SESSION WILL BE DIVIDED INTO

1. Understanding AUTO_INCREMENT
2. Understanding SQL thumb rule
3. Understanding SELECT statements
4. Understanding WHERE Clause
5. Starting with Operators

SECTION 1

Understanding Auto_increment

- What is AUTO_INCREMENT?
  - Automatically generates a unique number when a new record is inserted.
  - Usually used for **Primary Key** fields.

```
-- Create a database
CREATE DATABASE DemoDB;
USE DemoDB;

-- Create a table with AUTO_INCREMENT
CREATE TABLE Students (
   student_id INT AUTO_INCREMENT PRIMARY KEY,
   student_name VARCHAR(100),
   student_age INT
);
```

SECTION 1

Understanding Auto_increment

- AUTO_INCREMENT in Snowflake?
  - **A database object that generates unique numbers.**
  - **Used when you want custom control over ID generation (like AUTO_INCREMENT but more flexible).**

Method 1 -

```
-- Create a sequence
CREATE OR REPLACE SEQUENCE student_seq START = 1
INCREMENT = 1;

-- Create a table
CREATE OR REPLACE TABLE Students (
   student_id INT,
   student_name STRING,
   student_age INT
);

-- Insert data using the sequence
INSERT INTO Students
VALUES (student_seq.NEXTVAL, 'Amit', 20)
```

SECTION 1

Understanding Auto_increment

- AUTO_INCREMENT in Snowflake?
  - **A database object that generates unique numbers.**
  - **Used when you want custom control over ID generation (like AUTO_INCREMENT but more flexible).**

Method 2 -

```
-- Create a sequence
CREATE OR REPLACE SEQUENCE student_seq START = 1
INCREMENT = 1;

-- Use the sequence in CREATE TABLE
CREATE OR REPLACE TABLE Students (
   student_id INT DEFAULT student_seq.NEXTVAL,
   student_name STRING,
   student_age INT
);

-- Insert data without specifying student_id
INSERT INTO Students (student_name, student_age)
VALUES ('Ravi', 23), ('Anita', 24);
```

SECTION 2

Thumb Rule To Follow

- Thumb Rule to follow!

SECTION 3

Understanding Select Statements

- **Select Statement**
  - **The SELECT statement is used to retrieve data from one or more tables in a database.**
  - **It is the most commonly used SQL command**
  - **Basic Syntax:**
    - **SELECT column1, column2, ... column_N**
    - **FROM TABLE_NAME**
  - The SELECT statement is used to retrieve data from one or more tables in a database.
  - It is the most commonly used SQL command

  - We can also use Alias to rename the columns we are printing
    - SELECT student_name AS Name, city AS Location FROM Students;
  - One can use the *** keyword** to get all the columns