# 1. What is RDBMS?

# ANS: Relational Database management system. These are Large databases and have Large volume of data to handle. Stores the data in tabular form. (Table Format).There can or cannot be relation between 2 or more tables. Handles large volume of data. Must use SQL in every RDBMS

# 2. What are the examples of RDBMS?

# ANS: Oracle- Versions---10g/11g/12c-----10g/11g/12c---------system Oracle10g/11g/12c------Database Backend Oracle SQL developer—Database Front End

# 2. Microsoft SQL Server---SQl Server 3.DB2 4.Sybase 5.MySQL 6.postgres

# Categories of SQL command

1. DQL (DATA QUERY LANGUAGE)

2. DDL (DATA DEFINATION LANGUAGE)

3. DML (DATA MANIPULATION LANGUAGE)

4. DCL (DATA CONTROL LANGUAGE)

**3. What are the Database Tester Roles and Responsibilities?**

# ANS: Table structure validation--Validate table name as per SRS document. -- Validate total columns as per SRS.- - Validate each column name from table as per SRS. - -Validate the sequence of column -- Validate data type of each column -- Validate data type size/length of each column. They will check the impact of front end application on backend. Constraint testing .Null Validation

# 4. What Can SQL do?

# ANS:

# SQL can execute queries against a database.

# SQL can retrieve data from a database.

# SQL can insert records in a database.

# SQL can update records in a database.

# SQL can delete records from a database.

# SQL can create new databases.

# SQL can create new tables in a database.

# SQL can create stored procedures in a database.

# SQL can create views in a database.

# SQL can set permissions on tables, procedures, and views.

# 5. What are the various Sequel server data types?

# 

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# 

# 5. what are the rules to create database in the sequel server?

# ANS: Rules to create a new database

# We must follow the following rules for creating a new database:

# The name of a new database should be unique within a particular server instance.

# Each database should have a maximum of 128 characters.

# The CREATE DATABASE command should be executed in auto-commit mode.

# 7. How to create database?

# ANS: create database Testing16

# 8. How to go to a particular database?

# ANS: use Testing16

# 9.How to create table?

# 

# create table student(Student\_ID int,Student\_Name varchar(50),Student\_Clas varchar(50),Student\_Subject Varchar(50), Student\_contact Varchar(50),Student\_Email varchar(50))

# 10.How to display all the data bases in SQL server?

# ANS: select \* from sys.sysdatabases (sql server)

**SELECT \* FROM pg\_databse; (posrgres SQL)**

# 11.How to display table info?

# ANS: We have to use sp\_help command to display table info.

# Sp\_help TESTING15DEMO

# 12. How to display table data?

# select \* from TESTING15DEMO (this will display All data/rows/records from table)

# 13. How to display particular columns from table?

# ANS: select eid,ename,esal from testing15demo;

# 14. HOW TO DISPLAY FULL TABLE AND A PARTICULAR COLUMN?

# ANS: select olympic\_data.\*, Athlete,Age,Country from olympic\_data

# SQL Clauses:

# Where, group by , having, order by

# 15.What is clause?

# ANS: different types of clauses

# Clause is used for filtering purpose

# Types of clauses

# 1. Where --Comparison operator. Arithmetic, logical

# 2. Having - Min(),MAX(),SUM(),AVG() COUNT()

# 3. group by -

# Where (Conditional clause): It applies filter on table rows based on specific conditions.

# select \* from testing15demo;

# If you to display the rows from table testing15demo whose eid is 102, then we can use where clause as select \* from testing15demo where eid=102

# 16. How to Update multiple column values from table?

# ANS: update olympic\_data set Age=36 where Athlete='Michael Phelps'

# 17. How to update all salaries from table?

# ANS: update testing15demo set esal = 95000;

# 18. How can we use Delete Command?

# ANS: It will delete the data from table with or without condition.

# delete from testing15demo where eid=112;

# delete from olympic\_data where Year in (2007,2008)

# delete from testing15demo; --This will delete all the data from table

# 19. How to identify null values from your table?

# ANS: select \* from olympic\_data where age is null

# 20. How to delete null values rows from your table?

# ANS:delete from testing15demo where emob is null;

# 21. How to update null values rows from your table?

# update testing15demo set ename='Abhishek' where ename is null;

# 22. How to create a stored procedure in SQL server?

# ANS: create procedure dodo as (select Athlete,Age,[Total Medals] from olympic\_data where [Total medals] < 5)

**CREATE PROCEDURE insert\_data(a integer, b integer)**

**LANGUAGE SQL**

**AS $$**

**INSERT INTO students VALUES (a);**

**INSERT INTO students VALUES (b);**

**$$;(PostgreSQL)**

# To execute this procedure, we have to use

# Exec dodo (Here dodo is procedure name)

**CALL insert\_data(1,2);(PostgreSQL)**

# 22. How to add, subtract , multiply and divide data from columns or column in a table?

# ANS: select ([Gold Medals] + [Silver Medals]) as total from olympic\_data

# select ([Gold Medals] \*[Silver Medals]) as total from olympic\_data

# select ([Gold Medals] /[Silver Medals]) as total from olympic\_data

# The data types varchar and varchar are incompatible in the subtract operator.so data type must be int or decimal.

# 23.How can we use comparison operator?

**ANS:**

**select \* from employee11 where esal = 66000**

# select \* from employee11 where esal < 50000

# select \* from employee11 where esal <= 66000

# select \* from employee11 where esal > 90000

# select \* from employee11 where esal >= 66000

# select \* from employee11 where esal != 66000

# 24.How can we use Between Operator?

# Ans: It displays the possible range of values from column. It applies on Numeric and date values.

# select \* from employee12 where esal between 50000 and 80000;

# 25.How can we use Not Between operator?

**ANS: It applies on Numeric and date values.**

**select \* from Employee where MaritalStatus != 'M'—select all employees who are married**

# 26.How can we use IN operator?

# It displays the particular set of values from column. It applies on Numeric, alphabetical and date values.

# select \* from employee12 where esal in(50000,80000,53000);

# 27.How can we do Concatenation in SQL?

# ANS: ---||---

# It combines the values of 2 columns.

# select Firstname||Lastname from cust\_info; (sql developer)

# select (Firstname|| '\_ '|| Lastname) from cust\_info(if we want space between them) (sql developer)(PostgreSQL)

# select CONCAT([Gold Medals],'+',[Silver Medals],'+',[Bronze Medals],'=',[Total Medals]) as total from olympic\_data (sql server)

# 28.How to concat firstname and lastname from table?

# select (firstname || ' ' || lastname) as Fullname from emp (sql developer)

# select concat(firstname,’ ‘ ,lastname) as Fullname from emp (sql server)

# 29.How can we use Like Operator?

# ANS: It is used for pattern/String search. It is case sensitive.

# There are 2 wild card keys.

# %---unknown length of string

# \_ ---- One Unknown character.

# 30.HOW TO display the rows whose ename starts with R?

# ANS: select \* from employee\_info2 where ename like 'R%';

# select \* from employee\_info2 where ename like 'Electrical%';--Real time

# 31.How to display the rows whose ename ends with 'h'?

# ANS: select \* from employee\_info2 where ename like '%h

# 32.How to display the rows whose ename's second char starts with 'a'?

# ----- \_a% '\_\_j%' \_\_\_e%

# select \* from employee\_info2 where ename like '\_a%'

# 33.How to display the rows whose ename's second last char is 'y'?

# ANS: --- '%y\_'

# select \* from employee\_info2 where ename like '%y\_'

# 34.How to display data which starts with a and ends with v?\

# ANS: select Athlete from olympic\_data where Athlete like 'a%v'

# 35.How to display exactly 5 char string from ename column?

# ANS: select \* from employee\_info2 where ename like '\_\_\_\_\_';

# 36.What are the SQL Constraints?

# ANS: Applying some rules while data insertion by user.

# Primary Key

# it does not accept duplicate and null values in respective column.

# each record will be uniquely identified.

# each table has only one primary key constraint.

# accept unique and not null values.

# combination of unique and not null constraints.

# Unique

# It does not accept duplicate value but accepts null values.

# Unique constraints can be applied more than 1 times in a table.

# It will accepts any no of null values.

# create table Testing15\_info1 (cid number(7),cname varchar2(20),cmob varchar2(14) unique,cbill

# number(5), ccity varchar2(20));

# Not null

# It does not accept nulls value but accepts duplicates.

# It can be applied on more than 1 column on any table.

# create table Testing15\_info2 (cid number(7),cname varchar2(20) not null ,cmob varchar2(14) ,cbill

# number(5), ccity varchar2(20));

# Check

# It validates the given condition before data insertion by user. It accepts duplicate and null

# Values until condition is satisfied

# It can be applied on more than 1 column on any table.

# create table Testing15\_info3 (cid number(7),cname varchar2(20) ,cmob varchar2(14),cbill number(5)

# check (cbill > 500), ccity varchar2(20));

# Default

# It applies default value to assigned column.

# create table Testing15\_info4 (cid number(7),cname varchar2(20) ,cmob varchar2(14),cbill number(5),

# ccity varchar2(20) default 'Unknown');

# All Constraint Testing

# create table Testing15\_info6 (cid number(8) primary key,cname varchar2(35) not null ,cmob

# varchar2(14) unique,cbill number(5) check (cbill>200),

# ccity varchar2(30) default 'Unspecified');

# 37. What Do u know about aggregate functions?

# ANS:max,min,avg,sum,count

# select min(esal) from employee\_info2

# select max(esal)from employee\_info2

# select avg(esal)from employee\_info2

# select sum(esal)from employee\_info2

# select count(eid) from employee\_info2

# select count(\*) from employee\_info2----It will display count of total no of table records/rows

# 38. How to display unique records from particular column?

# ANS: It will display unique records from particular column.

# It’s not an aggregate function.

# select distinct(edept) from employee11;

# 39.How to display count of unique records?

# select count (distinct(edept)) from employee11;

# 40. Which are the Case Manipulation/scalar Character Manipulation functions?

# ANS: lower length upper substr initcap

# 41.Do you know scalar functions?

# Me--- Amit, I havent heard abt this terminology. Please little bit elaborate on this so i can recall if i have Worked on this or not.

# Amit- Yes Yusuf. these are the case related functions.

# Me- okay got it. In our organization we call them as Case Manipulation functions.

# select lower(ename) from employee11

# select ename,upper(ename) from employee11

# select ename,initcap(ename) from employee11

# select upper('Vrushali') from dual

# Length

# select ename, length (ename) from employee11 (sql developer)

# select length ('Vrushali') from dual;(sql developer)(PostgreSQL)

# select FirstName, len(FirstName) from Customer(sql server)

# select len(‘jaaan’)(sql server)

# 42.What do you know about Dual table?

# ANS: It is pseudo table/virtual table/system generated table. For sql developer

# But in sql server there is no need of dual table

# 43.Please elaborate the Substr----Substring .

# ANS: It displays the specific characters from string.

# substr(column\_name,x,y)(sql developer)

# substring(column\_name,x,y)(sql server)

# substr(string\_name,x,y)

# x-- Starting position of char where substring starts.

# y---length of substring from that staring char

# 1 2 3 4 5 6 7 8 9

# S a n g h a r s h

# 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

# S a n g h a r s h R a j d e v

# select substring('Sangharshrajdev',10,6) from dual

# select substr('Sangharshrajdev',10) from dual;

# select substr('Sangharshrajdev',-3,2) from dual;

# 44.What are the Date Functions used in SQL?

# ANS: add\_months ,months\_between,next\_day,last\_day,sysdate,systimestamp

# 

# 

# select employee12.\*,add\_months(edoj,3) from employee12(sql developer)

# select BirthDate,DATEADD(MONTH,1,BirthDate) from Customer(sql server)

# select BirthDate,DATEADD(YEAR,1,BirthDate) from Customer(sql server)

# select BirthDate,DATEADD(DAY,1,BirthDate) from Customer(sql server)

# select add\_months('05-jan-2020',3) from dual(sql developer)

# select months\_between(edoj,edor) from employee12(sql developer)

# sql server

# select employee12.\*,months\_between(sysdate,edoj) from employee12 where eid=11(sql developer)

# select employee12.\*,next\_day(edoj,'Tue') from employee12(sql developer)

# select next\_day('26-May-2021','Tue') from dual(sql developer)

# select last\_day(edoj) from employee12(sql developer)

# select last\_day('08-jan-2021') from dual(sql developer)

# select sysdate from dual; (sql developer)

# select systimestamp from dual; (sql developer)

# 45.What is Where clause in SQL?

# ANS: It filters the rows from table based on specific conditions and display/delete/update the records.

# select \* from employee11 where edept='hr';

# 46. What is Group by used in SQL?

# ANS: It divides the multiple rows into identical groups.

# We can use only group by column or aggregate fun column (with any column from table) in select Statement.

# Or both group by column and aggregate fun column (with any column from table).

# select edept from employee11 group by edept

# select count(\*) from employee11 group by edept

# select edept,eid from employee11 group by edept---It will not run the query

# select ename,count(edept) from employee11 group by edept-----It will not run the query

# 47.How to Display department wise highest salary?

# ANS: select edept, max(esal) from employee11 group by edept

# 48.How to Display department wise total salary?

# ANS: select edept,sum(esal) from employee11 group by edept

# 49.How to Display department wise average salary?

# ANS: select edept,avg(esal) from employee11 group by edept

# 50.How to Display department wise minimum salary?

# ANS: select edept,min(esal) from employee11 group by edept

# 51.How to Display average salary and sum of salary?

# ANS: select edept,avg(esal),sum(esal) ,max (esal)from employee11 group by edept

# 52.How to display product wise highest sales amount?

# ANS: select pname,max(Sales\_amount) from product group by pname; -----Right ans

# 53.How do we use Having Clause in SQL?

# ANS: It applies filter on results which are generated by group by clause using specific aggregate functions.

# select edept ,count(edept) from employee11 group by edept having count (edept) > 1

# 54.How to display duplicate records?-------vvvvimp----Asked in 95% interviews

# ANS: select edept,count(\*) from employee11 group by edept having count(\*) > 1

# Ans2

# select edept,count(edept) from employee11

# group by edept

# having count(edept) > 1

# 55.How do we use Order by clause in SQL?

# ANS: Sorting the records in asc or desc order.

# select \* from employee11 order by esal desc;

# select \* from employee11 order by esal asc;

# select \* from employee11 order by esal desc nulls last;

# select \* from employee11 order by esal asc nulls first;

# By default sequence of order by clause is ASCENDING.

# 56.What is the Difference between where and having clause?

# ANS: WHERE clause applies filters on table rows based on specified condition

# HAVING clause applies filter on results which are generated by group by clause using specific aggregate functions.

# We can use where clause with or without group by.

# We cannot use having clause without group by.

# We use where clause before group by

# We use having clause after group by

# We cannot use aggregate function in where clause.

# We must have to use aggregate functions in having clause to apply filters on group by results.

# 57.What is Execution Order of any query?

# ANS: From>>Where>>Group by>> having>>Order by

# 58.What are the uses of Drop Truncate Alter Rename command?

# Drop--- Drop is DDL statement command.

# It will delete table structure and table data.

# (After Select Statement)-- User will not find particular table when he apply drop command on that table. i. e Rollback is not possible.

# We can’t use where clause in drop command

# drop table emp11

# Truncate-- It DDL statement command.

# It will delete only table data and keep table structure as it is.

# (After Select Statement)-- User will find particular table with its structure but it will not display table data. I .e Rollback is not possible

# we can’t use where clause in truncate command

# truncate table customer\_info11

# Rename--- We can change table or column name using this command.

# rename emp17 to emp170

# Alter--It DDL statement command.

# It deals with table structure.

# Rollback is not possible.

# 59.How to add 1 new column to existing table?

# ANS: alter table demo6 add (esal number(7));(oracle)

# ALTER TABLE table\_name  ADD column\_name data\_type column\_constraints;  (sequel server)(PostgreSQL)

# 60.How to add multiple columns to existing table?

# ANS: alter table demo6 add (edept varchar2(20),emob varchar2(15));

# 61.How to drop 1 column from existing table?

# alter table demo6 drop (emob);(sql developer)

# alter table customer drop column esal (sql server)(PostgreSQL)

# 62.How to drop multiple columns from existing table?

# ANS: alter table demo6 drop (emob,esal); (sql developer)

# alter table demo6 drop column (emob,esal); (sql developer)

# 63.How to rename a column?

# alter table demo6 rename column ename to empname; (sql developer)(PostgreSQL)

# SP\_RENAME '[Table Name].[Old Column Name]', '[New Column Name]', (sql server)

# exec sp\_rename 'customer.EmailAddress','Emailaddress','column'; (sql server)

# 64..How to add constraint to the column?

# ALTER TABLE table\_name

# ADD CONSTRAINT [constraint\_name] PRIMARY KEY ([column\_name]) (sql developer)

# ALTER TABLE table\_name MODIFY COLUMN column\_name datatype;(sql server)

# 65.How to delete constraint from a column?

# ALTER TABLE table\_name DROP CONSTRAINT [constraint\_name]

# 66.What are the Foreign Key/Referential constraint /key Mapping?

# ANS: It maintains the relation between 2 tables Primary key of one/Parent table acts as foreign key of another/child table.

# Parent Table(Primary key) and Child Table(Foreign key)

# create table customer\_orders15 (cid number(6) primary key,cname varchar2(15), ccity varchar2(20));

# select \* from customer\_orders15;

# select \* from customer\_invoice15;

# create table Customer\_Invoice15 (oid number(6) , oname varchar2(15) ,billamount varchar2(20) ,custid

# number(7) references customer\_orders15 (cid) )

# 67.How do you explain Subquery-------Query within query?

# ANS: There are 2 parts in sub query.

# Inner Query 2. Outer Query

# Execution Process-- First it will execute inner query and then will execute outer query.

# And while executing outer query, output of inner query will be used as input for outer query

# 68.How to use ROW\_NUMBER() command?

# ANS: The following statement displays the person's detail and adds a sequential integer number to each row by using the ROW\_NUMBER():

# SELECT \*, ROW\_NUMBER()

# OVER (ORDER BY price) AS row\_num

# FROM Persons;

# 69. How to Find out all employee details with its highest salary?

# ANS: select \* from employee11 where esal = (select max(esal) from employee11)

# select \* from employee11 where esal in (select max(esal) from employee11)

# 70. How to Find out all employee details with its lowest salary?

# ANS: select \* from employee11 where esal in (select min(esal) from employee11)

# 71. How to display Second max salary -------VVIMP with respective to interview----asked in almost all Organisation

# ANS: select max(esal) from employee11 where esal < (select max (esal) from employee11);

# \*\*\*Secoond way to find 2nd max sal

# select max(esal) from employee11 where esal not in (select max(esal) from employee11)

# 72.How to display Second min salary ?-------VVIMP with respective to interview----asked in almost all Organisation

# ANS: select min(esal) from employee11 where esal > (select min(esal) from employee11)

# Second max salary with all details

# select \* from employee11 where esal in (select max (esal) from employee11 where esal not in (select max (esal) from employee11) )

# Second min salary with all details

# select \* from employee11 where esal in (select min(esal) from employee11 where esal not in (select min(esal) from employee11))

# 73.What are the Pseudo Columns?\*\*\*----Virtual columns of table

# Rank(),Dense\_rank(),Rownum,RowidQ.

# 74.Could you please tell me the Difference between Rank and Dense\_Rank?

# ANS: Rank()------

# select employee11.\*, rank() over (order by esal desc) as Ranking from employee11

# select employee11.\*, rank() over (order by esal asc) as Ranking from employee11

# Dense\_Rank()-----

# select employee11.\*, dense\_rank() over (order by esal desc) as Ranking from employee11

# select employee11.\*, dense\_rank() over (order by esal desc nulls last ) as Ranking from employee11

# select employee11.\*, dense\_rank() over (order by esal asc ) as Ranking from employee11

# 75.How to find Highest Salary with emp details?

# select \* from ( select employee11.\*,dense\_rank() over ( order by esal desc ) as ranking from employee11) where ranking=1

# 76.How to find 2nd max sal whit emp details?

# ANS: select \* from (select employee11.\*, dense\_rank() over (order by esal desc) as ranking from employee11 ) where ranking=2

# 77.How to find 64th max sal?

# ANS: select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from employee11) where ranking=64

# 78.How to find Top 5 highest sal?

# ANS: select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from employee11) where ranking<=5

# select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from employee11) where ranking between 1 and 5

# 79.How to find salaries between 3rd max to 6th max?

# ANS: select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from employee11) where ranking between 3 and 6

# 80.How to find salaries not between 3rd max to 6th max?

# ANS: select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from employee11) where ranking not between 3 and 6

# 81.How to find perticular salaries 3rd max,6th max,8th max?

# ANS: select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from employee11) where ranking in( 3,6,8)

# 82.How to find perticular salaries which are not 3rd max,6th max,8th max?

# ANS: select \* from ( select employee11.\*,dense\_rank() over (order by esal desc) as ranking from

# employee11) where ranking not in( 3,6,8)

# 83.How to find Lowest Salary?

# ANS: select \* from ( select employee11.\*,dense\_rank() over ( order by esal ) as ranking from employee11) where ranking=1

# 84.Could you please explain Rownum?

# ANS: It will generate temporary sequnce number.

# select employee11.\*,rownum from employee11

# select employee11.\*,rownum from employee11 order by rownum desc

# select employee11.\*,rownum from employee11 order by rownum asc

# 85.How to display first/top 5 records from table.?

# ANS: select employee11.\*,rownum from employee11 where rownum <=15

SELECT film\_id,title FROM film ORDER BY title FETCH FIRST 10 ROW ONLY;(PostgreSQL)

To fetch first 10 rows after first 5 rows in PostgreSQL,we have to use

SELECT film\_id,title FROM film ORDER BY title

OFFSET 5 ROWS

FETCH FIRST 10 ROW ONLY;

**86.Could you please explain Rowid?**

# ANS: It is a Unique id for each row from table and it is permanent.

# select employee11.\*,rowid from employee11

# select employee11.\*,rownum,rowid from employee11 order by esal desc

# select employee12.\*,rownum,rowid from employee12

# 87.How to Display last inserted row from table?---Interview Question

# ANS:select max(rowid) from employee11

# select employee11.\* ,rowid from employee11 where rowid in (select max(rowid) from employee11)(sql developer)

# AAADV2AABAAAKYyAA

# SQL Server does not track the order of inserted rows, so there is no reliable way to get that information given your current table structure. Even if employee\_id is an IDENTITY column, it is not 100% foolproof to rely on that for order of insertion (since you can fill gaps and even create duplicate ID values using SET IDENTITY\_INSERT ON). If employee\_id is an IDENTITY column *and* you are sure that rows aren't manually inserted out of order, you should be able to use this variation of your query to select the data in sequence, newest first:

# Display last inserted row with respect to each department from table/ deptwise latest row---never asked in any interview

# select employee11.\*,rowid from employee11 where rowid in (select max(rowid) from employee11 group by edept)(sql developer)

# 88.Do we need FK to join the two tables?

# Ans---- NO

# 89. Can you explain Joins?

# Ans: It is used display tha data from multiple tables.

# Inner join

# It dispalys the matching records from both side table based on specific condition.

# select \* from custinfo1 inner join invoiceinfo1 on custinfo1.cid=invoiceinfo1.custid

# select cname,ccity,oname,billamount from custinfo1 inner join invoiceinfo1 on custinfo1.cid=invoiceinfo1.custid on--- Its clause which is use to apply specific condition during joining the tables.

# Outer Join----

# Left outer join/ Left Join-------It displays matching records from 2 tables and remaining records from left side table.

# For those remaining records it will display null values to right side columns.

# select \* from custinfo1 left outer join invoiceinfo1 on custinfo1.cid=invoiceinfo1.custid

# Right outer join-----it displays matching records from 2 tables and remaining records from right side table.

# For those remaining records it will display null values to left side columns

# select \* from custinfo1 right outer join invoiceinfo1 on custinfo1.cid=invoiceinfo1.custid

# Full outer join----it displays matching records from 2 tables and remaining records from both sides Table.

# For those remaining records it will display null values to left and right side columns.

# select \* from custinfo1 full outer join invoiceinfo1 on custinfo1.cid=invoiceinfo1.custid

# 90. How can you join more than to 5 tables ?

# Yes Amit. Ofcourse.

# Can you provide HLD?

# Amit--- No No Yusuf. you can take ur own eg.

# select \* from custinfo1 inner join invoiceinfo1 on custinfo1.cid=invoiceinfo1.custid inner join Location\_infoon custinfo1.cid=Location\_info.cid

# 91. How to delete duplicate records

**DELETE FROM employee11 where rowid not in( select max(rowid) from employee11 group by edpt)**

# 92. How to copy one table to another table?\*\*

# ANS: create table t15demo as select \* from Testing13Sql---Oracle

# select \* into t15demo from Testing13Sql; ----SQl Server

**CREATE TABLE copy\_students AS TABLE students;(PostgreSQL)**

# 93. How to copy only table strutcure one table to another table?\*\*

# ANS: create table t15demo3 as select \* from Testing13Sql where 5=6 desc t14demo

# 94.How to Update employee salaries with 10%.?\*\*

# ANS: update employee12 set esal= esal\*1.10

# update employee11 set esal= esal+(esal\*10/100)

# 95.How to display unique records from periculatr column?---Distinct/Rowid/Union

ANS: select distinct(ename) from employee

# 96. How to display top 10 records?

**select top(10) \* from info1**

# select \* from emp where rownum <=10;

# 99. How to dispaly table info?---Describe

# 101.How to make to make decimal values to nearest integer?

# AMS:select ROUND([gross sales],0) from info1-- to make decimal values to nearest integer

# 102.How to reverse the order of a string?

# ANS: select REVERSE(segment) from info1--to reverse the order of the string

# 103.How to replace a particular word in a column with another word?

# ANS: select REPLACE(Segment,'Midmarket','Market')from info1--to replace a string from column with another string

# 105.How to find number of bytes used to represent a expression?

# ANS:select segment,DATALENGTH(segment) as datalength from info1--This function returns the number of bytes used to reprsent the expression.

**106. Write a query in SQL to list the employees who joined in the month having second char is 'A'?**

**ANS:** **SELECT \* FROM employees WHERE MONTH(hiredate) LIKE '\_A%';**

**107.** **6. Write a query in SQL to produce the output of employees as follows Employee JONAS(manager)?**

**ANS:** **SELECT CONCAT(e\_name,'(',e\_job,')') as 'name&job' FROM employees.**

**108.** **Write a SQL query to count the number of characters except the spaces for each employee name. Return employee name length.**

**ANS:** **SELECT LEN(TRIM(e\_name)) FROM employees**

**109.** **Write a SQL query to find those employees who joined before 1991.**

**ANS:** **SELECT \* FROM employees WHERE year(hiredate)<'1991'**

**110.** **Write a SQL query to find those employees whose salary exceeds 3000 after giving 25% increment. Return complete information about the employees**

**ANS:** **SELECT \* FROM employees WHERE (1.25\*e\_salary)>3000**

**111.** **Write a SQL query to find those employees who joined in the month January. Return complete information about the employees.**

**ANS:** **SELECT \* FROM employees WHERE MONTH(hiredate)=1**

**112.** **Write a SQL query to find those employees whose experience is more than 27 years. Return complete information about the employees**

**ANS:** **SELECT \* FROM employees WHERE DATEDIFF(year,hiredate,GETDATE())>27**

**113. How to assign foreign key in a table?**

**ANS:** **CREATE TABLE Orders(O\_ID int NOT NULL,ORDER\_NO int NOT NULL,C\_ID int,PRIMARY KEY (O\_ID),FOREIGN KEY (C\_ID) REFERENCES Customers(C\_ID))**

**114.** **Does SQL support programming language features ?**

**ANS:** **It is true that SQL is a language but it does not support programming as it is not a programming language, it is a command language. We do not have conditional statements in SQL like for loops or if.else, we only have commands which we can use to query, update , delete etc. data in the database. SQL allows us to manipulate data in a database.**

**115.What are the differences between SQL and PL/SQL?**

**ANS:** **SQL PL/SQL**

**SQL is a query execution or commanding language PL/SQL is a complete programming language**

**SQL is data oriented language PL/SQL is a procedural language**

**SQL is very declarative in nature PL/SQL has a procedural nature**

**It is used for manipulating data It is used for creating applications**

**We can execute one statement at a time in SQL We can execute block of statements in PL/SQL**

**SQL tells database, what to do? PL/SQL tells database how to do**

**We can embed SQL in PL/SQL We can not embed PL/SQL in SQL**

**116.** **What is the difference between CHAR and VARCHAR2 datatype in SQL?**

**ANS:** **Both of these datatypes are used for characters but varchar2 is used for character strings of variable length whereas char is used for character strings of fixed length. For example, if we specify the type as char(5) then we will not be allowed to store string of any other length in this variable but if we specify the type of this variable as varchar2(5) then we will be allowed to store strings of variable length, we can store a string of length 3 or 4 or 2 in this variable.**

**117.** **What do you mean by foreign key?**

**ANSA Foreign key is a field which can uniquely identify each row in another table. And this constraint is used to specify a field as Foreign key. That is, this field points to primary key of another table. This usually creates a kind of link between the two tables.**

**118.** **Delete duplicate data from table only first data remains constant.**

**ANS:** **DELETE M1**

**From managers M1, managers M2**

**Where M2.Name = M1.Name AND M1.Id>M2.Id;**

**119.How to list all the tables in PostgreSQL?**

**ANS:** **Syntax: \dt**

**What is the use of UPSERT keyword?**

**ANS:** **The UPSERT statement is a DBMS feature that allows a DML statement’s author to either insert a row or if the row already exists, UPDATE that existing row instead. That is why the action is known as UPSERT (simply a mix of Update and Insert).To achieve the functionality of UPSERT, PostgreSQL uses the INSERT ON CONFLICT statement.**

**INSERT INTO table\_name(column\_list) VALUES(value\_list)ON CONFLICT target action**

**EXAMPLE1:The below query is used to change the name of employee\_id 6 (if such an employee exists) from Y. Singh to Yuvraj Singh or insert the record if such an employee does not exist.**

**insert into employees(employee\_id,full\_name) values(6,'Yuvraj Singh') on conflict(employee\_id) do update set full\_name=EXCLUDED.full\_name;**

**EXAMPLE2:**

**The below query is used to insert an employee with employee id 18 with the name ‘W. Sundar’ and manager id ‘6’ (if no record exists) but do nothing, in case, such a record is already present in the table.**

**insert into employees(employee\_id,full\_name,manager\_id) values(18,'W. Sundar',6)on conflict (employee\_id) do nothing;**

**120.What is the use of COALESCE in PostgreSQL?**

**ANS:** **In**[**PostgreSQL**](https://www.geeksforgeeks.org/what-is-postgresql-introduction/)**, the COALESCE function returns the first non-null argument. It is generally used with the**[**SELECT**](https://www.geeksforgeeks.org/postgresql-select/)**statement to handle null values effectively.**

**Syntax: COALESCE (argument\_1, argument\_2, …);**

**The get the right price, we need to assume that if the discount is null, it is zero. Then we can use the COALESCE function as follows:**

# SELECT product, (price - COALESCE(discount, 0)) AS net\_price FROM items;