**Basic SQL concepts**

* **What is a Relational Database/RDBMS?**

How data is stored in a relational database?

What is a schema wrt to a relational database?

* **SQL commands**

DDL, DML, DCL, TCL, DQL what are commands under each of these category and what each of these commands acutally do?

* **Data Types**

String data types like VARCHAR, TEXT etc

Integer data types like INT, NUMBER etc

DATE

FLOAT/DECIMAL

BOOLEAN

Also check out IDENTITY column(Auto increment column)

* **Constraints**
  + Primary key
  + Foreign key
  + Check, not null, unique,default
* Normalization in SQL
* Operators
  + Airthematic operator
  + Logical operator
  + Comparison operator
  + Union,union all operator
* Case Statement
* Important SQL clause
  + Distinct clause
  + Order by clause
  + Limit/ top clause
* Inner join
  + How to fetch data from multiple tables.
* Practice problems
  + StrataScratch
  + Leetcode
  + DataLemur

**Intermediate SQL (data analyst, data scientist)**

* Group by and Having claue
* Aggregate functions
* Order of Execution
* Sub-Queries
* CTE table/ WITH clause
* All types of joins
* In-built functions
* Window functions
* Views
* Practice Problems
  + SQL case study from Data with Danny

**Advanced(Data engineer, ETL developer)**

* Recursive SQL queries
* PIVOT table/ CROSSTAB function
* Materialized views
* Stored procedures
* User defined functions

**SQL Developer/ DATAbase developers**

* Indexes
* Triggers
* Temporary tables
* Dynamic Execution of SQL statements
* PL/SQL concepts
  + Variables
  + Cursors
  + Collection types
  + Loop statements
  + If else statement
  + Exception handling
  + Packages
* Performance tuning
  + Explain plan
  + Table statistics
  + Table partitioning
  + DBMS\_Profiler
  + SQL trace and TKProf