24/05/25 SQL: Structured Query language is a standard database that is used to create, maintain, destroy, update and retrieve data from relational databases. CMysQL, PostGreSQL Database: A database is a systematic collection of data which are used to store, retrieve and manipulate data efficiently efficiently. Key features: O organized Data Storage @ Efficient Access 3 security and Scalability (9) Data Integrity 3 Data Analytics 1 Data: core component representing actual information stored include numbers, text, images, ... etc. 3 Schema: it is the blueprint (or) structure of database it de fines how data is organized and includes details like tables, columns, data types. @ DBMS: software layer that enables interaction with DB. > Manages storages, retrieval and manipulation of data. (y) Queries (5) Users. Types of Databases: 1) Relational DB: contents are arranged as a collection of tables with rows and columns. Ex: MySQL, PostgresQL,— 2 Object Oriented Databases: uses object-based data model approach for storing data in DB System. Ex: Object OB.

3 Distributed DB: Made up of two (or) more files that spread across multiple locations us attra gove , stages & Ex: Google Spanner, Apaché Carbandra @ <u>Centralized</u> DB: Stores Data in a contralized system. 6 NO SOL DB: handle unstructured and semi-structured a MSERT, UPDATE, DELETE, LOCE, CAUSTOD Ex: Mongo DB, Dynamo (DB: ugas) 10 4000 atos 3 100 DBMS: DBMS is a software that interacts with Databases to manage data in an organized makiner. STABOS 1. accurately.

The fine the type of value a column can hold such as numbers,

text (or) Dates.

Different Datatypes in SQL:

O Numeric DataType: INT, BIGINT, DECIMAL, FLOAT.

Delaracter and String Datatype: Chan Various Tout 3 Date and Time: DATE, TIME, DATE TIME SO 111 3. DELIAME A DATABASE! 6 Bookan: BOOLFAN STABATACI SATABASE 1 Operators in SQL: SASATAG STUA C (Arithernalic: +, -, 1, *, 1). @ comparison 12) Lyish>= ABULA Subula aldo A DI LOGICAL FRANDY ORYMOT, JULY TOLL SAIL (9) Bikoise: E, 1, 1, 10, 4, 127 states as @ SQL commands: fundamental building blocks for communicating with a DBMS. used to interact with DB with some Operations,

(20) sylvoid number

O'DDE (Data Defined Language) que sint :30 Estaditions -> CREATE, DROP, ALTER, TRUNCATE, ORENAMEN 20000 @ DQL (Data Query Manguage) Words, somoge sipoop 193 @ correct of store and in a correctofice to \$132% 3 DMU CData Manipulation Language 2001 80 10204 3 > INSERT, UPDATE, DELETE, LOCK, CALLTON DCL C Data Control Language Jamonya, 20 ognom : 13 DEMS: DEMS is a software that interacts with THARP buses @ SQL CREATE Database besino pro no m otale sponom of Syntax: GREATE DATABASE database name control 1820

Example: CREATE DATABASE CAFE:

To verify: SHOW DATABASES: -> you will got the of this.

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Syntax: DROP DATABASE CAFE:

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Example: DROP DATABASE CAFE:

The DROP DATABASE CAFE:

O IF the DB exists -> CREATE DATABASE IF NOT ENSTS CAFE.

The DROP DATABASE: South of the state of the order o CHEROLOGI BOOLERY STAD CONTROL BOOLERY STAD CONTROL BOOLERY STAD CONTROL BOOLERY STAD CONTROL SOLL CONTROL SOLL CONTROL SOLL CONTROL C & RENAME A DATABASE! Syntax: ALTER DATABASE ALTER DATABASE () Arithmatic: +, -, 1, *, 1. SOL CREATE TABLE: A Tables Structure including Column names data types (and constraints like NOT NULL, PRIMARYCILLEY JAYRICIANS SYNTAX: CREATE TABLE Table-Main > , 6, 1, 1, 8:92 intil @ structured partial but a smooth to command 182 @ commands to command partially estimated by the command of the command columns adaptive (see). Column2 Datatype (size), column Dotatype (size)

CREATE STABLE SICUSTOMER (199) PLANT 9090 1820 1 Name VARCHAR (50), Phone int(10); 12180+ 318AT gosa : xptny2 city varchay (50) 310 AT deine b) joine ti what politique of those was tie Exampli-CUSTOM ER Name Phone City 273 31 318AT 9090 = it you want to Drop Temporary Tables in 134. DROP TENDORARY TABLE tomp-table. DELETE STATEMENT: @Inserting Data Into the Tables:-Syntax; DELETE FROM Table-name Example! INSERT INTO CUSTOMER (Name, Phone, City) VALUES (Preeth 1/4480 455:76387) Mandyali), output! customer : 3/3/4 (1903 39 J) (Krishnai , 602'584 69903 H) vi zag'). Name Phone = 170 citys - 1 = 17330 183

Preething 1804577638 Nandyal

Krishna 6025896990 Vizag

Mandyal

Mandyal

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Mandyal

Mandyal & CREATING TABLE FROM ANOTHER TABLE: Query: CREATE TABLE DIEW. Customer AS Syntax: SELECT Name, City (1) Renameng Hput: Name city and grimones (2)

Preethi Nandyal communication of minimary (3) Vizagement effet FURAT SITUA Krishna RENAME COLUMN OLD DAME TO (1) Adding New Column; ALTER TABLE toble-name ADD COLUMN NAME dotalippes

@ SQL DROP Table ? permanently deletes the table from the & Nome VARCHARCEON, Database. Syntax: DROP TABLE table-name; in smooth Example: DROP TABLE customers; - if you want to Drop the table if only it exists: DROP TABLE IF EXISTS Customers; -) if you want to Drop Temporary Tables in DB: DROP TEMPORARY TABLE temp-table; 1 DELETE STATEMENT: erting Data late the Tobles: Syntax: DELETE FROM Table - name WHERE Some 2 Ednation; OTAL THERE I January Example: "BELETES FROM" (new goafers") 236UAV (LOZINDHEBED Home & Krishodi) DELETING ALL RECORDS FROM TABLE: : tugwo DELETE * FROM CAFE ; monig | small ALTER COMMAND! Allows us to modify the structure of an existing table. Change column name - FISAT 9 - STOPAGEING COM deleting columns O CA constant the Total Column AS TOTAL COLUMN AS THE TRANSPORT TO THE TRANSPORT OF THE PROPERTY Syntax: 1) Renameng ALTER TABLE table name RENAME TO new table name. lands 1 Renaming column: lephach interior ALTER TABLE Table-hamenocil RENAME COLUMN old name To new columname. 3 Adding New Column; ALTER TABLE table-name ADD column name datatype;

Modifying column Datatype:

ALTER TABLE table_name

MODIFY COLUMN column_name new_datatype;

& SOL TRUNCATE COMMAND:

removes all the rows from the data but has the skeleton of the table.

Syntax: TRUNCATE TABLE table-name;

→ Difference between DROP command and Truncate

O Drop:

- → completely removes a table (or) DB from the DB.
 - -> can't be rolled back
 - -> Removes all constraints
 - -> slower compared to TRUNCATE

@ TRUNCATE!

- I he table.
 - -) faster operation.