**MOBILE SERVICE MANAGEMENT SYSTEM (MSMS)**

**MAHIMA ANANTH CHOWDARY**

**https://github.com/mahesh279/database-systems.git**

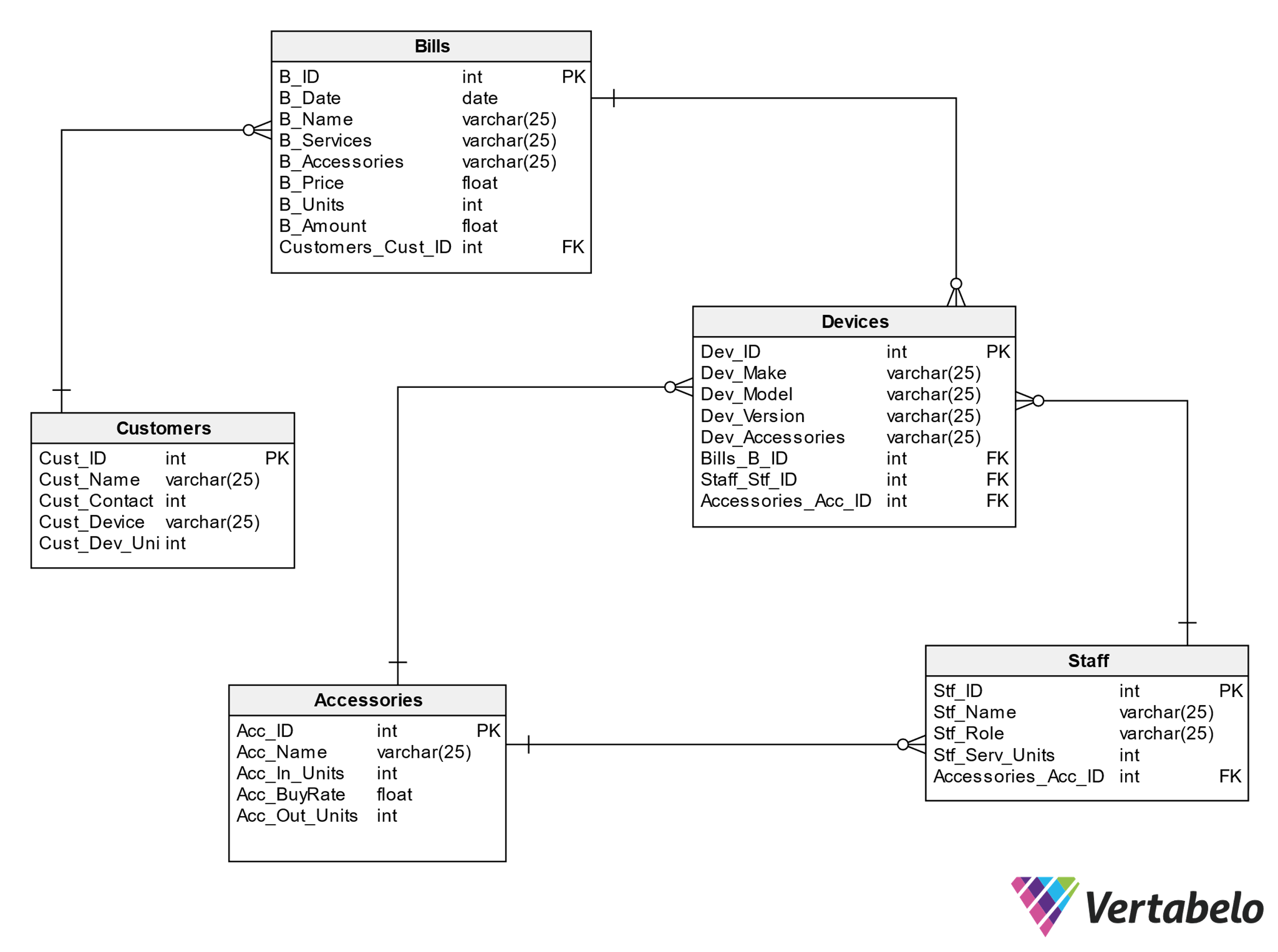
**11/04/2022**

**Week4**

In continuation from wk3 the below mentioned are the outcomes for wk4.

# 1. Vertabelo table structure

## MSMS-image



## MSMS-Model Documentation



## Export model to PDF file



## Generate SQL script



## Commands to create my databases

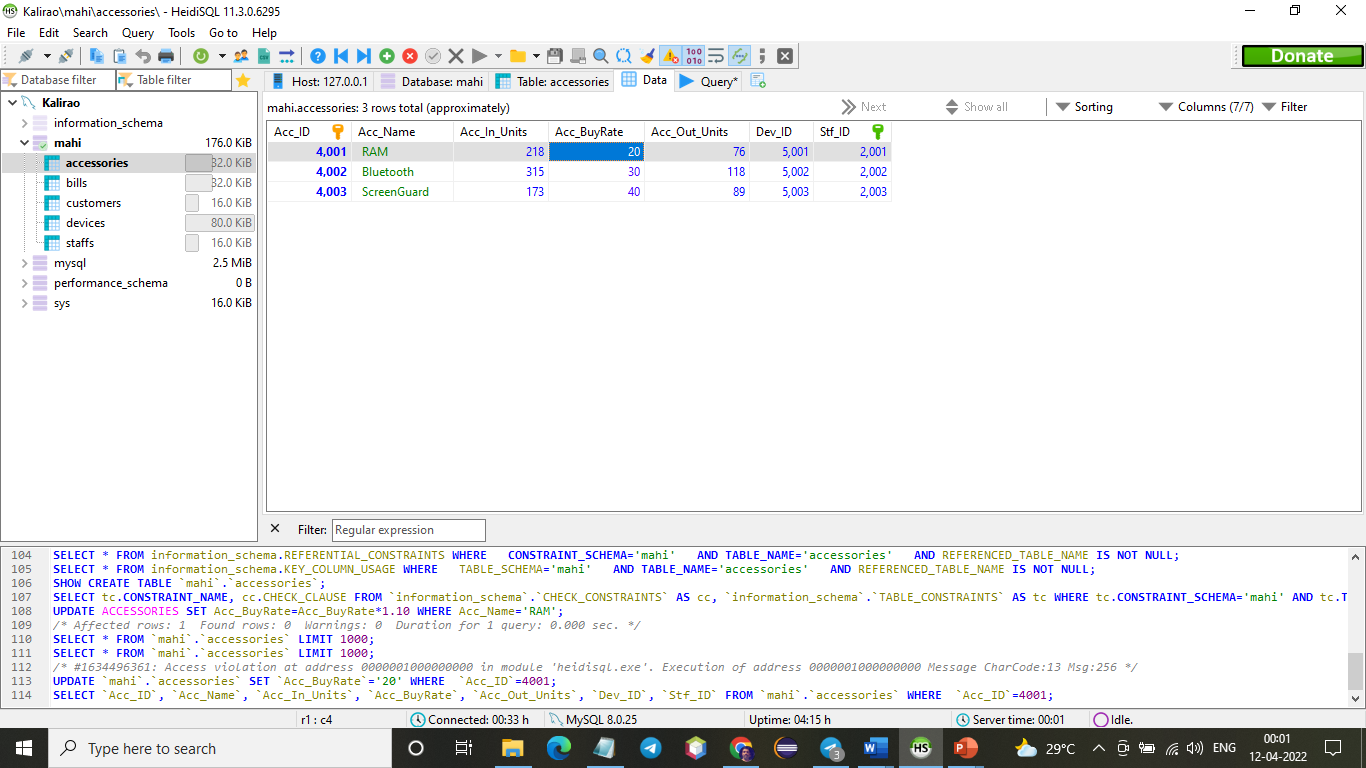


## **INSERT INTO**

INSERT INTO `accessories` VALUES (4001, 'RAM', 218, 20, 76, 5001, 2001);

INSERT INTO `accessories` VALUES (4002, 'Bluetooth', 315, 30, 118, 5002, 2002);

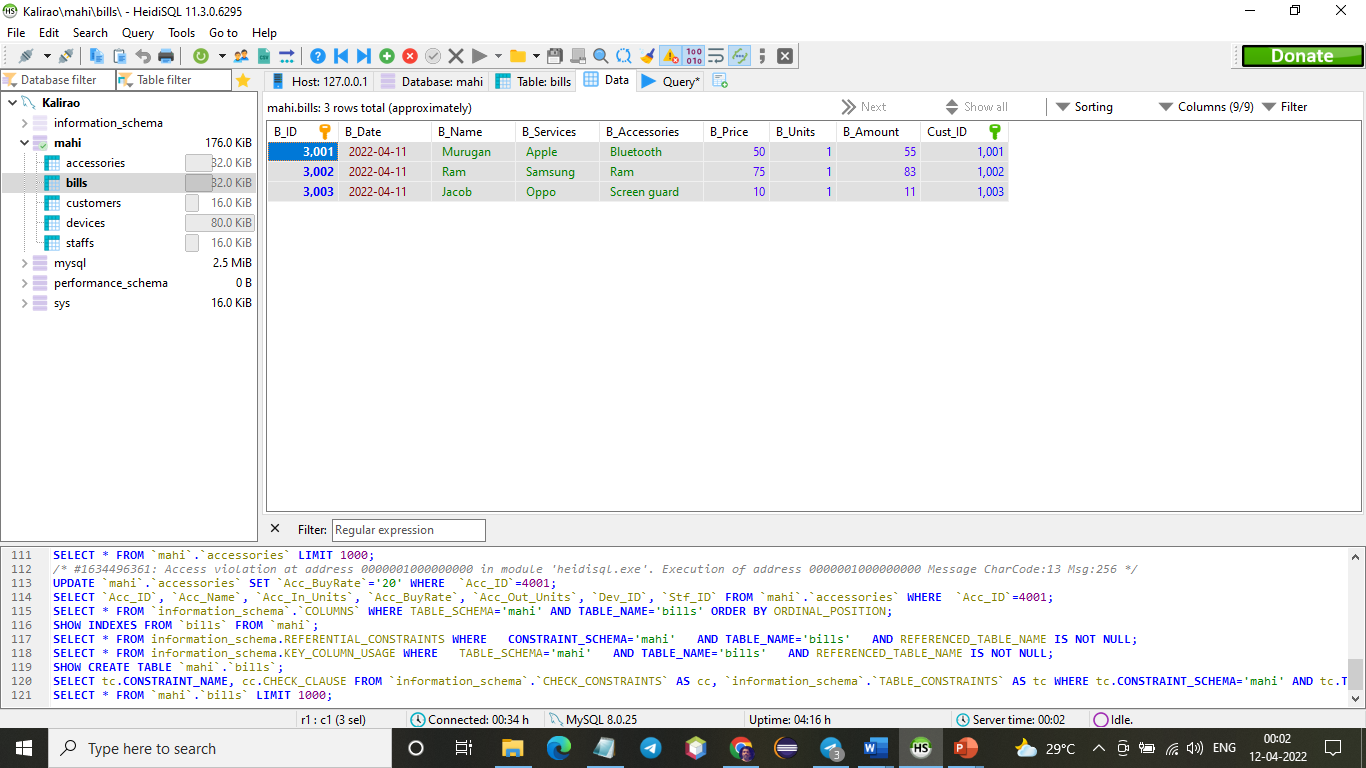
INSERT INTO `accessories` VALUES (4003, 'ScreenGuard', 173, 40, 89, 5003, 2003);



INSERT INTO `bills` VALUES (3001, '2022-04-11', 'Murugan', 'Apple', 'Bluetooth', 50, 1, 55, 1001);

INSERT INTO `bills` VALUES (3002, '2022-04-11', 'Ram', 'Samsung', 'Ram', 75, 1, 83, 1002);

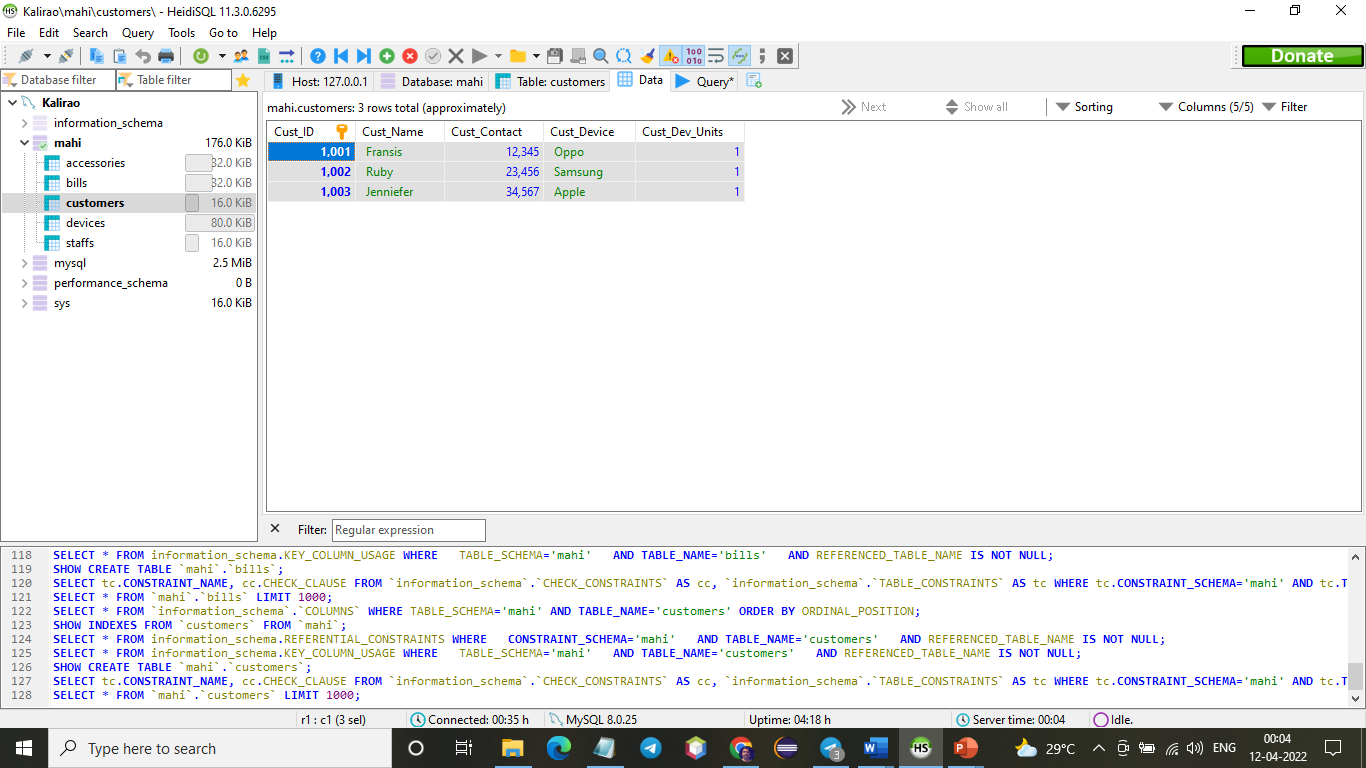
INSERT INTO `bills` VALUES (3003, '2022-04-11', 'Jacob', 'Oppo', 'Screen guard', 10, 1, 11, 1003);



INSERT INTO `customers` VALUES (1001, 'Fransis', 12345, 'Oppo', 1);

INSERT INTO `customers` VALUES (1002, 'Ruby', 23456, 'Samsung', 1);

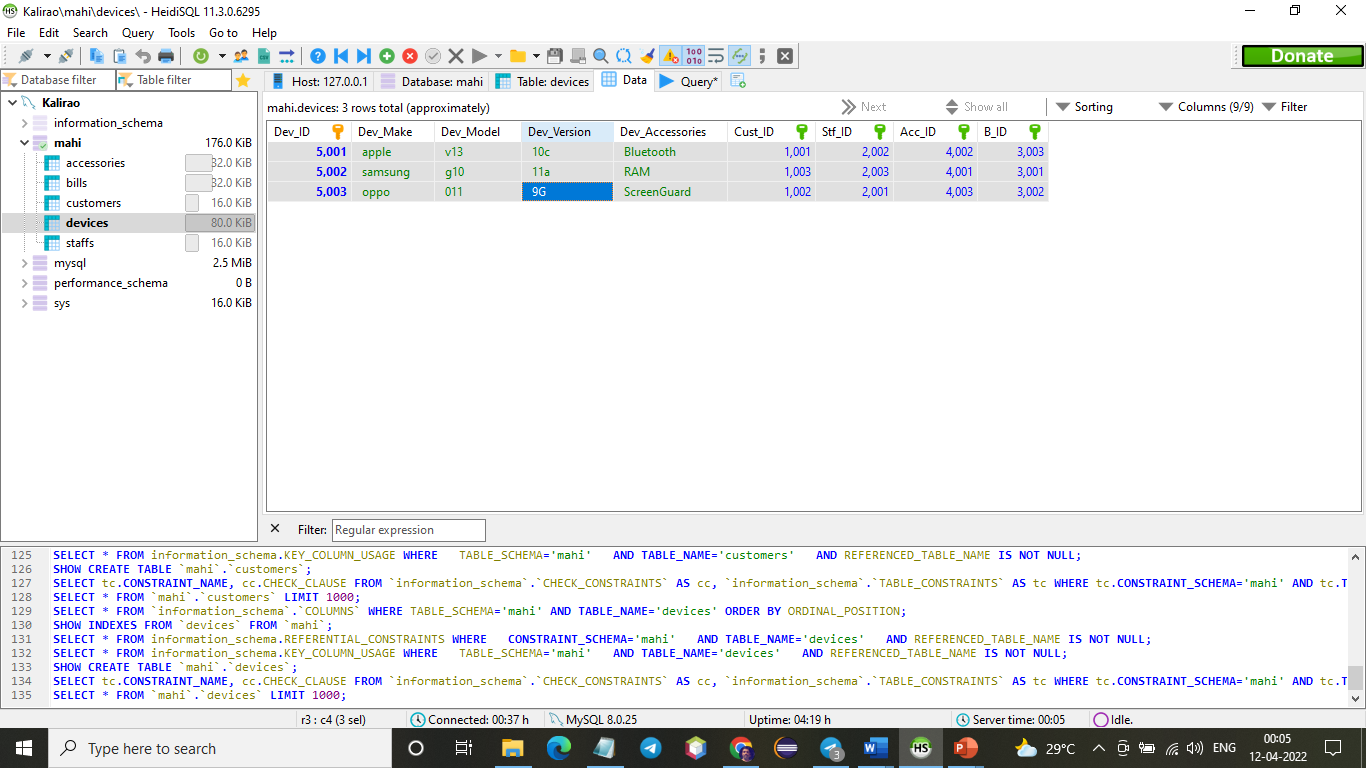
INSERT INTO `customers` VALUES (1003, 'Jenniefer', 34567, 'Apple', 1);



INSERT INTO `devices` VALUES (5001, 'apple', 'v13', '10c', 'Bluetooth', 1001, 2002, 4002, 3003);

INSERT INTO `devices` VALUES (5002, 'samsung', 'g10', '11a', 'RAM', 1003, 2003, 4001, 3001);

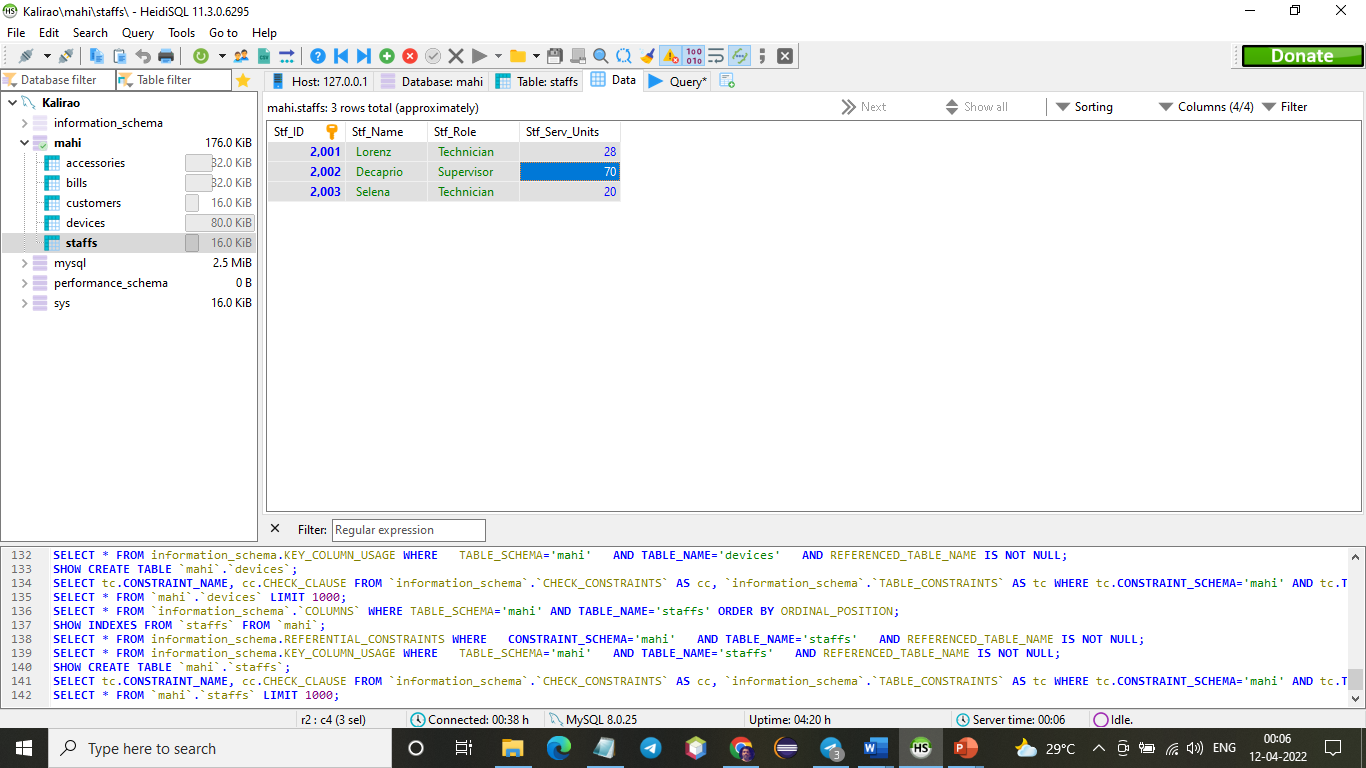
INSERT INTO `devices` VALUES (5003, 'oppo', '011', '9G', 'ScreenGuard', 1002, 2001, 4003, 3002);



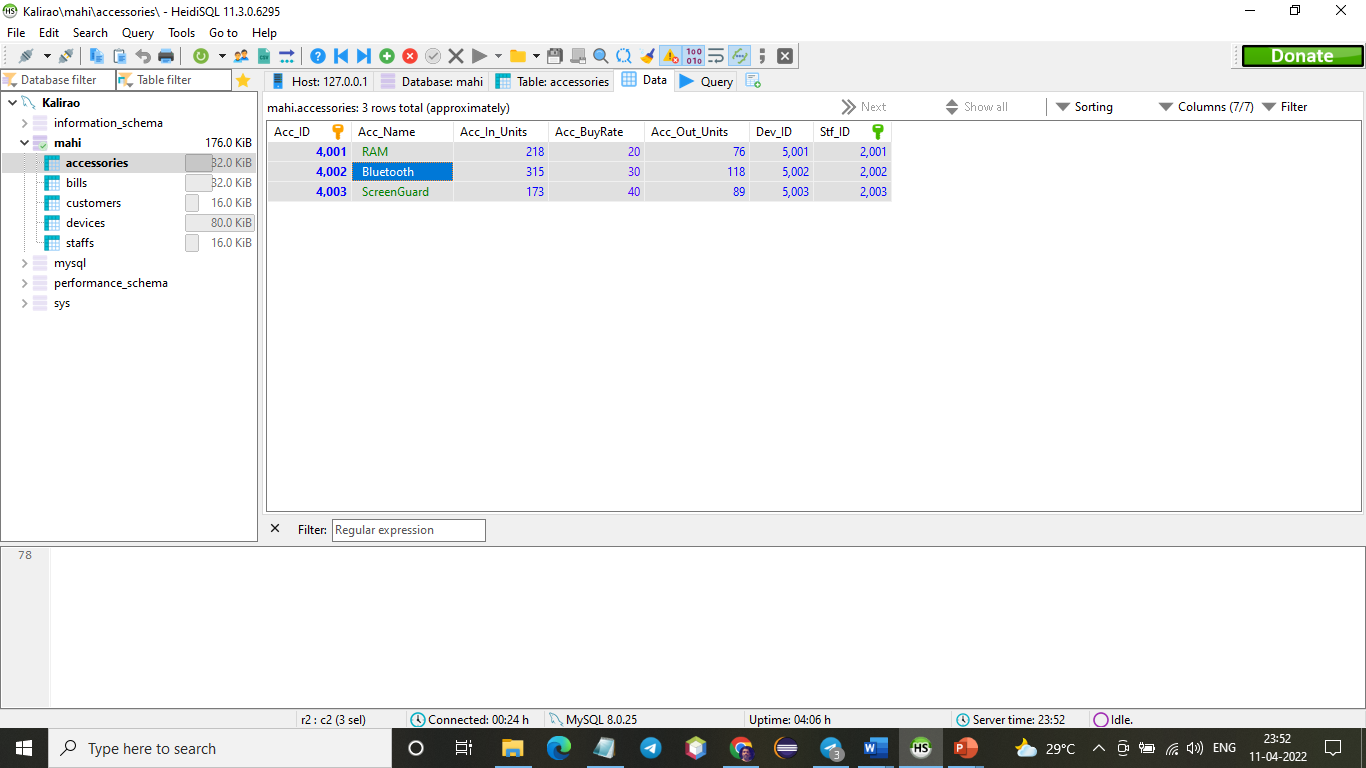
INSERT INTO `staffs` VALUES (2001, 'Lorenz', 'Technician', 28);

INSERT INTO `staffs` VALUES (2002, 'Decaprio', 'Supervisor', 70);

INSERT INTO `staffs` VALUES (2003, 'Selena', 'Technician', 20);

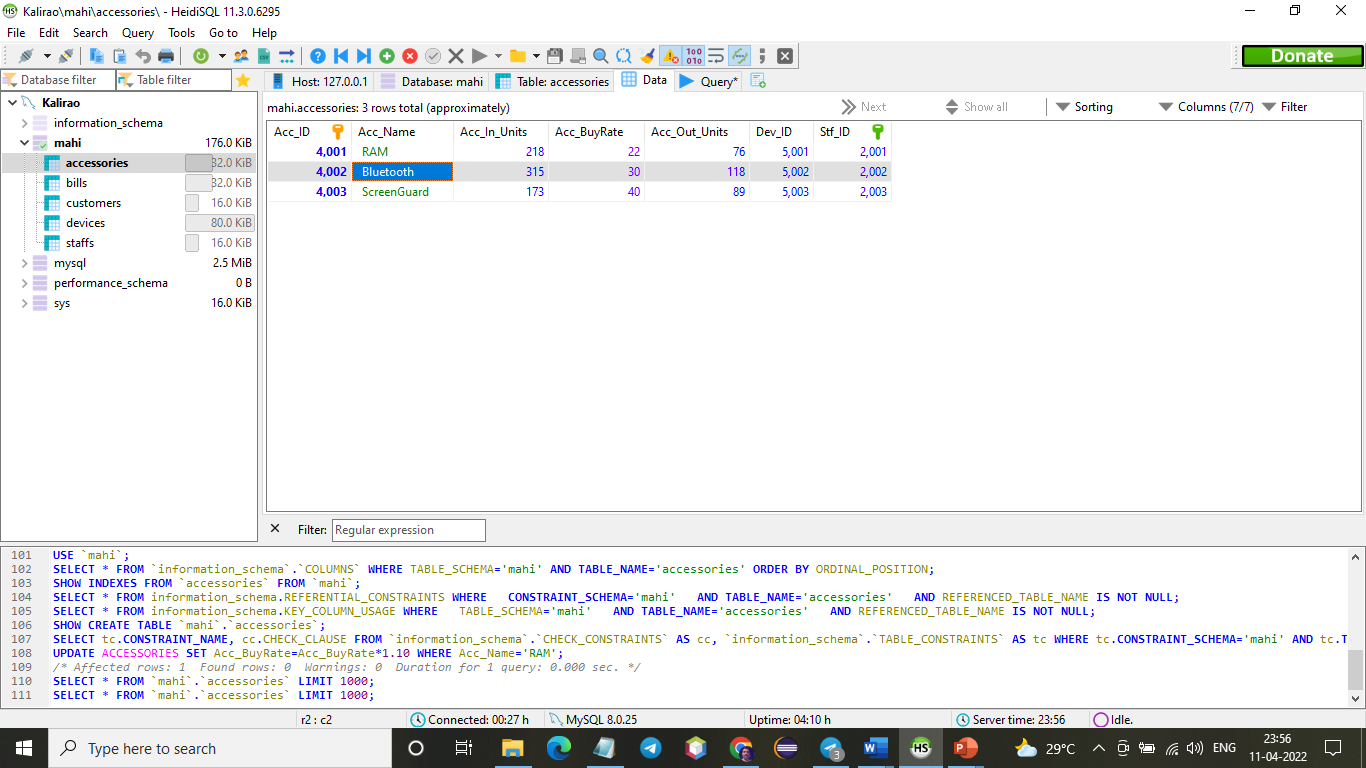


## **Update Statement – before applying affect**

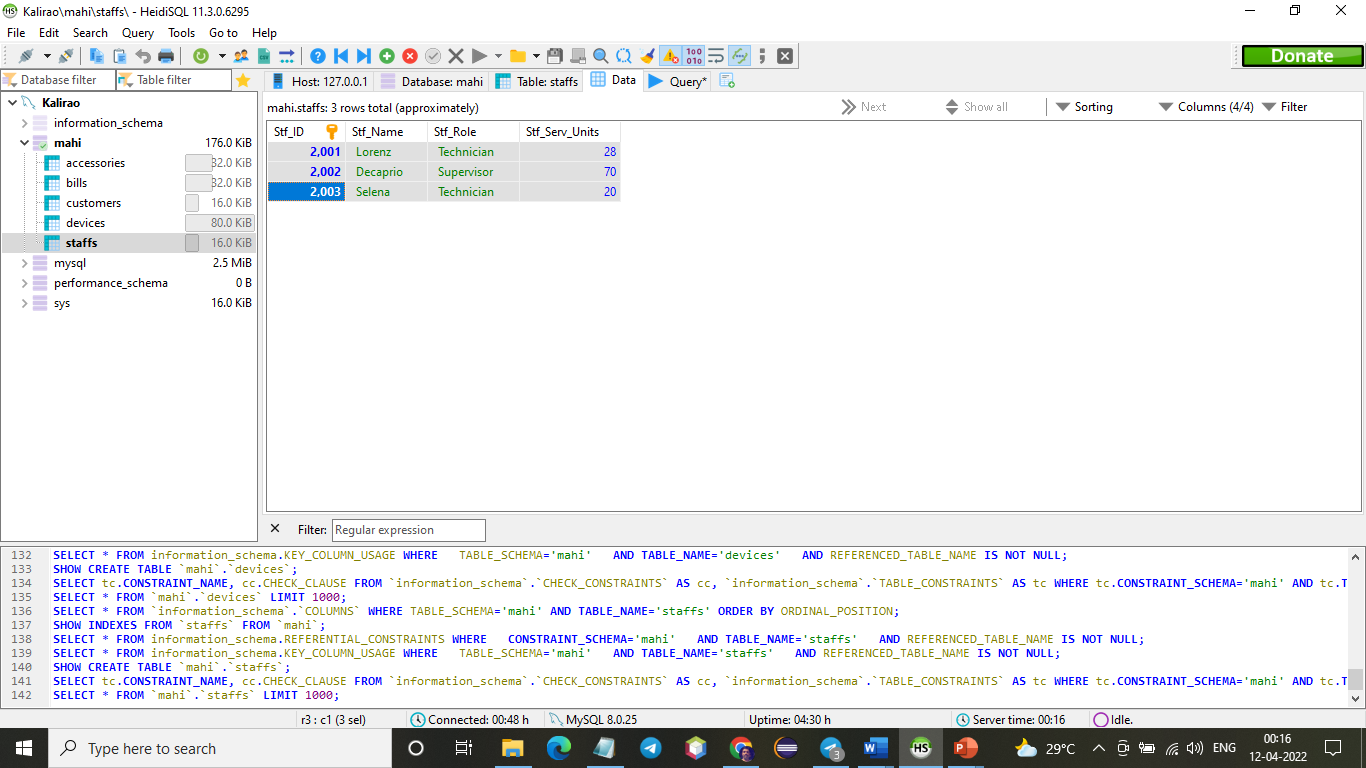


## **Update Statement – after applying affect**

UPDATE ACCESSORIES SET Acc\_BuyRate=Acc\_BuyRate\*1.10 WHERE Acc\_Name='RAM';



## **Delete Statement**

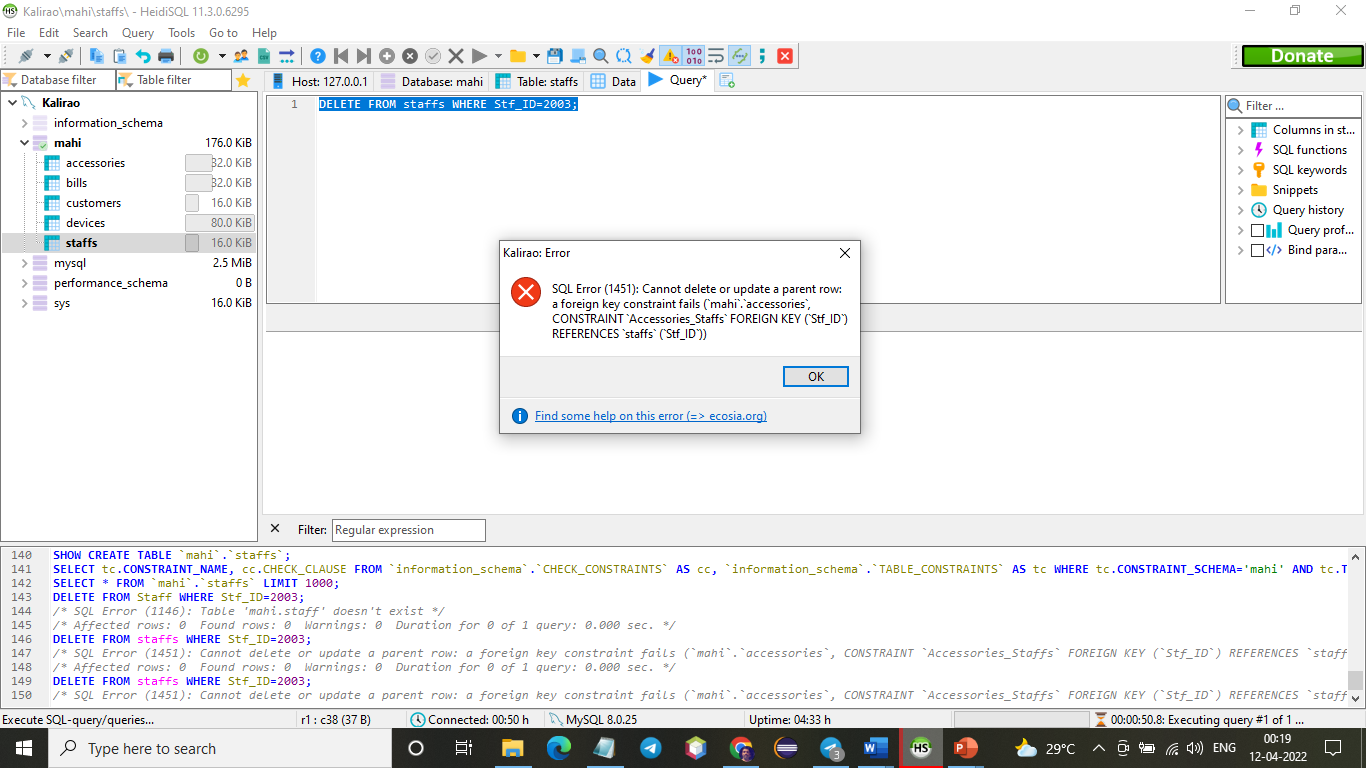


**DELETE** **FROM** Staff **WHERE** Stf\_ID=2003;

It gives error because a foreign key constraint fails.

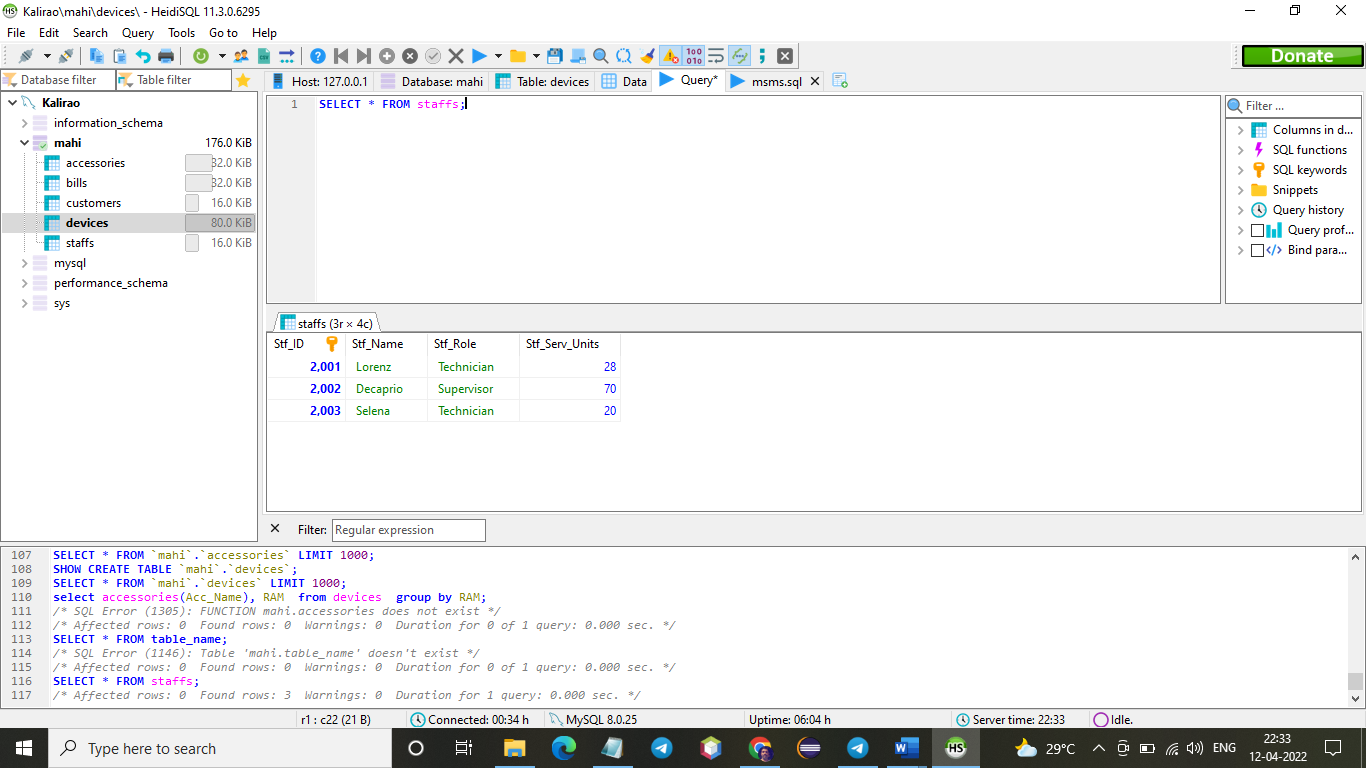
Yes, this record can be deleted in two ways.

1. before foreign key implemented.
2. After foreign key with cascade (here cascade delete means if a record in the parent table deleted then corresponding child table records have a subsequent affect)



## Select Statement

**SELECT** \* **FROM** staffs;



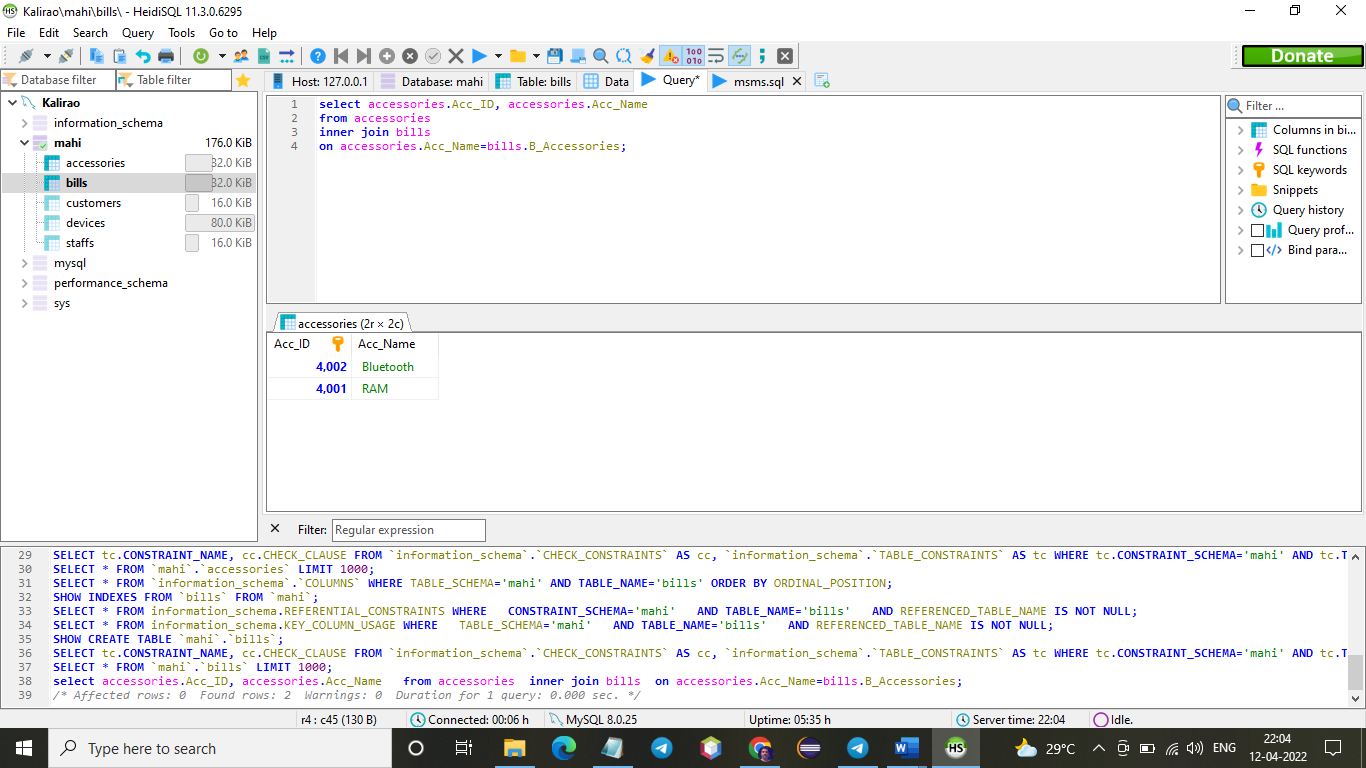
## **Inner Join**

**select** accessories.Acc\_ID, accessories.Acc\_Name

**from** accessories

**inner** **join** bills

**on** accessories.Acc\_Name=bills.B\_Accessories;

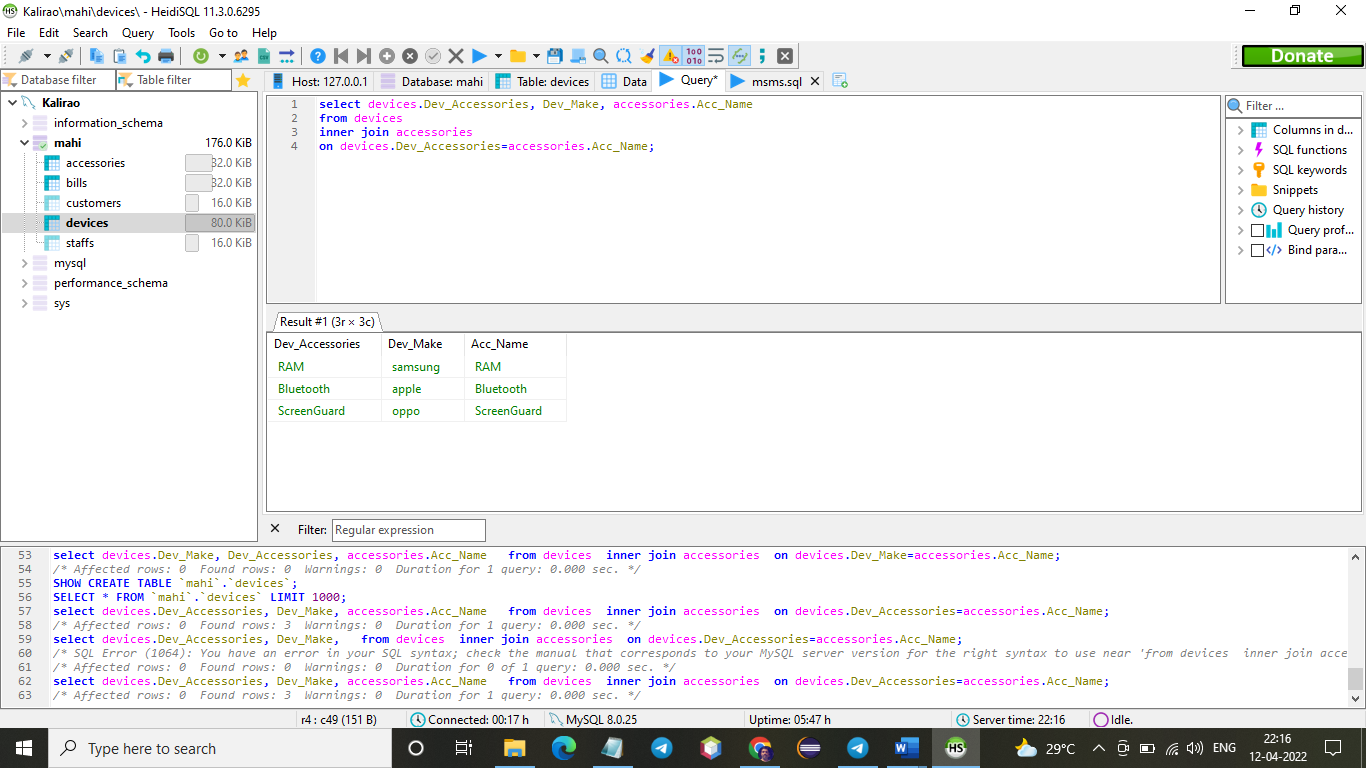


**select** devices.Dev\_Accessories, Dev\_Make, accessories.Acc\_Name

**from** devices

**inner** **join** accessories

**on** devices.Dev\_Accessories=accessories.Acc\_Name;



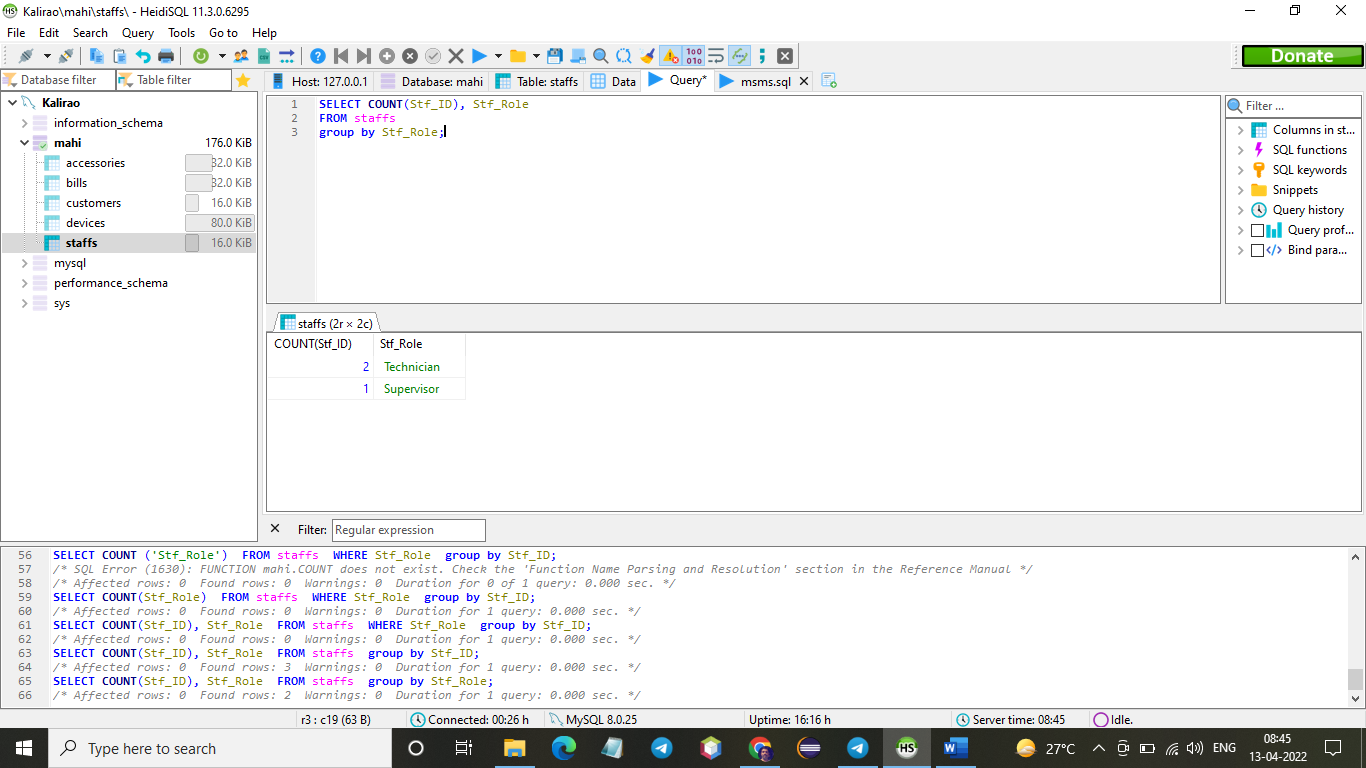
## Summary statements

### **GROUP BY**

**SELECT** **COUNT**(Stf\_ID), Stf\_Role

**FROM** staffs

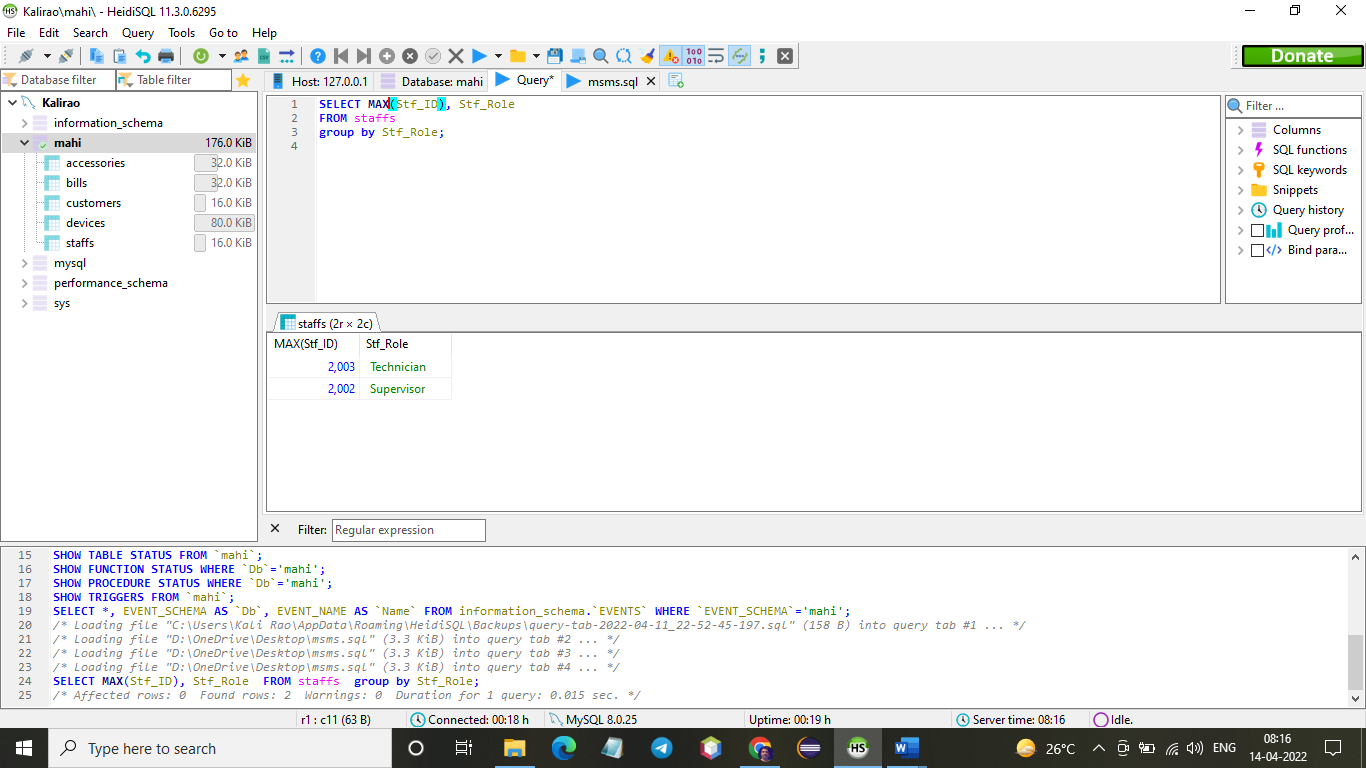
**group** **by** Stf\_Role;



**SELECT** **MAX**(Stf\_ID), Stf\_Role

**FROM** staffs

**group** **by** Stf\_Role;



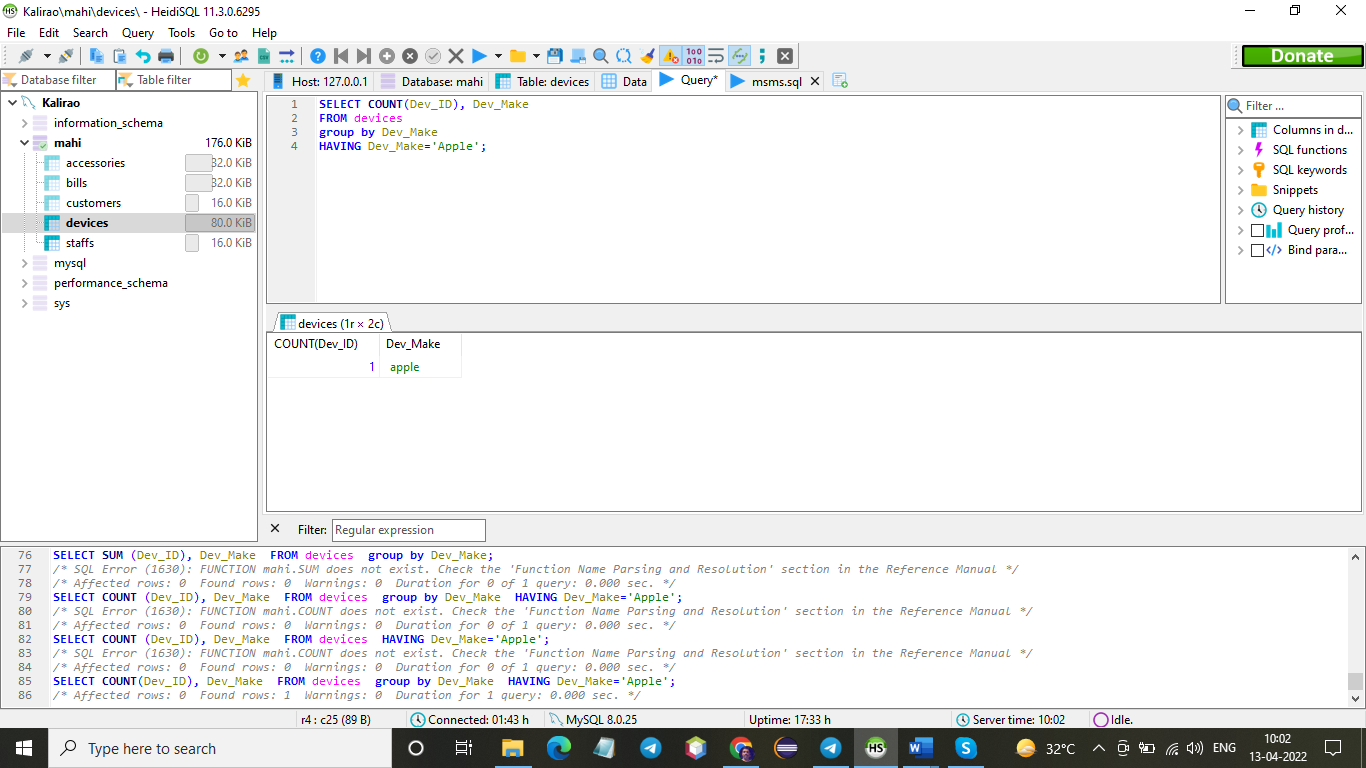
### HAVING

**SELECT** **COUNT**(Dev\_ID), Dev\_Make

**FROM** devices

**group** **by** Dev\_Make

**HAVING** Dev\_Make='Apple';



### **MULTIPLE TABLE QUERY**

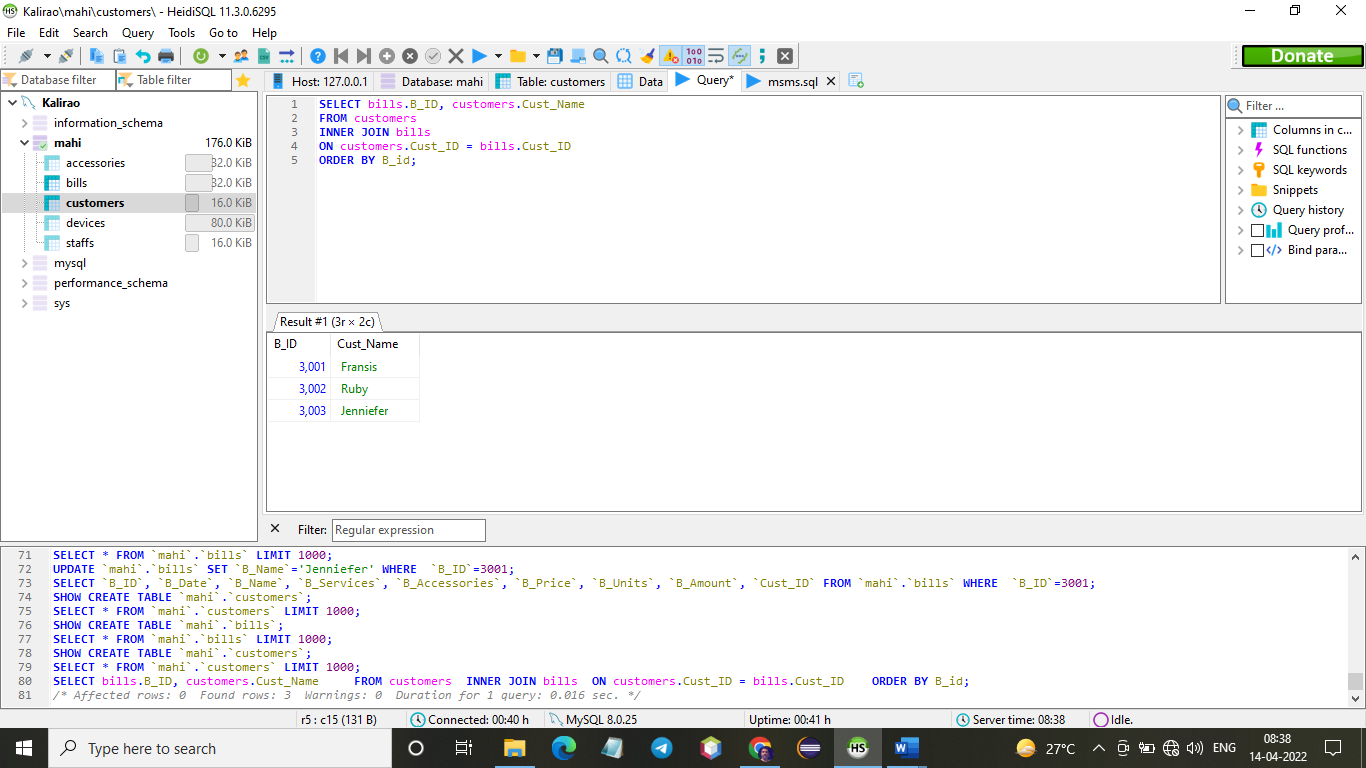
**SELECT** bills.B\_ID, customers.Cust\_Name

**FROM** customers

**INNER** **JOIN** bills

**ON** customers.Cust\_ID = bills.Cust\_ID

**ORDER** **BY** B\_id;



### **REPLACE COMMANDS**

REPLACE INTO `accessories` (`Acc\_ID`, `Acc\_Name`, `Acc\_In\_Units`, `Acc\_BuyRate`, `Acc\_Out\_Units`, `Dev\_ID`, `Stf\_ID`) VALUES

(4001, 'RAM', 218, 20, 76, 5001, 2001),

(4002, 'Bluetooth', 315, 30, 118, 5002, 2002),

(4003, 'ScreenGuard', 173, 40, 89, 5003, 2003);

REPLACE INTO `bills` (`B\_ID`, `B\_Date`, `B\_Name`, `B\_Services`, `B\_Accessories`, `B\_Price`, `B\_Units`, `B\_Amount`, `Cust\_ID`) VALUES

(3001, '2022-04-11', 'Murugan', 'Apple', 'Bluetooth', 50, 1, 55, 1001),

(3002, '2022-04-11', 'Ram', 'Samsung', 'Ram', 75, 1, 83, 1002),

(3003, '2022-04-11', 'Jacob', 'Oppo', 'Screen guard', 10, 1, 11, 1003);

REPLACE INTO `customers` (`Cust\_ID`, `Cust\_Name`, `Cust\_Contact`, `Cust\_Device`, `Cust\_Dev\_Units`) VALUES

(1001, 'Fransis', 12345, 'Oppo', 1),

(1002, 'Ruby', 23456, 'Samsung', 1),

(1003, 'Jenniefer', 34567, 'Apple', 1);

REPLACE INTO `devices` (`Dev\_ID`, `Dev\_Make`, `Dev\_Model`, `Dev\_Version`, `Dev\_Accessories`, `Cust\_ID`, `Stf\_ID`, `Acc\_ID`, `B\_ID`) VALUES

(5001, 'apple', 'v13', '10c', 'Bluetooth', 1001, 2002, 4002, 3003),

(5002, 'samsung', 'g10', '11a', 'RAM', 1003, 2003, 4001, 3001),

(5003, 'oppo', '011', '9G', 'ScreenGuard', 1002, 2001, 4003, 3002);

REPLACE INTO `staffs` (`Stf\_ID`, `Stf\_Name`, `Stf\_Role`, `Stf\_Serv\_Units`) VALUES

(2001, 'Lorenz', 'Technician', 28),

(2002, 'Decaprio', 'Supervisor', 70),

(2003, 'Selena', 'Technician', 20);

