SET 2

11. Create the EMP Table with all necessary constraints such as

In EMP TABLE: Employee id should be primary key, Department no should be foreign key, employee age (birthdate) should be greater than 18 years, salary should be greater than zero, email should have (@ and dot) sign in address, designation of employee can be “manager”, “clerk”, “leader”, “analyst”, “designer”, “coder”, “tester”.

1. Create DEPT table with necessary constraint such as Department no should be primary key, department name should be unique.

```
create table simple.employee(
emp_id varchar(10),
emp_name varchar (30),
birth_date date,
gender varchar(10),
dept_no int (10) NOT NULL,
address varchar (50),
age int(10),
designation varchar(10),
salary varchar(10),
experience varchar (50),
email varchar(50),
primary key(emp_id),
FOREIGN KEY (dept_no) REFERENCES simple.department(dept_no)
)
```

Field	Type	Null	Key	Default	Extra
emp_id	varchar(10)	NO	PRI	NULL	
emp_name	varchar(30)	YES		NULL	
birth_date	date	YES		NULL	
gender	varchar(10)	YES		NULL	
dept_no	int(10)	NO	MUL	NULL	
address	varchar(50)	YES		NULL	
age	int(10)	YES		NULL	
designation	varchar(10)	YES		NULL	
salary	varchar(10)	YES		NULL	
experience	varchar(50)	YES		NULL	
email	varchar(50)	YES		NULL	

```
insert into department (dept_no,dept_name,location) values (1,'production','ahmedabad');
```

dept_no	dept_name	location
1	production	ahmedabad
10	Account	NY
20	HR	NY
30	Production	DL
40	Sales	NY
50	IT	MU
110	RND	AH
NULL	NULL	NULL

```
alter table employee add CONSTRAINT age check(age > 18)
```

```
alter table employee add CONSTRAINT age check(age > 18);
alter table employee add FOREIGN KEY (dept_no) REFERENCES department(dept_no);
```

---

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
101	paresh	1995-06-09	male	1	ahmedabad	22	executive	1000	2	kjain8255@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
insert into employee(emp_id,emp_name,birth_date,age,address,email,gender,designation,experience,dept_no,salary)
values(101,'paresh','1995/06/09',22,'ahmedabad','kjain8255@gmail.com','male','executive',2,1,1000);
```

```
ALTER TABLE employee ADD CONSTRAINT email  CHECK(email LIKE '%___@___%.__%');
```

```
select emp_id,emp_name,designation,dept_name,location from employee e,department d where e.dept_no=d.dept_no
```

---

emp_id	emp_name	designation	dept_name	location
101	paresh	executive	production	ahmedabad

```
ALTER TABLE employee ADD CONSTRAINT designation
check(designation = 'manager' or 'clerk' or 'leader' or 'analyst' or 'designer' or  'coder' or 'tester');
```

---

12. After creation of above tables, modify Employee table by adding the constraints as ‘Male’ or ‘Female’ in gender field and display the structure.

```
ALTER TABLE employee ADD CONSTRAINT gender check('male'or'female')
```

---

13. Insert proper data (at least 5 appropriate records) in all the tables.

```
INSERT INTO employee VALUES ('107', 'Divy', '1996-02-02', 'male', '1', 'Jamjodhpur', '21', 'executive', '20000', '3', 'divy@gmail.com');
INSERT INTO employee VALUES ('108', 'Divya', '1996-02-02', 'female', '1', 'Jamjodhpur', '21', 'executive', '20000', '3', 'Divya@gmail.com');
INSERT INTO employee VALUES ('109', 'Dev', '1996-02-02', 'male', '1', 'Jamjodhpur', '21', 'executive', '20000', '3', 'dev@gmail.com');
INSERT INTO employee VALUES ('110', 'Devanshi', '1996-02-02', 'female', '1', 'Jamjodhpur', '21', 'executive', '20000', '3', 'devanshi@gmail.com');
INSERT INTO employee VALUES ('111', 'Darshati', '1996-02-02', 'female', '1', 'Jamjodhpur', '21', 'executive', '20000', '3', 'darshati@gmail.com');
```

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
101	paresh	1995-06-09	male	1	ahmedabad	22	executive	1000	2	kjain8255@gmail.com
102	Aditya	1996-02-23	male	1	ahmedabad	21	executive	100000	5	evilempire.cd007@gmail.com
103	Divy	1996-02-02	male	1	Jamjodhpur	21	executive	20000	3	divy@gmail.com
104	rajan	1995-06-10	male	1	ahmedabad	25	executive	20000	2	kjain8255@gmail.com
107	Divy	1996-02-02	male	1	Jamjodhpur	21	executive	20000	3	divy@gmail.com
108	Divya	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	Divya@gmail.com
109	Dev	1996-02-02	male	1	Jamjodhpur	21	executive	20000	3	dev@gmail.com
110	Devanshi	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	devanshi@gmail.com
111	Darshati	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	darshati@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
insert into department values (2,'MBA','NY');
insert into department values (3,'Production','DL');
insert into department values (4,'Sales','NY');
insert into department values (5,'IT','Ahmedabad');
insert into department values (6,'RND','AH');
```

dept_no	dept_name	location
1	production	ahmedabad
2	MBA	NY
3	Production	DL
4	Sales	NY
5	IT	Ahmedabad
6	RND	AH
10	Account	NY
20	HR	NY
30	Production	DL
40	Sales	NY
50	IT	MU
110	RND	AH
NULL	NULL	NULL

---

14. Describe the structure of table created

```
desc employee
```

Field	Type	Null	Key	Default	Extra
emp_id	varchar(10)	NO	PRI	NULL	
emp_name	varchar(30)	YES		NULL	
birth_date	date	YES		NULL	
gender	varchar(10)	YES		NULL	
dept_no	int(10)	NO	MUL	NULL	
address	varchar(50)	YES		NULL	
age	int(10)	YES		NULL	
designation	varchar(10)	YES		NULL	
salary	varchar(10)	YES		NULL	
experience	varchar(50)	YES		NULL	
email	varchar(50)	YES		NULL	

```
desc department
```

Field	Type	Null	Key	Default	Extra
dept_no	int(3)	NO	PRI	NULL	
dept_name	varchar(30)	YES		NULL	
location	varchar(50)	YES		NULL	

---

15. List all records of each table in ascending order.

```
1  select * from employee ORDER by emp_id asc;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
101	paresh	1995-06-09	male	1	ahmedabad	22	executive	1000	2	kjain8255@gmail.com
102	Aditya	1996-02-23	male	1	ahmedabad	21	executive	100000	5	evilempire.cd007@gmail.com
103	Divy	1996-02-02	male	1	Jamjodhpur	21	executive	20000	3	divy@gmail.com
104	rajan	1995-06-10	male	1	ahmedabad	25	executive	20000	2	kjain8255@gmail.com
107	Divy	1996-02-02	male	1	Jamjodhpur	21	executive	20000	3	divy@gmail.com
108	Divya	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	Divya@gmail.com
109	Dev	1996-02-02	male	1	Jamjodhpur	21	executive	20000	3	dev@gmail.com
110	Devanshi	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	devanshi@gmail.com
111	Darshati	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	darshati@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
1  select * from department ORDER by dept_no asc;
```

Result Grid | Filter Rows: | Edit: | Export/

dept_no	dept_name	location
2	MBA	NY
3	Production	DL
4	Sales	NY
5	IT	Ahmedabad
6	RND	AH
10	Account	NY
20	HR	NY
30	Production	DL
40	Sales	NY
50	IT	MU
110	RND	AH
NULL	NULL	NULL

---

16. Delete the department whose location is Ahmedabad.

```
delete from department where location = 'Ahmedabad'
```

17. Display female employee list

```
1  select * from employee where gender = 'Female'
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
108	Divya	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	Divya@gmail.com
110	Devanshi	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	devanshi@gmail.com
111	Darshati	1996-02-02	female	1	Jamjodhpur	21	executive	20000	3	darshati@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

---

18. Display Depart name wise employee Names

```
1  select emp_name from employee e , department d where d.dept_name='Sales'
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_name
paresh
paresh
Aditya
Aditya
Divy
Divy
rajan
rajan
Divy
Divy
Divya
Divya
Dev
Dev
Devanshi
Devanshi
Darshati
Darshati

---

19. Find the names of the employee who has salary less than 5000 and greater than 2000.

```
1  select emp_name from employee where salary > 5000 and salary < 500000
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_name
Aditya
Divy
rajan
Divy
Divya
Dev
Devanshi
Darshati

20. Display the names and the designation of all female employee in descending order.

```
1   select emp_name,designation from employee where gender = 'Female' order by emp_id desc
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_name	designation
Darshati	executive
Devanshi	executive
Divya	executive

---

21. Display the names of all the employees who names starts with 'A' ends with 'a'.

```
1   select emp_name from employee where emp_name like 'A%' or '%a'
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_name
Aditya

---

22. Find the name of employee and salary for those who had obtain minimum salary.

```
1   select emp_name,salary from employee where salary = (select min(salary) from employee)
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_name	salary
paresh	1000

---

23. Add 10% raise in salary of all employees whose department is 'IT'.

```
1   UPDATE Employee e,department d SET  salary = (salary / 100) * 10 + salary WHERE d.dept_name='IT'
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
101	paresh	1995-06-09	male	1	ahmedabad	22	executive	1100	2	kjain8255@gmail.com
102	Aditya	1996-02-23	male	1	ahmedabad	21	executive	110000	5	evilempire.cd007@gmail.com
103	Divy	1996-02-02	male	1	Jamjodhpur	21	executive	22000	3	divy@gmail.com
104	rajan	1995-06-10	male	1	ahmedabad	25	executive	22000	2	kjain8255@gmail.com
107	Divy	1996-02-02	male	1	Jamjodhpur	21	executive	22000	3	divy@gmail.com
108	Divya	1996-02-02	female	1	Jamjodhpur	21	executive	22000	3	Divya@gmail.com
109	Dev	1996-02-02	male	1	Jamjodhpur	21	executive	22000	3	dev@gmail.com
110	Devanshi	1996-02-02	female	1	Jamjodhpur	21	executive	22000	3	devanshi@gmail.com
111	Darshati	1996-02-02	female	1	Jamjodhpur	21	executive	22000	3	darshati@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

24. Count total number of employees of 'IT' department.

```
1  select COUNT(*) FROM department where dept_name='IT'
```

Result Grid | Filter Rows: | Export: | Wrap Cell Conte

COUNT(*)
2

25. List all employees who born in the current month.

```
1  SELECT * FROM employee WHERE month(birth_date) = month(CURRENT_DATE)
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
102	Aditya	1996-09-23	male	1	ahmedabad	21	executive	110000	5	evilempire.cd007@gmail.com
110	Devanshi	1996-09-02	female	1	Jamjodhpur	21	executive	22000	3	devanshi@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

26. Print the record of employee and dept. table as "Employee works in department 'MBA'.

```
1  select * from employee where dept_no=(select dept_no from department where dept_name='MBA')
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

27. List names of employees who are fresher's (less than 1 year of experience).

```
1  SELECT * FROM employee where experience < 1
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
104	rajan	1995-06-10	male	1	ahmedabad	25	executive	22000	0	kjain8255@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

28. List department wise names of employees who has more than 5 years of experience.

```
1  SELECT emp_name from employee e , department d where e.experience >'5 yr'
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_name
Aditya
Devanshi

29. Crete Sequence to generate department ID

```
1   alter table department modify dept_no int auto_increment
```

Result Grid | Filter Rows: | Edit: | Export/Import:

dept_no	dept_name	location
1	production	ahmedabad
3	Production	DL
4	Sales	NY
5	IT	Ahmedabad
6	RND	AH
10	Account	NY
20	HR	NY
30	Production	DL
40	Sales	NY
44	ITA	MU
102	MBA	NY
110	RSD	AH
NULL	NULL	NULL

---

30. List department having no employees

```
1   Select * From Department Left Outer Join employee ON employee.dept_no = department.dept_no Where employee.dept_no IS NULL
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

dept_no	dept_name	location	emp_id	emp_name	birth_date	gender	dept_no	address	age	designation	salary	experience	email
3	Production	DL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
4	Sales	NY	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
5	IT	Ahmedabad	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
6	RND	AH	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
10	Account	NY	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
20	HR	NY	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
30	Production	DL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
40	Sales	NY	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
44	ITA	MU	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
102	MBA	NY	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
110	RSD	AH	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL