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DBMS

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LAB - Report - 2

AIM:-
The aim of this project was to get familiar with SQL and creating tables, Primary keys, Foreign Keys and Adding and removing data in Tables.

Experiments:-

1. **Creating Tables:**

```
create database Assignment;
USE Assignment;


create table Assignment.Category_detais(
category_id numeric(2),
category_name varchar(30));


create table Assignment.Sub_category_detais(
sub_category_id numeric(2),
category_id numeric(2),
sub_category_name varchar(30));


create table Assignment.Product_details(
Product_id numeric(6),
category_id numeric(2),
sub_category_id numeric(2),
product_name varchar(30));
```

2. **Primary Key(without constraint name):-**

```
alter table Assignment.Category_details
```

```
add primary key(category_id);
```

3. **Primary key(with constraint name):-**

```
alter table Assignment.Sub_Category_details
add constraint cname primary key(sub_category_id)
```

4. **Primary key And Foreign Key:-**

```
alter table Assignment.Sub_Category_details
add constraint fk_sub_cat foreign key(category_id) references Category_details(category_id);

alter table Assignment.Product_details
add constraint pk_detail primary key(product_id);

    alter table Assignment.Product_details
    add constraint fk_prod_cat foreign key(category_id) references
    category_details(category_id),
    add constraint fk_sub_detail foreign key(sub_category_id) references
    sub_category_details(sub_category_id);
```

5. **Add New Column:-**

```
    alter table Assignment.Product_details
    add column price numeric(2);
```

6. **Modify Datatype:-**

```
    alter table Assignment.Product_details
    modify column price numeric(6,2);
```

7. **Inserting Tuples:-**

```
    insert into Assignment.Category_details(
    category_id,
    category_name)
    values(11,"Stationary"),
    (12,"grocery"),
    (13,"raw-material"),
    (14,"Packed");
```

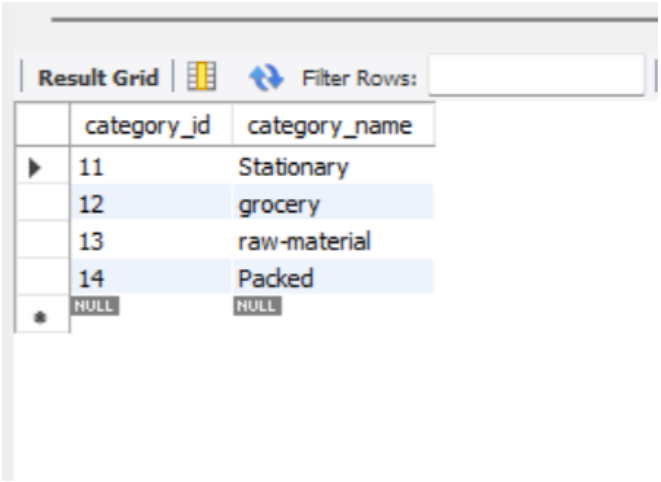
```
insert into Assignment.Sub_category_details(
sub_category_id,
category_id,
sub_category_name )
values(1,11,"Pen"),
(2,12,"sugar"),
(3,12,"Pulse"),
(4,14,"Soap");
```

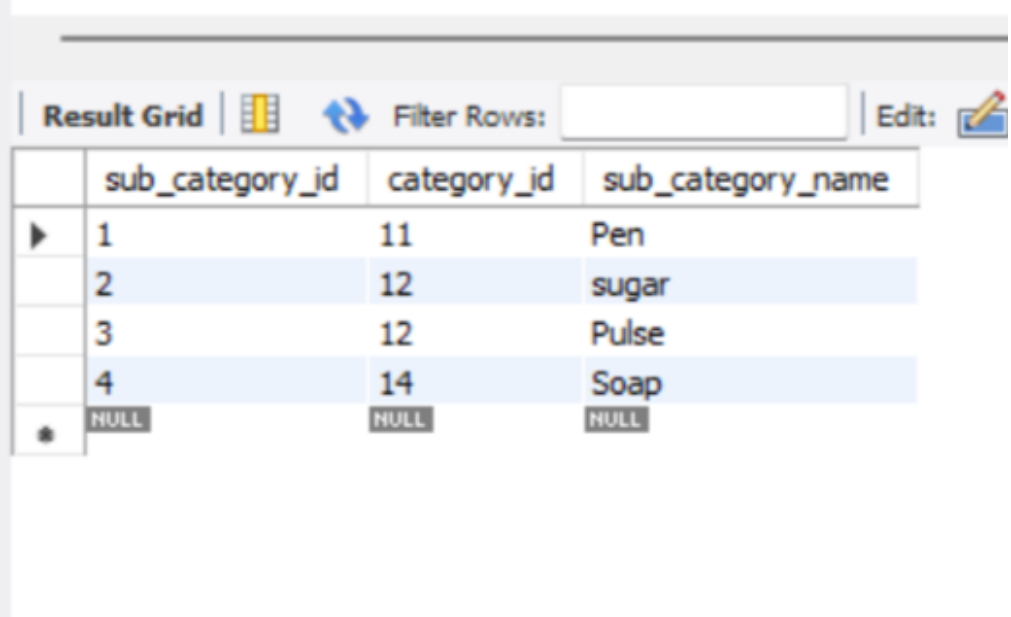
```
insert into Assignment.Product_details(
Product_id,
category_id,
sub_category_id,
product_name,price)
values(01,14,4,"Dove",85),
(02,12,2,"Sugar Cosmetics",45),
(03,12,3,"Tata Sampann",120),
(04,11,1,"Elkos",15);
```

8. **Drop Column:-**

```
alter table Assignment.Product_details
drop column price;
```

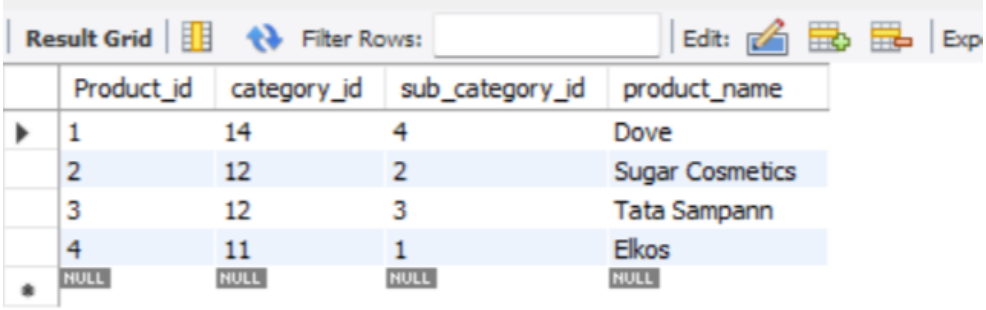
Result :-





Result Grid | Filter Rows: | Edit:

sub_category_id	category_id	sub_category_name
1	11	Pen
2	12	sugar
3	12	Pulse
4	14	Soap
NULL	NULL	NULL

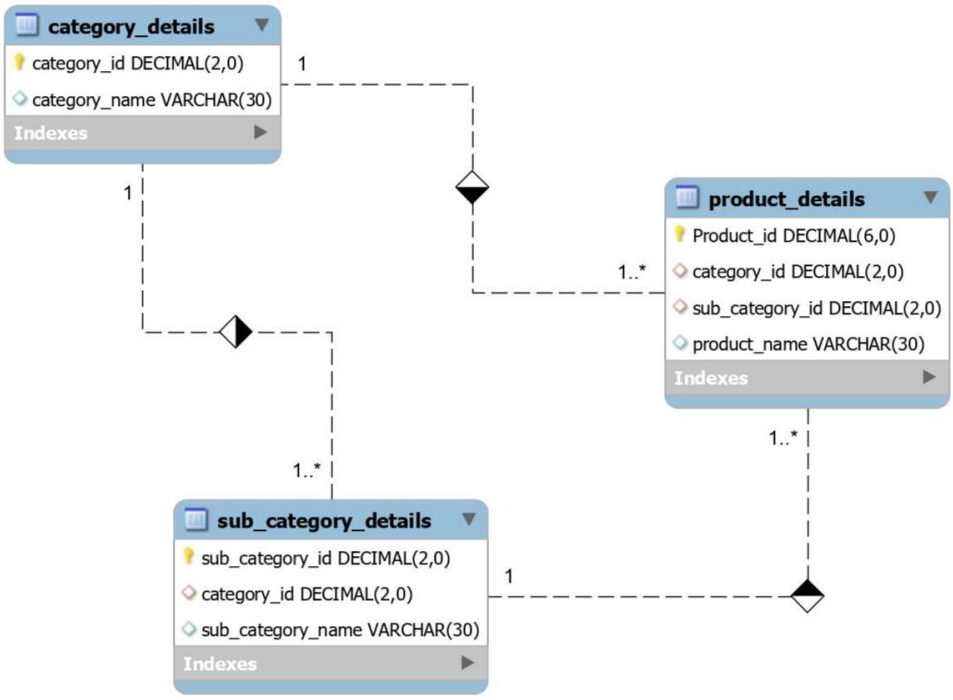


Result Grid | Filter Rows: | Edit: | Exp

Product_id	category_id	sub_category_id	product_name
1	14	4	Dove
2	12	2	Sugar Cosmetics
3	12	3	Tata Sampann
4	11	1	Elkos
NULL	NULL	NULL	NULL

Conclusion :-

We created a database with 3 tables and 3 relationships along with 4 tuples in each table. We need to take care of Foreign keys and it's constraints while inserting and deleting data.
We got ample knowledge about relationships and keys associated with it. We know basics like creating tables, attributes, keys, constraints, datatype, adding tuples and dropping tables.


category_details
category_id DECIMAL(2,0)
category_name VARCHAR(30)
Indexes
1
1
1..*
product_details
Product_id DECIMAL(6,0)
category_id DECIMAL(2,0)
sub_category_id DECIMAL(2,0)
product_name VARCHAR(30)
Indexes
1..*
1..*
sub_category_details
sub_category_id DECIMAL(2,0)
category_id DECIMAL(2,0)
sub_category_name VARCHAR(30)
Indexes
1