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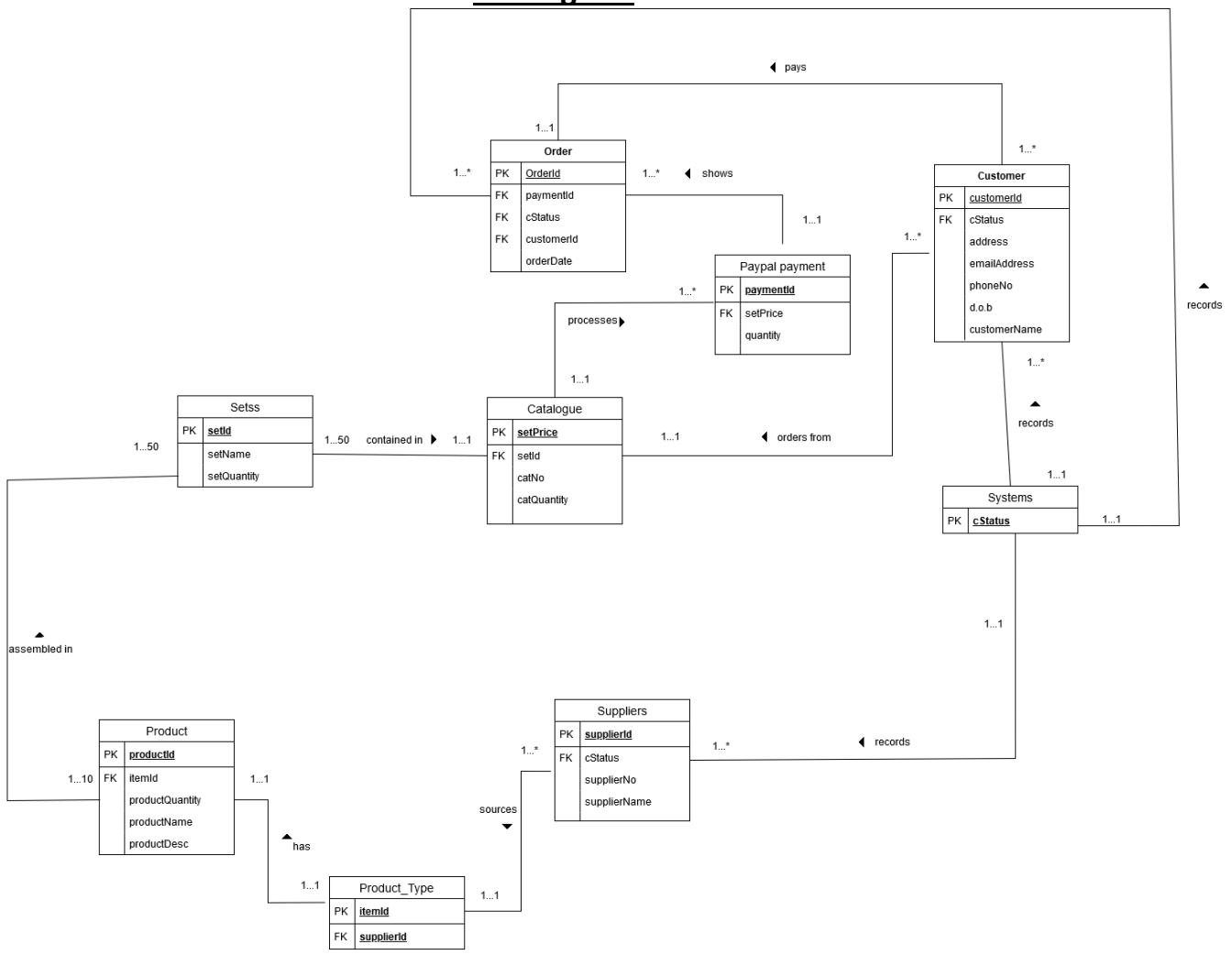
Coursework 2
Name: Vasileios Protopapas
Student ID: W1735144

ER diagram



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Rationale for ER Diagram

Entity	Primary Key (PK)	Foreign Key (FK)	Rationale for PK
Product	productId	itemId	productid will show the specific type of product chosen from the previous linked entity
Product_Type	itemId	supplierId	itemId is unique to each product sourced by the supplier
Catalogue	catNo	setId, setNo, setName, setQuantity	catNo is a link entity with all of parent PKs and FKs for the sets entity as it includes all the data from it
Customer	customerId	cStatus	customerId is unique for each customer with the system entity inheriting the status FK
Suppliers	supplierId	cStatus	supplierId is unique for each supplier with the system entity inheriting the status FK
Systems	cStatus	N/a	cStatus is unique to each customer and supplier
Order	orderId	customerId, status	orderId will help the system entity with identifying ach customer with the inherited customerId FK
Paypal Payment	paymentId	setPrice	paymentId will be unique for each customer FK and will specify for the order entity the products selected from the catalogues FK setPrice
Sets	setId	N/A	setId is unique to each set sold

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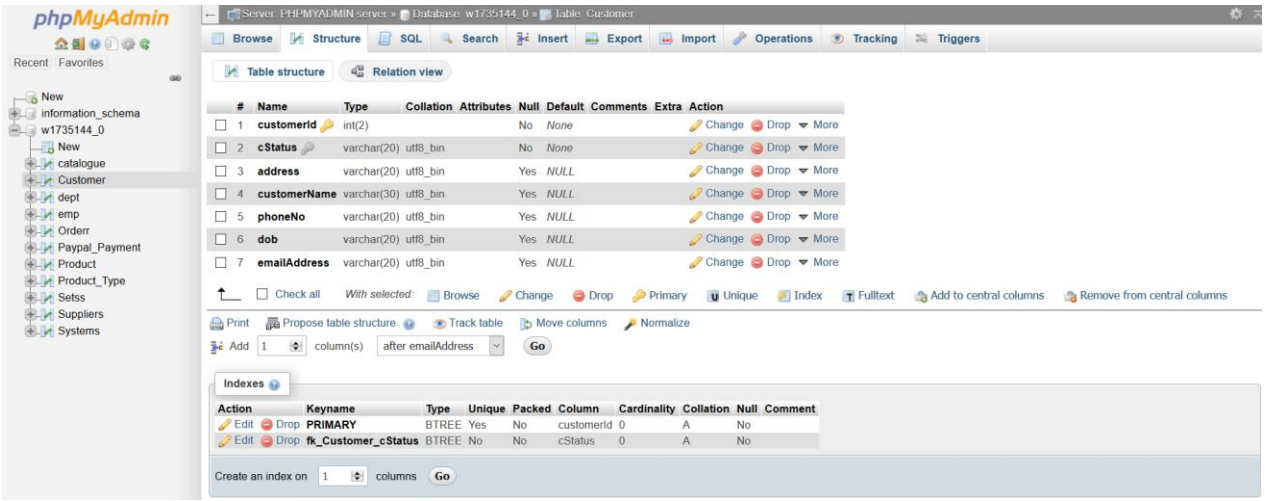
SQL Script

Customer




```
CREATE TABLE Customer
(
        customerId          INTEGER(2),
        cStatus             VARCHAR(20) NOT NULL,
        address             VARCHAR(20),
        customerName        VARCHAR(30),
        phoneNo             VARCHAR(20),
        dob                 VARCHAR(20),
        emailAddress        VARCHAR(20),
        CONSTRAINT pk_customer_customerId  PRIMARY KEY (customerId),
        CONSTRAINT fk_Customer_cStatus FOREIGN KEY (cStatus) REFERENCES Systems
(cStatus)
);
```

Sets

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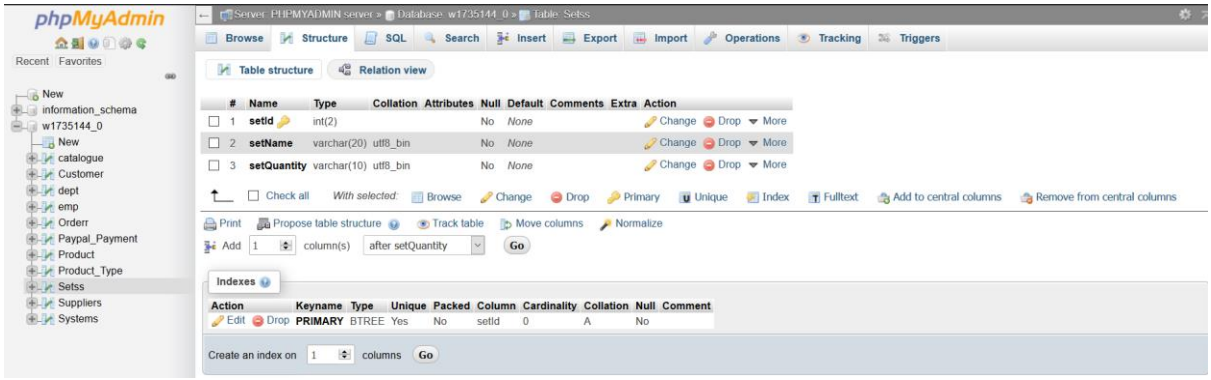
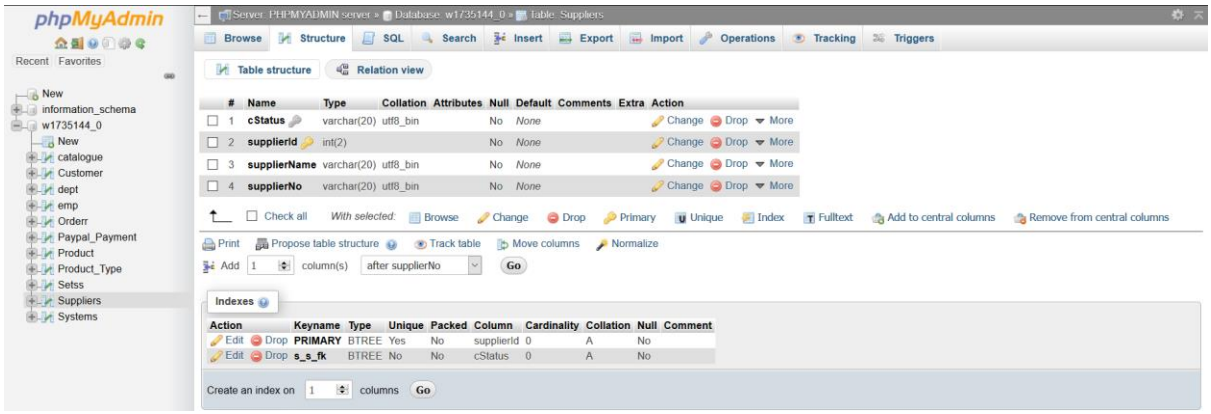



```
CREATE TABLE Setss
(
        setId           INTEGER(2),
        setName         VARCHAR(20) NOT NULL,
        setQuantity     VARCHAR(10) NOT NULL,
        CONSTRAINT s_id_pk PRIMARY KEY (setId)

);
```

Suppliers




```
CREATE TABLE Suppliers
(
        cStatus         VARCHAR(20) NOT NULL,
        supplierId      INTEGER(2),
        supplierName    VARCHAR(20) NOT NULL,
        supplierNo      VARCHAR(20) NOT NULL,
```

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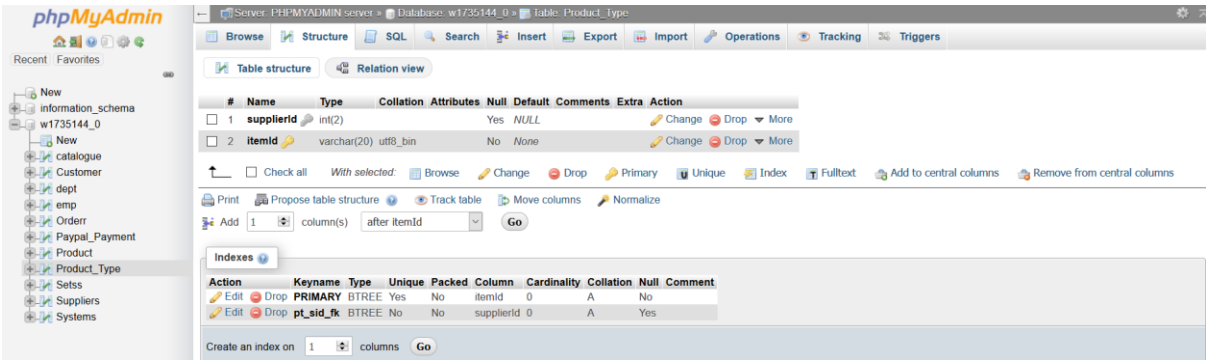
```
                CONSTRAINT s_sid_pk  PRIMARY KEY (supplierId),
                CONSTRAINT s_s_fk        FOREIGN KEY (cStatus) REFERENCES Systems (cStatus)
);
```

Product Type




```
CREATE TABLE Product_Type
(
                supplierId                  INTEGER(2),
                itemId                      VARCHAR(20) NOT NULL,
                CONSTRAINT pt_iid_pk  PRIMARY KEY (itemId),
                CONSTRAINT pt_sid_fk   FOREIGN KEY (supplierId) REFERENCES Suppliers
(supplierId)
);
```

Product

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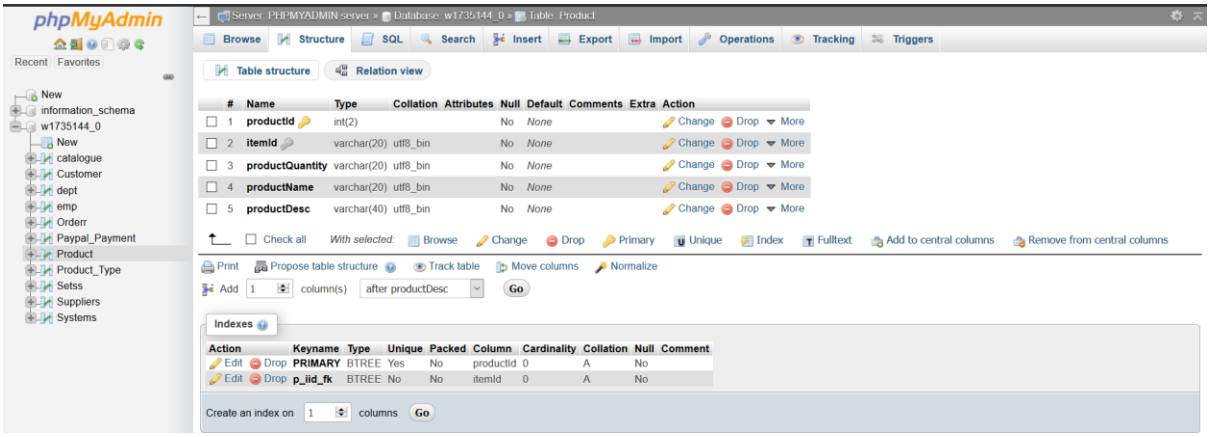


CREATE TABLE Product

(

productId INTEGER(2),

itemId VARCHAR(20) NOT NULL,

productQuantity VARCHAR(20) NOT NULL,

productName VARCHAR(20) NOT NULL,

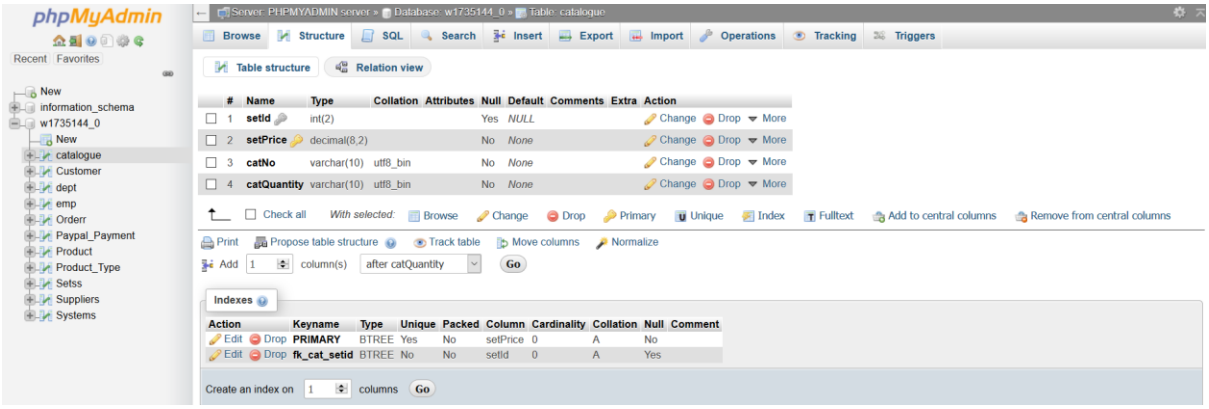
productDesc VARCHAR(40) NOT NULL,

CONSTRAINT p_sid_pk PRIMARY KEY (productId),

CONSTRAINT p_iid_fk FOREIGN KEY (itemId) REFERENCES Product_Type (itemId)

);

Catalogue



CREATE TABLE catalogue

(

setId INTEGER(2),

setPrice DECIMAL(8,2),

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catNo VARCHAR(10) NOT NULL,

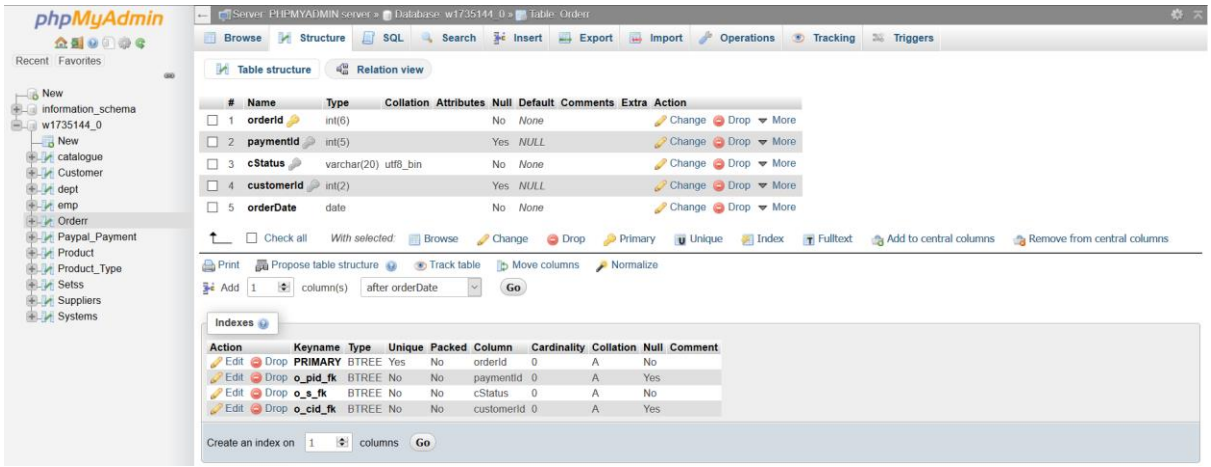
catQuantity VARCHAR(10) NOT NULL,

CONSTRAINT pk_cat_setPrice PRIMARY KEY (setPrice),

CONSTRAINT fk_cat_setid FOREIGN KEY (setId) REFERENCES Setss (setId)

);

Order



CREATE TABLE Orderr

(

orderId INTEGER(6),

paymentId INTEGER(5),

cStatus VARCHAR(20) NOT NULL,

customerId INTEGER(2),

orderDate DATE NOT NULL,

CONSTRAINT o_oid_pk PRIMARY KEY (orderId),

CONSTRAINT o_pid_fk FOREIGN KEY (paymentId) REFERENCES Paypal_Payment(paymentId),

CONSTRAINT o_s_fk FOREIGN KEY (cStatus) REFERENCES Systems (cstatus),

CONSTRAINT o_cid_fk FOREIGN KEY (customerId) REFERENCES Customer (customerId)

);

Paypal Payment

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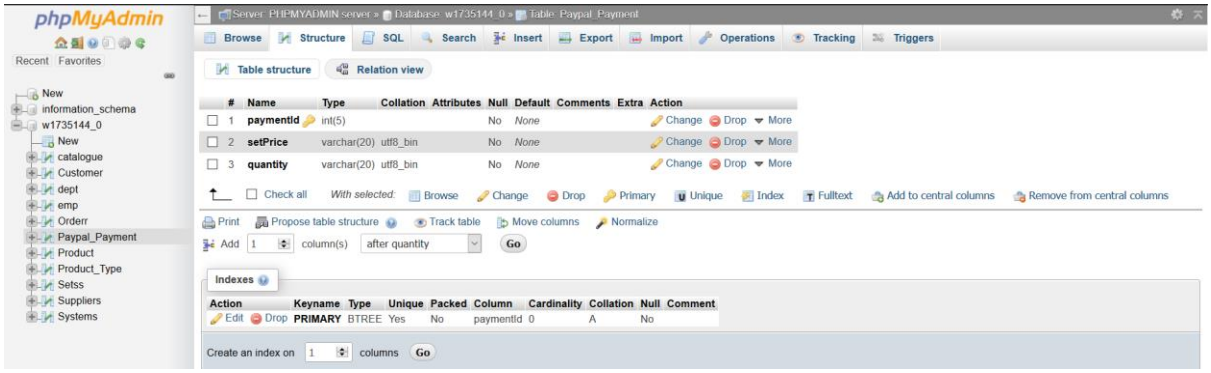
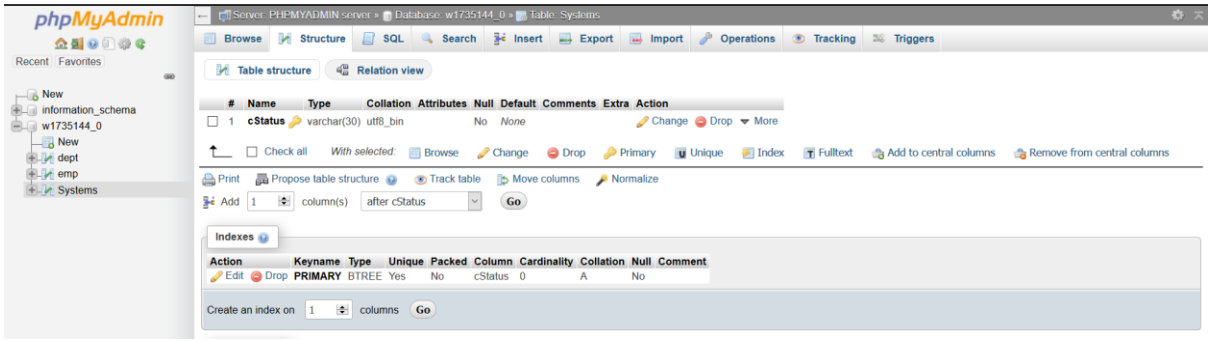



```
CREATE TABLE Paypal_Payment
(
        paymentId           INTEGER(5),
        setPrice            VARCHAR(20) NOT NULL,
        quantity            VARCHAR(20) NOT NULL,
        CONSTRAINT pp_pid_pk  PRIMARY KEY (paymentId)
);
```

System




```
CREATE TABLE Systems
(
        cStatus             VARCHAR(30) NOT NULL,
        CONSTRAINT p_p_pk  PRIMARY KEY (cStatus)

);
```

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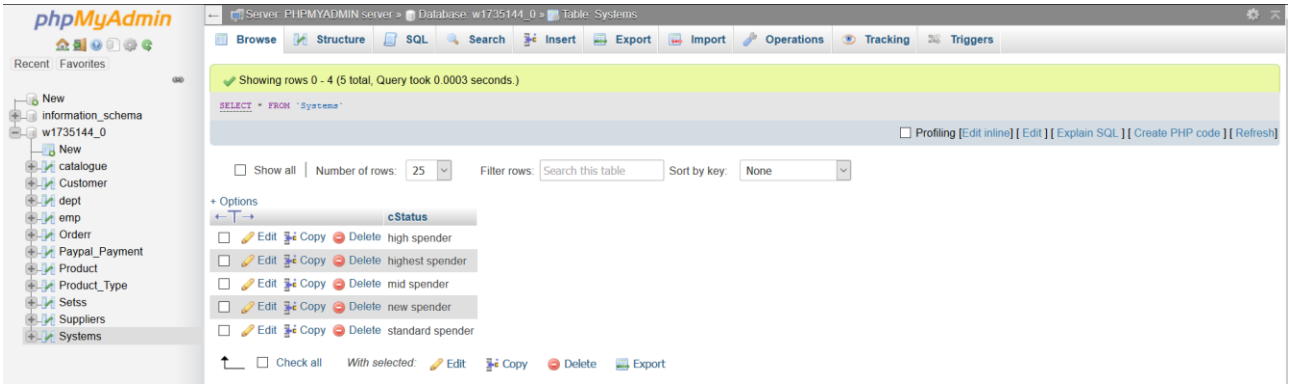
Data Input for Table fields

Systems



INSERT INTO

Systems (cStatus)

VALUES ("new spender");

INSERT INTO

Systems (cStatus)

VALUES ("high spender");

INSERT INTO

Systems (cStatus)

VALUES ("standard spender");

INSERT INTO

Systems (cStatus)

VALUES ("mid spender");

INSERT INTO

Systems (cStatus)

VALUES ("highest spender");

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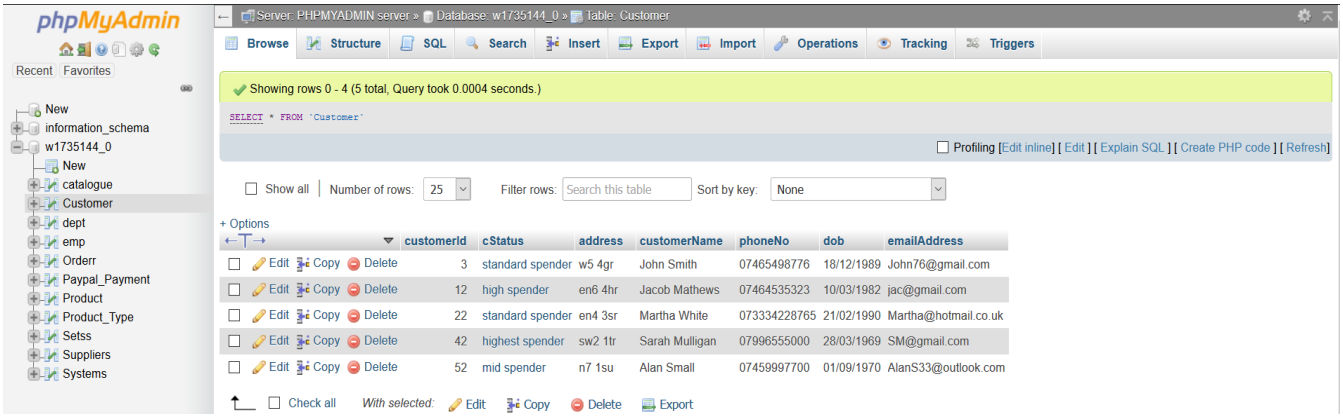
Customer



INSERT INTO

Customer (customerId, address, customerName, phoneNo, dob, emailAddress,cStatus)

VALUES (12, "en6 4hr", "Jacob Mathews", "07464535323", "10/03/1982", "jac@gmail.com","high spender");

INSERT INTO

Customer (customerId, address, customerName, phoneNo, dob, emailAddress,cStatus)

VALUES (3, "w5 4gr", "John Smith", "07465498776", "18/12/1989", "John76@gmail.com","standard spender");

INSERT INTO

Customer (customerId, address, customerName, phoneNo, dob, emailAddress,cStatus)

VALUES (22, "en4 3sr", "Martha White", "073334228765", "21/02/1990", "Martha@hotmail.co.uk","standard spender");

INSERT INTO

Customer (customerId, address, customerName, phoneNo, dob, emailAddress,cStatus)

VALUES (42, "sw2 1tr", "Sarah Mulligan", "07996555000", "28/03/1969", "SM@gmail.com","highest spender");

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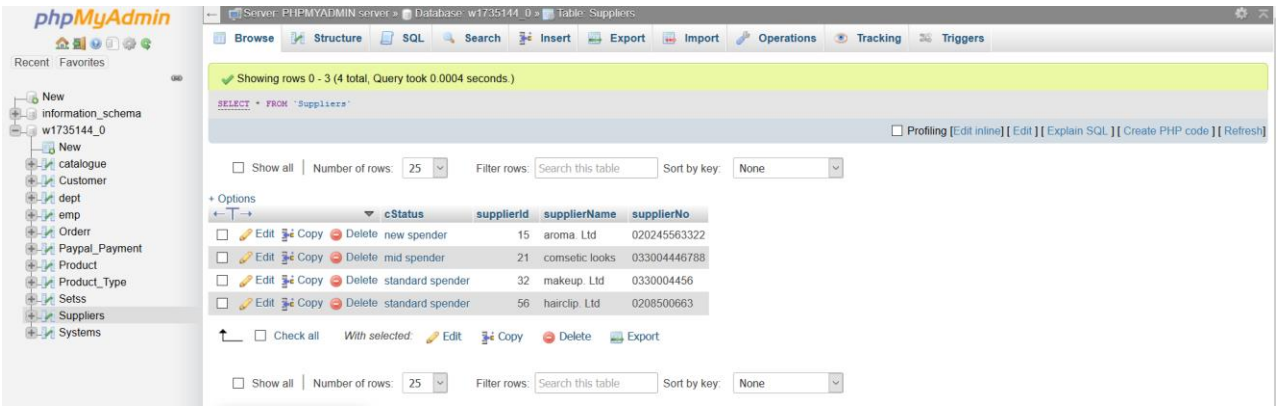
INSERT INTO

Customer (customerId, address, customerName, phoneNo, dob, emailAddress,cStatus)

VALUES (52, "n7 1su", "Alan Small", "07459997700", "01/09/1970", "AlanS33@outlook.com","mid spender");

Suppliers



INSERT INTO

Suppliers (supplierId, cStatus, supplierNo, supplierName)

VALUES (32, "standard spender", "0330004456", "makeup. Ltd");

INSERT INTO

Suppliers (supplierId, cStatus, supplierNo, supplierName)

VALUES (21, "mid spender", "033004446788", "comsetic looks");

INSERT INTO

Suppliers (supplierId, cStatus, supplierNo, supplierName)

VALUES (15, "new spender", "020245563322", "aroma. Ltd");

INSERT INTO

Suppliers (supplierId, cStatus, supplierNo, supplierName)

VALUES (56, "standard spender", "0208500663", "hairclip. Ltd");

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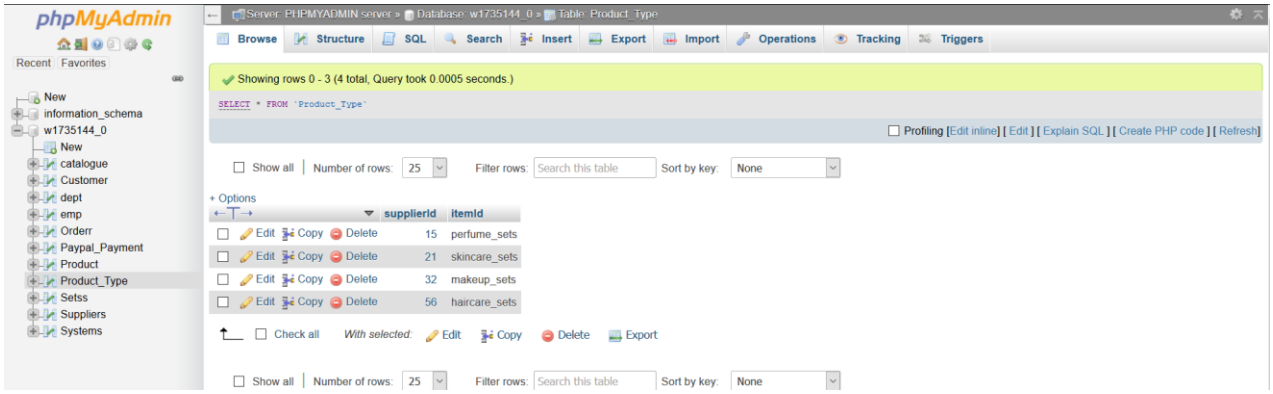
Product Type




```
INSERT INTO
Product_Type(supplierId,itemId)
VALUES (32,"makeup_sets");

INSERT INTO
Product_Type(supplierId,itemId)
VALUES (15,"perfume_sets");

INSERT INTO
Product_Type(supplierId,itemId)
VALUES (21,"skincare_sets");

INSERT INTO
Product_Type(supplierId,itemId)
VALUES (56,"haircare_sets");
```

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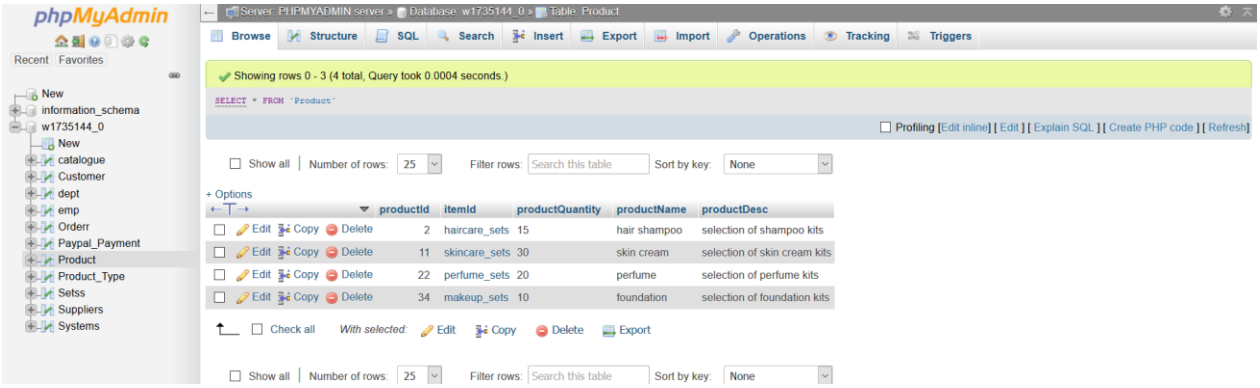
Product



INSERT INTO

Product(productId,itemId,productDesc,productName,productQuantity)

VALUES (22,"perfume_sets","selection of perfume kits","perfume","20");

INSERT INTO

Product(productId,itemId,productDesc,productName,productQuantity)

VALUES (11,"skincare_sets","selection of skin cream kits","skin cream","30");

INSERT INTO

Product(productId,itemId,productDesc,productName,productQuantity)

VALUES (02,"haircare_sets","selection of shampoo kits","hair shampoo","15");

INSERT INTO

Product(productId,itemId,productDesc,productName,productQuantity)

VALUES (34,"makeup_sets","selection of foundation kits","foundation","10");

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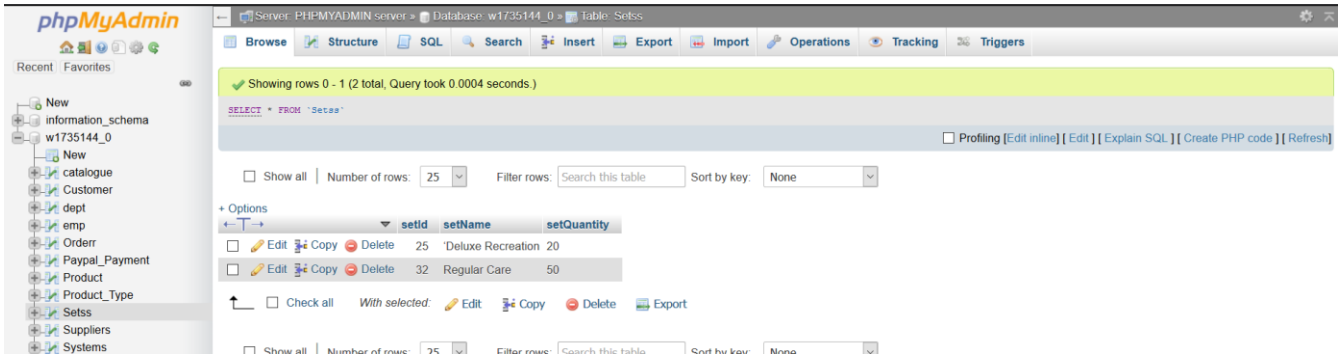
Sets



INSERT INTO

Setss(setId,setName,setQuantity)

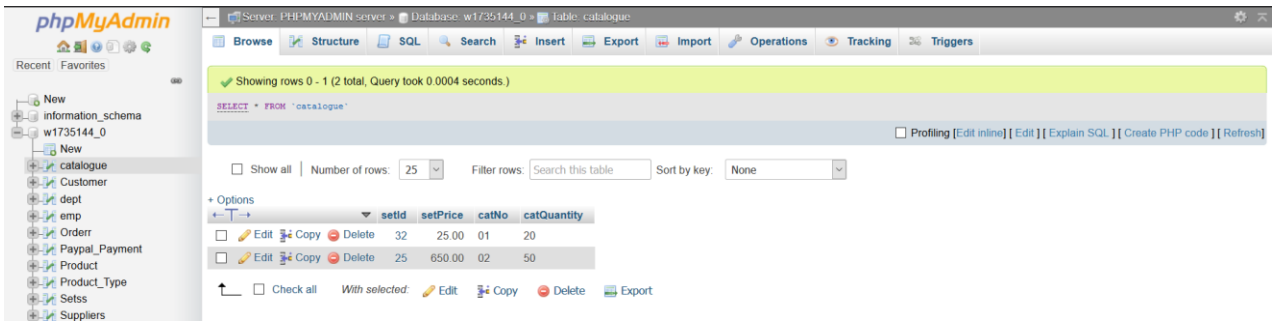
VALUES (25, "'Deluxe Recreation", 20);

INSERT INTO

Setss(setId,setName,setQuantity)

VALUES (32, "Regular Care", 50);

Catalogue



INSERT INTO

catalogue(setPrice,setId,catNo,catQuantity)

VALUES (25.00,32,"01","20");

INSERT INTO

catalogue(setPrice, setId,catNo,catQuantity)

VALUES (650.00,25,"02","50");

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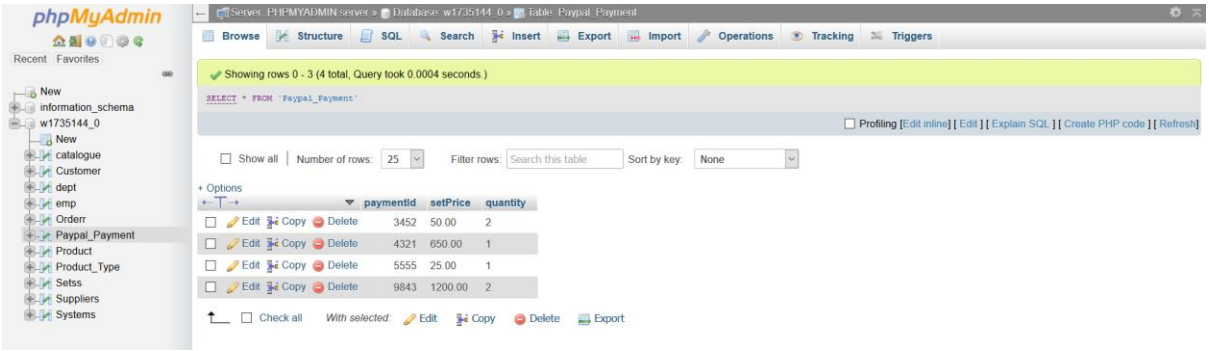
Paypal Payment



INSERT INTO

Paypal_Payment(paymentId,setPrice,quantity)

VALUES (3452, "50.00", "2");

INSERT INTO

Paypal_Payment (paymentId,setPrice,quantity)

VALUES (4321, "650.00", "1");

INSERT INTO

Paypal_Payment(paymentId,setPrice,quantity)

VALUES (9843, "1200.00", "2");

INSERT INTO

Paypal_Payment(paymentId,setPrice,quantity)

VALUES (5555, "25.00", "1");

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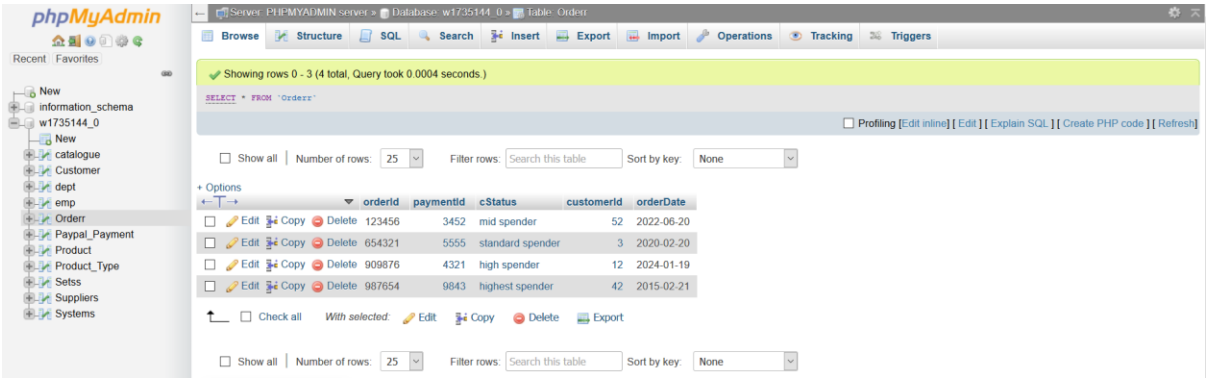
Order



INSERT INTO

Orderr(orderId,paymentId,customerId,cStatus,orderDate)

VALUES (654321,5555,3,"standard spender",'20-02-20');

INSERT INTO

Orderr(orderId,paymentId,customerId,cStatus,orderDate)

VALUES (123456,3452,52,"mid spender",'22-06-20');

INSERT INTO

Orderr(orderId,paymentId,customerId,cStatus,orderDate)

VALUES (987654, 9843,42,"highest spender",'15-02-21');

INSERT INTO

Orderr(orderId,paymentId,customerId,cStatus,orderDate)

VALUES (909876, 4321,12,"high spender",'24-01-19');

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Queries

Query No	Purpose	Tables involved	SQL	Correct Execution
1	Showing the standard payers from both the customer and suppliers	2-Customer, Suppliers	`SELECT cStatus, customerName FROM Customer WHERE cStatus='standard spender' UNION SELECT cStatus, supplierName FROM Suppliers WHERE cStatus='standard spender'` + Options cStatus | customerName standard spender | John Smith standard spender | Martha White standard spender | makeup. Ltd standard spender | hairclip. Ltd	Yes
2	The system will show the highest prices and amounts of all the payments	1-Paypal Payment	`SELECT * FROM `Paypal_Payment` WHERE `setPrice` >25.00 AND quantity >1` + Options Edit Copy Delete | 3452 | 50.00 | 2 Edit Copy Delete | 9843 | 1200.00 | 2	Yes
3	Updating the status of a customer who purchased another set	1-orderr	`UPDATE Customer SET cStatus='mid spender' WHERE customerName='John Smith'` customerId | cStatus | address | customerName | phoneNo | dob | emailAddress 3 | mid spender | w5 4gr | John Smith | 07465498776 | 18/12/1989 | John76@gmail.com	Yes
4	Show the number of products on the sets	1-Product	`SELECT COUNT(productName) FROM Product` COUNT(productName) 4	Yes