**1. Create Emp table with following fields**

create table emp1(empid int primary key, ename varchar(32), salary int, city varchar(32));

create table emp2(empid int, ename varchar(32), salary int, city varchar(32), primary key(empid, city));

create table emp3(empid int, ename varchar(32), salary int, city varchar(32), constraint pk\_empid primary key(empid));

insert into emp1 values(101, 'siddhu', 50000000, 'nerul');

insert into emp1 values(102, 'tarun', 35000000, 'thane');

insert into emp1 values(103, 'sahil', 43000000, 'vikhroli');

insert into emp1 values(104, 'raihan', 80000000, 'koparkhairane');create table emp1(empid int primary key, ename varchar(32), salary int, city varchar(32));

Create emp table with primary key emp\_id as column level constraint

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Create emp table with primay key emp\_id as table level constraint

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Create emp table with primary key emp\_id as table level constraint with constraint name

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**2. Create Project table with following fields**

project\_id int, proj\_name varchar(32), location varchar(32), Budget int, Manager int,

Create project table

create table project1(project\_id int, proj\_name varchar(32), location varchar(32), budget int, manager int);

create table project2(project\_id int primary key, proj\_name varchar(32), location varchar(32), budget int, manager int);

create table project3(project\_id int, proj\_name varchar(32), location varchar(32), budget int, manager int, primary key(project\_id, manager));

create table project4(project\_id int, proj\_name varchar(32), location varchar(32), budget int, manager int, constraint pk\_project\_id primary key(project\_id));

insert into project2 values(101, 'racing car', 'nerul', 100000, 201);

insert into project2 values(102, 'smart dustbin', 'dombivli', 3000, 202);

insert into project2 values(103, 'website', 'thane', 1000, 203);

insert into project2 values(104, 'app', 'kurla', 100000, 204);

Create project table with primary key project\_id as column level constraint



Create project table with primary key project\_id as table level constraint

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Create project table with primary key project\_id as table level constraint with constraint name

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**3. Use alter table command to add a new column to emp table as tel-no.**

alter table emp1 add tel\_no int;

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**4. Use alter table command to drop a new column to emp table as tel-no.**

alter table emp1 drop tel\_no;

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**5. Use alter table command to modify the project table to change the column width of proj-name. proj\_name(32) to proj\_name(64)**

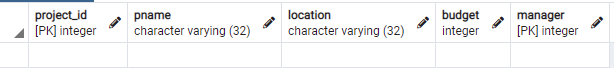
alter table project2 alter column proj\_name type varchar (64);

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Description automatically generated**

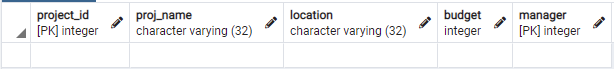
**6. Use alter table command to rename a column name proj\_name to pname**

alter table project3 rename proj\_name to pname;

****

**7. Use alter table command to rename a column name pname to proj\_name**

alter table project3 rename pname to proj\_name;

****

**8. Use alter table command to add the following constraints**

**unique key for ename in emp**

Add records to satisfy and dissatisfy unique key constraint using insert command

In emp table

Add constraint unique to ename

alter table emp1 add constraint unique\_ename unique(ename);

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**9. Use alter table command to add the following constraints**

**not null for proj\_name in project using check constraint**

Add records to satisfy and dissatisfy check key constraint using insert command

alter table project4 add constraint check\_proj\_name check(proj\_name is null);

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**10.** **Use alter table command to add the check constraints for sal>500 in emp**

Add records to satisfy and dissatisfy check key constraint using insert command

alter table emp3 add constraint check\_salary check(salary>500);

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**11.** **Use alter table command to add** unique constraint city from emp table

Add records to satisfy and dissatisfy unique key constraint using insert command

alter table emp1 add constraint unique\_city unique(city);

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**12. Use alter table to drop all created constraints.**

alter table emp1 drop constraint unique\_ename;

alter table project4 drop constraint check\_proj\_name;

alter table emp3 drop constraint check\_salary;

alter table emp1 drop constraint unique\_city;

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**13. Foreign**

**Key Constraint**

|  |
| --- |
| CREATE TABLE header(  bill\_no int,  amt int NOT NULL,  bill\_date date,  c\_name VARCHAR(25) NOT NULL,  PRIMARY KEY(bill\_no)  );  drop table header;  drop table detail;  CREATE TABLE detail(  bill\_no int,  itemname varchar(20),  item\_price int,  item\_quantity int,  subtotal int,  CONSTRAINT fk\_bill  FOREIGN KEY(bill\_no)  REFERENCES header(bill\_no)  );  we cant enter into detail table directly  insert into detail (bill\_no, itemname, item\_price, item\_quantity, subtotal)  values(2,'kitkat', 100,1,100);  we can insert into header table  insert into header (bill\_no, amt,bill\_date,c\_name)  values(1,300,'01-02-2022','ABC');  insert into detail (bill\_no, itemname, item\_price, item\_quantity, subtotal)  values(1,'kitkat', 100,1,100);  insert into detail (bill\_no, itemname, item\_price, item\_quantity, subtotal)  values(1,'silk', 100,1,100);  insert into detail (bill\_no, itemname, item\_price, item\_quantity, subtotal)  values(1,'perk', 100,1,100);  delete from header where bill\_no=1;  delete from detail where bill\_no=1;  alter table header  drop constraint pk1  alter table header  drop constraint pk2  alter table header  drop constraint fk1  Rule: First enter into header then detail  Delete from detail then from header |

**14. Foreign Key constraint**

|  |
| --- |
| **One to one relationship**  **employee works in depratment**  **employee(eid, ename, age) eid as primary key**  **department(dno, dname, loc) dno as primary key**  **works(eid, dno, description) foreign key eid reference from employee** |

**15. Foreign key constraint**

|  |
| --- |
| **One to many relationship**  **Customer gives order**  **customer(cid,name,city)**  **Order(oid, oname,cost)**  **gives(cid, oid, date)** |

**16. Foreign key constraint**

|  |
| --- |
| **Many to one relationship**  **Students select Elective subject**  **studentr(sid,name,city)**  **Elective(eid, sname,area)**  **selects(sid, eid, date)** |

**16. Foreign key constraint**

|  |
| --- |
| **Many to Many relationshop**  **Person owns car**  **person(pid, pname,city)**  **car(cid, company, modelname)**  **owns(pid,cid,date)** |