SQL

Structured Query Language

What is SQL?

- It is a computer language aimed to store, manipulate, and retrieve data stored in relational databases

- In1974, a group in IBM developed the first prototype of a relational database

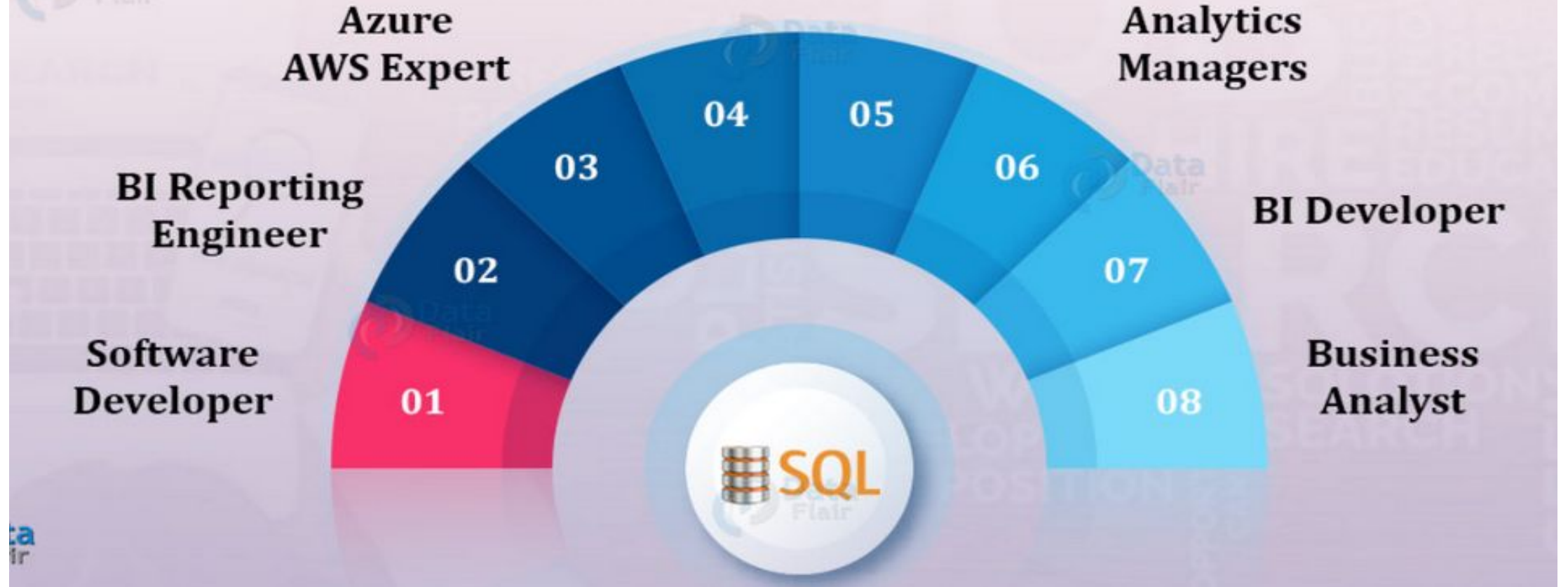- SQL is an ANSI (American National Standards Institute) standard

What Can SQL do?

- Execute queries against a database
- Retrieve data from a database
- Insert records in a database
- Update records in a database
- Delete records from a database
- Create new databases
- Create new tables in a database
- Create stored procedures in a database
- Create views in a database
- Set permissions on tables, procedures, and views

SQL is a Standard, but....

- Although SQL is an ANSI (American National Standards Institute) standard, there are many different versions of the SQL language.

- However, to be compliant with the ANSI standard, they all support at least the major commands (such as SELECT, UPDATE, DELETE, INSERT, WHERE) in a similar manner.

- **Note:** Most of the SQL database programs also have their own proprietary extensions in addition to the SQL standard!

Source: Data Flair

What is RDBMS?

- RDBMS stands for Relational Database Management System.

- RDBMS is the basis for SQL, and for all modern database systems like MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access.

- The data in RDBMS is stored in database objects called tables.

- A table is a collections of related data entries and it consists of columns and rows.

Overview of RDBMS

Data:

- Information that is been stored and used in the computer system is called as data

Data Base:

- Collection of meaningful data stored in an organized manner

Relations:

- ## One to one:

- In this a row in a Table A can have no more than one matching row In Table B

one to many:

this is the most common type of relationship. In this a row in a Table A can have many matching rows in Table B but row in table B will have only one matching row.

Many to Many:

- In this a row in a Table A can have many matching rows In Table B and vice versa

Data Bases

- Database is a collection of tables that contain data and other objects such as views, indexes, stored procedures and triggers

Data base Architecture

- The data in a database is organized into the logical components visible to users

- A database is also physically implemented as two are more files on disk.

- When using a database you need to work primarily with the logical components such as tables, views & stored procedures.

- Physical implementation of files are transparent

- Each instance of Sqlserver has 4 syste DB They are........

1 Master

2 TempDB

3 Model

4 Msdb

Master

- It records all of the system level information for sql server system

- It records all login accounts and all system config settings

- It records the all existed databases including the location of database files

Model

- It is used as the template for all databases created on system

- The model database must always exist on a server system

msdb

- It is used by sql server agents for scheduling alerts and jobs

tempdb

- It holds the temporary tables and temporary stored procedures

- It is recreated every time sqlserver started

- Temporary tables and stored procedures dropped automatically

User defined Databases

- The databases that are created by the user are called as User defined Data Bases

QUERIES?