A Project Report on

Electronics Shop Management System

“ ESMS ”

Developed By:

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Guided By

Internal Guide:

**Prof. Archana N. Vyas**

****

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October-2022

CERTIFICATE

This is to certify that the project entitled

“Electronics Stock Management System” is,

a bonafide report of the work carried out by

1) Solanki Apar Student ID No: 20ITUOS 060

2) Shinde Rahul Student ID No: 20ITUOS004

3) Soni Neel Student ID No: 20ITUOS018

of Department of Information Technology, semester V, under the guidance and

supervision for the subject Database Management System. They were involved in Project training during the academic year 2022-2023.



Dharamsinh desai university nadiad

*COMMENDATION*

We would like to express our heartfelt gratitude to everyone who contributed to the successful completion of our project "ESMS"

The success and ultimate conclusion of this project necessitated a great deal of advice and support from a large number of individuals and we are incredibly fortunate to have received it all along with the project's completion.

We owe a debt of appreciation to **Prof. Archana N. Vyas,** our project guide, who took an interest in our project work and directed us through it till it was completed by giving all of the required assistance for creating a solid Database System.

We'd also want to express our gratitude to all of our speakers. Finally, we express our gratitude to all of our friends and colleagues.

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**Source Code = >** [**Electronics\_Stock\_Management\_System**](https://github.com/neel13062003/Electronics_Stocks_Management_System)

**1) SYSTEM OVERVIEW**

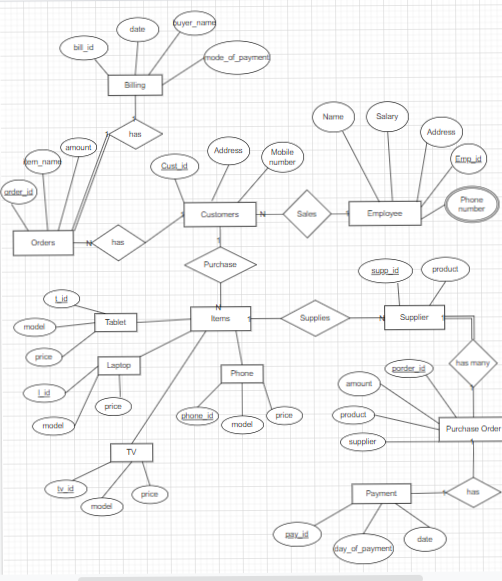
**1.1 ) Current System & Objectives**

Our database will be designed for companies or businessmen who are dealing with Clients and suppliers daily. Our major focus will be on structuring this data in such a way that the Person who is the owner of this Application/Database can easily manage their stocks up-to-date & also this help in maintaining whole Money transactions from both side Clients & Suppliers. It will also be done in an effective manner since we do not want our database to become redundant.

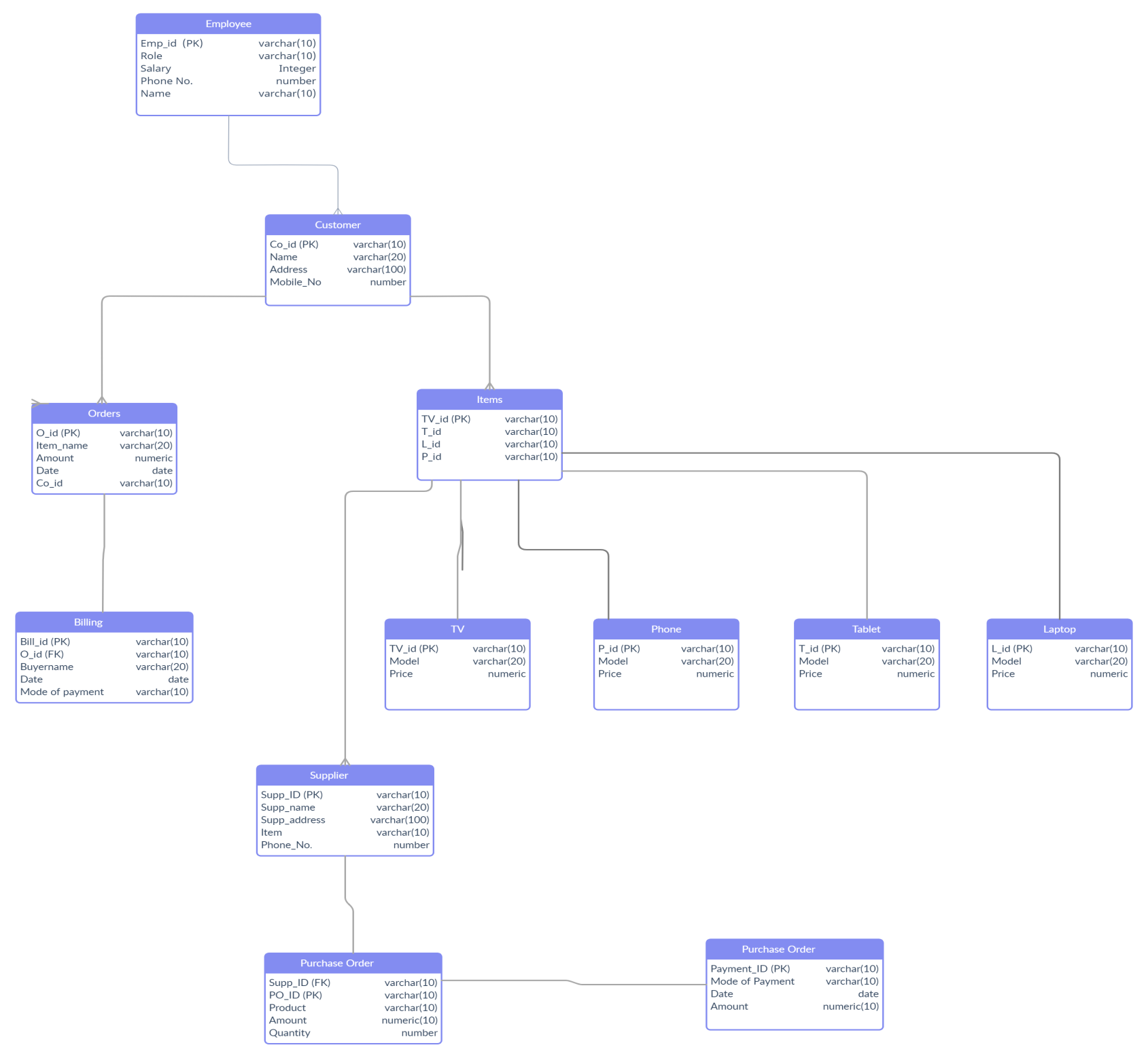
**1.2) Advantage of System**

ESMS is Server and Clients Side Application. All users can purchase Electronics systems online like Flip kart – Amazon. With Also Supplier Owner Can purchase Products from the Supplier or Dealer. Both Users and Supplier Details related to Products or Payments everything manages accurately.

**2) ER-Entity Relational Diagram**

****

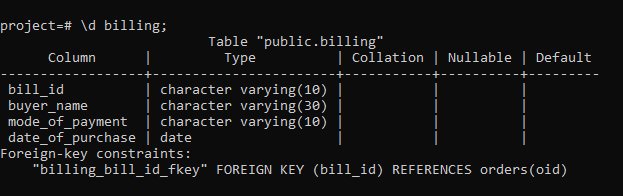
**Link =>** [**ER Diagram**](https://github.com/neel13062003/Electronics_Stocks_Management_System/blob/main/ERDiagram.png)

**3) Relational Schema Diagram**

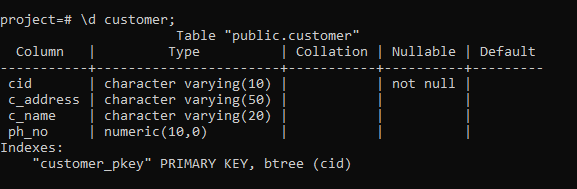
**Link =>** [**Relational\_Schema**](https://github.com/neel13062003/Electronics_Stocks_Management_System/blob/main/Electronic%20shop.png)

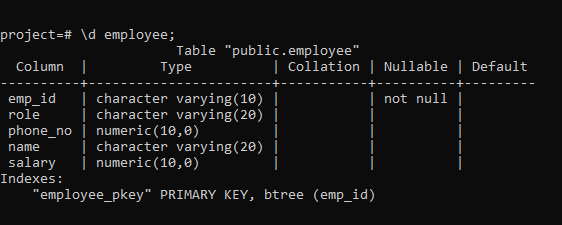
**4) Data Dictionary**

**4.1) Billing**

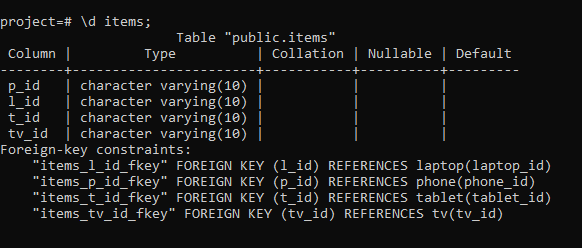
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**4.2) Customer**

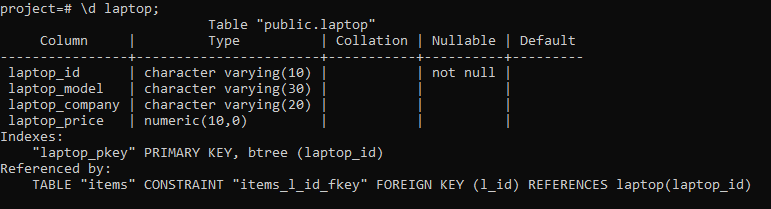
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**4.3) Employee**

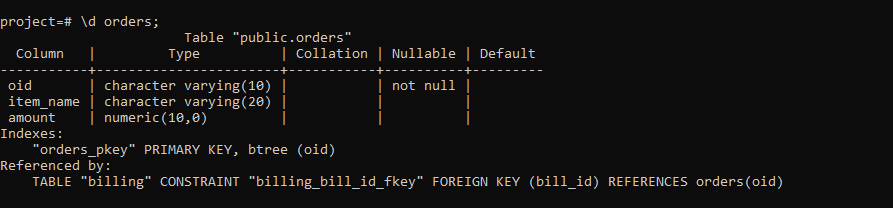
**4.4) Items**

****

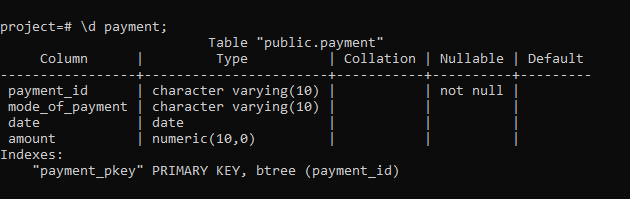
**4.5) Laptop**

****

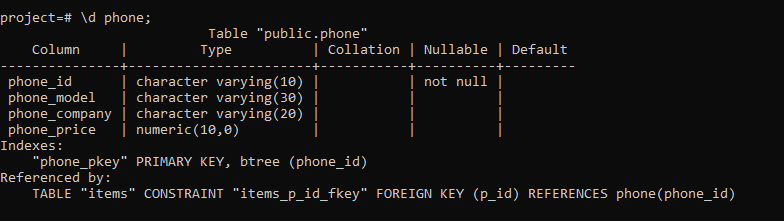
**4.6) Orders**

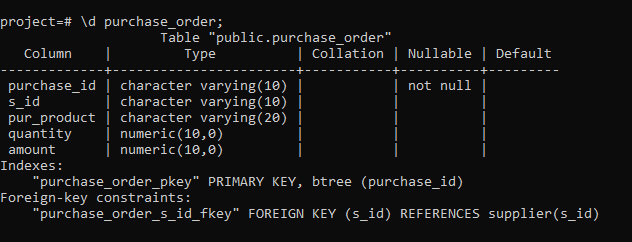
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**4.7) Payment**

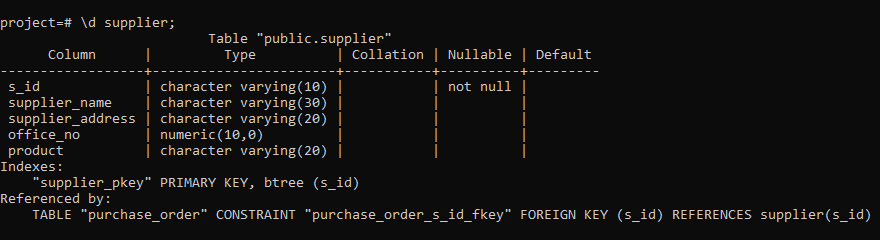
****

**4.8) Phone**

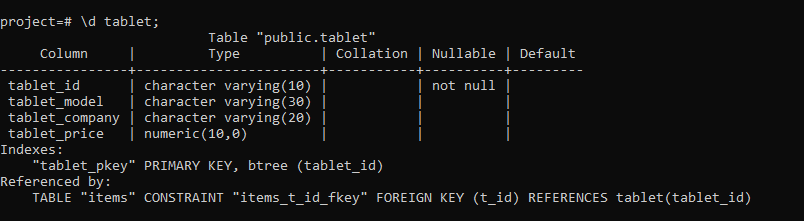
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**4.9) Purchase\_order**

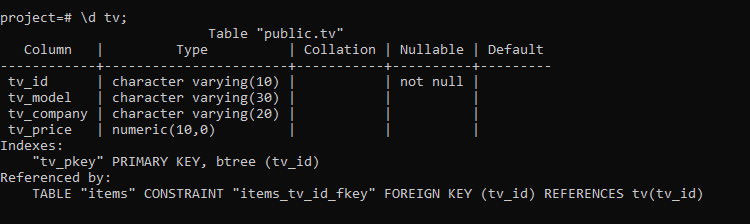
**4.10) Supplier**

****

**4.11) Tablet**

****

**4.12) Tv**

****

5) Data Implementation

\* First Create Database name -> Project \*

Creat Database Project;

5.1) Schema => Total 12 Table

1) Employee

CREATE table Employee( Emp\_id varchar(10) PRIMARY KEY, role varchar(20), phone\_no numeric(10),name varchar(20), salary numeric(10));

2)Customer

CREATE TABLE Customer (CID varchar(10) PRIMARY KEY,c\_address varchar(50), c\_name varchar(20), ph\_no numeric(10));

3)Orders

create table Orders(OID varchar(10) PRIMARY KEY,Item\_name varchar(20), amount numeric(10));

4)Billing

Create table Billing( Bill\_ID varchar(10) REFERENCES Orders(OID),Buyer\_name varchar(30),mode\_of\_payment varchar(10),date\_of\_purchase Date);

5) Tv

Create table Tv(Tv\_id varchar(10) primary key,Tv\_model varchar(30),Tv\_company varchar(20),Tv\_price numeric(10));

6) Phone

Create table Phone( Phone\_id varchar(10) primary key, Phone\_model varchar(30), Phone\_company varchar(20), Phone\_price numeric(10));

7) Laptop

Create table Laptop( Laptop\_id varchar(10) primary key, Laptop\_model varchar(30),Laptop\_company varchar(20),Laptop\_price numeric(10));

8) Tablet

Create table Tablet(Tablet\_id varchar(10) primary key,Tablet\_model varchar(30),Tablet\_company varchar(20),Tablet\_price numeric(10));

9) Items

Create table Items(P\_id varchar(10) REFERENCES Phone(Phone\_id), L\_id varchar(10) REFERENCES Laptop(Laptop\_id), T\_id varchar(10) REFERENCES Tablet(Tablet\_id), Tv\_id varchar(10) REFERENCES Tv(Tv\_id) );

10) Supplier

Create table Supplier(S\_id varchar(10) primary key,supplier\_name varchar(30),supplier\_address varchar(20), office\_no numeric(10),product varchar(20));

11) Purchaese\_Order

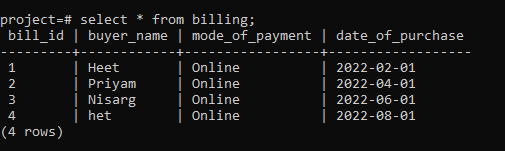
  Create table Purchase\_order(Purchase\_id varchar(10) primary key,S\_id varchar(10) REFERENCES Supplier(S\_id), pur\_product varchar(20), quantity numeric(10), amount numeric(10));

12)Payment

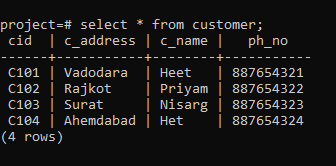
  Create table Payment( payment\_id varchar(10)  PRIMARY KEY,mode\_of\_payment varchar(10), date DATE,amount numeric(10));

5.2) Inserting & Displaying Values

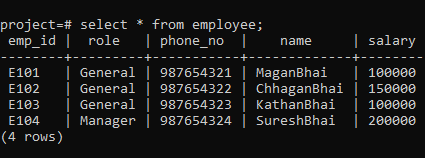
1) Billing



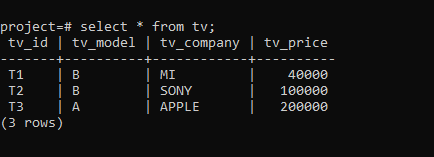
2) Customer



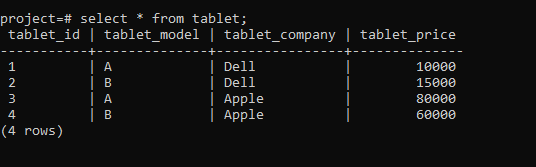
3) Employee

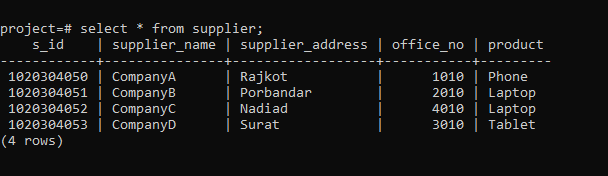


4) TV

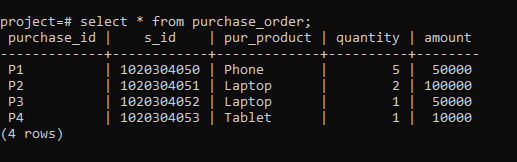


5) Tablet

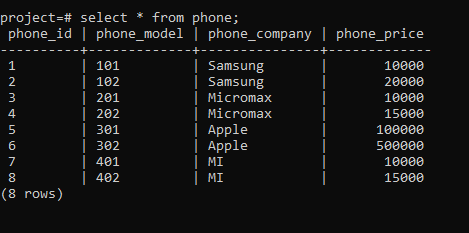


6) Supplier

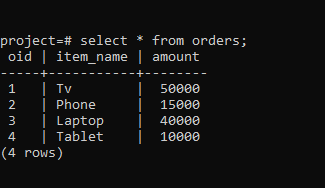
7) Purchase\_Order



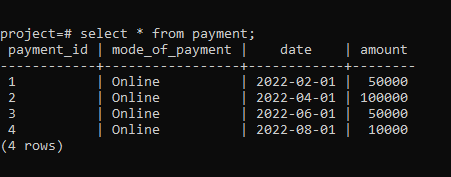
8) Phone



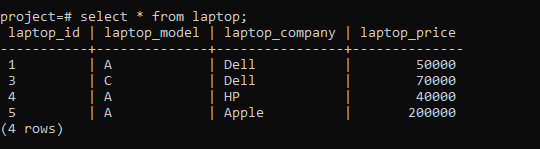
9) Orders



10) Payment

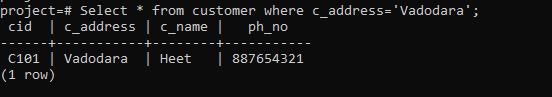


11) Laptop



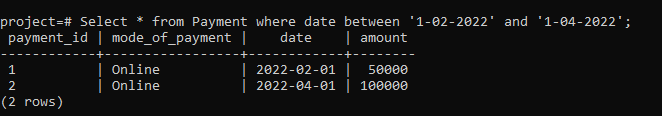
5.3) Queries Using Basic DBMS

 1) Display the Customers who are from vadodara.



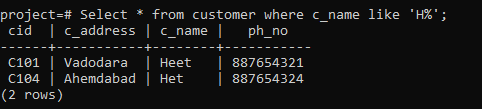
/\*Between & And Operator\*/

2)Display Payment recieve between 1 February to 1 April;



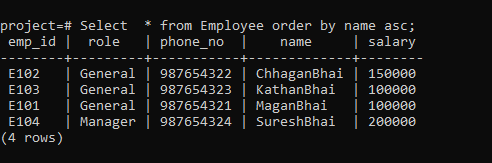
/\*Like Operator\*/

3)Display Customer Name start with 'A'



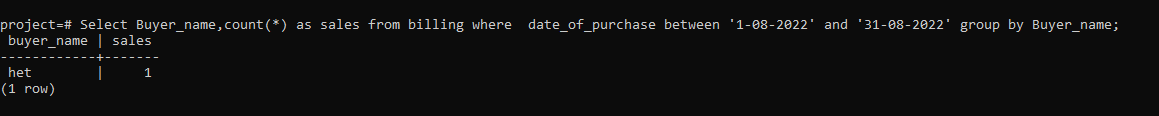
/\*Order By => ordering in acending \*/

4)Display Employee Deatials accoring to sort their name



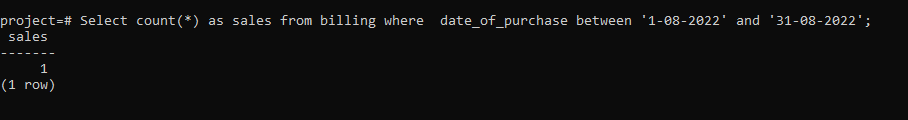
/\*Aggregate function use & use of group by because we want alo display name with aggregate function\*/

5)Disply count total sales of company in month of august 2022 with Buyer Name



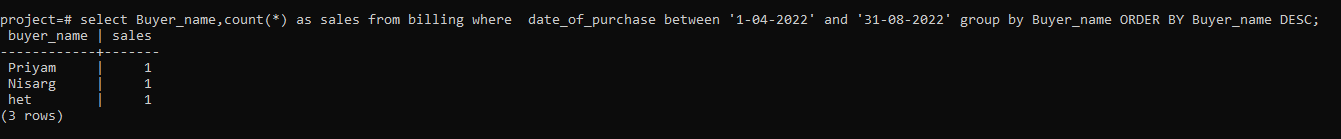
/\*Simple Aggregate Function also use of alias\*/

6)Disply count total sales of company in month of august 2022



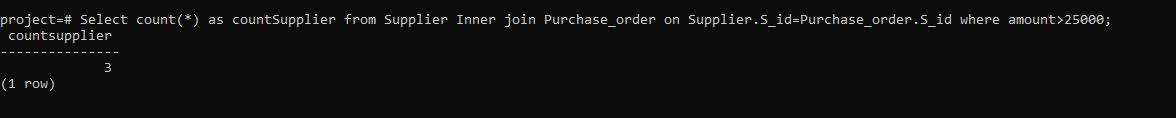
/\*Aggregate Function + Group BY + Order by\*/

7)Disply count total sales of company in month of august to April 2022 with Buyer Name with desceding order of name



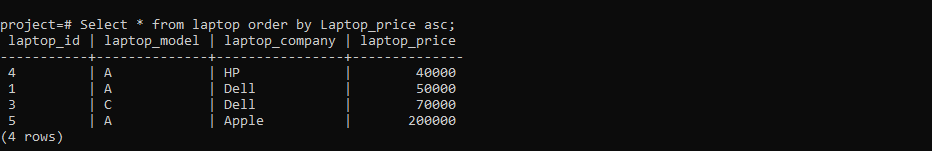
/\*Aggregate Function with Inner join\*/

8)Count Supplier name who purchase amount>25000



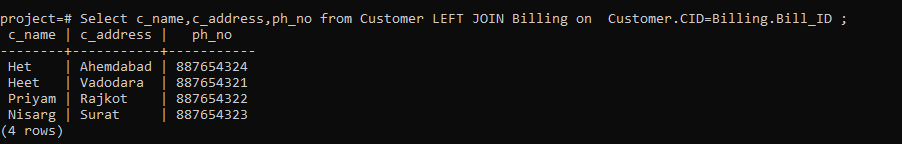
/\*Order By\*/

9)Display Laptop Detials with their price arranging in aceding order



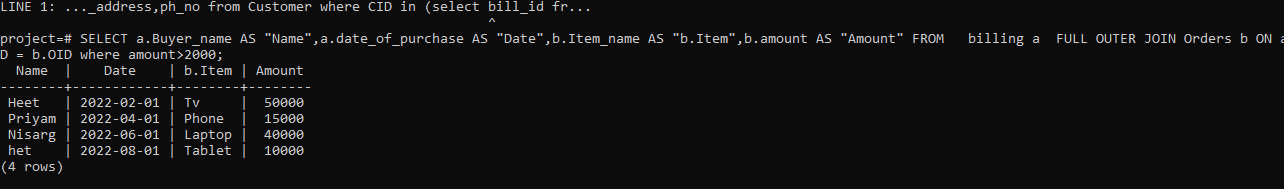
/\*Left join\*/

10)Display Detials of Customers who purchase laptop in 2022



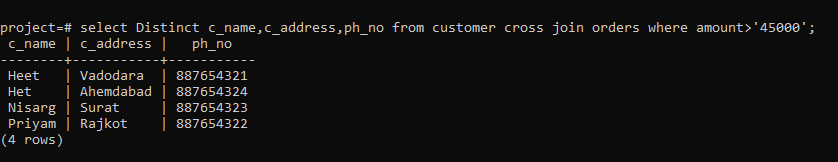
/\*Full Outer Join\*/

11)Display Details of Customer whose purchase is >2000;



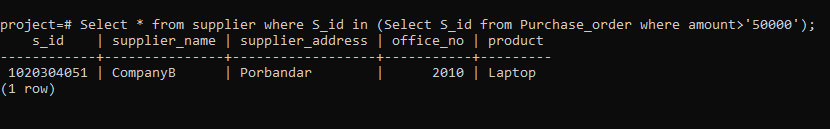
/\*Cross Join\*/

12)Give Customer Details having billing amount> 50K



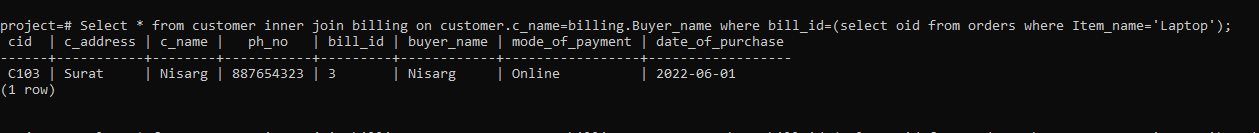
/\*Using SubQuery\*/

13)Display Supplier Deatails whose purchase amount > 50000



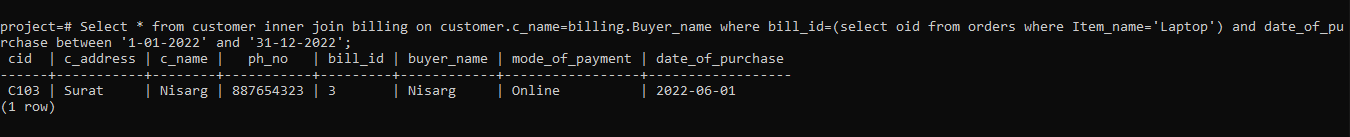
/\*Using SubQuery\*/

14)Display Details of Customer Who purchase Laptop in 2022



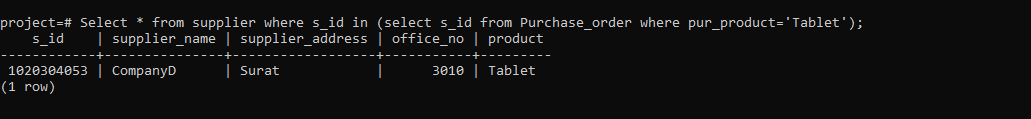
/\*Using SubQuery\*/

15)Display Details of Customer Who purchase Laptop in 2022



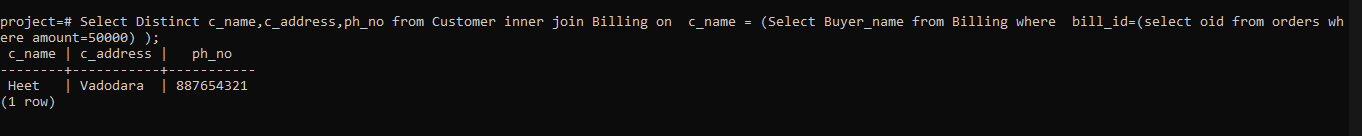
/\*Using SubQuery\*/

16)Display Supplier Detials Whose Supplying Tablet/Iphone as we wish



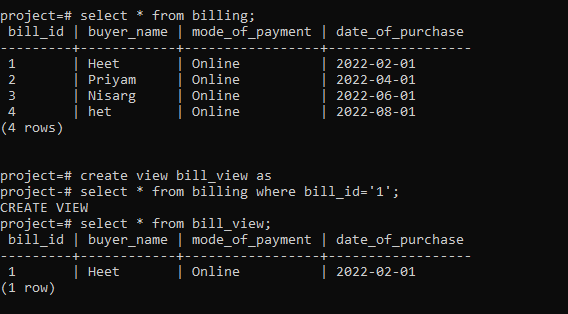
/\*Using SubQuery\*/

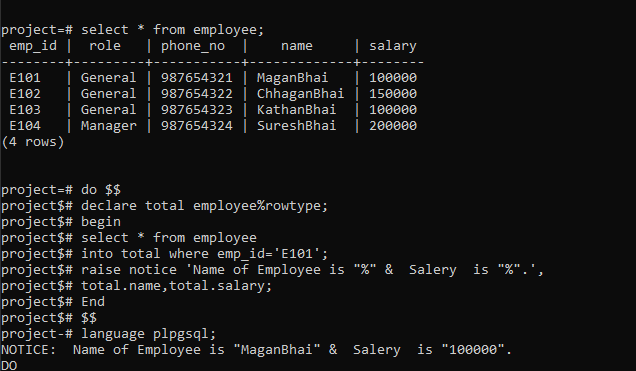
17)Give Customer Details having billing amount >1lakh



**5.5) PL/SQL Blocks (Views)**

**1) View**



2) RowType

**5.6) Functions & Trigger**

**1) Create order\_audit for if any unauthentic person insert/update/delete our most important orders table then all actions sawn in order\_audit table.**

\*Function\*

CREATE OR REPLACE FUNCTION do\_order\_audit() RETURNS TRIGGER AS $TriggerNameAsIWant$

    BEGIN

            INSERT INTO order\_audit(oid\_1,Item\_name1,entry\_date) values(NEW.oid,NEW.Item\_name,current\_timestamp);

            RETURN NEW;

    END;

$TriggerNameAsIWant$

LANGUAGE PLPGSQL;

\*Trigger\*

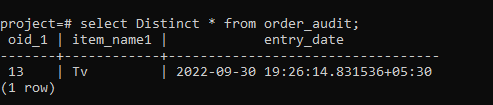
/\*cust\_audit trigger name , orders = table name\*/

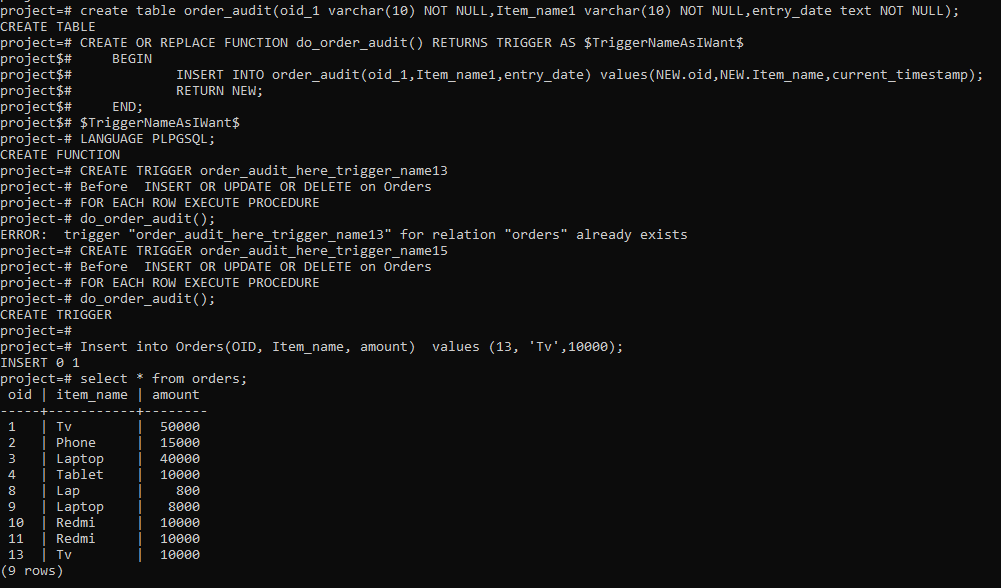
CREATE TRIGGER order\_audit\_here\_trigger\_name15

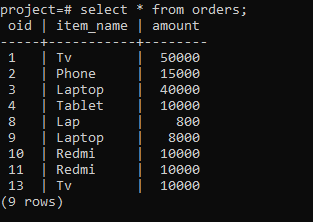
Before  INSERT OR UPDATE OR DELETE on Orders

FOR EACH ROW EXECUTE PROCEDURE

do\_order\_audit();







2) Create Function & Trigger for if supplier add wrong entry like negative value trigger shows.

\*Trigger\*

CREATE TRIGGER checkage11

Before INSERT OR UPDATE OR DELETE on Purchase\_order

FOR EACH ROW EXECUTE PROCEDURE

fun();

\*Function\*

CREATE OR REPLACE FUNCTION fun() RETURNS TRIGGER AS $$

    BEGIN

        IF new.quantity < 0 THEN

            RAISE EXCEPTION 'You Must Order Something!!!';

            /\*RETURN NEW;\*/

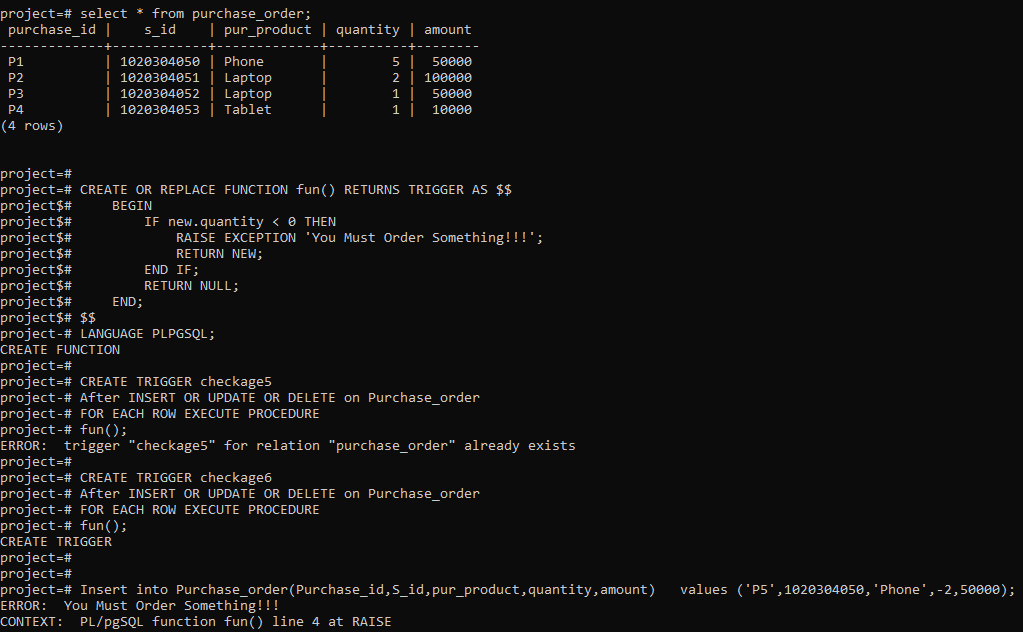
        END IF;

        RETURN New;

    END;

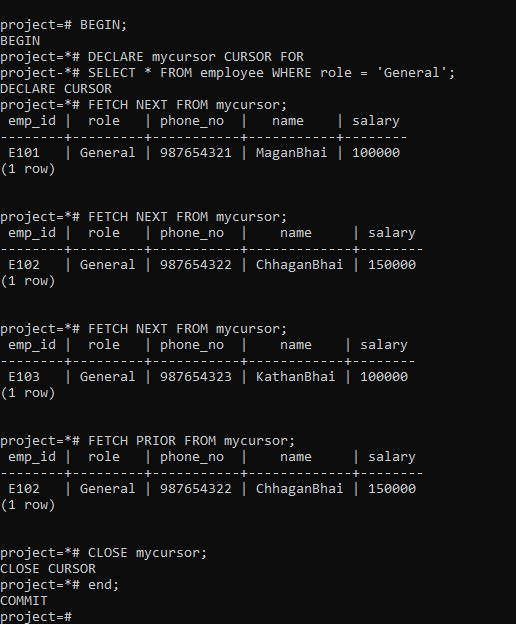
$$

LANGUAGE PLPGSQL;



5.7) Cursor

Create a Cursor which traverses through users table where role is General.



BEGIN;

DECLARE mycursor CURSOR FOR

SELECT \* FROM employee WHERE role = 'General';

FETCH NEXT FROM mycursor;

FETCH PRIOR FROM mycursor;

CLOSE mycursor;

end;

6) Future Enhancements of this System

● We will design Front-end using React Framework and Develop Backend in NodeJS

● Methods and user data input will be a lot easy after the implementation of GUI.

● In the future, we can place the system on the cloud so the maintenance of the data can be reduced.

7) Bibliography

● We created ER-Model on Whimsical and Relational Schema on Creatively

● ***ER-MODEL*** created using

<https://whimsical.com/>

● ***RELATIONAL SCHEMA*** created using

<https://app.creately.com/d/yQAR0D8Dgpa/edit>

● For the implementation of this project, we referred to materials shared by

**Prof. Archana N.Vyas** & the following websites and books:

**Book:**

Database System Concepts

-Henry F. Korth & A. Silberschatz 2nd Ed. McGraw-Hill 1991

**Websites:**

=> <https://www.w3schools.com/sql/sql_syntax.asp>

=> <https://www.tutorialspoint.com/index.htm>

=> <https://dev.mysql.com/doc/>

=><ms-database-management-system-set-1/>

=>[https://www.geeksforgeeks.org/introduction-of-dbms- database-management-system-set-1/](https://www.geeksforgeeks.org/introduction-of-dbms-%09%09database-management-system-set-1/)