**who is earning salary more than company avgarage salary?**

First find out what is company average salary?

SELECT avg(salary) from employees -- 6865.49

Then who earns more than that?

SELECT \* from employees where salary > 6865.49

or alternatively we can use subquery (equivilent to above)

SELECT \* from employees

WHERE salary > (SELECT avg(salary) from employees)

**Question: Who is earning more salary than employee Abel (last name)**

SELECT \* from employees

WHERE salary > ( select salary FROM employees where last\_name='Abel' and employee\_id=174)

IN

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select \* from employees where last\_name='Abel'

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choose and show the departments only having avarage salary greater than 5000

1)

SELECT \*

FROM (SELECT department\_id, avg(salary) as sal FROM Employees GROUP BY department\_id) avg\_salary

WHERE sal > 5000

can you reproduce same thing without subquery? only with Group by and HAVING

(this bring same result as above query)

2)

SELECT department\_id, avg(salary)\* as sal

FROM employees

GROUP BY department\_id

HAVING avg(sal) > 5000

3) by creating actual physical and permentant table called avgtable

CTAS - create table as subquery (select)

CREATE TABLE AVG\_SAL

AS

SELECT department\_id, avg(salary) as avgsal

FROM Employees GROUP BY department\_id

SELECT \* FROM AVG\_SAL

WHERE avgsal > 5000

Problem1: option3 -Physical table will consume disk space vs subquery do not consume disk

Problem2: option 3 is static.. may not include every records

4)

Solving same problem by creating VIEW (logical table- not physical table)

CREATE VIEW AVG\_SAL

AS

SELECT department\_id, avg(salary) as avgsal

FROM Employees

GROUP BY department\_id

SELECT \* FROM AVG\_SAL

WHERE avgsal > 5000

AVG\_SAL is not a physical table. Logical. so it will not consume disk

plus

VIEWS are dynamic meaning if main table gets new record(new department) or deleted one department it reflect right away

but nevertheless do not use Table or view option if there is possibility to use subquery

SELECT \* from EMPLOYEES

ORDER BY SALARY ASC

or

SELECT \* from employees

WHERE salary = (select min(salary) from employees)

SELECT \* from EMPLOYEES

ORDER BY SALARY DESC

or

SELECT \* from employees

WHERE salary = (select max(salary) from employees)