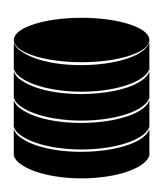
Atma Ram Sanatan Dharma College

University of Delhi



Database Management Systems

Submitted By

Tanu Soni College Roll No. 20/88067 BSc (Hons) Computer Science

Submitted To

Ms Manisha Bagri Department of Computer Science

☐ Creating the table **EMPLOYEE**

```
CREATE TABLE EMPLOYEE(
Eno CHAR(3) NOT NULL,

Ename VARCHAR(50) NOT NULL,

Job_type VARCHAR(50) NOT NULL,

SupervisorENo CHAR(3),

Hire_date DATE NOT NULL,

Dno INT,

Commission DEC(10, 2),

Salary DEC(7, 2) NOT NULL,

PRIMARY KEY (Eno));
```

☐ Creating the table **DEPARTMENT**

```
CREATE TABLE DEPARTMMENT(

Dno INT NOT NULL,

Dname VARCHAR(50) NOT NULL,

Location VARCHAR(50) DEFAULT 'New Delhi',

PRIMARY KEY(Dno) );
```

☐ Inserting the data in table **DEPARTMENT**

```
INSERT INTO DEPARTMENT VALUES

(10, 'Headquarters', 'London'),

(20, 'Outreach', 'Dallas'),

(45, 'Legal', 'London'),

(30, 'IT', 'Mumbai'),

(95, 'Purchase', 'Dallas');

INSERT INTO DEPARTMENT (Dno, Dname)VALUES

(40, 'Administration'),

(90, 'Sales'),

(50, 'Research');
```

☐ Inserting the data in table **EMPLOYEE**

```
INSERT INTO EMPLOYEE VALUES
('343', 'Shammy Kol', 'Managing Director', NULL, '1980-06-12', 10, NULL, 6800.23),
('1', 'Euria gong', 'Manager', '343', '2000-09-08', 40, NULL, 502.30),
('162', 'Rico Palico', 'Manager', '343', '1981-11-21', 30, NULL, 2195.92),
('25', 'Tom Hellen', 'Manager', '343', '1981-09-11', 40, NULL, 2865.92),
('6', 'Annie Wurrie', 'Manager', '343', '1983-08-14', 90, 235.90, 2921.37),
('12', 'Alicia Jones', 'Manager', '343', '1982-10-26', 95, NULL, 980.35),
('232', 'Imran khan', 'Manager', '343', '1996-07-23', 45, NULL, 651.05),
('691', 'Justin Andie', 'Manager', '343', '2015-10-13', 90, NULL, 497.18),
('188', 'Frank Wong', 'Manager', '343', '1995-08-05', 40, NULL, 926.42),
('146', 'Donielle Tuite', 'Intern', '691', '2016-06-12', 90, NULL, 171.60),
('125', 'Karan Kundra', 'Intern', NULL, '2008-05-15', NULL, NULL, 521.37),
('243', 'Bella Cen', 'Engineer', '162', '1983-06-22', 40, NULL, 876.78),
('299', 'Anjana Wurd', 'Analyst', '12', '1990-07-20', 95, NULL, 602.86);
INSERT INTO EMPLOYEE VALUES
('354', 'Paul Den', 'Analyst', '1', '2001-10-11', 90, NULL, 693.63),
('421', 'Alexender Garh', 'Assistant', NULL, '2017-02-07', 10, NULL, 381.64),
('442', 'Pratik Sehjpal', 'Designer', '162', '2014-05-14', 30, NULL, 790.82),
('492', 'Paul Wongh', 'Assistant', '6', '2008-12-13', 90, 148.80, 998.32),
('504', 'Benny Dayal', 'Accountant', '343', '2008-05-24', 40, NULL, 779.34),
('516', 'Maxwell Lorel', 'Systems Administrator', '162', '2008-03-31', 30, 324.39, 969.66)
('518', 'Niel vayas', 'Accountant', '188', '1997-03-20', 90, 546.04, 882.53),
('528', 'Jack kim', 'Intern', '691', '2019-09-06', 90, 125.45, 244.37),
('611', 'Onida shelza', 'Engineer', '162', '2000-04-14', 30, NULL, 704.23),
('697', 'Wenki Smith', 'Technician', NULL, '2005-07-27', 10, 530.53, 387.43),
('718', 'Jenny Omi', 'Intern', '12', '2006-03-25', 95, NULL, 789.82),
('732', 'Alica Prakash', 'Architect', '162', '2019-04-29', 30, NULL, 174.12),
('783', 'John Verma', 'Analyst', '162', '1981-05-27', 30, NULL, 471.17),
('79', 'Sandy Singla', 'Intern', '162', '2004-08-14', 30, NULL, 2921.37),
('811', 'Ariana Grande', 'Lawyer', '232', '1999-04-16', 45, 574.68, 500.22),
('823', 'Dua Lipa', 'Lawyer', '232', '2003-12-27', 45, 453.52, 507.10),
('832', 'Adele Lipa', 'Intern', '12', '1997-11-04', 95, 239.84, 683.09);
```

Results

Employee table

Eno	Ename	Job_type	SupervisorENo	Hire_date	Dno	Commission	Salary
1	Euria gong	Manager	343	2000-09-08	40	NULL	502.30
12	Alicia Jones	Manager	343	1982-10-26	95	NULL	980.35
125	Karan Kundra	Intern	NULL	2008-05-15	NULL	NULL	521.37
146	Donielle Tuite	Intern	691	2016-06-12	90	NULL	171.60
162	Rico Palico	Manager	343	1981-11-21	30	NULL	2195.92
188	Frank Wong	Manager	343	1995-08-05	40	NULL	926.42
232	Imran khan	Manager	343	1996-07-23	45	NULL	651.05
243	Bella Cen	Engineer	162	1983-06-22	40	NULL	876.78
25	Tom Hellen	Manager	343	1981-09-11	40	NULL	2865.92
299	Anjana Wurd	Analyst	12	1990-07-20	95	NULL	602.86
343	Shammy Kol	Managing Director	NULL	1980-06-12	10	NULL	6800.23
354	Paul Den	Analyst	1	2001-10-11	90	NULL	693.63
421	Alexender Garh	Assistant	NULL	2017-02-07	10	NULL	381.64
442	Blake Morrie	Designer	162	2014-05-14	30	NULL	790.82
492	Paul Wongh	Assistant	6	2008-12-13	90	148.80	998.32
498	Kaushal King	Engineer	162	2004-04-04	30	NULL	506.44
504	Benny Dayal	Accountant	343	2008-05-24	40	NULL	779.34
516	Maxwell Lorel	Systems Administrator	162	2008-03-31	30	324.39	969.66
518	Niel vayas	Accountant	188	1997-03-20	90	546.04	882.53
528	Jack kim	Intern	691	2019-09-06	90	125.45	244.37
6	Annie Wurrie	Manager	343	1983-08-14	90	235.90	2921.37
611	Onida shelza	Engineer	162	2000-04-14	30	NULL	704.23
659	James Bay	Developer	162	2008-11-03	30	NULL	200.80
691	king Andie	Manager	343	2015-10-13	90	NULL	497.18
697	Wenki Smith	Technician	NULL	2005-07-27	10	530.53	387.43
		-	ī. <u>-</u>				

712	Jenny Omi	Intern	12	2006-03-25	05	NULL	789.82
732	Alica Prakash	Architect	162	2019-04-29		NULL	174.12
763	Vex King	Analyst	162	2000-05-08	30	NULL	627.74
783	John Verma	Analyst	162	1981-05-27	30	NULL	471.17
785	Chandy Colba	Consultant	162	1998-02-10	30	NULL	697.68
79	Sandy Singla	Intern	162	2004-08-14	30	NULL	2921.37
809	Jay Shetty	Consultant	162	1986-06-07	30	NULL	688.37
811	Ariana Grande	Lawyer	232	1999-04-16	45	574.68	500.22
823	Dua Lipa	Lawyer	232	2003-12-27	45	453.52	507.10
832	Adele Lipa	Intern	12	1997-11-04	95	239.84	683.09
837	Rita Orra	Engineer	162	1987-03-29	30	NULL	586.13
842	Taylor Swift	Technician	NULL	1982-05-25	30	NULL	295.31
87	Kate Bush	Intern	6	2008-05-02	90	125.45	244.37
908	Charlie Falo	Engineer	162	2002-12-23	30	NULL	141.05
915	Alex Murrie	Designer	162	2006-06-24	30	NULL	640.31
932	Mike Berry	Engineer	162	2013-05-23	30	NULL	239.27
960	Ed Sheeran	Developer	162	1984-01-23	30	NULL	292.48
969	Farris Badwan	Developer	162	1986-01-23	30	NULL	296.48
981	Radhi Shetty	Systems Administrator	162	2017-07-26	30	324.39	920.84
997	James Arthur	Architect	162	2002-12-23	30	NULL	427.98

<u>Department table</u>

Dno	Dname	Location
10	Headquarters	London
20	Outreach	Dallas
30	IT	Mumbai
40	Administration	New Delhi
45	Legal	London
50	Research	New Delhi
90	Sales	New Delhi
95	Purchase	Dallas

Query to display Employee Name, Job, Hire Date, Employee Number for each employee with the Employee Number appearing first.

Query

SELECT Eno,Ename,Job_type,Hire_date
FROM EMPLOYEE;

Eno	Ename	Job_type	Hire_date
1	Euria gong	Manager	2000-09-08
12	Alicia Jones	Manager	1982-10-26
125	Karan Kundra	Intern	2008-05-15
146	Donielle Tuite	Intern	2016-06-12
162	Rico Palico	Manager	1981-11-21
188	Frank Wong	Manager	1995-08-05
232	Imran khan	Manager	1996-07-23
243	Bella Cen	Engineer	1983-06-22
25	Tom Hellen	Manager	1981-09-11
299	Anjana Wurd	Analyst	1990-07-20
343	Shammy Kol	Managing Director	1980-06-12
354	Paul Den	Analyst	2001-10-11
421	Alexender Garh	Assistant	2017-02-07
442	Pratik Sehjpal	Designer	2014-05-14
492	Paul Wongh	Assistant	2008-12-13
498	Kaushal King	Engineer	2004-04-04
504	Benny Dayal	Accountant	2008-05-24
516	Maxwell Lorel	Systems Administrator	2008-03-31

518	Niel vayas	Accountant	1997-03-20
528	Jack kim	Intern	2019-09-06
6	Annie Wurrie	Manager	1983-08-14
611	Onida shelza	Engineer	2000-04-14
659	James Bay	Developer	2008-11-03
691	Justin Andie	Manager	2015-10-13
697	Wenki Smith	Technician	2005-07-27
718	Jenny Omi	Intern	2006-03-25
732	Alica Prakash	Architect	2019-04-29
763	Vex King	Analyst	2000-05-08
783	John Verma	Analyst	1981-05-27
785	Chandy Colba	Consultant	1998-02-10
79	Sandy Singla	Intern	2004-08-14
809	Jay Shetty	Consultant	1986-06-07
811	Ariana Grande	Lawyer	1999-04-16
823	Dua Lipa	Lawyer	2003-12-27
832	Adele Lipa	Intern	1997-11-04
837	Rita Orra	Engineer	1987-03-29
842	Taylor Swift	Technician	1982-05-25
87	Kate Bush	Intern	2008-05-02
908	Charlie Falo	Engineer	2002-12-23
915	Alex Murrie	Designer	2006-06-24
932	Mike Berry	Engineer	2013-05-23
960	Ed Sheeran	Developer	1984-01-23
969	Farris Badwan	Developer	1986-01-23
981	Radhi Shetty	Systems Administrator	2017-07-26
997	James Arthur	Architect	2002-12-23

Query to display unique jobs from the Employee Table.

Query

```
SELECT DISTINCT(Job_type)
FROM EMPLOYEE;
```

Job_type
Manager
Intern
Engineer
Analyst
Managing Director
Assistant
Designer
Accountant
Systems Administrator
Developer
Technician
Architect
Consultant
Lawyer

Query to display the Employee Name concatenated by a Job separated by a comma.

Query

```
SELECT CONCAT(Ename, ',', Job_type) AS EMPLYEE_JOBS
FROM EMPLOYEE;
```

EMPLYEE_JOBS
Euria gong,Manager
Alicia Jones,Manager
Karan Kundra,Intern
Donielle Tuite,Intern
Rico Palico, Manager
Frank Wong,Manager
Imran khan,Manager
Bella Cen,Engineer
Tom Hellen,Manager
Anjana Wurd,Analyst
Shammy Kol, Managing Director
Paul Den,Analyst
Alexender Garh, Assistant
Pratik Sehjpal,Designer
Paul Wongh, Assistant
Kaushal King,Engineer
Benny Dayal, Accountant
Maxwell Lorel, Systems Administrator
Niel vayas,Accountant
Jack kim,Intern

Annie Wurrie,Manager
Onida shelza,Engineer
James Bay,Developer
Justin Andie,Manager
Wenki Smith, Technician
Jenny Omi,Intern
Alica Prakash, Architect
Vex King, Analyst
John Verma,Analyst
Chandy Colba, Consultant
Sandy Singla,Intern
Jay Shetty, Consultant
Ariana Grande,Lawyer
Dua Lipa,Lawyer
Adele Lipa,Intern
Rita Orra,Engineer
Taylor Swift, Technician
Kate Bush,Intern
Charlie Falo,Engineer
Alex Murrie,Designer
Mike Berry,Engineer
Ed Sheeran,Developer
Farris Badwan, Developer
Radhi Shetty, Systems Administrator
James Arthur, Architect

Query to display all the data from the Employee Table. Separate each Column by a comma and name the said column as THE_OUTPUT.

Query

```
SELECT CONCAT(Eno ,',' ,Ename,',' , Job_type,',', IFNULL(SupervisorENo ,' '),',',
Hire_date,',', IFNULL(Dno,' '),',', IFNULL(Commission , ' ') ,',' ,
Salary )AS THE_OUTPUT
FROM EMPLOYEE;
```

THE_OUTPUT
1,Euria gong,Manager,343,2000-09-08,40, ,502.30
12,Alicia Jones,Manager,343,1982-10-26,95, ,980.35
125,Karan Kundra,Intern, ,2008-05-15, , ,521.37
146,Donielle Tuite,Intern,691,2016-06-12,90, ,171.60
162,Rico Palico,Manager,343,1981-11-21,30, ,2195.92
188,Frank Wong,Manager,343,1995-08-05,40, ,926.42
232,Imran khan,Manager,343,1996-07-23,45, ,651.05
243,Bella Cen,Engineer,162,1983-06-22,40, ,876.78
25,Tom Hellen,Manager,343,1981-09-11,40, ,2865.92
299,Anjana Wurd,Analyst,12,1990-07-20,95, ,602.86
343, Shammy Kol, Managing Director, ,1980-06-12,10, ,6800.23
354,Paul Den,Analyst,1,2001-10-11,90, ,693.63
421,Alexender Garh,Assistant, ,2017-02-07,10, ,381.64
442,Pratik Sehjpal,Designer,162,2014-05-14,30, ,790.82
492,Paul Wongh,Assistant,6,2008-12-13,90,148.80,998.32
498,Kaushal King,Engineer,162,2004-04-04,30, ,506.44
504,Benny Dayal,Accountant,343,2008-05-24,40, ,779.34
516,Maxwell Lorel,Systems Administrator,162,2008-03-31,30,324.39,969.66

518,Niel vayas,Accountant,188,1997-03-20,90,546.04,882.53
528, Jack kim, Intern, 691, 2019-09-06, 90, 125.45, 244.37
6,Annie Wurrie,Manager,343,1983-08-14,90,235.90,2921.37
611,Onida shelza,Engineer,162,2000-04-14,30, ,704.23
659,James Bay,Developer,162,2008-11-03,30, ,200.80
691, Justin Andie, Manager, 343, 2015-10-13, 90, ,497.18
697, Wenki Smith, Technician, ,2005-07-27,10,530.53,387.43
718,Jenny Omi,Intern,12,2006-03-25,95, ,789.82
732,Alica Prakash,Architect,162,2019-04-29,30, ,174.12
763, Vex King, Analyst, 162, 2000-05-08, 30, ,627.74
783,John Verma,Analyst,162,1981-05-27,30, ,471.17
785, Chandy Colba, Consultant, 162, 1998-02-10, 30, ,697.68
79,Sandy Singla,Intern,162,2004-08-14,30, ,2921.37
809, Jay Shetty, Consultant, 162, 1986-06-07, 30, ,688.37
811,Ariana Grande,Lawyer,232,1999-04-16,45,574.68,500.22
823,Dua Lipa,Lawyer,232,2003-12-27,45,453.52,507.10
832, Adele Lipa, Intern, 12, 1997-11-04, 95, 239.84, 683.09
837,Rita Orra,Engineer,162,1987-03-29,30, ,586.13
842, Taylor Swift, Technician, ,1982-05-25,30, ,295.31
87,Kate Bush,Intern,6,2008-05-02,90,125.45,244.37
908, Charlie Falo, Engineer, 162, 2002-12-23, 30, ,141.05
915,Alex Murrie,Designer,162,2006-06-24,30, ,640.31
932,Mike Berry,Engineer,162,2013-05-23,30, ,239.27
960,Ed Sheeran,Developer,162,1984-01-23,30, ,292.48
969,Farris Badwan,Developer,162,1986-01-23,30, ,296.48
981,Radhi Shetty,Systems Administrator,162,2017-07-26,30,324.39,920.84
997, James Arthur, Architect, 162, 2002-12-23, 30, ,427.98

Query to display the Employee Name and Salary of all the employees earning more than \$2850.

Query

SELECT Ename, Salary FROM EMPLOYEE WHERE Salary >2850;

Ename	Salary
Tom Hellen	2865.92
Shammy Kol	6800.23
Annie Wurrie	2921.37
Sandy Singla	2921.37

Query to display Employee Name and Department Number for the Employee No = 79.

Query

```
SELECT Ename, Dno
FROM EMPLOYEE
WHERE Eno ='79';
```

Ename	Dno
Sandy Singla	30

Query to display Employee Name and Salary for all employees whose salary is not in the range of \$1500 and \$2850.

Query

SELECT Ename, Salary
FROM EMPLOYEE
WHERE Salary NOT BETWEEN 1500 AND 2850;

Ename	Salary
Euria gong	502.30
Alicia Jones	980.35
Karan Kundra	521.37
Donielle Tuite	171.60
Frank Wong	926.42
Imran khan	651.05
Bella Cen	876.78
Tom Hellen	2865.92
Anjana Wurd	602.86
Shammy Kol	6800.23
Paul Den	693.63
Alexender Garh	381.64
Pratik Sehjpal	790.82
Paul Wongh	998.32
Kaushal King	506.44
Benny Dayal	779.34
Maxwell Lorel	969.66

Niel vayas	882.53
Jack kim	244.37
Annie Wurrie	2921.37
Onida shelza	704.23
James Bay	200.80
Justin Andie	497.18
Wenki Smith	387.43
Jenny Omi	789.82
Alica Prakash	174.12
Vex King	627.74
John Verma	471.17
Chandy Colba	697.68
Sandy Singla	2921.37
Jay Shetty	688.37
Ariana Grande	500.22
Dua Lipa	507.10
Adele Lipa	683.09
Rita Orra	586.13
Taylor Swift	295.31
Kate Bush	244.37
Charlie Falo	141.05
Alex Murrie	640.31
Mike Berry	239.27
Ed Sheeran	292.48
Farris Badwan	296.48
Radhi Shetty	920.84
James Arthur	427.98

Query to display Employee Name and Department No. of all the employees in Dept 10 and Dept 30 in the alphabetical order by name.

Query

```
SELECT Ename, Dno
FROM EMPLOYEE
WHERE Dno IN (10, 30)
ORDER BY Ename;
```

Ename	Dno
Alex Murrie	30
Alexender Garh	10
Alica Prakash	30
Chandy Colba	30
Charlie Falo	30
Ed Sheeran	30
Farris Badwan	30
James Arthur	30
James Bay	30
Jay Shetty	30
John Verma	30
Kaushal King	30
Maxwell Lorel	30
Mike Berry	30
Onida shelza	30
Pratik Sehjpal	30

Radhi Shetty	30
Rico Palico	30
Rita Orra	30
Sandy Singla	30
Shammy Kol	10
Taylor Swift	30
Vex King	30
Wenki Smith	10

Query to display Name and Hire Date of every Employee who was hired in 1981.

Query

```
SELECT Ename, Hire_date
FROM EMPLOYEE
WHERE Hire_date LIKE '1981%';
```

Ename	Hire_date
Rico Palico	1981-11-21
Tom Hellen	1981-09-11
John Verma	1981-05-27

Query to display Name and Job of all employees who have not assigned a supervisor.

Query

```
SELECT Ename, Job_type
FROM EMPLOYEE
WHERE SupervisorENo IS NULL;
```

Ename	Job_type
Karan Kundra	Intern
Shammy Kol	Managing Director
Alexender Garh	Assistant
Wenki Smith	Technician
Taylor Swift	Technician

Query to display the Name, Salary and Commission for all the employees who earn commission.

Query

SELECT Ename, Salary, Commission FROM EMPLOYEE WHERE Commission IS NOT NULL;

Ename	Salary	Commission
Paul Wongh	998.32	148.80
Maxwell Lorel	969.66	324.39
Niel vayas	882.53	546.04
Jack kim	244.37	125.45
Annie Wurrie	2921.37	235.90
Wenki Smith	387.43	530.53
Ariana Grande	500.22	574.68
Dua Lipa	507.10	453.52
Adele Lipa	683.09	239.84
Kate Bush	244.37	125.45
Radhi Shetty	920.84	324.39

Sort the data in descending order of Salary and Commission.

Query

SELECT *
FROM employee
ORDER BY Salary DESC , Commission DESC;

Eno	Ename	Job_type	SupervisorENo	Hire_date	Dno	Commission	Salary
343	Shammy Kol	Managing Director	NULL	1980-06-12	10	NULL	6800.23
6	Annie Wurrie	Manager	343	1983-08-14	90	235.90	2921.37
79	Sandy Singla	Intern	162	2004-08-14	30	NULL	2921.37
25	Tom Hellen	Manager	343	1981-09-11	40	NULL	2865.92
162	Rico Palico	Manager	343	1981-11-21	30	NULL	2195.92
492	Paul Wongh	Assistant	6	2008-12-13	90	148.80	998.32
12	Alicia Jones	Manager	343	1982-10-26	95	NULL	980.35
516	Maxwell Lorel	Systems Administrator	162	2008-03-31	30	324.39	969.66
188	Frank Wong	Manager	343	1995-08-05	40	NULL	926.42
981	Radhi Shetty	Systems Administrator	162	2017-07-26	30	324.39	920.84
518	Niel vayas	Accountant	188	1997-03-20	90	546.04	882.53
243	Bella Cen	Engineer	162	1983-06-22	40	NULL	876.78
442	Blake Morrie	Designer	162	2014-05-14	30	NULL	790.82
718	Jenny Omi	Intern	12	2006-03-25	95	NULL	789.82
504	Benny Dayal	Accountant	343	2008-05-24	40	NULL	779.34
611	Onida shelza	Engineer	162	2000-04-14	30	NULL	704.23
785	Chandy Colba	Consultant	162	1998-02-10	30	NULL	697.68

354	Paul Den	Analyst	1	2001-10-11	90	NULL	693.63
809	Jay Shetty	Consultant	162	1986-06-07	30	NULL	688.37
832	Adele Lipa	Intern	12	1997-11-04	95	239.84	683.09
232	Imran khan	Manager	343	1996-07-23	45	NULL	651.05
915	Alex Murrie	Designer	162	2006-06-24	30	NULL	640.31
763	Vex King	Analyst	162	2000-05-08	30	NULL	627.74
299	Anjana Wurd	Analyst	12	1990-07-20	95	NULL	602.86
837	Rita Orra	Engineer	162	1987-03-29	30	NULL	586.13
125	Karan Kundra	Intern	NULL	2008-05-15	NULL	NULL	521.37
823	Dua Lipa	Lawyer	232	2003-12-27	45	453.52	507.10
498	Kaushal King	Engineer	162	2004-04-04	30	NULL	506.44
1	Euria gong	Manager	343	2000-09-08	40	NULL	502.30
811	Ariana Grande	Lawyer	232	1999-04-16	45	574.68	500.22
691	king Andie	Manager	343	2015-10-13	90	NULL	497.18
783	John Verma	Analyst	162	1981-05-27	30	NULL	471.17
997	James Arthur	Architect	162	2002-12-23	30	NULL	427.98
697	Wenki Smith	Technician	NULL	2005-07-27	10	530.53	387.43
421	Alexender Garh	Assistant	NULL	2017-02-07	10	NULL	381.64
969	Farris Badwan	Developer	162	1986-01-23	30	NULL	296.48
842	Taylor Swift	Technician	NULL	1982-05-25	30	NULL	295.31
960	Ed Sheeran	Developer	162	1984-01-23	30	NULL	292.48
528	Jack kim	Intern	691	2019-09-06	90	125.45	244.37
87	Kate Bush	Intern	6	2008-05-02	90	125.45	244.37
932	Mike Berry	Engineer	162	2013-05-23	30	NULL	239.27
659	James Bay	Developer	162	2008-11-03	30	NULL	200.80
732	Alica Prakash	Architect	162	2019-04-29	30	NULL	174.12
146	Donielle Tuite	Intern	691	2016-06-12	90	NULL	171.60
908	Charlie Falo	Engineer	162	2002-12-23 3	0 N	NULL 1	41.05

Query to display Name of all the employees where the third letter of their name is 'A'.

Query

```
SELECT Ename
FROM EMPLOYEE
WHERE Ename LIKE '__A%';
```



Query to display Name of all employees who either have two 'R's or have two 'A's in their name and are either in Dept No = 30 or their Manager's Employee No = 7788.

Query

```
FROM EMPLOYEE

WHERE Ename LIKE '%R%R%'

OR Ename LIKE '%A%A%'

AND (Dno = 30

OR SupervisorENo ='7788');
```

Name
Karan Kundra
Alexender Garh
Blake Morrie
Kaushal King
Annie Wurrie
Onida shelza
James Bay
Alica Prakash
Chandy Colba
Sandy Singla
Ariana Grande
Rita Orra
Charlie Falo
Alex Murrie

Query to display the Current Date along with the day name.

Query

```
SELECT DATE(NOW()) AS "Date",DAYNAME(NOW()) AS "Day";
```

<u>Result</u>

	Date	Day
•	2022-01-22	Saturday

Query to display Name, Hire Date and Salary Review Date which is the 1st Monday after six months of employment.

Query

Ename	Hire_date	Salary_review_date
Euria gong	2000-09-08	2001-03-12
Alicia Jones	1982-10-26	1983-05-02
Karan Kundra	2008-05-15	2008-11-17
Donielle Tuite	2016-06-12	2016-12-12
Rico Palico	1981-11-21	1982-05-24
Frank Wong	1995-08-05	1996-02-05
Imran khan	1996-07-23	1997-01-27
Bella Cen	1983-06-22	1983-12-26
Tom Hellen	1981-09-11	1982-03-15

Anjana Wurd	1990-07-20	1991-01-21
Shammy Kol	1980-06-12	1980-12-15
Paul Den	2001-10-11	2002-04-15
Alexender Garh	2017-02-07	2017-08-07
Blake Morrie	2014-05-14	2014-11-17
Paul Wongh	2008-12-13	2009-06-15
Kaushal King	2004-04-04	2004-10-04
Benny Dayal	2008-05-24	2008-11-24
Maxwell Lorel	2008-03-31	2008-10-06
Niel vayas	1997-03-20	1997-09-22
Jack kim	2019-09-06	2020-03-09
Annie Wurrie	1983-08-14	1984-02-20
Onida shelza	2000-04-14	2000-10-16
James Bay	2008-11-03	2009-05-04
king Andie	2015-10-13	2016-04-18
Wenki Smith	2005-07-27	2006-01-30
Jenny Omi	2006-03-25	2006-09-25
Alica Prakash	2019-04-29	2019-11-04
Vex King	2000-05-08	2000-11-13
John Verma	1981-05-27	1981-11-30
Chandy Colba	1998-02-10	1998-08-10
Sandy Singla	2004-08-14	2005-02-14
Jay Shetty	1986-06-07	1986-12-08
Ariana Grande	1999-04-16	1999-10-18
Dua Lipa	2003-12-27	2004-06-28
Adele Lipa	1997-11-04	1998-05-04
Rita Orra	1987-03-29	1987-10-05

Taylor Swift	1982-05-25	1982-11-29
Kate Bush	2008-05-02	2008-11-03
Charlie Falo	2002-12-23	2003-06-23
Alex Murrie	2006-06-24	2006-12-25
Mike Berry	2013-05-23	2013-11-25

Query to display Name and calculate the number of months between today and the date on which employee was hired of department 'Purchase'

Query

```
SELECT Ename,

TIMESTAMPDIFF(MONTH, Hire_date, NOW())

AS "No. of Months till hired date"

FROM (EMPLOYEE NATURAL JOIN DEPARTMENT)

WHERE Dname = 'Purchase';
```

Ename	No. of Months till hired date
Alicia Jones	471
Anjana Wurd	378
Jenny Omi	190
Adele Lipa	290

Query to display the following for each employee <E-Name> earns < Salary> monthly but wants < 3 * Current Salary >. Label the Column as Dream Salary.

Query

```
SELECT CONCAT(Ename, 'earns $',

Salary, 'monthly ',

'but wants $', 3 * Salary)

AS "Dream Salary"

FROM EMPLOYEE;
```

Result

Dream Salary Euria gong earns \$502.30 monthly but wants \$1506.90 Alicia Jones earns \$980.35 monthly but wants \$2941.05 Karan Kundra earns \$521.37 monthly but wants \$1564.11 Donielle Tuite earns \$171.60 monthly but wants \$514.80 Rico Palico earns \$2195.92 monthly but wants \$6587.76 Frank Wong earns \$926.42 monthly but wants \$2779.26 Imran khan earns \$651.05 monthly but wants \$1953.15 Bella Cen earns \$876.78 monthly but wants \$2630.34 Tom Hellen earns \$2865.92 monthly but wants \$8597.76 Anjana Wurd earns \$602.86 monthly but wants \$1808.58 Shammy Kol earns \$6800.23 monthly but wants \$20400.69 Paul Den earns \$693.63 monthly but wants \$2080.89 Alexender Garh earns \$381.64 monthly but wants \$1144.92 Pratik Sehjpal earns \$790.82 monthly but wants \$2372.46 Paul Wongh earns \$998.32 monthly but wants \$2994.96 Kaushal King earns \$506.44 monthly but wants \$1519.32 Benny Dayal earns \$779.34 monthly but wants \$2338.02 Maxwell Lorel earns \$969.66 monthly but wants \$2908.98

Niel vayas earns \$882.53 monthly but wants \$2647.59 Jack kim earns \$244.37 monthly but wants \$733.11 Annie Wurrie earns \$2921.37 monthly but wants \$8764.11 Onida shelza earns \$704.23 monthly but wants \$2112.69 James Bay earns \$200.80 monthly but wants \$602.40 Justin Andie earns \$497.18 monthly but wants \$1491.54 Wenki Smith earns \$387.43 monthly but wants \$1162.29 Jenny Omi earns \$789.82 monthly but wants \$2369.46 Alica Prakash earns \$174.12 monthly but wants \$522.36 Vex King earns \$627.74 monthly but wants \$1883.22 John Verma earns \$471.17 monthly but wants \$1413.51 Chandy Colba earns \$697.68 monthly but wants \$2093.04 Sandy Singla earns \$2921.37 monthly but wants \$8764.11 Jay Shetty earns \$688.37 monthly but wants \$2065.11 Ariana Grande earns \$500.22 monthly but wants \$1500.66 Dua Lipa earns \$507.10 monthly but wants \$1521.30 Adele Lipa earns \$683.09 monthly but wants \$2049.27 Rita Orra earns \$586.13 monthly but wants \$1758.39 Taylor Swift earns \$295.31 monthly but wants \$885.93 Kate Bush earns \$244.37 monthly but wants \$733.11 Charlie Falo earns \$141.05 monthly but wants \$423.15 Alex Murrie earns \$640.31 monthly but wants \$1920.93 Mike Berry earns \$239.27 monthly but wants \$717.81 Ed Sheeran earns \$292.48 monthly but wants \$877.44 Farris Badwan earns \$296.48 monthly but wants \$889.44 Radhi Shetty earns \$920.84 monthly but wants \$2762.52 James Arthur earns \$427.98 monthly but wants \$1283.94

Query to display Name with the 1st letter capitalized and all other letters lowercase and length of their name of all the employees whose name starts with 'J', 'A' and 'M'.

Query

```
SELECT CONCAT(UPPER(SUBSTR(Ename, 1, 1)),
LOWER(SUBSTR(Ename, 2)))
AS "Name", LENGTH(Ename) AS "Length"
FROM EMPLOYEE
WHERE Ename LIKE 'J%'
OR Ename LIKE 'A%'
OR Ename LIKE 'M%';
```

Name	Length
Alicia jones	12
Anjana wurd	11
Alexender garh	14
Maxwell lorel	13
Jack kim	8
Annie wurrie	12
James bay	9
Justin andie	12
Jenny omi	9
Alica prakash	13
John verma	10
Jay shetty	10
Ariana grande	13
Adele lipa	10

Alex murrie	11
Mike berry	10
James arthur	12

Query to display Name, Hire Date and Day of the week on which the employee started.

Query

```
SELECT Ename, Hire_date, DAYNAME(Hire_date) AS "Day"
FROM employee;
```

Ename	Hire_date	Day
Euria gong	2000-09-08	Friday
Alicia Jones	1982-10-26	Tuesday
Karan Kundra	2008-05-15	Thursday
Donielle Tuite	2016-06-12	Sunday
Rico Palico	1981-11-21	Saturday
Frank Wong	1995-08-05	Saturday
Imran khan	1996-07-23	Tuesday
Bella Cen	1983-06-22	Wednesday
Tom Hellen	1981-09-11	Friday
Anjana Wurd	1990-07-20	Friday
Shammy Kol	1980-06-12	Thursday
Paul Den	2001-10-11	Thursday
Alexender Garh	2017-02-07	Tuesday
Blake Morrie	2014-05-14	Wednesday
Paul Wongh	2008-12-13	Saturday
Kaushal King	2004-04-04	Sunday
Benny Dayal	2008-05-24	Saturday
Maxwell Lorel	2008-03-31	Monday
Niel vayas	1997-03-20	Thursday
Jack kim	2019-09-06	Friday
Annie Wurrie	1983-08-14	Sunday

Onida shelza	2000-04-14	Friday
James Bay	2008-11-03	Monday
king Andie	2015-10-13	Tuesday
Wenki Smith	2005-07-27	Wednesday
Jenny Omi	2006-03-25	Saturday
Alica Prakash	2019-04-29	Monday
Vex King	2000-05-08	Monday
John Verma	1981-05-27	Wednesday
Chandy Colba	1998-02-10	Tuesday
Sandy Singla	2004-08-14	Saturday
Jay Shetty	1986-06-07	Saturday
Ariana Grande	1999-04-16	Friday
Dua Lipa	2003-12-27	Saturday
Adele Lipa	1997-11-04	Tuesday
Rita Orra	1987-03-29	Sunday
Taylor Swift	1982-05-25	Tuesday
Kate Bush	2008-05-02	Friday
Charlie Falo	2002-12-23	Monday
Alex Murrie	2006-06-24	Saturday
Mike Berry	2013-05-23	Thursday
Ed Sheeran	1984-01-23	Monday
Farris Badwan	1986-01-23	Thursday
Radhi Shetty	2017-07-26	Wednesday
James Arthur	2002-12-23	Monday

Query to display Name, Department Name and Department No for all the employees.

Query

```
SELECT Ename, Dname, Dno
FROM EMPLOYEE NATURAL JOIN DEPARTMENT;
```

Ename	Dname	Dno
Euria gong	Administration	40
Alicia Jones	Purchase	95
Donielle Tuite	Sales	90
Rico Palico	IT	30
Frank Wong	Administration	40
Imran khan	Legal	45
Bella Cen	Administration	40
Tom Hellen	Administration	40
Anjana Wurd	Purchase	95
Shammy Kol	Headquarters	10
Paul Den	Sales	90
Alexender Garh	Headquarters	10
Pratik Sehjpal	IT	30
Paul Wongh	Sales	90
Kaushal King	IT	30
Benny Dayal	Administration	40
Maxwell Lorel	IT	30
Niel vayas	Sales	90
Jack kim	Sales	90
Annie Wurrie	Sales	90

Onida shelza	IT	30
James Bay	IT	30
Justin Andie	Sales	90
Wenki Smith	Headquarters	10
Jenny Omi	Purchase	95
Alica Prakash	IT	30
Vex King	IT	30
John Verma	IT	30
Chandy Colba	IT	30
Sandy Singla	IT	30
Jay Shetty	IT	30
Ariana Grande	Legal	45
Dua Lipa	Legal	45
Adele Lipa	Purchase	95
Rita Orra	IT	30
Taylor Swift	IT	30
Kate Bush	Sales	90
Charlie Falo	IT	30
Alex Murrie	IT	30
Mike Berry	IT	30
Ed Sheeran	IT	30
Farris Badwan	IT	30
Radhi Shetty	IT	30
James Arthur	IT	30

Query to display Unique Listing of all Jobs that are in Department number 30.

Query

```
SELECT DISTINCT(Job_type)
FROM EMPLOYEE
WHERE Dno=30;
```

Job_type
Manager
Designer
Engineer
Systems Administrator
Developer
Architect
Analyst
Consultant
Intern
Technician

Query to display Name, Dept Name of all employees who have an 'A' in their name.

Query

```
SELECT Ename, Dname

FROM EMPLOYEE NATURAL JOIN DEPARTMENT

WHERE Ename LIKE '%A%';
```

Ename	Dname
Euria gong	Administration
Alicia Jones	Purchase
Rico Palico	IT
Frank Wong	Administration
Imran khan	Legal
Bella Cen	Administration
Anjana Wurd	Purchase
Shammy Kol	Headquarters
Paul Den	Sales
Alexender Garh	Headquarters
Pratik Sehjpal	IT
Paul Wongh	Sales
Kaushal King	IT
Benny Dayal	Administration
Maxwell Lorel	IT
Niel vayas	Sales
Jack kim	Sales
Annie Wurrie	Sales
Onida shelza	IT

James Bay	IT
Justin Andie	Sales
Alica Prakash	IT
John Verma	IT
Chandy Colba	IT
Sandy Singla	IT
Jay Shetty	IT
Ariana Grande	Legal
Dua Lipa	Legal
Adele Lipa	Purchase
Rita Orra	IT
Taylor Swift	IT
Kate Bush	Sales
Charlie Falo	IT
Alex Murrie	IT
Ed Sheeran	IT
Farris Badwan	IT
Radhi Shetty	IT
James Arthur	IT

Query to display Name, Job, Department No. And Department Name for all the employees working at the Dallas location.

Query

```
SELECT Ename, Job_type, Dno, Dname
FROM EMPLOYEE NATURAL JOIN DEPARTMENT
WHERE Location = 'Dallas';
```

Ename	Job_type	Dno	Dname
Alicia Jones	Manager	95	Purchase
Anjana Wurd	Analyst	95	Purchase
Jenny Omi	Intern	95	Purchase
Adele Lipa	Intern	95	Purchase

Query to display Name and Employee no. Along with their supervisor's Name and the supervisor's employee no; along with the Employees' Name who do not have a supervisor.

Query

```
SELECT E.Ename, E.Eno,

S.Ename AS SupervisorName,

S.Eno AS SupervisorEno

FROM EMPLOYEE AS E

LEFT OUTER JOIN EMPLOYEE AS S

ON E.SupervisorENo = S.Eno

LIMIT 8;
```

Ename	Eno	SupervisorName	SupervisorEno
Euria gong	1	Shammy Kol	343
Alicia Jones	12	Shammy Kol	343
Karan Kundra	125	NULL	NULL
Donielle Tuite	146	king Andie	691
Rico Palico	162	Shammy Kol	343
Frank Wong	188	Shammy Kol	343
Imran khan	232	Shammy Kol	343
Bella Cen	243	Rico Palico	162

Query to display Name, Dept No. And Salary of any employee whose department No. and salary matches both the department no. And the salary of any employee who earns a commission

Query

```
FROM EMPLOYEE AS L,

EMPLOYEE AS R

WHERE L.Dno = R.Dno

AND L.Salary = R.Salary

AND L.Eno <> R.Eno

AND R.Commission IS NOT NULL;
```

Ename	Dno	Salary
Jack kim	90	244.37
Kate Bush	90	244.37

Query to display Name and Salaries represented by asterisks, where each asterisk (*) signifies \$100.

Query

```
SELECT Ename,

RPAD('*', Salary / 100, '*')

AS " Salary(in *)"

FROM EMPLOYEE

LIMIT 8;
```

Ename	Salary(in *)
Euria gong	****
Alicia Jones	*******
Karan Kundra	****
Donielle Tuite	**
Rico Palico	*******
Frank Wong	******
Imran khan	******
Bella Cen	******

Query to display the Highest, Lowest, Sum and Average Salaries of all the employees

Query

```
SELECT MAX(Salary) AS MAX_Salary,

MIN(Salary) AS MIN_Salary,

SUM(Salary)AS SUM,

AVG(Salary)AS AVG_Salary

FROM EMPLOYEE;
```

MAX_Salary	MIN_Salary	SUM	AVG_Salary
6800.23	141.05	40197.46	893.276889

Query to display the number of employees performing the same Job type functions.

Query

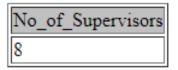
```
SELECT Job_type,COUNT(DISTINCT Eno) AS "No of Employees "
FROM EMPLOYEE
GROUP BY Job_type;
```

Job_type	No of Employees
Accountant	2
Analyst	4
Architect	2
Assistant	2
Consultant	2
Designer	2
Developer	3
Engineer	6
Intern	7
Lawyer	2
Manager	8
Managing Director	1
Systems Administrator	2
Technician	2

Query to display the total number of supervisors without listing their names.

Query

```
SELECT COUNT(DISTINCT (SupervisorENo)) AS "No_of_Supervisors"
FROM EMPLOYEE;
```



Query to display the Department Name, Location Name, No. of Employees and the average salary for all employees in that department.

Query

```
SELECT Dname, Location,

COUNT(DISTINCT Eno) AS "No of Employees",

AVG(Salary) AS "Avg Salary"

FROM EMPLOYEE NATURAL JOIN DEPARTMENT

GROUP BY Dname;
```

Dname	Location	No of Employees	Avg Salary
Administration	New Delhi	5	1190.152000
Headquarters	London	3	2523.100000
IT	Mumbai	21	704.198571
Legal	London	3	552.790000
Purchase	Dallas	4	764.030000
Sales	New Delhi	8	831.671250

Query to display Name and Hire Date for all employees in the same dept. as Blake.

Query

```
SELECT Ename, Hire_date
FROM EMPLOYEE
WHERE Dno IN
( SELECT Dno
FROM EMPLOYEE
WHERE Ename LIKE'Blake%');
```

Ename	Hire_date
Rico Palico	1981-11-21
Blake Morrie	2014-05-14
Kaushal King	2004-04-04
Maxwell Lorel	2008-03-31
Onida shelza	2000-04-14
James Bay	2008-11-03
Alica Prakash	2019-04-29
Vex King	2000-05-08
John Verma	1981-05-27
Chandy Colba	1998-02-10
Sandy Singla	2004-08-14
Jay Shetty	1986-06-07
Rita Orra	1987-03-29
Taylor Swift	1982-05-25
Charlie Falo	2002-12-23
Alex Murrie	2006-06-24
Mike Berry	2013-05-23
Ed Sheeran	1984-01-23
Farris Badwan	1986-01-23

Query to display the Employee No. And Name for all employees who earn more than the average salary

Query

```
FROM EMPLOYEE
WHERE Salary > (SELECT AVG(Salary)
FROM EMPLOYEE);
```

Ename	Salary
Alicia Jones	980.35
Rico Palico	2195.92
Frank Wong	926.42
Tom Hellen	2865.92
Shammy Kol	6800.23
Paul Wongh	998.32
Maxwell Lorel	969.66
Annie Wurrie	2921.37
Sandy Singla	2921.37
Radhi Shetty	920.84

Query to display Employee Number and Name for all employees who work in a department with any employee whose name contains a 'T'.

Query

```
SELECT Ename, Eno
FROM EMPLOYEE
WHERE Dno IN(
SELECT Dno
FROM EMPLOYEE
WHERE Ename LIKE '%T%');
```

Ename	Eno
Euria gong	1
Donielle Tuite	146
Rico Palico	162
Frank Wong	188
Bella Cen	243
Tom Hellen	25
Shammy Kol	343
Paul Den	354
Alexender Garh	421
Pratik Sehjpal	442
Paul Wongh	492
Kaushal King	498
Benny Dayal	504
Maxwell Lorel	516
Niel vayas	518
Jack kim	528
Annie Wurrie	6
Onida shelza	611

	$\overline{}$
James Bay	659
Justin Andie	691
Wenki Smith	697
Alica Prakash	732
Vex King	763
John Verma	783
Chandy Colba	785
Sandy Singla	79
Jay Shetty	809
Rita Orra	837
Taylor Swift	842
Kate Bush	87
Charlie Falo	908
Alex Murrie	915
Mike Berry	932
Ed Sheeran	960
Farris Badwan	969
Radhi Shetty	981
James Arthur	997

Query to display the names and salaries of all employees who report to a supervisor named 'King' .

Query

```
FROM EMPLOYEE
WHERE SupervisorENo IN
(SELECT Eno
FROM EMPLOYEE
WHERE Ename LIKE 'King%');
```

Ename	Salary
Donielle Tuite	171.60
Jack kim	244.37

Query to display the department no, name and job for all employees in the Sales department .

Query

```
SELECT Ename,Dno,Job_type
FROM EMPLOYEE NATURAL JOIN DEPARTMENT
WHERE Dname ='Sales';
```

Ename	Dno	Job_type
Donielle Tuite	90	Intern
Paul Den	90	Analyst
Paul Wongh	90	Assistant
Niel vayas	90	Accountant
Jack kim	90	Intern
Annie Wurrie	90	Manager
Justin Andie	90	Manager
Kate Bush	90	Intern

Display names of employees along with their department name who have more than 20 years experience

Query

```
FROM EMPLOYEE NATURAL JOIN DEPARTMENT
WHERE TIMESTAMPDIFF

(YEAR,

Hire_date,

NOW()) > 20

LIMIT 6;
```

Ename	Dname
Euria gong	Administration
Alicia Jones	Purchase
Rico Palico	IT
Frank Wong	Administration
Imran khan	Legal
Bella Cen	Administration

Display total number of departments at each location.

Query

```
SELECT Location,

COUNT(Dno) AS " No of Departement"

FROM DEPARTMENT

GROUP BY Location;
```

Location	No of Departement
London	2
Dallas	2
Mumbai	1
New Delhi	3

Find the department name in which at least 20 employees work.

Query

```
FROM EMPLOYEE NATURAL JOIN DEPARTMENT
GROUP BY Dname
HAVING COUNT(Eno) > 20;
```



Query to find the employee' name who is not supervisor and name of supervisor supervising more than 5 employees.

Query

```
(SELECT Ename
FROM EMPLOYEE

WHERE Eno NOT IN (SELECT DISTINCT SupervisorENo
FROM EMPLOYEE

WHERE SupervisorENo IS NOT NULL)
)

UNION
(SELECT Ename
FROM EMPLOYEE

WHERE Eno IN (SELECT SupervisorENo
FROM EMPLOYEE

WHERE SupervisorENo IS NOT NULL

GROUP BY SupervisorENo
HAVING COUNT(*) > 5)
);
```

Result

Ename
Karan Kundra
Donielle Tuite
Bella Cen
Tom Hellen
Anjana Wurd
Paul Den
Alexender Garh
Blake Morrie
Paul Wongh
Kaushal King
Benny Dayal
Maxwell Lorel

Query to display the job type with maximum and minimum employees.

Query

```
WITH CTE AS (

SELECT COUNT(*) AS C

FROM EMPLOYEE

GROUP BY Job_type
)

SELECT Job_type,COUNT(*) AS "COUNT"

FROM EMPLOYEE

GROUP BY Job_type

HAVING COUNT(*) IN (

(SELECT MAX(C)

FROM CTE)

UNION

(SELECT MIN(C)

FROM CTE)
);
```

Job_type	COUNT
Manager	8
Managing Director	1