**DBMS**

**Report on SQL Queries**

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CSE - B

Create the following tables (Don’t specify any constraints):

A. Category\_details (category\_id numeric (2), category\_name varchar (30) ) B.

Sub\_category\_details (sub\_category\_id numeric(2), category\_id

numeric(2),sub\_category\_name varchar(30)

C. Product\_details (Product\_id numeric (6), category\_id 3

numeric(2),sub\_category\_id numeric(2), product\_name

varchar(30))

**SOLUTION :-**

CREATE TABLE Category\_details (

category\_id NUMERIC(2),

category\_name VARCHAR(30)

);

CREATE TABLE Sub\_category\_details (

sub\_category\_id NUMERIC(2),

category\_id NUMERIC(2),

sub\_category\_name VARCHAR(30)

);

CREATE TABLE Product\_details (

Product\_id NUMERIC(6),

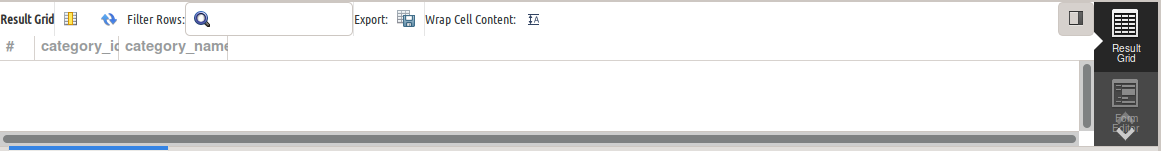
category\_id NUMERIC(2),

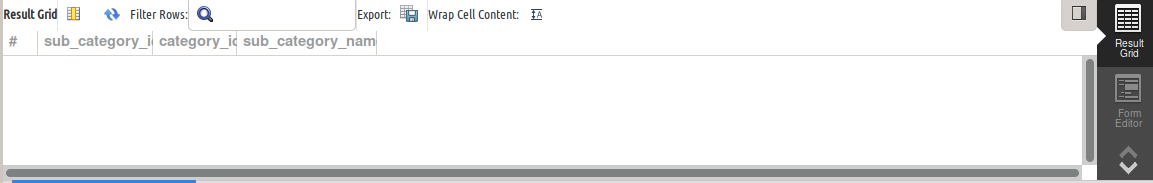
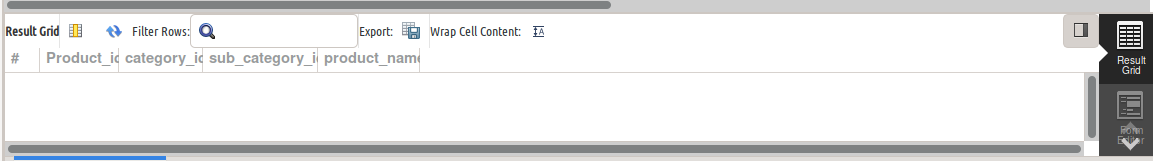
sub\_category\_id NUMERIC(2),

product\_name VARCHAR(30)

);

Output -





**Now perform the following operations:**

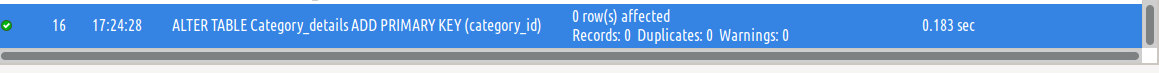
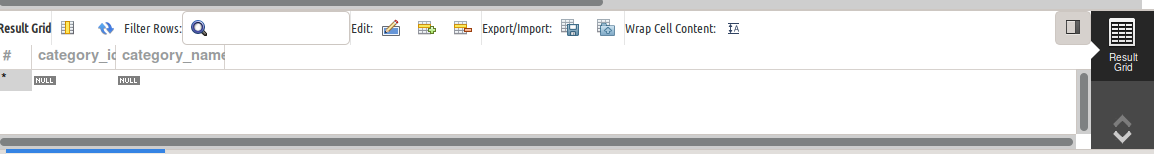
1. Add a primary key constraint (without any constraint name) on column

category\_id of category\_details table.

ALTER TABLE Category\_details

ADD PRIMARY KEY (category\_id)

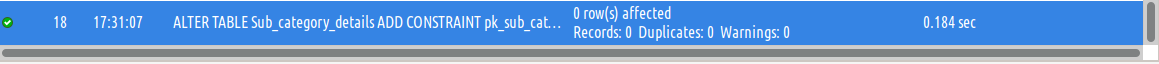
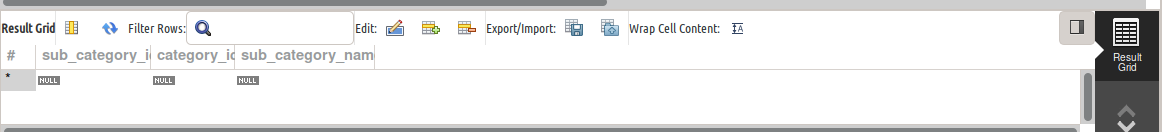
Output -



2. Add a primary key constraint with a constraint name on column sub\_category\_id

of sub\_category\_details table.

Output -



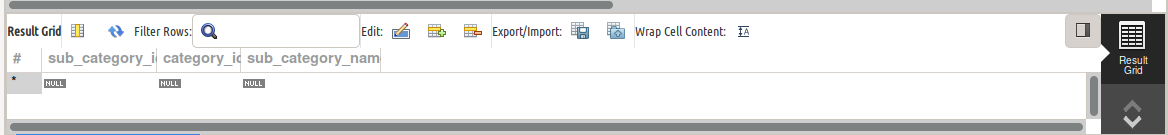
3. Add a foreign key constraint with constraint name on column category\_id of sub\_category\_details table referencing category\_id of category\_details table.

ALTER TABLE Sub\_category\_details

ADD CONSTRAINT fk\_category\_id FOREIGN KEY (category\_id)

REFERENCES Category\_details(category\_id);

Output -



4. For the product\_details table add the primary key constraint on product\_id. Also add foreign key constraint on category\_id and sub\_category\_id columns referencing category\_details(category\_id) and sub\_category\_details (sub\_category\_id).

ALTER TABLE Product\_details

ADD CONSTRAINT pk\_product PRIMARY KEY (Product\_id);

ALTER TABLE Product\_details

ADD CONSTRAINT fk\_product\_category FOREIGN KEY (category\_id)

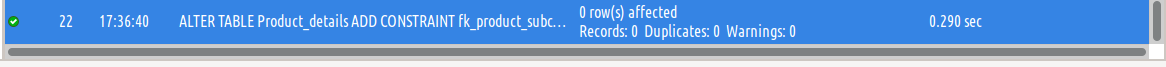
REFERENCES Category\_details(category\_id);

ALTER TABLE Product\_details

ADD CONSTRAINT fk\_product\_subcategory FOREIGN KEY (sub\_category\_id)

REFERENCES Sub\_category\_details(sub\_category\_id);

Output -

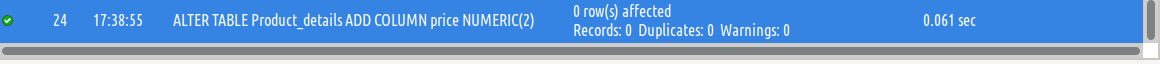
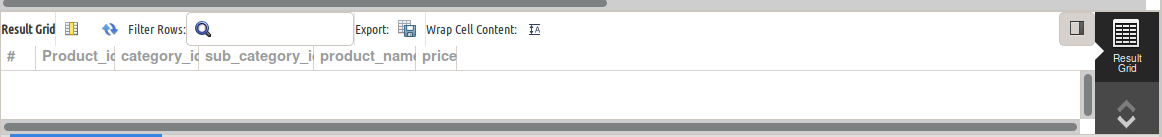


5. Add a new column (price numeric(2)) to product\_details table

ALTER TABLE Product\_details

ADD COLUMN price NUMERIC(2);

Output -

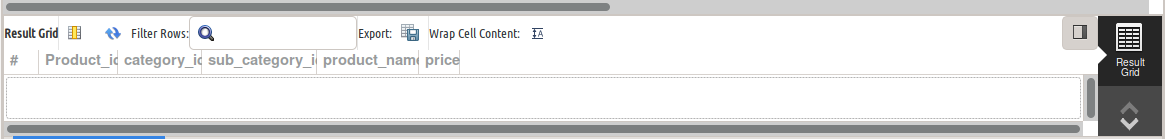


6. Modify the data type of price to numeric(6,2)

ALTER TABLE Product\_details

MODIFY COLUMN price NUMERIC(6,2);

Output -



7. Insert four tuples in the table. (With valid data)

INSERT INTO Category\_details (category\_id, category\_name) VALUES

(1, 'Electronics'),

(2, 'Clothing');

INSERT INTO Sub\_category\_details (sub\_category\_id, category\_id, sub\_category\_name) VALUES

(1, 1, 'Smartphones'),

(2, 1, 'Laptops'),

(3, 2, 'T-shirts'),

(4, 2, 'Jeans');

INSERT INTO Product\_details (Product\_id, category\_id, sub\_category\_id, product\_name, price) VALUES

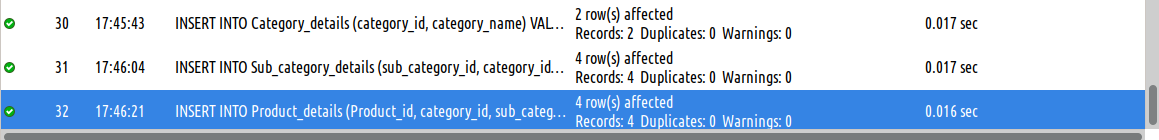
(100001, 1, 1, 'iPhone 15', 999.99),

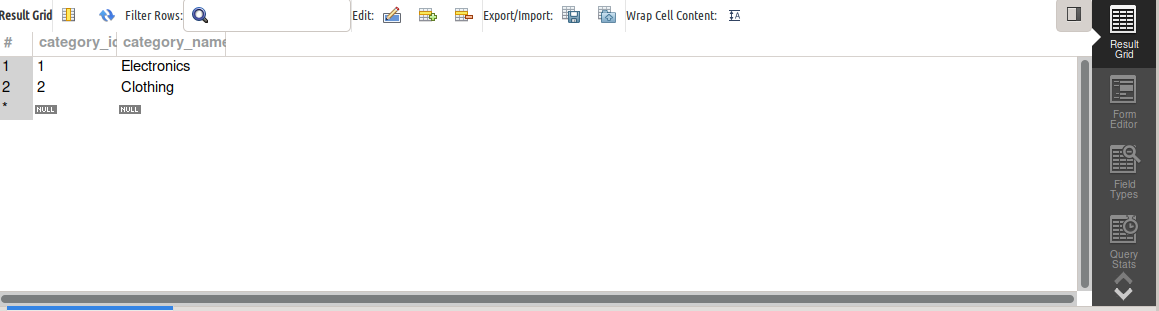
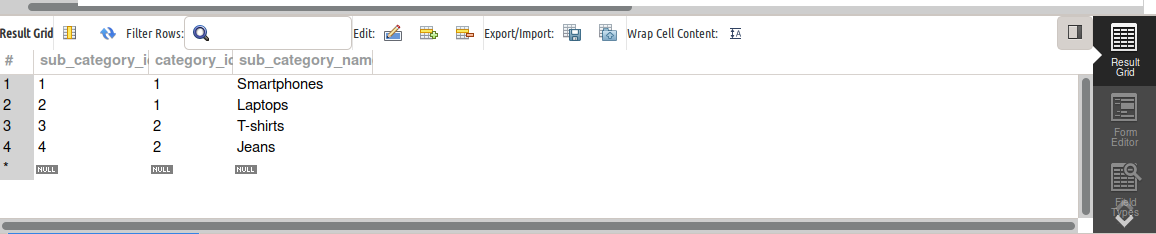
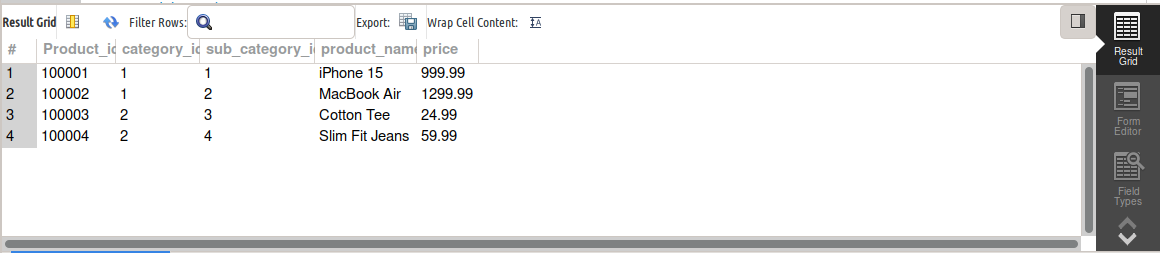
(100002, 1, 2, 'MacBook Air', 1299.99),

(100003, 2, 3, 'Cotton Tee', 24.99),

(100004, 2, 4, 'Slim Fit Jeans', 59.99);

Output -





8. Drop the price column

ALTER TABLE Product\_details

DROP COLUMN price;

Output -

