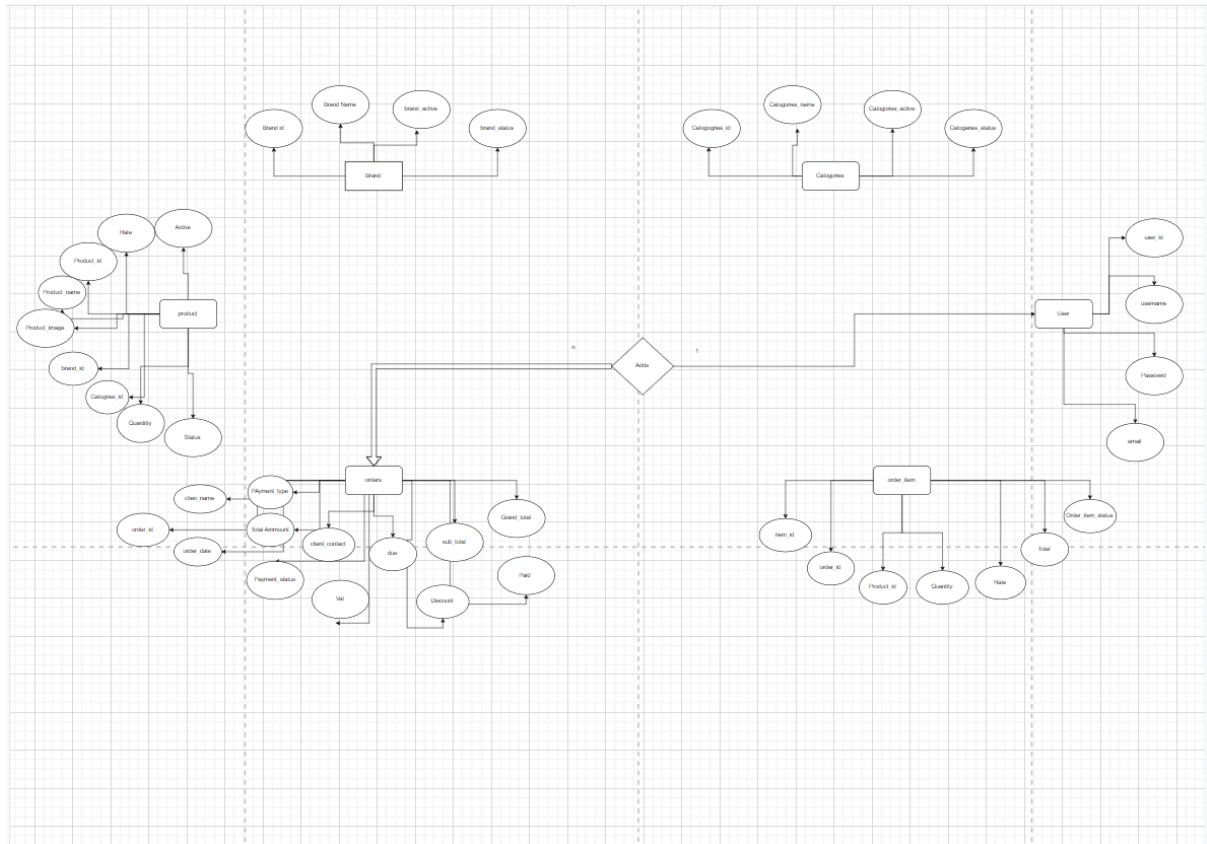# Mini Project

Name: Abhay R Warrier
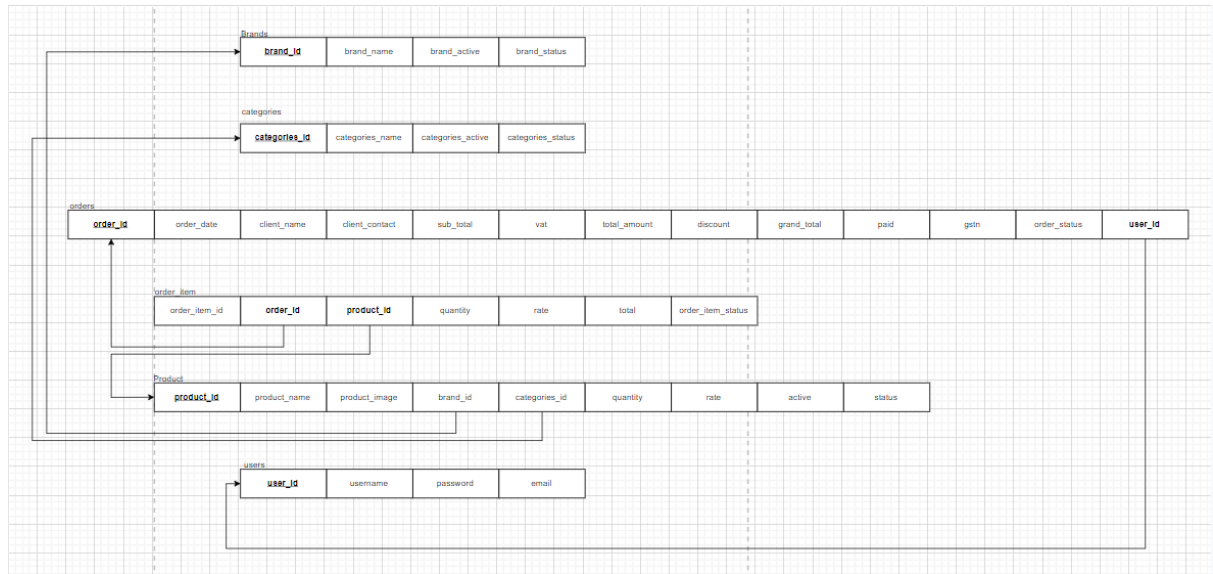
SRN: PES2UG20CS009

SEC: A

1. A short description about the project and scope

A: In particular, this Inventory Management System project in PHP MySQL focuses mainly on keeping track of inventories. Also, the system displays all the essential records with their respective department. In addition, the system allows managing product categories and their brand names. Evidently, this project contains an admin and employee panel. In an overview of this web application, an employee has limited control over the system. He/she can only manage customers' orders. Besides, employee users can only list our order details and print their receipts. However, the admin first has to set up employee details as a part of user management for the system.

2. ER Diagram

3. Relational Scheme

Brands

brand_id	brand_name	brand_active	brand_status

categories

categories_id	categories_name	categories_active	categories_status

orders

order_id	order_date	client_name	client_contact	sub_total	vat	total_amount	discount	grand_total	paid	gstn	order_status	user_id

order_item

order_item_id	order_id	product_id	quantity	rate	total	order_item_status

Product

product_id	product_name	product_image	brand_id	categories_id	quantity	rate	active	status

users

user_id	username	password	email

4. DDL statements to build the database

```sql
SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET time_zone = "+00:00";


-- Database: `sinventoryphp`


CREATE TABLE `brands` (
  `brand_id` int(11) NOT NULL,
  `brand_name` varchar(255) NOT NULL,
  `brand_active` int(11) NOT NULL DEFAULT '0',
  `brand_status` int(11) NOT NULL DEFAULT '0'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


CREATE TABLE `categories` (
  `categories_id` int(11) NOT NULL,
  `categories_name` varchar(255) NOT NULL,
  `categories_active` int(11) NOT NULL DEFAULT '0',
  `categories_status` int(11) NOT NULL DEFAULT '0'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


CREATE TABLE `orders` (
  `order_id` int(11) NOT NULL,
  `order_date` date NOT NULL,
  `client_name` varchar(255) NOT NULL,
  `client_contact` varchar(255) NOT NULL,
  `sub_total` varchar(255) NOT NULL,
  `vat` varchar(255) NOT NULL,
  `total_amount` varchar(255) NOT NULL,
  `discount` varchar(255) NOT NULL,
  `grand_total` varchar(255) NOT NULL,
  `paid` varchar(255) NOT NULL,
```

```sql
  `due` varchar(255) NOT NULL,
  `payment_type` int(11) NOT NULL,
  `payment_status` int(11) NOT NULL,
  `payment_place` int(11) NOT NULL,
  `gstn` varchar(255) NOT NULL,
  `order_status` int(11) NOT NULL DEFAULT '0',
  `user_id` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


CREATE TABLE `order_item` (
  `order_item_id` int(11) NOT NULL,
  `order_id` int(11) NOT NULL DEFAULT '0',
  `product_id` int(11) NOT NULL DEFAULT '0',
  `quantity` varchar(255) NOT NULL,
  `rate` varchar(255) NOT NULL,
  `total` varchar(255) NOT NULL,
  `order_item_status` int(11) NOT NULL DEFAULT '0'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;



CREATE TABLE `product` (
  `product_id` int(11) NOT NULL,
  `product_name` varchar(255) NOT NULL,
  `product_image` text NOT NULL,
  `brand_id` int(11) NOT NULL,
  `categories_id` int(11) NOT NULL,
  `quantity` varchar(255) NOT NULL,
  `rate` varchar(255) NOT NULL,
  `active` int(11) NOT NULL DEFAULT '0',
  `status` int(11) NOT NULL DEFAULT '0'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE `users` (
  `user_id` int(11) NOT NULL,
```

```sql
  `username` varchar(255) NOT NULL,
  `password` varchar(255) NOT NULL,
  `email` varchar(255) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

5. Different methods used to populate data. - Show statements used under different methods

```sql
INSERT INTO `brands` (`brand_id`, `brand_name`, `brand_active`, `brand_status`) VALUES
(1, 'Vans', 1, 1),
(2, 'Adidas', 1, 1),
(3, 'Calvin Klein', 1, 1),
(4, 'WYZE', 1, 1),
(5, 'Apple', 1, 1),
(6, 'Samsung', 1, 1),
(7, 'TP-Link', 1, 1),
(8, 'Amazon', 1, 1),
(9, 'Sony', 1, 1);


INSERT INTO `categories` (`categories_id`, `categories_name`, `categories_active`,
`categories_status`) VALUES
(1, 'Shoes', 1, 1),
(2, 'T-Shirts and Tops', 1, 1),
(3, 'Hoodies & Sweatshirts', 1, 1),
(4, 'Shorts', 1, 1),
(5, 'Jackets', 1, 1),
(6, 'Security Camera', 1, 1),
(7, 'Routers', 1, 1),
(8, 'Smart Phones', 1, 1),
(9, 'Headphones', 1, 1),
(10, 'Alexa Voice Remote', 1, 1),
(11, 'Chargers', 1, 1);


INSERT INTO `orders` (`order_id`, `order_date`, `client_name`, `client_contact`,
`sub_total`, `vat`, `total_amount`, `discount`, `grand_total`, `paid`, `due`,
`payment_type`, `payment_status`, `payment_place`, `gstn`, `order_status`, `user_id`)
VALUES
```

```sql
(1, '2021-06-02', 'James Rusell', '7014444410', '49.00', '8.82', '57.82', '0', '57.82', '60', '-2.18', 2, 1,
1, '8.82', 1, 1),
(2, '2021-06-02', 'Thomas', '7014445400', '45.00', '8.10', '53.10', '0', '53.10', '55', '-1.90', 3, 1, 1,
'8.10', 1, 1),
(3, '2021-06-02', 'Colin', '7896500020', '45.00', '8.10', '53.10', '0', '53.10', '100', '-46.90', 2, 2, 2,
'8.10', 1, 1),
(4, '2022-01-18', 'Jack', '8547854444', '264.00', '47.52', '311.52', '0', '311.52', '311.52', '0.00', 2,
1, 1, '47.52', 1, 1),
(5, '2022-01-26', 'Thomas Stuart', '8540001014', '106.00', '19.08', '125.08', '0', '125.08', '125',
'0.08', 1, 1, 1, '19.08', 1, 1),
(6, '2022-01-31', 'James Greenwood', '5214440120', '742.00', '133.56', '875.56', '0', '875.56',
'875.56', '0.00', 2, 1, 1, '133.56', 1, 1),
(7, '2022-01-31', 'Annie Gillespie', '7450126690', '90.00', '16.20', '106.20', '0', '106.20', '106.20',
'0.00', 3, 1, 1, '16.20', 1, 2),
(8, '2022-01-30', 'Kristen Stiger', '8540001250', '348.00', '62.64', '410.64', '0', '410.64', '410.64',
'0.00', 2, 1, 1, '62.64', 1, 2),
(9, '2022-02-02', 'Jamie ', '7401114536', '1284.00', '231.12', '1515.12', '0', '1515.12', '1515.12',
'0.00', 2, 1, 1, '231.12', 1, 1),
(10, '2022-02-02', 'William Moore', '7410000069', '274.00', '49.32', '323.32', '10', '313.32',
'313.32', '0.00', 3, 1, 1, '49.32', 1, 1);

INSERT INTO `order_item` (`order_item_id`, `order_id`, `product_id`, `quantity`, `rate`,
`total`, `order_item_status`) VALUES
(1, 1, 1, '2', '49', '49.00', 1),
(2, 2, 13, '2', '45', '45.00', 1),
(3, 3, 15, '31', '45', '45.00', 1),
(4, 0, 16, '12', '22', '264.00', 1),
(5, 0, 16, '13', '22', '264.00', 1),
(6, 0, 16, '12', '22', '286.00', 1),
(7, 4, 16, '12', '22', '264.00', 1),
(8, 5, 3, '2', '53', '106.00', 1),
(9, 6, 3, '14', '53', '742.00', 1),
(10, 7, 15, '2', '45', '90.00', 1),
(11, 8, 9, '4', '87', '348.00', 1),
```

```sql
(12, 9, 14, '4', '321', '1284.00', 1),
(13, 10, 6, '1', '70', '70.00', 1),
(14, 10, 7, '1', '29', '29.00', 1),
(15, 10, 10, '1', '35', '35.00', 1),
(16, 10, 4, '1', '140', '140.00', 1);


INSERT INTO `product` (`product_id`, `product_name`, `product_image`, `brand_id`,
`categories_id`, `quantity`, `rate`, `active`, `status`) VALUES
(1, 'Custom Paisley Patchwork Era', '../assests/images/stock/2120760b75c9237837.png', 1,
1, '0', '69', 1, 1),
(2, 'asd', '../assests/images/stock/2628560b75d3561d09.jpg', 1, 1, '22', '2', 2, 2),
(3, 'Wyze Cam v3 1080p HD Indoor/Outdoor Video Camera',
'../assests/images/stock/2943460b7937a267ed.jpg', 4, 6, '105', '53', 1, 1),
(4, 'Ultraboost 21 Primeblue Shoes', '../assests/images/stock/2926160b77b0e925b8.jpg', 2,
1, '118', '140', 1, 1),
(5, 'Garment-Dyed Canvas Denim Jacket',
'../assests/images/stock/2951160b792ba3020b.jpg', 3, 5, '97', '210', 1, 1),
(6, 'VansXPark Project Classic Slip-On',
'../assests/images/stock/2856060b77ea550ccf.png', 1, 1, '244', '70', 1, 1),
(7, 'TechFit Fitted Tee', '../assests/images/stock/165960b7909513f6d.jpg', 2, 2, '368', '29', 1,
1),
(8, 'Love Unites Tank Top (Gender Neutral)',
'../assests/images/stock/2780060b790de5f64a.jpg', 2, 2, '512', '28', 1, 1),
(9, 'R.T.V. Hoodie', '../assests/images/stock/1560160b79132ef6be.jpg', 2, 3, '216', '87', 1, 1),
(10, 'Adicolor Classics 3-Stripes Shorts', '../assests/images/stock/431060b791b32026d.jpg',
2, 4, '151', '35', 1, 1),
(11, 'TP-Link AC1750 Smart WiFi Router (Archer A7)',
'../assests/images/stock/2065160b794843f641.jpg', 7, 7, '256', '60', 1, 1),
(12, 'Wyze Cam 1080p HD Indoor WiFi Smart Home Camera with Night Vision',
'../assests/images/stock/814660b794ffda66f.jpg', 4, 6, '126', '45', 1, 1),
(13, 'Fire TV Stick 4K streaming device with Alexa Voice Remote',
'../assests/images/stock/1946160b79a7472484.jpg', 8, 10, '257', '45', 1, 1),
(14, 'Sony WH-1000XM4 Wireless Industry Leading Noise Canceling Overhead
Headphones', '../assests/images/stock/392760b7a38b1e2d8.jpg', 9, 9, '254', '321', 1, 1),
```

```sql
(15, 'Apple MagSafe Charger', '../assests/images/stock/1491660b7a42f42152.jpg', 5, 11,
'332', '45', 1, 1),
(16, 'Sample Product', '../assests/images/stock/2254161f94e484d31a.jpg', 1, 1, '15', '22', 1,
1);


INSERT INTO `users` (`user_id`, `username`, `password`, `email`) VALUES
(1, 'admin', 'd00f5d5217896fb7fd601412cb890830', ''),
(2, 'staff', '5f4dcc3b5aa765d61d8327deb882cf99', 'staff@stockmg.com');
```

6. JOIN queries

SELECT product.product_id,product_name,product_image
FROM product
RIGHT OUTER JOIN categories
ON product.categories_id = categories.categories_id;

| product_id	product_name	product_image
1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png
2	asd	../assests/images/stock/2628560b75d3561d09.jpg
3	Wyze Cam v3 1080p HD Indoor/Outdoor Video Camera	../assests/images/stock/2943460b7937a267ed.jpg
4	Ultraboost 21 Primeblue Shoes	../assests/images/stock/2926160b77b0e925b8.jpg
5	Garment-Dyed Canvas Denim Jacket	../assests/images/stock/2951160b792ba3020b.jpg
6	VansXPark Project Classic Slip-On	../assests/images/stock/2856060b77ea550ccf.png
7	TechFit Fitted Tee	../assests/images/stock/165960b7909513f6d.jpg
8	Love Unites Tank Top (Gender Neutral)	../assests/images/stock/2780060b790de5f64a.jpg
9	R.T.V. Hoodie	../assests/images/stock/1560160b79132ef6be.jpg
10	Adicolor Classics 3-Stripes Shorts	../assests/images/stock/431060b791b32026d.jpg
11	TP-Link AC1750 Smart WiFi Router (Archer A7)	../assests/images/stock/2065160b794843f641.jpg
12	Wyze Cam 1080p HD Indoor WiFi Smart Home Camera wi...	../assests/images/stock/814660b794ffda66f.jpg
13	Fire TV Stick 4K streaming device with Alexa Voice...	../assests/images/stock/1946160b79a7472484.jpg
14	Sony WH-1000XM4 Wireless Industry Leading Noise Ca...	../assests/images/stock/392760b7a38b1e2d8.jpg
15	Apple MagSafe Charger	../assests/images/stock/1491660b7a42f42152.jpg
16	Sample Product	../assests/images/stock/2254161f94e484d31a.jpg

SELECT orders.order_id,order_date,grand_total,order_status
    FROM orders
    INNER JOIN order_item
    ON order_item.order_id = orders.order_id

			product_id	product_name	product_image	brand_id	brand_name
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	1	Vans
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	2	Adidas
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	3	Calvin Klein
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	4	WYZE
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	5	Apple
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	6	Samsung
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	7	TP-Link
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	8	Amazon
□	🖉 Edit	🗐 Copy ⊖ Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	9	Sony
□	🖉 Edit	🗐 Copy ⊖ Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	1	Vans
□	🖉 Edit	🗐 Copy ⊖ Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	2	Adidas
□	🖉 Edit	🗐 Copy ⊖ Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	3	Calvin Klein
□	🖉 Edit	🗐 Copy ⊖ Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	4	WYZE
□	🖉 Edit	🗐 Copy ⊖ Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	5	Apple

SELECT product.product_id, product.product_name,
product.product_image, categories.categories_id,
categories.categories_name
FROM product
CROSS JOIN categories;

				product_id	product_name	product_image	brand_id	brand_name
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	1	Vans
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	2	Adidas
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	3	Calvin Klein
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	4	WYZE
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	5	Apple
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	6	Samsung
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	7	TP-Link
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	8	Amazon
☐	Edit	Copy	Delete	1	Custom Paisley Patchwork Era	../assests/images/stock/2120760b75c9237837.png	9	Sony
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	1	Vans
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	2	Adidas
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	3	Calvin Klein
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	4	WYZE
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	5	Apple
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	6	Samsung
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	7	TP-Link
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	8	Amazon
☐	Edit	Copy	Delete	2	asd	../assests/images/stock/2628560b75d3561d09.jpg	9	Sony
☐	Edit	Copy	Delete	3	Wyze Cam v3 1080p HD Indoor/Outdoor Video Camera	../assests/images/stock/2943460b7937a267ed.jpg	1	Vans
☐	Edit	Copy	Delete	3	Wyze Cam v3 1080p HD Indoor/Outdoor Video Camera	../assests/images/stock/2943460b7937a267ed.jpg	2	Adidas

7. Aggregate Functions

select min(`sinventoryphp`.`order_item`.`rate`) AS `Minimum_rate` from `sinventoryphp`.`order_item`;

Minimum_rate
22

select avg(`sinventoryphp`.`order_item`.`rate`) AS `average_rate` from `sinventoryphp`.`order_item`

average_rate
74.3846

select count(`sinventoryphp`.`orders`.`client_name`) AS `COUNT(client_name)` from `sinventoryphp`.`orders`

COUNT(client_name)
9

8. SET Operators

SELECT * FROM brands UNION SELECT * FROM categories;

☐ Show all | Number of rows: 25 ⌄ | Filter rows: Search this table | Sort by key: None ⌄

Extra options

brand_id	brand_name	brand_active	brand_status
1	Vans	1	1
2	Adidas	1	1
3	Calvin Klein	1	1
4	WYZE	1	1
5	Apple	1	1
6	Samsung	1	1
7	TP-Link	1	1
8	Amazon	1	1
9	Sony	1	1
1	Shoes	1	1
2	T-Shirts and Tops	1	1
3	Hoodies & Sweatshirts	1	1
4	Shorts	1	1
5	Jackets	1	1
6	Security Camera	1	1
7	Routers	1	1
8	Smart Phones	1	1
9	Headphones	1	1
10	Alexa Voice Remote	1	1

9. Functions and Procedure

–Functions
DELIMITER $$
BEGIN
DECLARE sum_of_q INT DEFAULT 0;
SELECT SUM(quantity) INTO sum_of_q
FROM product
WHERE brand_id = d_id ;
RETURN sum_of_q;
END $$

```
SET @p0='2'; SELECT `get_quantity_of_brand`(@p0) AS `get_quantity_of_brand`;
```

Execution results of routine `get_quantity_of_brand`

get_quantity_of_brand
1361

–Procedures

DELIMITER &&
CREATE PROCEDURE bill (IN name varchar(100))
BEGIN
    SELECT orders.order_id,order_date,grand_total,order_status
    FROM orders
    INNER JOIN order_item
    ON order_item.order_id = orders.order_id
    WHERE client_name = name;
END &&
DELIMITER;

```
SET @p0='Thomas'; CALL `bill`(@p0);
```
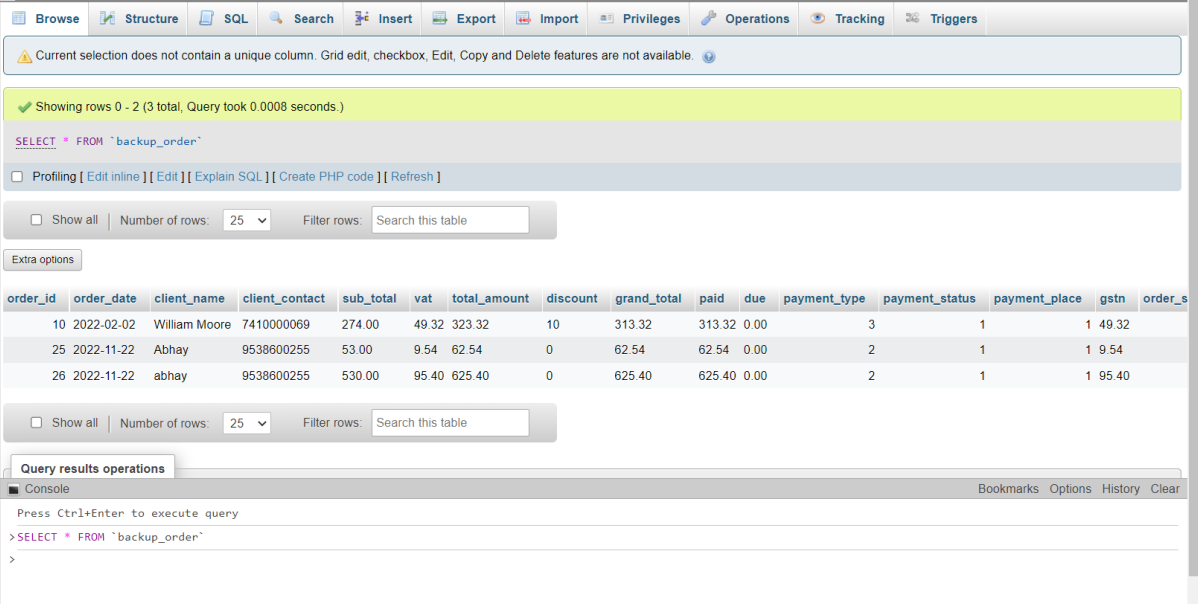
Execution results of routine `bill`

order_id	order_date	grand_total	order_status
2	2021-06-02	53.10	1

10. Triggers and cursors

–Triggers

DELIMITER //
CREATE TRIGGER `Order_Backup` BEFORE DELETE ON `orders`
 FOR EACH ROW BEGIN
  INSERT INTO backup_order
  SELECT * from orders WHERE order_id = old.order_id;
END
 //

–Cursors

```sql
DELIMITER &&
CREATE PROCEDURE list_name(IN name_list varchar(4000))
BEGIN
        DECLARE is_done INTEGER DEFAULT 0;
        DECLARE s_name varchar(100) DEFAULT "";
        DECLARE cname_cursor CURSOR FOR
        SELECT client_name FROM orders;
        DECLARE CONTINUE HANDLER FOR NOT FOUND SET is_done = 1;
        OPEN cname_cursor;
        get_list: LOOP
        FETCH cname_cursor INTO s_name;
        IF is_done = 1 THEN
        LEAVE get_list;
        END IF;
        SET name_list = CONCAT(s_name, ";", name_list);
        END LOOP get_list;
        CLOSE cname_cursor;
END &&
```
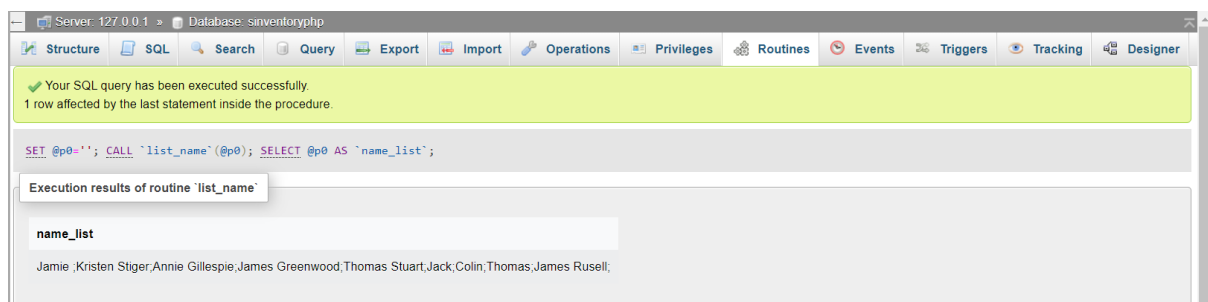
11. Higher Level Programming - A simple frontend that talks to the backend database is required to be developed .

12. Queries Box

Code:

```python
import streamlit as st

import mysql.connector

import pandas as pd


cnx = mysql.connector.connect(user='root', password='',

                              host='localhost',

                              database='sinventoryphp')


curse=cnx.cursor()



tex=st.text_input("INPUT COMMAND")

if st.button("Run"):

    exec=curse.execute(tex)

    res=curse.fetchall()


    df=pd.DataFrame(res)


    st.table(df)
```

Examples:

INPUT COMMAND

select * from brands

Run

	0	1	2	3
0	1	Vans	1	1
1	2	Adidas	1	1
2	3	Calvin Klein	1	1
3	4	WYZE	1	1
4	5	Apple	1	1
5	6	Samsung	1	1
6	7	TP-Link	1	1
7	8	Amazon	1	1
8	9	Sony	1	1

Made with Streamlit