SQL

Create table employee(

name varchar(20),

id int not null unique,

age int

);

Insert into employee values(‘alka’,1,23);

Insert into employee(name) values (‘mina’);

Primary Key

Id int primary key,

Foreign key

Create table department(

DpId int primary key,

dpname varchar(30),

id int ,

FOREIGN KEY(id) REFERENCES employee(id)

);

Insert into department values(101,'naina',2),

(102,'pinki',3);

delete from employee where id=2; this will delete the record from both table

select \* from department;

Update

update Test

set title='alka'

where title='Hello';

Update Alka

Set id = 20

where dpid%2=0;

select \* from Alka;

Create table Alka(

dpid int primary key,

dpname varchar(30),

id int

);

Insert into Alka values(101,'alka',2),

(103,'jina',4),

(102,'nidhi',3);

select \* from Alka;

Create table Pinki(

DpId int primary key,

dpname varchar(30),

id int

);

Insert into Pinki values(100,'naina',2),

(109,'pinki',4),

(107,'nidhi',3);

delete from Alka where id=2;

UPDATE Pinki

SET DpId='200'

WHERE DpId='107';

select \* from Pinki;

Check and Default

Create table final11(

id int,

name varchar(30)default'@',

age int check(age>18)

);

insert into final11 values(1,'jsdhsj',19);

insert into final11(age) values(22);

select \* from final11;

Auto Increment

Create table result11(

id int primary key AUTO\_INCREMENT,

name varchar(30)default'@',

age int check(age>18)

);

insert into result11 values(1,'jsdhsj',19);

insert into result11(age) values(22);

select \* from result11;

Alter

Alter table result11

Add feedback varchar(20)

after name;

ALTER TABLE result11

MODIFY name varchar(100)

Alter table result11

drop age;

alter table result11

change column name empname varchar(20);

select \* from result11;

alter table result11

rename pass;

select \* from pass;

Clause

AND , OR, NOT EQUAL TO

Select emp ,country, empname,salary,state from emp where state=’maharastra’ AND country=india;

Select emp ,country, empname,salary,state from emp where state=’maharastra’ OR country=india;

Select emp ,country, empname,salary,state from emp where country<>india;

Select emp ,country, empname,salary,state from emp where country IN(‘india’,’UK’,’USA’);

Select emp ,country, empname,salary,state from emp where country NOT IN(‘india’,’UK’,’USA’);

Order by

Select emp ,country, empname,salary,state from emp

where country = ‘india’

ORDER BY state desc;

Aggregate Function

Min,max,sum,avg,count,distinct

Select max(salary) AS max\_sal from emp ;

Select min(salary) AS min\_sal from emp ;

Select avg(salary) AS avg\_sal from emp ;

Select sum(salary) AS sum\_sal from emp ;

Select count(\*) AS totalrows from emp;

Select count(\*) AS totalrows from emp where state IS null;

Select count(\*) AS totalrows from emp where state IS NOT null;

Select name from emp;

Select distinct(name) from emp; it will count null value also as a unique

Select count(distinct(name))-1 AS unique from emp ; it will not count null value

Group by

Select ordernumber,SUM(quantityorder) AS totalqty

From emp

GROUP BY ordernumber

ORDER BY totalqty DESC

LIMIT 10;

Select ordernumber,MAX(quantityorder) AS MAXqty

From emp

GROUP BY MAXnumber

ORDER BY totalqty DESC

LIMIT 3,1; 4TH HIGHEST VALUE FROM THE TOP

LIMIT

Select ordernumber,MAX(quantityorder) AS MAXqty

From emp

GROUP BY MAXnumber

ORDER BY totalqty DESC

LIMIT 3,2; 4TH AND 5TH HIGHEST VALUE FROM THE TOP

HAVING

Select ordernumber,MAX(quantityorder) AS MAXqty

From emp

GROUP BY MAXnumber

HAVING MAXqty BETWEEN 10 AND 20;

LIKE

Select emp ,country, empname,salary,state from emp

where country LIKE ‘F%’; COUNTRY NAME F SHOULD BE COME IN FIRST

Select emp ,country, empname,salary,state from emp

where country LIKE ‘%S’; S SHOUD BE COME IN LAST

Select emp ,country, empname,salary,state from emp

where country LIKE ‘F%a’; start with F and end with a

Select emp ,country, empname,salary,state from emp

where country LIKE ‘%F%’; it will shows those value which have F pesent anywhere

Select emp ,country, empname,salary,state from emp

where country NOT LIKE ‘%F’;

JOIN

INNER JOIN

SELECT

c.customerNumber,

c.customerName,

SUM(od.quantityOrdered) AS Totalqty

FROM

Customers c

INNER JOIN Ordes o

ON c.customerNumber=o.customerNumber

INNER JOIN Orderdetails od

ON o.orderNumber=od.orderNumber

Group BY c.customerNumber

ORDER BY totalqty DESC;

SELECT

c.customerNumber,

c.customerName,

od.productCode,

p.productName,

od.quantityOrdered\*od.priceEach)AS Amount

FROM

Customers c

INNER JOIN Ordes o

ON c.customerNumber=o.customerNumber

INNER JOIN Orderdetails od

ON o.orderNumber=od.orderNumber

INNER JOIN Products p

On od.productCode=p.productCode;

Right Join

SELECT Student.NAME,StudentCourse.COURSE\_ID

FROM Student

RIGHT JOIN StudentCourse

ON StudentCourse.ROLL\_NO = Student.ROLL\_NO;



Cross Join

create table laptop( name varchar(20));

insert into laptop values('Asus'),

('Lenovo'),

('Dell');

select \* from laptop;

create table Colour( colorName varchar(20));

insert into Colour values('Pink'),

('Gray'),

('Blue');

select \* from Colour;

select \* from laptop

CROSS JOIN Colour;

Rollback,Savepoint,Commit

create table students(

name varchar(20),

rollNo int,

age int);

START TRANSACTION :

insert into students values('alka',1,23),('pinki',2,22),('krishna',3,34);

update students

set age=40

where rollNo=1;

delete from students where rollNo=2;

ROLLBACK;

select \* from students;

create table students(

name varchar(20),

rollNo int,

age int);

START TRANSACTION :

insert into students values('alka',1,23),('pinki',2,22),('krishna',3,34);

savepoint studentInsert;

update students

set age=40

where rollNo=1;

savepoint studentUpdate;

delete from students where rollNo=2;

savepoint studentDelete;

ROLLBACK TO studentInsert ;

select \* from students;

COMMIT

create table students(

name varchar(20),

rollNo int,

age int);

START TRANSACTION :

insert into students values('alka',1,23),('pinki',2,22),('krishna',3,34);

update students

set age=40

where rollNo=1;

delete from students where rollNo=2;

COMMIT; It will save the data on server permonently

ROLLBACK ; we can not use the rollback after commit / it will undo the data

select \* from students;

Subquery

Select custName,CustNumber

From customer

Where custNumber IN (select custNumber from order);

OR

Select custName,CustNumber

From customer

INNER JOIN custNumber IN order;

Select orderNumber which have the highest quantity order

Select orderNumber ,MAX(quantityOrder) AS maxQty

From orderDetails

Group By orderNumber

Order By maxQty

Limit 1;

OR

Select orderNumber , quantityOrder From orderDetails

Where quantityOrder=(SELECT MAX(quantityOrder) from orderDetails);

STRING

ASCII

select ASCII('Apple') AS Result; 65

CHAR\_LENGTH

select CHAR\_LENGTH('Apple') AS Result; 5

FORMAT

select FORMAT(3423.998,2) AS Result;3,424.00

INSERT

select Insert(' is my name ' ,1,0,'Alka') AS result; Alka is my name

INSTR/POSITION/LOCATE

select INSTR('Good Afternoon','oon') AS result; 12

select INSTR('Good Afternoon','r') AS result; 10

select POSITION('oon' IN 'Good Afternoon') AS result; 12

select LOCATE('A' , 'Good Afternoon') AS result; 6

LOWER/UPPER

select lower('Apple') AS Result; apple

select upper('apple') AS Result; APPLE

LEFT/RIGHT

select LEFT('Hi alka good morning',12) AS result; Hi alka good

select Right('Hi alka good morning',12) AS result good morning

LPAD/RPAD

select LPAD(' hi',7,'ALKA') AS result; ALKA hi

select RPAD('hi',7,' ALKA') AS result; hi ALKA

TRIM/LTRIM/RTRIM

select TRIM(' a ') AS result; a

select LTRIM(' a ') AS result; a

select RTRIM(' a ') AS result; a

SUBSTRING

select substring('Hi i am alka',9) AS result; alka

select substring('Hi i am alka',1,9) AS result; Hi i am a

select substring('Hi i am alka',-9) AS result; i am alka

select substring('Hi i am alka',-2,9) AS result; ka

REPLACE

select replace('Hi ALKA','ALKA','Pinki') AS result; Hi Pinki

REVERSE

select reverse('ALKA'); AKLA

SUBSTRING\_INDEX

Select SUBSTRING\_INDEX('WWW.GOOGLE.COM', '.' ,-2) AS result; GOOGLE.COM

Select SUBSTRING\_INDEX('WWW.GOOGLE.COM', '.' ,3) AS result; WWW.GOOGLE.COM

Select SUBSTRING\_INDEX('Mahendra singh dhoni', ' ' ,-1) AS result; dhoni

Select SUBSTRING\_INDEX(SUBSTRING\_INDEX('Mahendra singh dhoni', ' ' ,-2), ' ',-1) AS result; dhoni

CONCAT

select CONCAT('Hi my name is',' ','Alka') AS Result; Hi my name is Alka

select CONCAT("Today's date is",' ',CURRENT\_DATE) AS Result; Today's date is 2022-06-15

INSERT

select Insert(' is my name ' ,1,0,'Alka') AS result;

select Insert('is my name ' ,4,2,'Alka') AS result;(4,2 this 2 means it will discard the value and replace it new)

INSTR,POSITION,LOCATE

select INSTR('Good Afternoon','oon') AS result;

select INSTR('Good Afternoon','r') AS result;

select POSITION('oon' IN 'Good Afternoon') AS result;

select LOCATE('A' , 'Good Afternoon') AS result;

LPAD/RPAD

select LPAD(' hi',7,'ALKA') AS result;

select RPAD('hi',7,' ALKA') AS result;result

ALKA hi

result

hi ALKA

DATE/TIME

select('2022-02-02 09:30:20') AS Result ; 2022-02-02 09:30:20

select Date('2022-02-02 09:30:20') AS Result; 2022-02-02

select TIME('2022-02-02 09:30:20') AS Result; 09:30:20

CURRENT\_DATE/TIME/TIMESTAMP

select CURRENT\_DATE() AS result;

select CURRENT\_TIME() AS result;

select CURRENT\_TIMESTAMP() AS result;

select NOW() AS result;

DATE\_ADD

select DATE\_ADD('2022-02-02',INTERVAL 3 YEAR) AS result; 2025-02-02

select DATE\_ADD('2022-02-02',INTERVAL -3 month) AS result; 2021-11-02

select DATE\_ADD('2022-02-02 00:00:00',INTERVAL 3 hour) AS result; 2022-02-02 03:00:00

select DATE\_ADD('2022-02-02 00:00:00',INTERVAL '4:19' hour\_minute) AS result; 2022-02-02 04:19:00

select DATE\_ADD('2022-02-02 00:00:00',INTERVAL 33 second) AS Result; 2022-02-02 00:00:33

DATEDIFF

select DATEDIFF('2022-03-02','2022-02-03') AS result; 27

TIMESTAMPDIFF

select TIMESTAMPDIFF(SECOND,'2022-03-02 00:00:00','2022-04-03 02:03:29') AS result; 2772209

select TIMESTAMPDIFF(month,'2022-03-02 00:00:00','2022-04-03 02:03:29') AS result; 1

DATE\_FORMAT

select DATE\_FORMAT(NOW(),'%d-%m-%y')AS result;

15-06-22

select DATE\_FORMAT(NOW(),'%D-%M-%Y')AS result;

15th-June-2022

select DATE\_FORMAT(NOW(),'%d-%b-%y %H:%i:%s')AS result;

15-Jun-22 15:45:50

DAY/WEEK/MONTH/YEAR

select DAYNAME(NOW())AS result; Wednesday

select WEEK(NOW())AS result; 24

select YEAR(NOW())AS result; 2022

SELECT order\_id,sum(amount) OVER(PARTITION BY order\_id) AS Total\_amtFROM Orders;

Actually I am fresher , I have done 6th months of course in Data Science and Data Analyst from Excelr Solution , Pune So in this I have learned Python , ML algorithms, SQL, Power BI and Excel also worked on some projects So I have the basic ideas about this , It will be best for me if you will give me the opportunity at once to explore my knowledge in your grown company so that I can learn something better and also will help to your company for growing the business that whatever I have, I will give me best. Thank You !