

- Define:
  - Primary Key:
 

Primary key is selected for unique identification of tuple from table which doesn't have duplicate values.
  - Foreign key:
 

Foreign key is used to establish connection between 2 tables and it is a primary key of another table
  - Candidate key
 

Combination of 1 or more attributes which is used to identify record/tuple uniquely.
  - Composite key
 

Set of more than 1 attributes which identifies tuple uniqueness.
  - Super key
 

Super key is a super set of candidate keys.
  - Key
 

It is an attribute which identifies record or tuple uniquely.
  - Alternate Key
 

Remaining candidate keys other than primary key.
  - Constraints
 

Constraints is a rule enforced on data being added into the tables.
- What is normalization? What are the forms of normalization?
 

Normalization is a database design technique that reduces data redundancy and ensures that data stored logically.
- Types of commands?
 

There are 5 types of commands: DDL (Data Definition Language)

DML (Data manipulation language)

DQL (Data Query Language)

DCL (Data Control Language)

TCL (Transition control language)
- Having clause
 

Having clause is same like where clause but the difference between having and where is having clause can also work with an aggregate function.
- What are Constraints in SQL? Explain each.
 

Constraints is a rule set on table to enforced data being added to the tables. There are few constraints like:

UNIQUE:

Ensures that all values in a column should be unique.

AUTO\_INCREMENT:

Auto\_increment is a constraint that automatically generate a unique number then a new record is inserted into a table.

NOT NULL:

Ensures that there are no null values in the column.

PRIMARY KEY:

A combination of not null and unique constraint and it is a key to identifies each row in the table uniquely.

DEFAULT:

Set a default value for a column if no value is specified.

LIMIT:

Fetch limited data from the tables or how many rows you want from the table.

- What is a Join? List its different types

Cross join:

Get all the records from both tables.

Inner join:

Get all the matching values from both the tables.

Left Outer join:

Get all values from left table and matching values from right table.

Right outer join:

Get all values from right table and matching values from the left table

Full Outer join:

Get all + matching values from both tables.

Self-Join:

Self-join is a regular join, but the table joined with itself

- What is a Self-Join?

Self-join is a regular join, but the table joined with itself

- What is a Cross-Join?

Get all the records from both tables.

- What to use when output of 2 queries has to be displayed as a single result?

UNION.

- Display the details of employee having highest salary.

Using sub-query:

```
Select* from employee where salary = (select max(salary)from emp);
```

Using limit clause:

```
select * from employee order by salary desc limit 1;
```

- Display the details of employee having second highest salary.

```
select * from employee order by salary desc limit 1,1;
```

- List the different types of relationships in SQL

One to one;

One to many;

Many to one;

Many to many;

- What is an Alias in SQL?

Aliases is the temporary name to table and columns.

- What are the TRUNCATE, DELETE and DROP statements?

Drop:

Drop is used to delete database, table along with data.

Delete:

Delete the selected data from the table using where clause.

Truncate:

Truncate deletes all the data from tables but not the table.

- What is the difference between DROP and TRUNCATE statements?

Drop is used to delete database as well as table along with the data.

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Truncate is used to delete all the data from the tables but not the table.

- What is the difference between DELETE and TRUNCATE statements?

Delete the selected data from the table using where clause.

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Truncate is used to delete all the data from the tables but not the table.

- What are Aggregate and Scalar functions?

Aggregate functions are used to do operations from the values of the column and a single value is returned.

And

A scalar function receives a single value for each argument and returns a single-value result.

- Tell me about Limit keyword

Limit keyword is used to get limited data rows/data from the table.

- Tell me about Distinct keyword

Get only unique values from the column without redundancy.