SQL AND POSTGRE SQL

NOTES

***CREATING A SUB-QUERY:***

* *Rather than writing two separate queries and sending them off to the server or database separately , we can instead combine these 2 separate queries down into one by using something called a sub-query.*
* *When we do a sub-query, we are essentially taking one of the queries and merging them all together in some way.*
* *Putting a set of parathesis that creates a sub-query inside of here, the second query will be executed first by the database.*
* *The very first one inside the select statement is producing a single value.*

*Eg . p1.name*

*(SELECT COUNT(name)FROM products)*

* *The two inside the forum and joint statements are producing a source of rows and finally.*

*Eg. FROM (SELECT \* FROM products) AS p1*

*JOIN(SELECT \* FROM products AS p2 on p1.id=p2.id*

* *Last one down here inside where clause is producing a single column.*

*Eg. WHERE p1.id IN (SELECT id FROM products);*

* *Understanding the shape of query is the key.*
* *SELECT \* FROM orders = Many rows , Many columns.*
* *SELECT id FROM orders= Many rows ,one columns.*
* *SELECT COUNT(\*) FROM ORDERS= One row , one column.*

***SUB-QUERIES INSIDE A FROM:***

* *Sub-query inside a frame is little flexible.*
* *Whenever we put a sub-query inside a clause , we can return a wide variety of structure data.*
* *The outer query is compatible with sub-query.*
* *In a from clause in general is specifying a set of rows that we want to use inside our query.*
* *Whenever we write sub-query inside a front clause , we are essentially saying that there is some kind of special source of data that we want to use in this particular case.*
* *Whenever we make an sub-query inside of a frame clause , we must apply an alias to the result of these sub-query.*

***SUB-QUERIES INTO A JOIN CLAUSE:***

* *Rules are that we put any sub-query into a join clause.*
* *There is sub-query as long as long it returns some data that is compatible on the clause.*

***SUB-QUERIES INSIDE A WHERE CLAUSE:***

* *Sub-query sometimes ends up being a little bit easier than understanding a joint expression.*
* *The in operator , you might recall , is going to check and see whether or not this value right here is present inside a list of values.*
* *The column or list of values will be provided to the where clause.*
* *Postgres = It is going to analyze the structure and put you together and try to really understand what you are trying.*
* *Postgres is going to understand what you ae compiling.*
* *Postgres might exactly execute the 2 different queries in exactly the same way.*

***A NEW WHERE OPERATOR:***

* *The way to solve this is by a max aggregate function on the price of all products.*
* *The single column right here is going to write some sub-query.*
* *We would integrate sub-query as a overall query.*

***CO-RELATED SUB-QUERIES:***

* *When the sub-query gets executed , it might itself fetch some rows and then execute aware for every single one.*
* *The co-related sub query means that we are referring some row from the outside query int the inner query or in the sub query.*

***SELECTING DISTINCT VALUES:***

* *Distinct is always going to be placed inside the select clause.*
* *Distinct is going to give you all the different values inside a column.*
* *This will give us a list of unique combinations of 2 columns.*
* *It is going to find unique combinations and department name together.*
* *It is functionally quite similar to group but group is little bit more powerful because it allows us to apply aggregate functions to interior groups.*

***THE GREATEST VALUE IN A LIST:***

* *The greatest function is going to take a look at the list of values and return the greatest or the largest value in the case would be 30.*

***LEAST VALUE IN A LIST:***

* *To find the least value in a list: SELECT LEAST (1,20,50.100)*

***CASE KEYWORD:***

* *The case keyword is used to compare values in the database tables.*

***POSTGRESS INSTALLATION:***

* *Click on the link postgresql.org/downloads/windows*
* *Take the URL and paste it on the chrome.*
* *Download the installer link.’*
* *Select the latest version to download.*
* *Download windows installer.*
* *Click on next . Finally enter a password.*
* *Go to finish and then start.*
* *PG admin is a database management platform.*
* *Click on server you will be prompted to enter a password.*

***DATA TYPES:***

* *Numbers.*
* *Currency.*
* *Binary.*
* *Date/Time*
* *Character.*
* *JSON.*
* *Geometric.*
* *Range.*
* *Arrays.*
* *Boolean.*
* *XML.*
* *UUID.*

***NUMERIC TYPE RULES:***

* *Mark the column as serial*
* *Mark the column as integer.*
* *Mark the column as numeric*
* *Mark the column as double precision.*

***NUMERIC TYPES:***

* *Numbers without any decimal points.*
* *No decimal point , auto increment.*
* *Number with decimal points.*

***CHARACTER TYPES:***

* *CHAR*
* *VARCHAR*
* *VARCHAR(40)*
* *TEXT*

***BOOLEAN DATA TYPES:***

* *True , yes , on ,1, t, y = true*
* *False , no ,off ,0 , f , n =true.*
* *Null= NULL.*