SQL Server Completed task list

To learn all the SQL - Oriented technical concepts in the portal and coverd all the important topics.

Create database and table for demo

CREATE DATABASE demo;

CREATE TABLE Sample\_01(

id int NOT NULL,

user\_id int NOT NULL,

uesr\_name varchar(20) NOT NULL,

user\_password varchar(20),

mobile\_number int,

UNIQUE(user\_id),

PRIMARY KEY(id)

);

Practice query and covered important topics and Training Tasks

SELECT \* FROM demo

WHERE id= 1;

SELECT \* FROM demo

WHERE id = 1 AND city = 'selam';

--using when case

SELECT \* FROM signup\_info

ORDER BY (CASE

WHEN city IS NULL THEN country

ELSE country

END);

--student signup table

CREATE TABLE signup\_info(

id int IDENTITY(1,1),

student\_id int NOT NULL,

student\_name varchar(60),

postal\_code bigint,

city varchar(50),

country varchar(50),

PRIMARY KEY (student\_id)

);

--insert value into student

INSERT INTO signup\_info

(student\_id, student\_name, postal\_code, city, country)

VALUES (2,'Jhon', 7868, 'los vagas', 'UK'),

(3,'Tom', 6378, 'madagascar', 'africa'),

(4,'Bhuvi', 3456, 'pattaya', 'thailand'),

(5,'Jan', 23456, 'goa', 'india'),

(6,'carlson', 5432, 'mangolia', 'africa'),

(7,'floki', 0987, 'tanzania', 'new work');

INSERT INTO signup\_info

(student\_id, student\_name, postal\_code, city, country)

VALUES (8,'emmie', 9866, 'liverpool', 'UK'),

(9,'jhon snow', 123, 'ice lan', 'UK'),

(10,'Bhuvi', 876908, 'delhi', 'india');

-- view sighup table

SELECT \* FROM signup\_info;

--using where in query

SELECT \* FROM signup\_info

WHERE student\_id = 1 AND city = 'selam';

SELECT \* FROM signup\_info

WHERE student\_id = 1 OR student\_id = 3;

SELECT \* FROM signup\_info

WHERE student\_id = 1 AND (student\_name LIKE 't%' OR student\_name LIKE 'O%' );

--GROUP BY

SELECT COUNT(student\_id) AS student\_count, country FROM signup\_info

GROUP BY country;

--using when case

SELECT \* FROM signup\_info

ORDER BY (CASE

WHEN city IS NULL THEN country

ELSE country

END);

--joins

SELECT s.student\_name, s.country, l.username, l.passcode

FROM signup\_info as s

LEFT JOIN login\_info as l ON l.student\_id = s.student\_id

GROUP BY s.country;

--stored procedure

CREATE PROCEDURE select\_signup

AS

SELECT \* FROM signup\_info

GO;

EXEC select\_signup;

CREATE PROCEDURE findcountry

@country varchar(50)

AS

BEGIN

SELECT \* from signup\_info

WHERE country = @country

END

EXEC findcountry @country ='UK';

CREATE PROCEDURE find\_country\_city

@country varchar(50),

@city varchar(50)

AS

BEGIN

SELECT \* FROM signup\_info

WHERE country = @country AND city = @city

END

EXEC find\_country\_city @country ='UK', @city ='los vagas';

--SELECT

SELECT \* FROM signup\_info;

SELECT \* FROM login\_info;

-- JOINS

SELECT s.student\_name, l.email\_id FROM signup\_info AS s

LEFT JOIN login\_info as l ON l.student\_id = s.student\_id

--student login table

CREATE TABLE login\_info(

id int IDENTITY(1,1),

email\_id varchar(70),

username varchar(60),

passcode bigint,

student\_id int FOREIGN KEY REFERENCES signup\_info(student\_id)

);

-- view login table

SELECT \* FROM login\_info;

-- insert demo values

INSERT INTO login\_info(email\_id, username, passcode, student\_id)

VALUES('john.doe@example.com', 'johndoe', 'password123', 1),

('jane.smith@example.com', 'janesmith', 'mypassword456', 2),

('alice.johnson@example.com', 'alicejohnson', 'securepass789', 3),

('bob.brown@example.com', 'bobbrown', 'adminpass321', 4),

('carol.white@example.com', 'carolwhite', 'guestpass654', 5),

('david.green@example.com', 'davidgreen', 'greenpass987', 6),

('emma.watson@example.com', 'emmawatson', 'emma2024pass',7),

('frank.jones@example.com', 'frankjones', 'frankpass432', 8),

('grace.lee@example.com', 'gracelee', 'grace2024pass', 9),

('henry.martin@example.com', 'henrymartin', 'henrypass876',

10);

INSERT INTO login\_info(email\_id, username, passcode)

VALUES ('SD.martin@example.com', 'henrymartin', 'henrypass876');

--Alter table datatype

ALTER TABLE login\_info

ALTER COLUMN passcode VARCHAR(70);

--update value

UPDATE login\_info

SET username= 'tendulkar'

WHERE student\_id = 3;

--delete values

DELETE FROM login\_info

WHERE id= 13;

--find largest value

SELECT MAX(student\_id) FROM login\_info

WHERE student\_id < (SELECT MAX(student\_id) FROM login\_info);

SELECT \* FROM login\_info

ORDER BY student\_id DESC

OFFSET 1 ROW

FETCH NEXT 1 ROWS ONLY;

insert into student

values(3,3,'maths','qgwdbdkrh','9876558462');

ALTER TABLE student

MODIFY COLUMN mobile\_number VARCHAR(20);

ALTER TABLE student

ALTER COLUMN user\_id VARCHAR(20);

SELECT \* FROM student;

UPDATE student

SET mobile\_number = '6383120275'

WHERE id = 2;

SELECT \* FROM ProductDetails;

select \* from ProductDetails

order by price desc;

SELECT \* FROM ProductDetails

ORDER BY price DESC

OFFSET 1 ROWS

FETCH NEXT 1 ROW ONLY;

--Stored procedure

--find

SELECT \* FROM signup\_info;

CREATE PROCEDURE find\_country

@country varchar(100)

AS

BEGIN

SELECT \* FROM signup\_info

WHERE country = @country

END

EXEC find\_country @country = 'india';

--Stored procedure

--find

SELECT \* FROM signup\_info;

CREATE PROCEDURE find\_country

@country varchar(100)

AS

BEGIN

SELECT \* FROM signup\_info

WHERE country = @country

END

EXEC find\_country @country = 'india';

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--update

CREATE PROCEDURE up\_date\_city

(@city varchar(50),

@student\_id int)

AS

BEGIN

UPDATE signup\_info

SET city = @city

WHERE student\_id = @student\_id

END

EXEC update\_city @student\_id=2, @city = 'kerala';

--update student-name

CREATE PROCEDURE update\_name

@student\_id int,

@student\_name varchar(50)

AS

BEGIN

UPDATE signup\_info

SET student\_name = @student\_name

WHERE student\_id = @student\_id

END

EXEC update\_name @student\_name = Jack, @student\_id = 5;

--Insert

CREATE PROCEDURE insert\_row

(@student\_id int,

@student\_name varchar(60),

@postal\_code bigint,

@city varchar(50),

@country varchar(50)

)

AS

BEGIN

INSERT INTO signup\_info

VALUES(@student\_id, @student\_name, @postal\_code, @city, @country)

END

EXEC insert\_row @student\_id=11, @student\_name ='test\_1', @postal\_code =123, @city='madurai', @country = 'india';

--select query

SELECT \* FROM signup\_info;

-- delete query

CREATE PROCEDURE delete\_row

@student\_id int

AS

BEGIN

DELETE FROM signup\_info

WHERE student\_id = @student\_id

END

EXEC delete\_row @student\_id = 11;

--create index

CREATE INDEX idx\_studentname

ON signup\_info(student\_name);

--create uniq index

CREATE UNIQUE INDEX idx\_studentname1

ON signup\_info (student\_name);

--non-clusterd index

CREATE INDEX idx\_nonclus

ON signup\_info (student\_name, postal\_code);