CREATE DATABASE BESANTSQL;

USE BESANTSQL;

CREATE TABLE employees (

employee\_id INT,

first\_name VARCHAR(50),

last\_name VARCHAR(50),

email VARCHAR(50),

phone\_number VARCHAR(20),

hire\_date DATE,

job\_id VARCHAR(20),

salary DECIMAL(10, 2),

commission\_pct DECIMAL(5, 2),

manager\_id INT,

department\_id INT

);

INSERT INTO employees (

employee\_id, first\_name, last\_name, email,

phone\_number, hire\_date, job\_id,

salary, commission\_pct, manager\_id, department\_id

) VALUES

(100, 'Steven', 'King', 'SKING', '515.123.4567', '2003-06-17', 'AD\_PRES', 24000, NULL, NULL, 90),

(101, 'Neena', 'Kochhar', 'NKOCHHAR', '515.123.4568', '2005-09-21', 'AD\_VP', 17000, NULL, 100, 90),

(102, 'Lex', 'De Haan', 'LDEHAAN', '515.123.4569', '2001-01-13', 'AD\_VP', 17000, NULL, 100, 90),

(103, 'Alexander', 'Hunold', 'AHUNOLD', '590.423.4567', '2006-01-03', 'IT\_PROG', 9000, NULL, 102, 60),

(104, 'Bruce', 'Ernst', 'BERNST', '590.423.4568', '2007-05-21', 'IT\_PROG', 6000, NULL, 103, 60),

(105, 'David', 'Austin', 'DAUSTIN', '590.423.4569', '2005-06-25', 'IT\_PROG', 4800, NULL, 103, 60),

(106, 'Valli', 'Pataballa', 'VPATABAL', '590.423.4560', '2006-02-05', 'IT\_PROG', 4800, NULL, 103, 60),

(107, 'Diana', 'Lorentz', 'DLORENTZ', '590.423.5567', '2007-02-07', 'IT\_PROG', 4200, NULL, 103, 60),

(108, 'Nancy', 'Greenberg', 'NGREENBE', '515.124.4569', '2002-08-17', 'FI\_MGR', 12008, NULL, 101, 100),

(109, 'Daniel', 'Faviet', 'DFAVIET', '515.124.4169', '2002-08-16', 'FI\_ACCOUNT', 9000, NULL, 108, 100),

(110, 'John', 'Chen', 'JCHEN', '515.124.4269', '2005-09-28', 'FI\_ACCOUNT', 8200, NULL, 108, 100),

(111, 'Ismael', 'Sciarra', 'ISCIARRA', '515.124.4369', '2005-09-30', 'FI\_ACCOUNT', 7700, NULL, 108, 100),

(112, 'Jose Manuel', 'Urman', 'JMURMAN', '515.124.4469', '2006-03-07', 'FI\_ACCOUNT', 7800, NULL, 108, 100),

(113, 'Luis', 'Popp', 'LPOPP', '515.124.4567', '2007-12-07', 'FI\_ACCOUNT', 6900, NULL, 108, 100),

(114, 'anu', 'Raphaely', 'DRAPHEAL', '515.127.4561', '2002-12-07', 'PU\_MAN', 11000, NULL, 100, 30),

(115, 'anu', 'Khoo', 'AKHOO', '515.127.4562', '2003-05-18', 'PU\_CLERK', 3100, NULL, 114, 30),

(116, 'anu', 'Baida', 'SBAIDA', '515.127.4563', '2005-12-24', 'PU\_CLERK', 2900, NULL, 114, 30),

(117, 'anu', 'Tobias', 'STOBIAS', '515.127.4564', '2005-07-24', 'PU\_CLERK', 2800, NULL, 114, 30),

(118, 'anu', 'Himuro', 'GHIMURO', '515.127.4565', '2006-11-15', 'PU\_CLERK', 2600, NULL, 114, 30),

(119, 'anu', 'Colmenares', 'KCOLMENA', '515.127.4566', '2007-08-10', 'PU\_CLERK', 2500, NULL, 114, 30),

(120, 'Matthew', 'Weiss', 'MWEISS', '650.123.1234', '2004-07-18', 'ST\_MAN', 8000, NULL, 100, 50),

(121, 'Adam', 'Fripp', 'AFRIPP', '650.123.2234', '2005-04-10', 'ST\_MAN', 8200, NULL, 100, 50),

(122, 'Payam', 'Kaufling', 'PKAUFLIN', '650.123.3234', '2003-05-01', 'ST\_MAN', 7900, NULL, 100, 50),

(123, 'Shanta', 'Vollman', 'SVOLLMAN', '650.123.4234', '2005-10-10', 'ST\_MAN', 6500, NULL, 100, 50),

(124, 'Kevin', 'Mourgos', 'KMOURGOS', '650.123.5234', '2007-11-16', 'ST\_MAN', 5800, NULL, 100, 50),

(125, 'Julia', 'Nayer', 'JNAYER', '650.124.1214', '2005-07-16', 'ST\_CLERK', 3200, NULL, 120, 50),

(126, 'Irene', 'Mikkilineni', 'IMIKKILI', '650.124.1224', '2006-09-28', 'ST\_CLERK', 2700, NULL, 120, 50),

(127, 'James', 'Landry', 'JLANDRY', '650.124.1334', '2007-01-14', 'ST\_CLERK', 2400, NULL, 120, 50),

(128, 'Steven', 'Markle', 'SMARKLE', '650.124.1434', '2008-03-08', 'ST\_CLERK', 2200, NULL, 120, 50),

(129, 'Laura', 'Bissot', 'LBISSOT', '650.124.5234', '2005-08-20', 'ST\_CLERK', 3300, NULL, 121, 50)

;

INSERT INTO employees (

employee\_id, first\_name, last\_name, email, phone\_number, hire\_date, job\_id,

salary, commission\_pct, manager\_id, department\_id

) VALUES

(130, 'Mozhe', 'Atkinson', 'MATKINSO', '650.124.6234', '2005-10-30', 'ST\_CLERK', 2800, NULL, 121, 50),

(131, 'James', 'Marlow', 'JAMRLOW', '650.124.7234', '2005-02-16', 'ST\_CLERK', 2500, NULL, 121, 50),

(132, 'TJ', 'Olson', 'TJOLSON', '650.124.8234', '2007-04-10', 'ST\_CLERK', 2100, NULL, 121, 50),

(133, 'Jason', 'Mallin', 'JMALLIN', '650.127.1934', '2004-06-14', 'ST\_CLERK', 3300, NULL, 122, 50),

(134, 'Michael', 'Rogers', 'MROGERS', '650.127.1834', '2006-08-26', 'ST\_CLERK', 2900, NULL, 122, 50),

(135, 'Ki', 'Gee', 'KGEE', '650.127.1734', '2007-12-12', 'ST\_CLERK', 2400, NULL, 122, 50),

(136, 'Hazel', 'Philtanker', 'HPHILTAN', '650.127.1634', '2008-02-06', 'ST\_CLERK', 2200, NULL, 122, 50),

(137, 'Renske', 'Ladwig', 'RLADWIG', '650.121.1234', '2003-07-14', 'ST\_CLERK', 3600, NULL, 123, 50),

(138, 'Stephen', 'Stiles', 'SSTILES', '650.121.2034', '2005-10-26', 'ST\_CLERK', 3200, NULL, 123, 50),

(139, 'John', 'Seo', 'JSEO', '650.121.2019', '2006-02-12', 'ST\_CLERK', 2700, NULL, 123, 50),

(140, 'Joshua', 'Patel', 'JPATEL', '650.121.1834', '2006-04-06', 'ST\_CLERK', 2500, NULL, 123, 50),

(141, 'Trenna', 'Rajs', 'TRAJS', '650.121.8009', '2003-10-17', 'ST\_CLERK', 3500, NULL, 124, 50),

(142, 'Curtis', 'Davies', 'CDAVIES', '650.121.2994', '2005-01-29', 'ST\_CLERK', 3100, NULL, 124, 50),

(143, 'Randall', 'Matos', 'RMATOS', '650.121.2874', '2006-03-15', 'ST\_CLERK', 2600, NULL, 124, 50),

(144, 'Peter', 'Vargas', 'PVARGAS', '650.121.2004', '2006-07-09', 'ST\_CLERK', 2500, NULL, 124, 50),

(145, 'John', 'Russell', 'JRUSSEL', '011.44.1344.429268', '2004-10-01', 'SA\_MAN', 14000, 0.4, 100, 80),

(146, 'Karen', 'Partners', 'KPARTNER', '011.44.1344.467268', '2005-01-05', 'SA\_MAN', 13500, 0.3, 100, 80),

(147, 'Alberto', 'Errazuriz', 'AERRAZUR', '011.44.1344.429278', '2005-03-10', 'SA\_MAN', 12000, 0.3, 100, 80),

(148, 'Gerald', 'Cambrault', 'GCAMBRAU', '011.44.1344.619268', '2007-10-15', 'SA\_MAN', 11000, 0.3, 100, 80),

(149, 'Eleni', 'Zlotkey', 'EZLOTKEY', '011.44.1344.429018', '2008-01-29', 'SA\_MAN', 10500, 0.2, 100, 80),

(150, 'Peter', 'Tucker', 'PTUCKER', '011.44.1344.129268', '2005-01-30', 'SA\_REP', 10000, 0.3, 145, 80),

(151, 'David', 'Bernstein', 'DBERNSTE', '011.44.1344.345268', '2005-03-24', 'SA\_REP', 9500, 0.25, 145, 80),

(152, 'Peter', 'Hall', 'PHALL', '011.44.1344.478968', '2005-08-20', 'SA\_REP', 9000, 0.25, 145, 80),

(153, 'Christopher', 'Olsen', 'COLSEN', '011.44.1344.498718', '2006-03-30', 'SA\_REP', 8000, 0.2, 145, 80),

(154, 'Nanette', 'Cambrault', 'NCAMBRAU', '011.44.1344.987668', '2006-12-09', 'SA\_REP', 7500, 0.2, 145, 80),

(155, 'Oliver', 'Tuvault', 'OTUVAULT', '011.44.1344.486508', '2007-11-23', 'SA\_REP', 7000, 0.15, 145, 80),

(156, 'Janette', 'King', 'JKING', '011.44.1345.429268', '2004-01-30', 'SA\_REP', 10000, 0.35, 146, 80),

(157, 'Patrick', 'Sully', 'PSULLY', '011.44.1345.929268', '2004-03-04', 'SA\_REP', 9500, 0.35, 146, 80),

(158, 'Allan', 'McEwen', 'AMCEWEN', '011.44.1345.829268', '2004-08-01', 'SA\_REP', 9000, 0.35, 146, 80),

(159, 'Lindsey', 'Smith', 'LSMITH', '011.44.1345.729268', '2005-03-10', 'SA\_REP', 8000, 0.3, 146, 80),

(160, 'Louise', 'Doran', 'LDORAN', '011.44.1345.629268', '2005-12-15', 'SA\_REP', 7500, 0.3, 146, 80),

(161, 'Sarath', 'Sewall', 'SSEWALL', '011.44.1345.529268', '2006-11-03', 'SA\_REP', 7000, 0.25, 146, 80),

(162, 'Clara', 'Vishney', 'CVISHNEY', '011.44.1346.129268', '2005-11-11', 'SA\_REP', 10500, 0.25, 147, 80),

(163, 'Danielle', 'Greene', 'DGREENE', '011.44.1346.229268', '2007-03-19', 'SA\_REP', 9500, 0.15, 147, 80),

(164, 'Mattea', 'Marvins', 'MMARVINS', '011.44.1346.329268', '2008-01-24', 'SA\_REP', 7200, 0.1, 147, 80),

(165, 'David', 'Lee', 'DLEE', '011.44.1346.529268', '2008-02-23', 'SA\_REP', 6800, 0.1, 147, 80),

(166, 'Sundar', 'Ande', 'SANDE', '011.44.1346.629268', '2008-03-24', 'SA\_REP', 6400, 0.1, 147, 80),

(167, 'Amit', 'Banda', 'ABANDA', '011.44.1346.729268', '2008-04-21', 'SA\_REP', 6200, 0.1, 147, 80),

(168, 'Lisa', 'Ozer', 'LOZER', '011.44.1343.929268', '2005-03-11', 'SA\_REP', 11500, 0.25, 148, 80),

(169, 'Harrison', 'Bloom', 'HBLOOM', '011.44.1343.829268', '2006-03-23', 'SA\_REP', 10000, 0.2, 148, 80),

(170, 'Tayler', 'Fox', 'TFOX', '011.44.1343.729268', '2006-01-24', 'SA\_REP', 9600, 0.2, 148, 80),

(171, 'William', 'Smith', 'WSMITH', '011.44.1343.629268', '2007-02-23', 'SA\_REP', 7400, 0.15, 148, 80),

(172, 'Elizabeth', 'Bates', 'EBATES', '011.44.1343.529268', '2007-03-24', 'SA\_REP', 7300, 0.15, 148, 80),

(173, 'Sundita', 'Kumar', 'SKUMAR', '011.44.1343.329268', '2008-04-21', 'SA\_REP', 6100, 0.1, 148, 80),

(174, 'Ellen', 'Abel', 'EABEL', '011.44.1644.429267', '2004-05-11', 'SA\_REP', 11000, 0.3, 149, 80),

(175, 'Alyssa', 'Hutton', 'AHUTTON', '011.44.1644.429266', '2005-03-19', 'SA\_REP', 8800, 0.25, 149, 80),

(176, 'Jonathon', 'Taylor', 'JTAYLOR', '011.44.1644.429265', '2006-03-24', 'SA\_REP', 8600, 0.2, 149, 80),

(177, 'Jack', 'Livingston', 'JLIVINGS', '011.44.1644.429264', '2006-04-23', 'SA\_REP', 8400, 0.2, 149, 80),

(178, 'Kimberely', 'Grant', 'KGRANT', '011.44.1644.429263', '2007-05-24', 'SA\_REP', 7000, 0.15, 149, NULL),

(179, 'Charles', 'Johnson', 'CJOHNSON', '011.44.1644.429262', '2008-01-04', 'SA\_REP', 6200, 0.1, 149, 80),

(180, 'Winston', 'Taylor', 'WTAYLOR', '650.507.9876', '2006-01-24', 'SH\_CLERK', 3200, NULL, 120, 50),

(181, 'Jean', 'Fleaur', 'JFLEAUR', '650.507.9877', '2006-02-23', 'SH\_CLERK', 3100, NULL, 120, 50),

(182, 'Martha', 'Sullivan', 'MSULLIVA', '650.507.9878', '2007-06-21', 'SH\_CLERK', 2500, NULL, 120, 50),

(183, 'Girard', 'Geoni', 'GGEONI', '650.507.9879', '2008-02-03', 'SH\_CLERK', 2800, NULL, 120, 50),

(184, 'Nandita', 'Sarchand', 'NSARCHAN', '650.509.1876', '2004-01-27', 'SH\_CLERK', 4200, NULL, 121, 50),

(185, 'Alexis', 'Bull', 'ABULL', '650.509.2876', '2005-02-20', 'SH\_CLERK', 4100, NULL, 121, 50),

(186, 'Julia', 'Dellinger', 'JDELLING', '650.509.3876', '2006-06-24', 'SH\_CLERK', 3400, NULL, 121, 50),

(187, 'Anthony', 'Cabrio', 'ACABRIO', '650.509.4876', '2007-02-07', 'SH\_CLERK', 3000, NULL, 121, 50),

(188, 'Kelly', 'Chung', 'KCHUNG', '650.505.1876', '2005-06-14', 'SH\_CLERK', 3800, NULL, 122, 50),

(189, 'Jennifer', 'Dilly', 'JDILLY', '650.505.2876', '2005-08-13', 'SH\_CLERK', 3600, NULL, 122, 50),

(190, 'Timothy', 'Gates', 'TGATES', '650.505.3876', '2006-07-11', 'SH\_CLERK', 2900, NULL, 122, 50),

(191, 'Randall', 'Perkins', 'RPERKINS', '650.505.4876', '2007-12-19', 'SH\_CLERK', 2500, NULL, 122, 50),

(192, 'Sarah', 'Bell', 'SBELL', '650.501.1876', '2004-02-04', 'SH\_CLERK', 4000, NULL, 123, 50),

(193, 'Britney', 'Everett', 'BEVERETT', '650.501.2876', '2005-03-03', 'SH\_CLERK', 3900, NULL, 123, 50),

(194, 'Samuel', 'McCain', 'SMCCAIN', '650.501.3876', '2006-07-01', 'SH\_CLERK', 3200, NULL, 123, 50),

(195, 'Vance', 'Jones', 'VJONES', '650.501.4876', '2007-03-17', 'SH\_CLERK', 2800, NULL, 123, 50),

(196, 'Alana', 'Walsh', 'AWALSH', '650.507.9811', '2006-04-24', 'SH\_CLERK', 3100, NULL, 124, 50),

(197, 'Kevin', 'Feeney', 'KFEENEY', '650.507.9822', '2006-05-23', 'SH\_CLERK', 3000, NULL, 124, 50),

(198, 'Donald', 'OConnell', 'DOCONNEL', '650.507.9833', '2007-06-21', 'SH\_CLERK', 2600, NULL, 124, 50),

(199, 'Douglas', 'Grant', 'DGRANT', '650.507.9844', '2008-01-13', 'SH\_CLERK', 2600, NULL, 124, 50),

(200, 'Jennifer', 'Whalen', 'JWHALEN', '515.123.4444', '2003-09-17', 'AD\_ASST', 4400, NULL, 101, 10),

(201, 'Michael', 'Hartstein', 'MHARTSTE', '515.123.5555', '2004-02-17', 'MK\_MAN', 13000, NULL, 100, 20),

(202, 'Pat', 'Fay', 'PFAY', '603.123.6666', '2005-08-17', 'MK\_REP', 6000, NULL, 201, 20),

(203, 'Susan', 'Mavris', 'SMAVRIS', '515.123.7777', '2002-06-07', 'HR\_REP', 6500, NULL, 101, 40),

(204, 'Hermann', 'Baer', 'HBAER', '515.123.8888', '2002-06-07', 'PR\_REP', 10000, NULL, 101, 70),

(205, 'Shelley', 'Higgins', 'SHIGGINS', '515.123.8080', '2002-06-07', 'AC\_MGR', 12008, NULL, 101, 110),

(206, 'William', 'Gietz', 'WGIETZ', '515.123.8181', '2002-06-07', 'AC\_ACCOUNT', 8300, NULL, 205, 110),

(300, 'John', 'Doe', 'sdjhb', NULL, '2023-07-09', 'SA\_MAN', NULL, NULL, NULL,60)

;

CREATE TABLE DEPARTMENTS (

DEPARTMENT\_ID INT PRIMARY KEY,

DEPARTMENT\_NAME VARCHAR(50),

MANAGER\_ID INT NULL,

LOCATION\_ID INT NOT NULL

);

INSERT INTO DEPARTMENTS (DEPARTMENT\_ID, DEPARTMENT\_NAME, MANAGER\_ID, LOCATION\_ID) VALUES

(10, 'Administration', 200, 1700),

(20, 'Marketing', 201, 1800),

(30, 'Purchasing', 114, 1700),

(40, 'Human Resources', 203, 2400),

(50, 'Shipping', 121, 1500),

(60, 'IT', 103, 1400),

(70, 'Public Relations', 204, 2700),

(80, 'Sales', 145, 2500),

(90, 'Executive', 100, 1700),

(100, 'Finance', 108, 1700),

(110, 'Accounting', 205, 1700),

(120, 'Treasury', NULL, 1700),

(130, 'Corporate Tax', NULL, 1700),

(140, 'Control And Credit', NULL, 1700),

(150, 'Shareholder Services', NULL, 1700),

(160, 'Benefits', NULL, 1700),

(170, 'Manufacturing', NULL, 1700),

(180, 'Construction', NULL, 1700),

(190, 'Contracting', NULL, 1700),

(200, 'Operations', NULL, 1700),

(210, 'IT Support', NULL, 1700),

(220, 'NOC', NULL, 1700),

(230, 'IT Helpdesk', NULL, 1700),

(240, 'Government Sales', NULL, 1700),

(250, 'Retail Sales', NULL, 1700),

(260, 'Recruiting', NULL, 1700),

(270, 'Payroll', NULL, 1700);

DESCRIBE employees;

DESCRIBE DEPARTMENTS;

**# Assignment on IN & NO IN Operator**

# 1. Query to display employee names working in Department No. 10, 20, 30, 40, 50, 60, 70, 80, 90, 100:

select \* from employees where department\_id in (10,20,30,40,50,60,70,80,90,100);

#2. Query to display employee name and job of employees working as Administration President, Sales Manager, Purchasing Clerk, or Accounting manager:

select first\_name, job\_id from employees where job\_id in ('ad\_pres','sa\_man','pu\_clerk','ac\_mgr');

#3. Query to display details of employees working in department number 10 or 20 and hired after the year 2000:

select \* from employees where department\_id in (10,20) and hire\_date > 2000-01-01;

#4. Query to display details of employees working as IT Programmer ,Stock Manager ,Marketing Manager , Public Relations Representative:

select \* from employees where job\_id in ('it\_prog','st\_man','mk\_man','pr\_rep');

#5. Query to display employee names if they are working in department number 10 or 20 and as Marketing Representative or Human Resources Representative:

select first\_name, department\_id, job\_id from employees where department\_id in (10,20) and job\_id in ('mk\_rep','hr\_rep');

#6. Query to display employee names excluding those working in department number 10 or 20:

select \* from employees where department\_id not in(10,20);

#7. Query to display details of employees except those working as Purchasing Manager ,Purchasing Clerk

select \* from employees where job\_id not in ('pu\_man','pu\_clerk');

**# BETWEEN OPERATOR & NOT BETWEEN**

#1.Display employee name and salary who are earning salary more than 1250 and less than 8000

select \* from employees where salary between 1250 and 8000;

#2.Display employee name and salary if employees are earning salary between 1290 and 15000 (inclusive):

select first\_name, salary from employees where salary between 1290 and 15000;

#3.Display name of the employee hired after 1981 and before 1987:

select \* from employees where year(hire\_date) between 1981 and 1987;

#4.Display details of the employee earning more than 1250 but less than 3000:

select \* from employees where salary between 1250 and 3000;

#5.Display all the details along with the annual salary if salary is between 1000 and 4000 and annual salary is more than 15000:

select employee\_id,first\_name,email,phone\_number,hire\_date,job\_id,salary,salary\*12 as annual\_salary,manager\_id,department\_id from employees where salary between 1000 and 4000 and salary\*12>15000;

#6.Display employee name, salary, and commission if employees are earning commission between 0.1 and 0.5:

select first\_name,salary,commission\_pct from employees where commission\_pct between 0.1 and 0.5;

**# NOT BETWEEN OPERATOR**

#1. Display employee name and salary if employees are earning salary less than Rs.1250 and more than Rs.3000

#(i.e., salary NOT BETWEEN 1250 AND 3000)

select first\_name,salary from employees where salary not between 1250 and 3000;

#2. Display employee name and commission if they are getting commission less than 0.5 or more than 0.9

#(i.e., commission NOT BETWEEN 0.5 AND 0.9)

select first\_name, commission\_pct from employees where commission\_pct not between 0.5 and 0.9;

#3. Display employee name and hire date who were hired in the year 1982

select first\_name, hire\_date from employees where year(hire\_date) = 1982;

#4. Display employee name and hire date except those who were hired in the year 1980

select first\_name, hire\_date from employees where year(hire\_date) <> 1980;

#5. Display employee name and hire date if they are working in department no.10 or 30 and hired in the year 1981

select first\_name, hire\_date from employees where department\_id in (10,30) and hire\_date between 1981-01-01 and 1981-12-31;

#6.Display employee name and hire date who were hired after 1980 but before 1987 and working as Finance Manager, Finance Accountant using NOT BETWEEN

select first\_name, hire\_date from employees where year(hire\_date) not between 1900 and 1980 and year(hire\_date) not between 1987 and 2025 and job\_id in ('fi\_mgr','fi\_account');

**# LIKE OPERATOR**

#1. Query to display employee names that contain the character ‘A’ anywhere in their name:

select \* from employees where first\_name like "%a%";

#2. Query to display employee names that start with the character ‘A’:

select \* from employees where first\_name like "a%";

#3. Query to Display employee name if the employee has character ‘A’ in the second place:

select first\_name from employees where first\_name like "\_a%";

#4. Query to Display details of employees having ‘A’ in the second last place:

select \* from employees where first\_name like "%a\_";

#5. Query to Display details of employees having ‘S’ in the last place:

select \* from employees where first\_name like "%s";

#6. Query to Display details of employees having ‘E’ in the 4th place:

select \* from employees where first\_name like "\_\_\_e%";

#7. Query to Display employee names having ‘A’ in the 1st place and ‘S’ in the last place:

select first\_name from employees where first\_name like "a%s";

#8. Query to Display employee name and salary if they are earning a 3-digit salary:

select first\_name, salary from employees where salary like "\_\_\_";

#9. Query to Display details of employees whose job contains the string 'man':

select \* from employees where job\_id like "%man%";

#10. Query to Display details of employees whose name starts with 'A', has 'D' in the second place, and ends with 'S':

select \* from employees where first\_name like "ad%s";

**# NOT LIKE OPERATOR**

#1. Query to Display employee names except those who have the character ‘A’ in their name:

select first\_name from employees where first\_name not like "%a%";

#2. Query to Display employee name and hire date, except those hired in the year 1981:

select first\_name, hire\_date from employees where hire\_date not like '1981';

#3. Query to Display employee names except those whose name ends with ‘S’:

select first\_name from employees where first\_name not like "%s";

**# MULTIROW FUNCTIONS**

#1. Query to Display the maximum salary from the Employees table:

select max(salary)as maximum\_salary from employees;

#2. Query to Display the minimum salary from the Employees table:

select min(salary) as minimum\_salary from employees;

#3. Query to Display the total salary from the Employees table:

select sum(salary) as total\_salary from employees;

#4. Query to Display the average salary from the Employees table:

select avg(salary) as average\_salary from employees;

#5. Query to Display the maximum salary in Department No. 20:

select max(salary) as maximum\_salary from employees where department\_id = 20;

#6. Query to Display the number of employees in the Employees table:

select count(employee\_id) from employees;

#7. Query to Number of employees getting salary less than 2000 in department number 10:

select count(employee\_id) from employees where salary<2000 and department\_id= 10;

#8. Query to Total salary needed to pay employees working as a PU Clerk:

select sum(salary) from employees where job\_id='pu\_clerk';

#9. Query to Number of employees having ‘A’ as the first character of their name:

select count(employee\_id) from employees where first\_name like "a%";

#10. Query to Number of employees working as PU\_Clerk or Salesman:

select count(employee\_id) from employees where job\_id in ('pu\_clerk','sa\_man');

#11. Query to Query to display total salary needed to pay employees hired in the month of March:

select sum(salary) from employees where month(hire\_date) = '3';

#12. Query to display number of employees getting commission in Department No. 30:

select count(commission\_pct) from employees where department\_id= 30;

#13. Query to display average salary, total salary, number of employees, and maximum salary of Purchasing Manager:

select avg(salary) as average\_salary, sum(salary) as total\_salary, count(employee\_id) as total\_employees, max(salary) as maximum\_salary from employees where job\_id='pu\_man';

#14. Query to display number of employees having the letter ‘A’ in their names:

select count(employee\_id) as total\_employees from employees where first\_name like "%a%";

#15. Query to display number of employees and total salary for employees who have two consecutive ‘L’s in their names:

select count(employee\_id) as total\_employees , sum(salary) as total\_salary from employees where first\_name like "%LL%";

#16. Query to display number of distinct departments present in the employee table:

select count(distinct department\_id) as total\_distinct\_departments from employees;

#17. Query to display the number of employees working in department number 10:

select count(employee\_id) as total\_employees from employees where department\_id = 10;

# 18. Query to display the number of employees working in each department:

select job\_id, count(employee\_id) as total\_employees from employees group by job\_id;

**#Assignment on group by**

-- 1. Query to display number of employees working in each department except ‘Stock Manager’:

select count(\*) from employees where job\_id = 'st\_man' group by job\_id;

-- 2. Query to display total salary needed to pay all the employees in each job:

select sum(salary) as total\_salary from employees group by job\_id;

-- 3. Query to display number of employees working as ‘Sales Manager’ in each department:

select count(\*) from employees where job\_id = 'sa\_man' group by department\_id;

-- 4. Query to display average salary in each department excluding department number 50:

select avg(salary) from employees where department\_id != 50 group by department\_id;

-- 5. Query to display number of employees having character ‘S’ in last place in their names in each job:

select count(\*) from employees where last\_name like '%S' group by job\_id;

-- 6. Query: to display Number of employees and average salary (salary > 2000) in each department

SELECT COUNT(\*), AVG(SALARY) AS AVERAGE\_SALARY, DEPARTMENT\_ID FROM EMPLOYEES WHERE (SALARY>2000) GROUP BY DEPARTMENT\_ID;

-- 7. Query: to display Number of employees, max salary, min salary for ‘Administration Assistant’ in each department

select count(\*), max(salary) as maximum\_salary, min(salary) as minimum\_salary from employees where job\_id = 'ad\_asst' group by department\_id;

-- 8. Query: to display Number of employees and their maximum salary in each department

select count(\*), min(salary) as mini\_salary from employees group by department\_id;

-- 9. Query: to display Minimum salary and average salary for employees in each department

select avg(salary) as average\_salary, min(salary) as mini\_salary from employees group by department\_id;

-- 10. Query: to display Number of times each salary amount appears in the employee table

select count(salary) as number\_of\_times\_salary from employees group by salary ;

**# having**

-- 1. Write a query to Display number of employees working in each department having at least two employees in each department.

SELECT COUNT(\*) FROM EMPLOYEES GROUP BY DEPARTMENT\_ID HAVING COUNT(\*) >= 2;

-- 2. Write a query to Display department number and number of employees working in each department if there are

-- two purchasing clerks in each department.

SELECT department\_id, COUNT(\*) as total\_employees FROM employees WHERE job\_id = 'PU\_CLERK' GROUP BY department\_id HAVING sum(job\_id = 'PU\_CLERK') = 2;

-- 3. Write a query to Display total salary from employee table in each job ID if the maximum salary exceeds 2800.

select sum(salary) as total\_salary from employees group by job\_id having max(salary) > 2800;

-- 4. write a query to Display department ID, maximum salary, minimum salary if employees are working

-- as a ‘Salesman’ or ‘Administration Assistant’ in each department having at least three employees in each department.

select department\_id, max(salary) as max\_salary, min(salary) as mini\_salary from employees where job\_id in ('sa\_man', 'ad\_asst') group by department\_id having count(employee\_id) >= 3;

-- 5. Write a query to Display department number and total salary needed to pay all employees in each department if there are at least 4 employees in each department.

select department\_id, sum(salary) as total\_salary from employees group by department\_id having count(\*) >=4;

-- 6 .Write a query to Display number of employees earning salary more than 1200 in each job and total salary needed to pay employees of each job must exceed 3800.

select count(\*) from employees where salary > 1200 group by job\_id having sum(salary) > 3800;

-- 7. Write a query to Display department number and number of employees working only if there are 2 employees working in each department as Stock manager.

select count(department\_id),count(\*) from employees group by department\_id having sum(job\_id = 'st-man')= 2 ;

-- 8.Write a query to Display job and maximum salary of employees in each job if the maximum salary exceeds 2600.

select job\_id, max(salary) as maximum\_salary from employees group by job\_id having max(salary) > 2600;

-- 9.Write a query to Display salaries which are repeated in employee table.

select salary, count(\*) as frequent from employees group by salary having count(\*) > 1;

-- 10. Write a query to Display hire dates which are duplicated in employee table.

select hire\_date ,count(\*) as frequent from employees group by hire\_date having count(\*) > 1;

-- 11. Write a query to Display average salary of each department if average salary is less than 30000.

select avg(salary) from employees group by department\_id having avg(salary) < 30000;

-- 12.Write a query to Display department number if there are at least 3 employees in each whose name has character A or S.

select department\_id from employees where (first\_name like '%A%' or first\_name like '%S%')group by department\_id having count(\*)>= 3;

-- 13. Write a query to Display minimum and maximum salary of each job if minimum salary is more than 1000 and maximum salary is less than 50000.

select job\_id, min(salary) as min\_salary, max(salary) as max\_salary from employees group by job\_id having min(salary) > 1000 and max(salary) < 50000;

**# ORDER BY**

-- 1. Write a query to Display first name in ascending order:

select first\_name from employees order by first\_name asc;

-- 2. Write a query to Display salary in descending order:

select salary from employees order by salary desc;

-- 3. Write a query to Display salary in ascending order:

select salary from employees order by salary asc;

-- 4. Write a query to Display first name in descending order:

select first\_name from employees order by first\_name desc;

-- 5. Write a query to Display department number and salary in ascending order:

select department\_id, salary from employees order by department\_id, salary asc;