate\*prod\_qty - saleprice\*prod\_qty) as profit\_per\_branch

from order\_table natural join order\_detail natural join product

natural join branch

group by branch\_no, branch\_name, city

order by profit\_per\_branch desc;

**Q13] List all employees who have a salary greater than the average**

**salary of their department.**

**Ans :** select e.emp\_id, e.emp\_name, e.salary, ed.avg\_dep\_salary,

ed.dep\_name, ed.branch\_no

from employee as e natural join

(select dep\_no, dep\_name, branch\_no, avg(salary) as avg\_dep\_salary

from employee natural join department

group by dep\_no, dep\_name, branch\_no) as ed

where e.salary > ed.avg\_dep\_salary

**Q14] Retrieve the branch\_name and total number of employees working**

**In each branch and total employee cost of each branch.**

**Ans :** select b.branch\_no, b.branch\_name, count(e.emp\_id) as total\_employee,

sum(e.salary) as total\_employee\_cost

from employee as e join department as d on e.dep\_no=d.dep\_no join

branch as b on d.branch\_no=b.branch\_no

group by b.branch\_no

**Q15] How much stock of each Raw\_Material currently present in each**

**branch ? and also retrieve the id and name of Raw\_Material**

**Ans :** select bs.branch\_no, bs.branch\_name, rm.rm\_id,

rm.rm\_name, bs.total\_rm\_stock

from (select branch\_no, branch\_name, rm\_stc\_id, sum(rm\_stc\_qty)

as total\_rm\_stock

from branch natural join raw\_mat\_stock natural join raw\_material

group by branch\_no, rm\_stc\_id) as bs

join raw\_material as rm on bs.rm\_stc\_id=rm.rm\_id

order by bs.branch\_no asc

**Q16] For all customers retrieve the total amount(payment) that we get in**

**last year.**

**Ans :** select cus\_no, cus\_name, sum(prod\_rate\*prod\_qty) total\_payment

from customer natural join order\_table natural join order\_detail

where ord\_date >= '2022-01-01' and ord\_date <= '2022-12-31'

group by cus\_no

order by total\_payment desc;

**Q17] For each category how many products are currently available ?**

**Ans :** select category, count(prod\_stc\_id) as total\_avai\_type,

sum(prod\_stc\_qty) as total\_avai\_qty

from product p join prod\_stock ps on p.prod\_id=ps.prod\_stc\_id

group by category

order by total\_avai\_qty desc;

**Q18] In last year which top 10 days we have maximum selling ?**

**Ans :** select bill\_date, sum(prod\_qty\*prod\_rate) as total\_one\_day\_selling

from order\_bill natural join order\_table natural join order\_detail

group by bill\_date

order by total\_one\_day\_selling desc limit 10;

**Q19] Retrieve top 5 the city in which we have maximum customers.**

**Ans :** select city, count(cus\_no) as total\_cus

from customer

group by city

order by total\_cus desc limit 5;

**Q20] For each department in each brach find the employee who have**

**Maximum salary ?**

**Ans :** select distinct e.emp\_id, e.emp\_name, e.salary, e.dep\_no

from employee as e join

(select dep\_no, max(salary) as dep\_max\_salary

from employee natural join department

group by dep\_no) as dms on e.dep\_no=dms.dep\_no

where e.salary=dms.dep\_max\_salary

order by dep\_no asc;