CREATE TABLE IF NOT EXISTS Employee  
(  
 ENO BIGINT,  
 FNAME VARCHAR(50) NOT NULL,  
 LNAME VARCHAR(50) NOT NULL,  
 DESIG VARCHAR(50),  
 MGR BIGINT,  
 DOB DATE,  
 HDATE DATE,  
 Salary NUMERIC(8, 2),  
 Commission NUMERIC(8, 2),  
 PRIMARY KEY (ENO),  
 FOREIGN KEY (MGR) REFERENCES Employee (ENO),  
 CONSTRAINT DOB\_Check CHECK ( YEAR(DOB) <= 1980 ),  
 CONSTRAINT Salary\_Check CHECK ( Salary BETWEEN 20000 AND 100000 )  
);  
  
  
INSERT INTO Employee  
VALUES (101, 'Janson', 'Hass', 'President', NULL, STR\_TO\_DATE('12/09/1973', '%d/%m/%Y'),  
 STR\_TO\_DATE('12/01/2003', '%d/%m/%Y'), 87500.00, NULL),  
 (110, 'James', 'Thompson', 'Manager', 101, STR\_TO\_DATE('06/01/1973', '%d/%m/%Y'),  
 STR\_TO\_DATE('25/02/2008', '%d/%m/%Y'), 52950.00, NULL),  
 (115, 'Celia', 'Geyer', 'Manager', 101, STR\_TO\_DATE('07/09/1972', '%d/%m/%Y'),  
 STR\_TO\_DATE('17/09/2007', '%d/%m/%Y'), 46850.00, 22530.00),  
 (117, 'Robert', 'Stern', 'Manager', 101, STR\_TO\_DATE('04/02/1972', '%d/%m/%Y'),  
 STR\_TO\_DATE('15/03/2006', '%d/%m/%Y'), 49900.00, 20555.00),  
 (135, 'Linda', 'Pulaski', 'Salesman', 110, STR\_TO\_DATE('29/08/1968', '%d/%m/%Y'),  
 STR\_TO\_DATE('19/09/2007', '%d/%m/%Y'), 21250.00, 14500.00),  
 (142, 'David', 'Henderson', 'Salesman', 110, STR\_TO\_DATE('02/02/1970', '%d/%m/%Y'),  
 STR\_TO\_DATE('23/03/2006', '%d/%m/%Y'), 21700.00, 12400.00),  
 (167, 'Martin', 'Spenser', 'Salesman', 110, STR\_TO\_DATE('09/02/1971', '%d/%m/%Y'),  
 STR\_TO\_DATE('28/07/2005', '%d/%m/%Y'), 27000.00, 16600.00),  
 (172, 'Smith', 'Nicholls', 'Clerk', 110, STR\_TO\_DATE('12/03/1965', '%d/%m/%Y'),  
 STR\_TO\_DATE('26/04/2003', '%d/%m/%Y'), 21850.00, NULL),  
 (154, 'Larry', 'Adamson', 'Salesman', 110, STR\_TO\_DATE('02/02/1974', '%d/%m/%Y'),  
 STR\_TO\_DATE('18/02/2004', '%d/%m/%Y'), 22250.00, 17000.00),  
 (179, 'Mathews', 'Pinka', 'Analyst Manager', 117, STR\_TO\_DATE('08/01/1975', '%d/%m/%Y'),  
 STR\_TO\_DATE('23/04/2008', '%d/%m/%Y'), 35000.00, NULL),  
 (183, 'Sally', 'Brown', 'Clerk', 179, STR\_TO\_DATE('29/08/1968', '%d/%m/%Y'),  
 STR\_TO\_DATE('14/07/2008', '%d/%m/%Y'), 21250.00, NULL),  
 (190, 'Christine', 'Jones', 'Analyst Manager', 117, STR\_TO\_DATE('13/09/1968', '%d/%m/%Y'),  
 STR\_TO\_DATE('05/09/2005', '%d/%m/%Y'), 34000.00, NULL),  
 (199, 'Michael', 'Parker', 'Clerk', 190, STR\_TO\_DATE('07/02/1971', '%d/%m/%Y'),  
 STR\_TO\_DATE('17/03/2004', '%d/%m/%Y'), 21600.00, NULL),  
 (200, 'John', 'Mehta', 'Clerk', 115, STR\_TO\_DATE('02/03/1975', '%d/%m/%Y'),  
 STR\_TO\_DATE('12/02/2006', '%d/%m/%Y'), 21350.00, NULL),  
 (137, 'Bruce', 'Wong', 'Salesman', 110, STR\_TO\_DATE('12/12/1976', '%d/%m/%Y'),  
 STR\_TO\_DATE('18/10/2005', '%d/%m/%Y'), 22250.00, 13000.00);  
  
  
PS 3-Ques 1  
SELECT \*  
FROM Employee  
WHERE DOB <= ANY (SELECT DOB FROM Employee WHERE ENO = 167);  
  
PS 3-Ques 2  
SELECT FNAME, LNAME  
FROM Employee  
WHERE TIMESTAMPDIFF(YEAR, DOB, CURRENT\_TIMESTAMP) < 30;  
  
PS 3-Ques 3  
SELECT \*  
FROM Employee  
WHERE LNAME LIKE '%er';  
  
PS 3-Ques 4  
SELECT FNAME, LNAME  
FROM Employee  
WHERE FNAME REGEXP '^[MJ]**\w**\*';  
  
PS 3-Ques 5  
SELECT FNAME, LNAME, Salary  
FROM Employee  
WHERE DESIG LIKE '%Manager%';  
  
PS 3-Ques 6  
SELECT \*  
FROM Employee  
WHERE DOB IN (SELECT MIN(DOB) FROM Employee);  
  
PS 3-Ques 7  
SELECT \*  
FROM Employee  
WHERE DESIG NOT IN ('Manager', 'Analyst Manager');  
  
PS 3-Ques 8  
SELECT \*  
FROM Employee  
WHERE Salary > 35000  
 AND (YEAR(DOB) BETWEEN 1966 AND 1976);  
  
PS 3-Ques 9  
SELECT FNAME, LNAME, DESIG, Salary  
FROM Employee  
WHERE Salary >= 35000  
 AND DESIG IN ('Manager', 'Analyst Manager');  
  
PS 3-Ques 10  
SELECT ENO, FNAME, LNAME, DESIG, Salary  
FROM Employee  
WHERE Commission >= 15000  
 AND DESIG IN ('Manager', 'Salesman');  
  
PS 3-Ques 11  
SELECT DESIG, COUNT(DESIG)  
FROM Employee  
GROUP BY DESIG;  
  
PS 3-Ques 12  
SELECT ENO, LNAME, Salary  
FROM Employee  
WHERE LNAME IN ('Thompson', 'Spenser', 'Geyer', 'Brown', 'Jones');  
  
PS 3-Ques 13  
SELECT YEAR(HDATE), COUNT(\*)  
FROM Employee  
GROUP BY YEAR(HDATE)  
ORDER BY YEAR(HDATE);  
  
PS 3-Ques 14  
SELECT ENO, LNAME, Salary, TIMESTAMPDIFF(YEAR, DOB, CURRENT\_TIMESTAMP)  
FROM Employee  
WHERE TIMESTAMPDIFF(YEAR, DOB, CURRENT\_TIMESTAMP) BETWEEN 30 AND 40;  
  
PS 3-Ques 15  
SELECT FNAME  
FROM Employee  
WHERE MGR IN (SELECT ENO FROM Employee WHERE FNAME IN ('James', 'Robert', 'Celia'));  
  
PS 3-Ques 16  
SELECT CONCAT('"', FNAME, '","', LNAME, '","', DESIG, '"')  
FROM Employee;  
  
PS 3-Ques 17  
SELECT \*  
FROM Employee  
WHERE Commission IS NOT NULL  
ORDER BY DOB  
LIMIT 1;  
  
PS 3-Ques 18  
SELECT CONCAT('Dear \'',FNAME,'\', you were born on ',DATE\_FORMAT(DOB, '%d, %D - %M - %Y'))  
FROM Employee;  
  
PS 3-Ques 19  
SELECT \*  
FROM Employee  
WHERE (DESIG, Salary) IN (SELECT DESIG, MAX(Salary) FROM Employee GROUP BY DESIG);  
  
PS 3-Ques 20  
SELECT \*  
FROM Employee  
WHERE MONTH(DOB) IN (1, 2, 8);  
  
PS 3-Ques 21  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name,  
 Salary,  
 Commission,  
 Salary + COALESCE(Commission, 0) AS 'Total Remuneration'  
FROM Employee;  
  
PS 3-Ques 22  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name,  
 Salary,  
 COALESCE(Commission, NOT ISNULL(Commission)),  
 Salary + COALESCE(Commission, 0) AS 'Total Remuneration'  
FROM Employee;  
  
PS 3-Ques 23  
SELECT FNAME  
FROM Employee  
WHERE (DESIG, HDATE) IN (SELECT DESIG, MIN(HDATE) FROM Employee GROUP BY DESIG);  
  
PS 3-Ques 24  
SELECT \*  
FROM Employee  
WHERE DESIG = 'Manager'  
 AND YEAR(DOB) < 1973  
 AND Salary > 40000;  
  
PS 3-Ques 25  
SELECT \*  
FROM Employee  
WHERE Commission IS NULL  
 AND Salary BETWEEN 25000 AND 35000;  
  
PS 3-Ques 26  
SELECT \*  
FROM Employee  
WHERE MONTH(DOB) = MONTH(HDATE);  
  
PS 3-Ques 27  
SELECT ENO, FNAME, DATE\_FORMAT(HDATE, '%M %d,%Y')  
FROM Employee;  
  
PS 3-Ques 28  
SELECT ENO,  
 CONCAT(FNAME, ' ', LNAME) AS Name,  
 DESIG,  
 HDATE,  
 TIMESTAMPDIFF(YEAR, HDATE, CURRENT\_TIMESTAMP) AS Experience  
FROM Employee  
WHERE ENO IN (SELECT DISTINCT MGR FROM Employee WHERE MGR IS NOT NULL);  
  
PS 3-Ques 29  
SELECT ENO,  
 CONCAT(FNAME, ' ', LNAME) AS Name,  
 Salary  
FROM Employee  
WHERE TIMESTAMPDIFF(YEAR, HDATE, CURRENT\_TIMESTAMP) > 5  
 AND DESIG IN ('Manager', 'Analyst Manager')  
 AND Commission IS NULL  
ORDER BY ENO;  
  
PS 3-Ques 30  
SELECT \*  
FROM Employee  
WHERE HDATE > (SELECT HDATE FROM Employee WHERE FNAME = 'Martin');  
  
PS 3-Ques 31  
SELECT FNAME  
FROM Employee  
WHERE Salary IN (SELECT Salary FROM Employee WHERE FNAME = 'Larry');  
  
PS 3-Ques 32  
SELECT FNAME  
FROM Employee  
WHERE DESIG IN (SELECT DESIG FROM Employee WHERE FNAME = 'James') # Should james be included are not?  
 AND Salary > (SELECT Salary FROM Employee WHERE FNAME = 'Celia');  
  
PS 3-Ques 33  
SELECT \*  
FROM Employee  
WHERE (Salary + COALESCE(Commission, 0)) =  
 (SELECT MAX(Salary + COALESCE(Commission, 0)) FROM Employee);  
  
PS 3-Ques 34  
SELECT \*  
FROM Employee  
WHERE DESIG = 'Salesman'  
 AND HDATE = (SELECT MAX(HDATE) FROM Employee WHERE DESIG = 'Salesman');  
  
PS 3-Ques 35  
SELECT \*  
FROM Employee  
WHERE MGR = 110  
 AND HDATE < (SELECT MAX(HDATE) FROM Employee WHERE MGR = 110);  
  
PS 3-Ques 36  
SELECT \*  
FROM Employee  
WHERE HDATE < (SELECT MAX(HDATE) FROM Employee WHERE YEAR(HDATE) >= 1991);  
  
PS 3-Ques 37  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name  
FROM Employee  
WHERE Salary >= (SELECT (MIN(Salary) + MAX(Salary)) / 2 FROM Employee);  
  
PS 3-Ques 38  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name  
FROM Employee  
ORDER BY (Salary + COALESCE(Commission, 0))  
LIMIT 5;  
  
PS 3-Ques 39  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name,  
 Salary,  
 COALESCE(Commission, NOT ISNULL(Commission)) AS 'Commission',  
 Salary + COALESCE(Commission, 0) AS 'Netpay'  
FROM Employee  
WHERE (Salary + COALESCE(Commission, 0)) = (SELECT MAX(Salary + COALESCE(Commission, 0)) FROM Employee);  
  
PS 3-Ques 40  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name  
FROM Employee  
WHERE HDATE IN (SELECT HDATE FROM Employee GROUP BY HDATE HAVING COUNT(\*) > 1);  
  
PS 3-Ques 41  
SELECT COUNT(\*)  
FROM Employee  
WHERE MGR IS NULL;  
  
PS 3-Ques 42  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name  
FROM Employee  
WHERE ENO IN (SELECT MGR  
 FROM Employee  
 GROUP BY MGR  
 HAVING COUNT(\*) = (SELECT COUNT(\*) FROM Employee GROUP BY MGR ORDER BY COUNT(\*) DESC LIMIT 1));  
  
  
PS 3-Ques 43

SELECT \*  
FROM Employee  
WHERE (DESIG, HDATE) IN (SELECT DESIG, MAX(HDATE) FROM Employee GROUP BY DESIG)  
ORDER BY HDATE;  
  
PS 3-Ques 44  
SELECT CONCAT(FNAME, ' ', LNAME) AS Name, DESIG  
FROM Employee  
WHERE Commission IS NOT NULL  
 AND Salary IN (SELECT MAX(Salary) FROM Employee WHERE Commission IS NOT NULL);  
  
PS 3-Ques 45  
SELECT \*  
FROM Employee  
WHERE Salary IN (SELECT Salary FROM Employee GROUP BY Salary HAVING COUNT(\*) > 1);  
  
PS 3-Ques 46  
SELECT DESIG, AVG(Salary)  
FROM Employee  
WHERE DESIG != 'President'  
GROUP BY DESIG  
ORDER BY AVG(Salary) DESC  
LIMIT 1;  
  
PS 3-Ques 47  
SELECT ENO  
FROM Employee  
WHERE ENO NOT IN (SELECT DISTINCT MGR FROM Employee WHERE MGR IS NOT NULL);  
  
PS 3-Ques 48  
SELECT SUM(Salary + COALESCE(Commission, 0)) AS 'Total Remuneration'  
FROM Employee  
WHERE MGR = 110;  
  
PS 3-Ques 49  
UPDATE Employee  
SET Commission = Commission + (Salary \* 0.1)  
WHERE MONTH(DOB) = MONTH(CURRENT\_DATE);  
  
PS 3-Ques 50  
DELETE  
FROM Employee  
WHERE Salary > 40000  
 AND DESIG NOT IN ('President', 'Manager');

Final Employee table

