# DBMS WORKSHEET PS3

create table employee(  
 ENO INT ,  
 First\_Name VARCHAR(20) not null ,  
 Last\_Name VARCHAR(20) not null ,  
 Designation VARCHAR(20),  
 MGR INT,  
 DOB date,  
 HDATE date,  
 Salary INT,  
 Commission INT,  
 PRIMARY KEY(ENO),  
 FOREIGN KEY (MGR) REFERENCES employee(ENO),  
 CONSTRAINT DOB\_CHECK CHECK ( YEAR(DOB) <= 1980 ),  
 CONSTRAINT Salary\_Check CHECK ( Salary > 20000 and Salary < 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);

1.

select \* from employee  
where DOB < ANY (select DOB from employee where ENO = 167);

2.

select First\_Name, Last\_Name from employee  
where TIMESTAMPDIFF(year , DOB,CURRENT\_TIMESTAMP) < 30;

3.

select \* from employee  
where Last\_Name like '%er';

4.

select First\_Name from employee  
where First\_Name like 'M%' or First\_Name like 'J%'  
order by First\_Name;

5.

select First\_Name,Last\_Name,Salary from employee  
where Designation = 'Analyst Manager' or Designation = 'Manager';

6.

select \* from employee  
where DOB IN (select MIN(DOB) from employee);

7.

select First\_Name from employee  
where Designation NOT IN ('Analyst Manager','Manager');

8.

select \* from employee  
where Salary > 35000 and  
 year(DOB) between 1966 and 1976;

9.

select ENO,First\_Name,Last\_Name,Designation,Salary  
 from employee  
where Commission >= 15000 and  
 Designation in ('Salesman' or 'Manager');

10.

select Designation,count(ENO) as Count from employee  
group by Designation;

11

select Designation,count(ENO) as Count from employee  
group by Designation;

12.

select ENO,Last\_Name,Salary from employee  
where Last\_Name in ('Thompson','Spenser','Geyer','Geyer','Geyer');

13.

select year(HDATE),count(ENO) as Count from employee  
group by year(HDATE);

14.

select ENO,Last\_Name,Salary,TIMESTAMPDIFF(year ,DOB,CURRENT\_TIMESTAMP) from employee  
where TIMESTAMPDIFF(year ,DOB,CURRENT\_TIMESTAMP) between 30 and 40;

15

SELECT First\_Name  
FROM employee  
WHERE MGR IN (SELECT ENO FROM employee WHERE First\_Name IN ('James', 'Robert', 'Celia'));

16

select First\_Name as 'First Name', Last\_Name as 'Last Name', Designation as Designation from employee;

17

select First\_Name from employee  
where Commission is not null  
order by DOB   
limit 1;

18

19

select Designation,First\_Name from employee  
where (Designation,Salary) in (select Designation,MAX(Salary) from employee group by Designation);

20

select ENO,First\_Name,Last\_Name,Salary from employee  
where month(DOB) in (1,2,8);

21

select First\_Name,Salary,Commission,Salary + COALESCE(Commission,0) as Total\_Remuneration from employee;

22

select First\_Name,Salary,COALESCE(Commission,0) as Commission,  
 Salary + COALESCE(Commission,0) as Total\_Remuneration  
from employee;

23

select Designation,First\_Name from employee  
where (Designation,HDATE) IN  
 (select Designation,MIN(HDATE) from employee group by Designation);

24

select \* from employee  
where Designation = 'Manager' and  
 Salary > 40000 and  
 year(DOB) < 1973;

25

select \* from employee  
where Commission is null and  
 (Salary > 25000 and Salary < 35000);

26

select \* from employee  
where month(DOB) = month(HDATE);

27

select ENO,First\_Name ,DATE\_FORMAT(HDATE,'%M %d %Y') from employee;

28

select ENO,First\_Name,Designation,HDATE,  
 TIMESTAMPDIFF(year ,HDATE,CURRENT\_TIMESTAMP) as Experience from employee  
where Designation = 'Manager';

29

select ENO,First\_Name,Salary from employee  
where Designation in ('Manager','Analyst') and  
 Commission is null and  
 TIMESTAMPDIFF(year ,HDATE,CURRENT\_TIMESTAMP) > 5  
order by ENO;

30

select First\_Name from employee  
where HDATE > (select HDATE from employee where First\_Name = 'Martin');

31

select First\_Name from employee  
where Salary = (select Salary from employee where First\_Name = 'Larry');

32

select First\_Name from employee  
where Designation = (select Designation from employee where First\_Name = 'James') or  
 Salary > (select Salary from employee where First\_Name = 'Celia');

33

select \* from employee  
where Salary + COALESCE(Commission,0) =  
 (select MAX(Salary + COALESCE(Commission,0) )from employee);

34

select \* from employee  
where Designation = 'Salesman'  
order by HDATE desc limit 1;

35

select First\_Name from employee  
where MGR = 110 and  
 HDATE < (select MAX(HDATE) from employee);

36

select \* from employee  
where HDATE < (select MAX(HDATE) from employee where year(HDATE) >= 1991)

37

select First\_Name from employee  
where Salary >= (select (MIN(Salary) + MAX(Salary))/2 from employee);

38

select First\_Name from employee  
order by (Salary + COALESCE(Commission,0))  
limit 5;

39

select First\_Name,Salary,Salary +COALESCE(Commission,0) as Netpay from employee  
where Salary + COALESCE(Commission,0) =  
 (select MAX(Salary + COALESCE(Commission,0)) from employee);

40

select First\_Name from employee  
where HDATE IN (select HDATE from employee group by HDATE having count(\*) > 1)

41

select First\_Name from employee  
where MGR is null;

42

select First\_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));

43

select \* from employee  
where (Designation,HDATE) in (select Designation,MAX(HDATE) from employee group by Designation)  
order by HDATE;

44

select CONCAT(First\_Name, ' ',Last\_Name) as Name,Designation from employee  
where Commission is not null and  
 Salary in (select MAX(Salary) from employee where Commission is not null);

45

select \* from employee  
where Salary in (select Salary from employee group by Salary having count(\*) > 1)  
order by Salary;

46

select Designation,AVG(Salary) from employee  
where Designation != 'President'  
group by Designation  
order by AVG(Salary) desc;

47

select ENO from employee  
where ENO not in (select distinct MGR from employee where MGR is not null);

48

select Salary + COALESCE(Commission,0) as Total\_Remuneration from employee  
where MGR = 110;

49

update employee  
set Commission = Commission + (0.1 \* Commission)  
where MONTH(DOB) = MONTH(CURDATE());

50

delete from employee  
where Salary > 40000 and  
 Designation not in ('President','Manager');