1)create table electricity\_connection\_type(id int primary key,connection\_name varchar(20));

alter table electricity\_connection\_type modify connection\_name varchar(20) not null;

desc electricity\_connection\_type;

+-----------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+-------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| connection\_name | varchar(20) | NO | | NULL | |

+-----------------+-------------+------+-----+---------+-------+

2)create table slab(id int,connection\_type\_id int not null ,from\_unit int,to\_unit int,rate double,constraint id\_pk primary key(id),FOREIGN KEY(connection\_type\_id) REFERENCES electricity\_connection\_type(id));

alter table slab modify from\_unit not null;

alter table slab modify to\_unit int not null;

alter table slab modify rate double not null;

desc slab;

+--------------------+--------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------------+--------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| connection\_type\_id | int | NO | MUL | NULL | |

| from\_unit | int | NO | | NULL | |

| to\_unit | int | NO | | NULL | |

| rate | double | NO | | NULL | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |  |  |

3) create table building\_type(id int primary key,name varchar(20),connection\_type\_id int not null,foreign key(connection\_type\_id) references electricity\_connection\_type(id));

alter table building\_type modify name varchar(20) not null;

desc building\_type;

+--------------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------------+-------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| name | varchar(20) | NO | | NULL | |

| connection\_type\_id | int | NO | MUL | NULL | |

|  |  |  |  |  |  |
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|  |  |  |  |  |  |

4)create table building(id int primary key,owner\_name varchar(100) not null,address varchar(100) not null,building\_type\_id int not null,foreign key(building\_type\_id) references electricity\_connection\_type(id),contact\_number varchar(100) not null,email\_address varchar(100));

desc building;

+------------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| owner\_name | varchar(100) | NO | | NULL | |

| address | varchar(100) | NO | | NULL | |

| building\_type\_id | int | NO | MUL | NULL | |

| contact\_number | varchar(100) | NO | | NULL | |

| email\_address | varchar(100) | YES | | NULL | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

5) alter table building rename column owner\_name to building\_owner\_name;

desc building;

+---------------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| building\_owner\_name | varchar(100) | NO | | NULL | |

| address | varchar(100) | NO | | NULL | |

| building\_type\_id | int | NO | MUL | NULL | |

| contact\_number | varchar(100) | NO | | NULL | |

| email\_address | varchar(100) | YES | | NULL | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

6) alter table building modify column address varchar(255);

desc building;

+---------------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------------+--------------+------+-----+---------+-------+

| id | int | NO | PRI | NULL | |

| building\_owner\_name | varchar(100) | NO | | NULL | |

| address | varchar(255) | YES | | NULL | |

| building\_type\_id | int | NO | MUL | NULL | |

| contact\_number | varchar(100) | NO | | NULL | |

| email\_address | varchar(100) | YES | | NULL | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

8) alter table building rename to building\_details;

9) drop table slab;

10) drop table building\_details;

11)insert into electricity\_connection\_type values(3456,'conduit wiring');

insert into electricity\_connection\_type values(9876,'cap wiring');

select \* from electricity\_connection\_type;

+------+-----------------+

| id | connection\_name |

+------+-----------------+

| 3456 | conduit wiring |

| 9876 | cap wiring |

|  |  |
| --- | --- |
|  |  |

12) insert into slab values(243,3456,435,465,2000.0);

insert into slab values(263,3456,350,406,4000.0);

insert into slab values(261,9876,450,506,5000.0);

select \* from slab;

+-----+--------------------+-----------+---------+------+

| id | connection\_type\_id | from\_unit | to\_unit | rate |

+-----+--------------------+-----------+---------+------+

| 243 | 3456 | 435 | 465 | 2000 |

| 261 | 9876 | 450 | 506 | 5000 |

| 263 | 3456 | 350 | 406 | 4000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

13) insert into building\_type values(567,'multi storey',9876);

insert into building\_type values(547,'hazardous',9876);

insert into building\_type values(560,'detached',3456);

insert into building\_type values(540,'high rise',3456);

insert into building\_type values(566,'low rise',3456);

select \* from building\_type;

+-----+--------------+--------------------+

| id | name | connection\_type\_id |

+-----+--------------+--------------------+

| 540 | high rise | 3456 |

| 547 | hazardous | 9876 |

| 560 | detached | 3456 |

| 566 | low rise | 3456 |

| 567 | multi storey | 9876 |

|  |  |  |
| --- | --- | --- |
|  |  |  |

14) update slab set from\_unit=1;

select \* from slab;

+-----+--------------------+-----------+---------+------+

| id | connection\_type\_id | from\_unit | to\_unit | rate |

+-----+--------------------+-----------+---------+------+

| 243 | 3456 | 1 | 465 | 2000 |

| 261 | 9876 | 1 | 506 | 5000 |

| 263 | 3456 | 1 | 406 | 4000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

15) alter table building\_type rename column name to Mall;

select \* from building\_type;

+-----+--------------+--------------------+

| id | Mall | connection\_type\_id |

+-----+--------------+--------------------+

| 540 | high rise | 3456 |

| 547 | hazardous | 9876 |

| 560 | detached | 3456 |

| 566 | low rise | 3456 |

| 567 | multi storey | 9876 |

+-----+--------------+--------------------+

16)delete from slab;

17)delete from building\_type where connection\_type\_id=1;

+-----+--------------+--------------------+

| id | Mall | connection\_type\_id |

+-----+--------------+--------------------+

| 540 | home | 3456 |

| 547 | hazardous | 9876 |

| 560 | detached | 3456 |

| 566 | low rise | 3456 |

| 567 | multi storey | 9876 |

+-----+--------------+--------------------+

delete from building\_type where Mall='home';

select\* from building\_type;

+-----+--------------+--------------------+

| id | Mall | connection\_type\_id |

+-----+--------------+--------------------+

| 547 | hazardous | 9876 |

| 560 | detached | 3456 |

| 566 | low rise | 3456 |

| 567 | multi storey | 9876 |

+-----+--------------+--------------------+