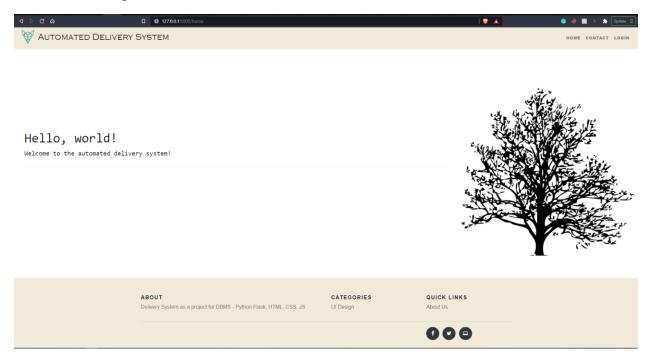
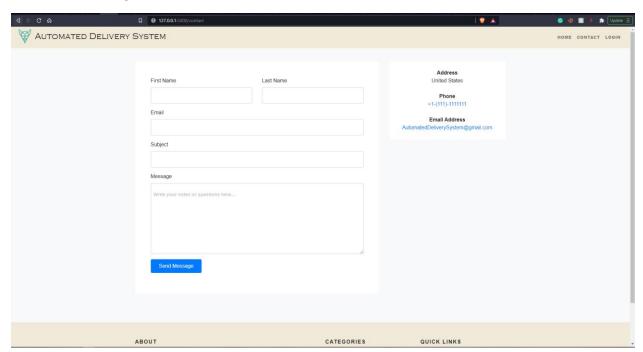
# **Screenshot Output**

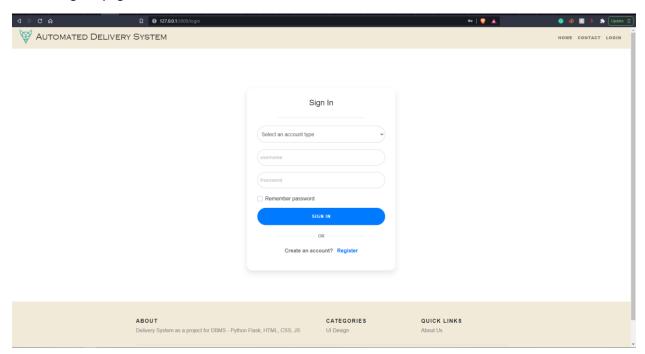
## 1. Home Page:



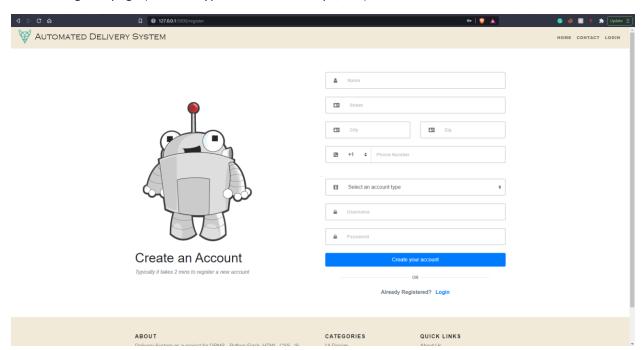
## 2. Contact Page:



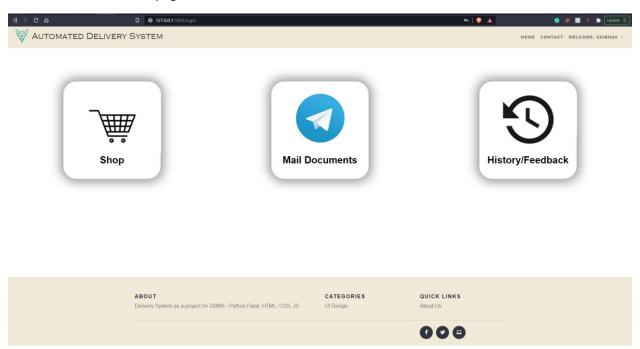
## 3. Sign in page:



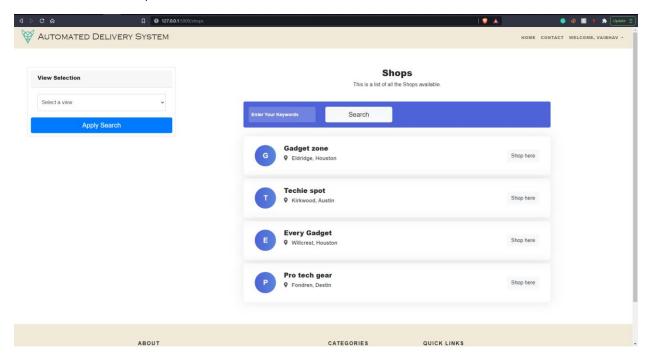
4. Register page (account types: customer, shops, bot):



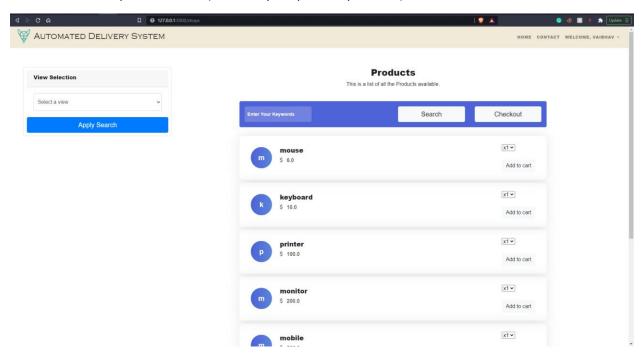
#### 5. Customer home page:



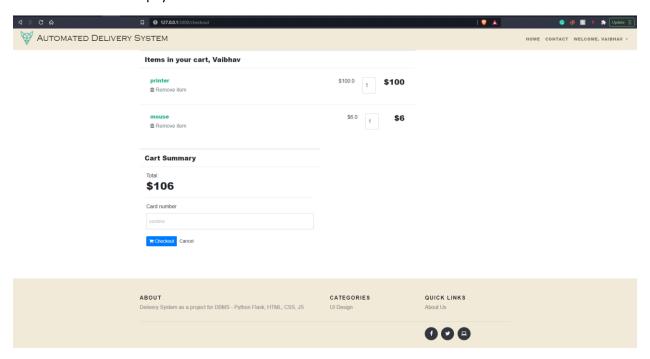
#### 6. Customer shops view:



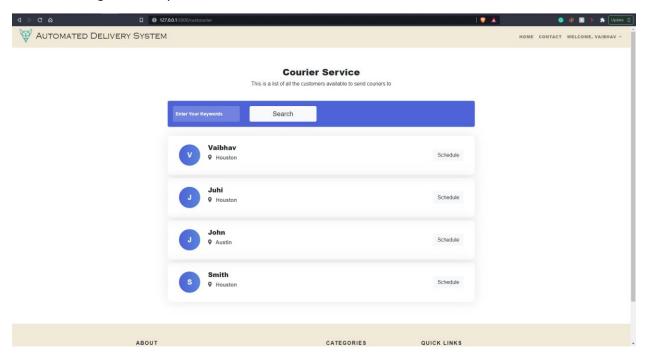
7. Customer products view (filtered by shops or all products):



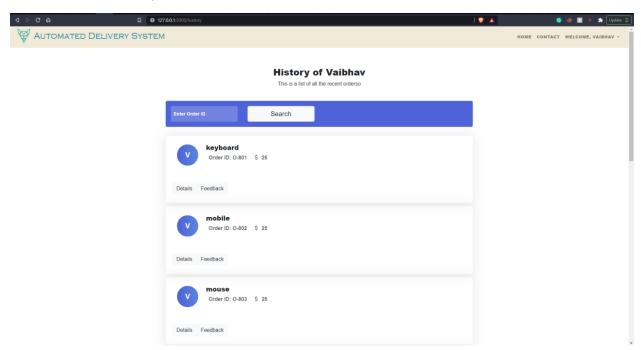
8. Checkout and payment for customers:



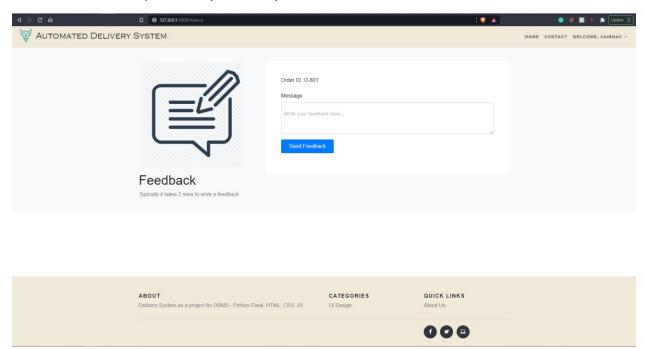
9. Mailing services by customer to other customers:



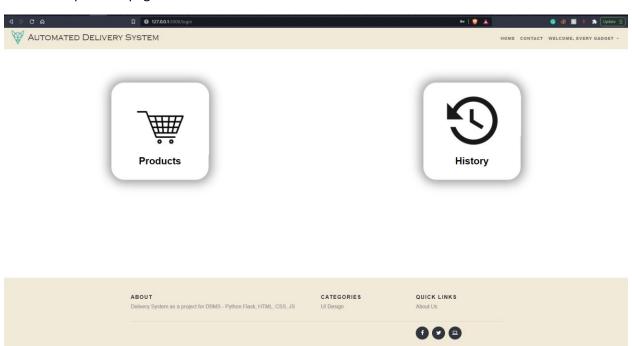
#### 10. Purchase history of customer:



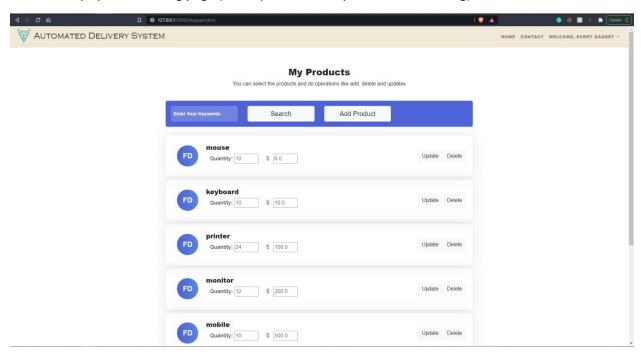
11. Feedbacks on purchased products by customers:



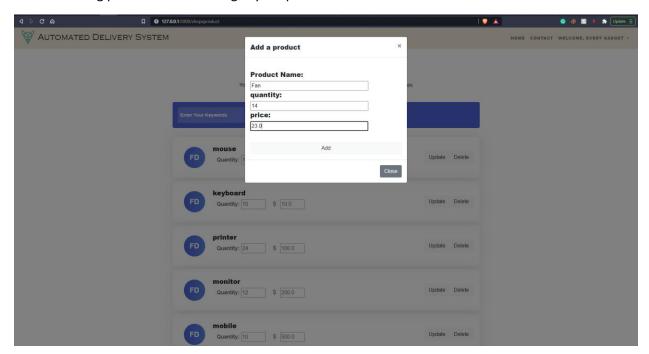
## 12. Shops home page:



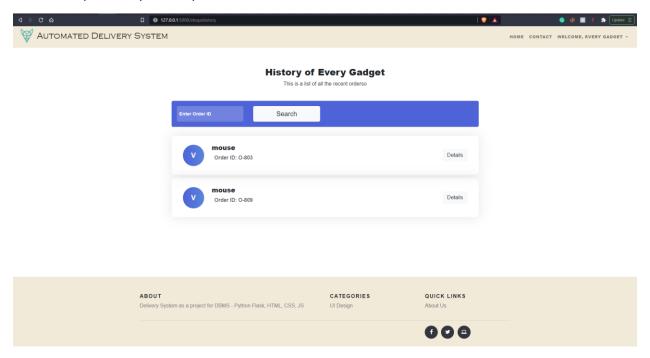
13. Shops product listing page (add, update, delete products from listing):



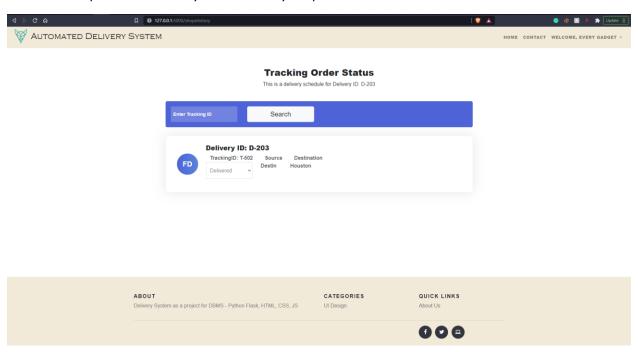
14. Adding products to the listings by shop:



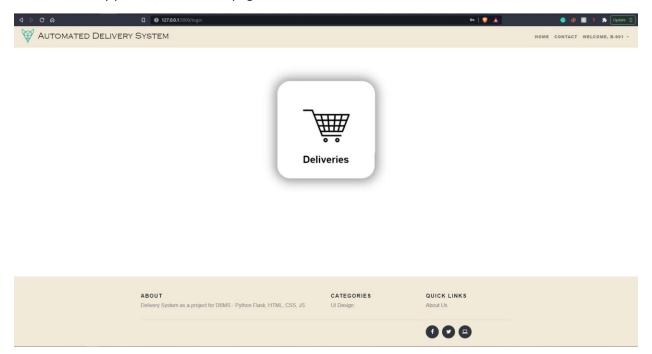
#### 15. Shops' history of sold products:



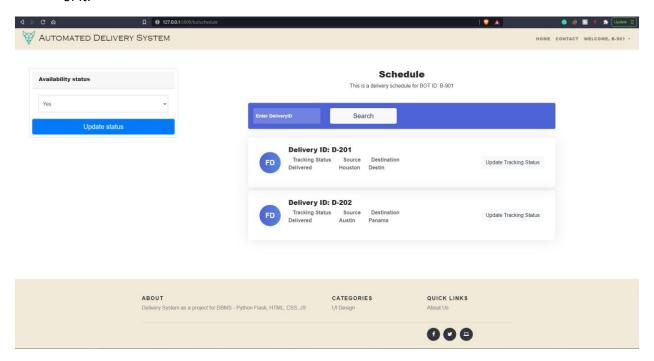
16. Live updates on delivery status view by shop's account:



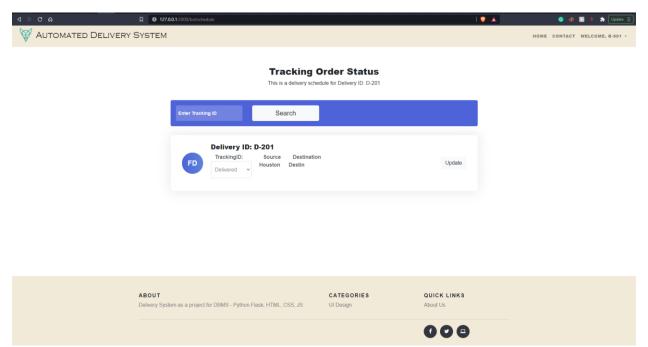
17. Delivery person/bot's home page:



18. Scheduling when any order is placed to available bots, and an options to change the availability of it:

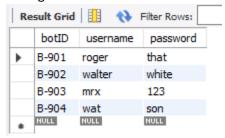


19. Updating the tracking status of the deliveries by the delivery person/bot:

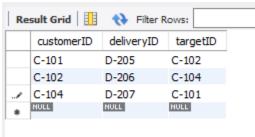


## **Databases:**

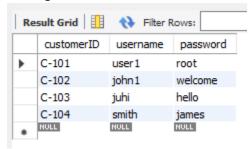
1. Botlogin:



2. Courier scheduling table:



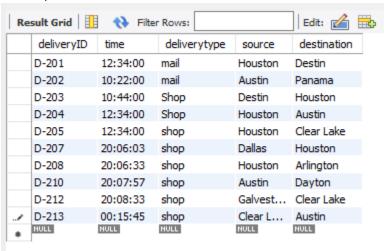
#### 3. Custlogin:



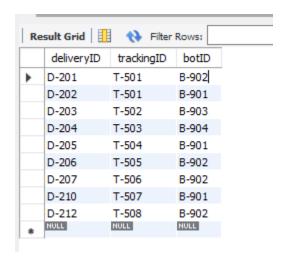
#### 4. Customer:



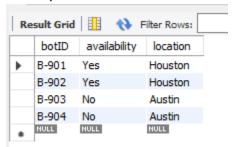
#### 5. Delivery:



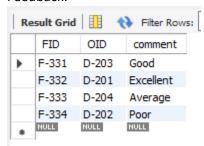
#### 6. Delivery\_schedule:



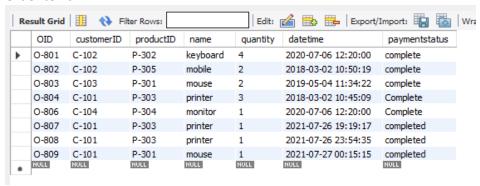
#### 7. Deliverybot:



#### 8. Feedback:



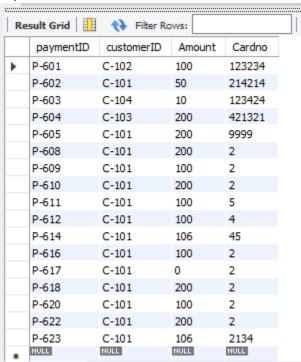
#### 9. Orderitems:



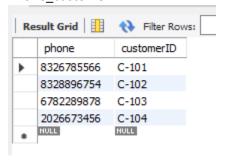
#### 10. Orderitems\_delivery:



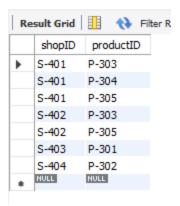
#### 11. Payment:



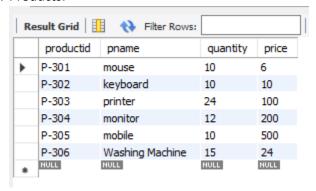
#### 12. Phone\_customer:



#### 13. Product\_shops:



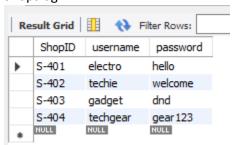
#### 14. Products:



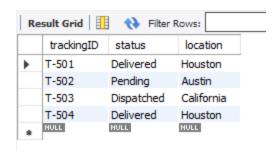
#### 15. Shops:



#### 16. Shopslogin:



#### 17. Tracking:



## Queries

DDL and DML:

#### Domains:

- Create domain price constraint value-test check(value>0)
- create domain amount constraint value-test check(amount>0)
- create domain quantity constraint test check(quantity>0)
- DDL and DML:

```
4. CREATE TABLE `botlogin` (
  `botID` varchar(45) NOT NULL,
  `username` varchar(45) NOT NULL,
  `password` varchar(45) NOT NULL,
  PRIMARY KEY (`botID`, `username`, `password`),
  CONSTRAINT `botID` FOREIGN KEY (`botID`) REFERENCES `deliverybot` (`botID`) ON DELETE CASCADE ON UPDATE CASCADE
)
```

```
5. INSERT INTO 'botlogin' VALUES ('B-901', 'roger', 'that'), ('B-
   902','walter','white'),('B-903','mrx','123'),('B-904','wat','son');
6. CREATE TABLE 'courier' (
    `customerID` varchar(45) NOT NULL,
    `deliveryID` varchar(45) NOT NULL,
    `targetID` varchar(45) NOT NULL,
    PRIMARY KEY ('customerID', 'deliveryID', 'targetID'),
    KEY 'deliverycourier idx' ('deliveryID'),
    KEY `targetcustomercourier idx` (`targetID`),
    CONSTRAINT `customercourier` FOREIGN KEY (`customerID`) REFERENCES
    `customer` (`customerID`) ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT `deliverycourier` FOREIGN KEY (`deliveryID`) REFERENCES
    `delivery` (`deliveryID`) ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT `targetcustomercourier` FOREIGN KEY (`targetID`) REFERENCES
   `customer` (`customerID`) ON DELETE CASCADE ON UPDATE CASCADE
   )
7. CREATE TABLE 'custlogin' (
    `customerID` varchar(45) NOT NULL,
    'username' varchar(45) NOT NULL,
    'password' varchar(45) NOT NULL,
    PRIMARY KEY ('customerID', 'username', 'password'),
    CONSTRAINT `custlogin` FOREIGN KEY (`customerID`) REFERENCES `customer`
   ('customerID') ON DELETE CASCADE ON UPDATE CASCADE
   )
8. INSERT INTO 'custlogin' VALUES ('C-101', 'user1', 'root'), ('C-
   102','john1','welcome'),('C-103','juhi','hello'),('C-104','smith','james');
9. CREATE TABLE 'customer' (
```

```
`customerID` varchar(45) NOT NULL,
     `Name` varchar(45) NOT NULL,
     `Street` varchar(45) NOT NULL,
     'City' varchar(45) NOT NULL,
     'Zip' int NOT NULL,
    PRIMARY KEY ('customerID')
   )
10. INSERT INTO `customer` VALUES ('C-101', 'Vaibhav', 'Blvd', 'Houston', 77057), ('C-
   102','Juhi','Woodville','Houston',77077),('C-
   103', 'John', 'Eldridge', 'Austin', 77023), ('C-104', 'Smith', 'Willcrest', 'Houston', 77067);
11. CREATE TABLE 'delivery' (
     `deliveryID` varchar(45) NOT NULL,
     'time' time NOT NULL,
     `deliverytype` varchar(45) NOT NULL,
     `source` varchar(45) NOT NULL,
     `destination` varchar(45) NOT NULL,
    PRIMARY KEY ('deliveryID')
   )
12. INSERT INTO `delivery` VALUES ('D-201','12:34:00','mail','Houston','Destin'),('D-
   202','10:22:00','mail','Austin','Panama'),('D-
   203','10:44:00','Shop','Destin','Houston'),('D-
   204','12:34:00','Shop','Houston','Austin'),('D-
   205','12:34:00','shop','Houston','Clear Lake'),('D-207','20:06:03','shop','C-
   101','Houston'),('D-208','20:06:33','shop','C-101','Houston'),('D-
   210','20:07:57','shop','C-101','Houston'),('D-212','20:08:33','shop','C-
   101','Houston'),('D-213','00:15:45','shop','C-101','Houston');
CREATE TABLE `delivery schedule` (
     `deliveryID` varchar(45) NOT NULL,
     `trackingID` varchar(45) NOT NULL,
     'botID' varchar(45) NOT NULL,
    PRIMARY KEY ('deliveryID', 'trackingID', 'botID'),
    KEY `deliverschedule_idx` (`deliveryID`),
    KEY `deliverytracking_idx` (`trackingID`),
    KEY 'deliverybot idx' ('botID'),
```

```
CONSTRAINT `deliverschedule` FOREIGN KEY (`deliveryID`) REFERENCES
   `delivery` (`deliveryID`) ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT 'deliverybot' FOREIGN KEY ('botID') REFERENCES 'deliverybot'
   ('botID') ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT `deliverytracking` FOREIGN KEY (`trackingID`) REFERENCES
   `tracking` (`trackingID`) ON DELETE CASCADE ON UPDATE CASCADE
14. INSERT INTO `delivery schedule` VALUES ('D-201', 'T-501', 'B-902'), ('D-202', 'T-
   501','B-901'),('D-203','T-502','B-903'),('D-204','T-503','B-904');
15. CREATE TABLE 'deliverybot' (
    'botID' varchar(45) NOT NULL,
    `availability` varchar(45) NOT NULL,
    'location' varchar(45) NOT NULL,
    PRIMARY KEY ('botID')
   )
16. INSERT INTO 'deliverybot' VALUES ('B-901', 'Yes', 'Houston'), ('B-
   902','Yes','Houston'),('B-903','No','Austin'),('B-904','No','Austin');
17. CREATE TABLE 'feedback' (
    `FID` varchar(45) NOT NULL,
    'OID' varchar(45) NOT NULL,
    `comment` varchar(45) NOT NULL,
    PRIMARY KEY ('FID', 'OID'),
    KEY `feedback_idx` (`OID`)
   )
18. INSERT INTO `feedback` VALUES ('F-331','D-203','Good'),('F-332','D-
   201', 'Excellent'), ('F-333', 'D-204', 'Average'), ('F-334', 'D-202', 'Poor');
19. CREATE TABLE 'orderitems' (
     'OID' varchar(45) NOT NULL,
    `customerID` varchar(45) NOT NULL,
    'productID' varchar(45) NOT NULL,
    `name` varchar(45) NOT NULL,
```

```
`quantity` varchar(45) NOT NULL,
     'datetime' datetime NOT NULL,
     'paymentstatus' varchar(45) NOT NULL,
    PRIMARY KEY ('OID', 'customerID', 'productID'),
    KEY `customerorder idx` (`customerID`),
    KEY `productorder_idx` (`productID`),
    CONSTRAINT `customerorder` FOREIGN KEY (`customerID`) REFERENCES
    `customer` (`customerID`) ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT 'productorder' FOREIGN KEY ('productID') REFERENCES 'products'
   ('productid') ON DELETE CASCADE ON UPDATE CASCADE
20. INSERT INTO `orderitems` VALUES ('O-801', 'C-102', 'P-302', 'keyboard', '4', '2020-
   07-06 12:20:00','complete'),('O-802','C-102','P-305','mobile','2','2018-03-02
   10:50:19','complete'),('O-803','C-103','P-301','mouse','2','2019-05-04
   11:34:22','complete'),('O-804','C-101','P-303','printer','3','2018-03-02
   10:45:09', 'Complete'), ('O-806', 'C-104', 'P-304', 'monitor', '1', '2020-07-06
   12:20:00', 'Complete'), ('O-807', 'C-101', 'P-303', 'printer', '1', '2021-07-26
   19:19:17', 'completed'), ('O-808', 'C-101', 'P-303', 'printer', '1', '2021-07-26
   23:54:35','completed'),('O-809','C-101','P-301','mouse','1','2021-07-27
   00:15:15','completed');
21. CREATE TABLE 'orderitems delivery' (
     'OID' varchar(45) NOT NULL,
    `deliveryID` varchar(45) NOT NULL,
    PRIMARY KEY ('OID', 'deliveryID'),
    KEY `orderdelivery_idx` (`deliveryID`),
    CONSTRAINT 'OID' FOREIGN KEY ('OID') REFERENCES 'orderitems' ('OID') ON
   DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT 'orderdelivery' FOREIGN KEY ('deliveryID') REFERENCES 'delivery'
   ('deliveryID') ON DELETE CASCADE ON UPDATE CASCADE
22. INSERT INTO `orderitems delivery` VALUES ('O-801', 'D-201'), ('O-802', 'D-
   202'),('O-803','D-203'),('O-804','D-204');
23. CREATE TABLE 'payment' (
     `paymentID` varchar(45) NOT NULL,
```

```
`customerID` varchar(45) NOT NULL,
    'Amount' int NOT NULL,
     `Cardno` int DEFAULT NULL,
    PRIMARY KEY ('paymentID', 'customerID'),
    KEY `paymentcustomer_idx` (`customerID`),
    CONSTRAINT 'paymentcustomer' FOREIGN KEY ('customerID') REFERENCES
   `customer` (`customerID`) ON DELETE CASCADE ON UPDATE CASCADE
   )
24. INSERT INTO `payment` VALUES ('P-601','C-102',100,123234),('P-602','C-
   101',50,214214),('P-603','C-104',10,123424),('P-604','C-103',200,421321),('P-
   605','C-101',200,9999),('P-608','C-101',200,2),('P-609','C-101',100,2),('P-610','C-
   101',200,2),('P-611','C-101',100,5),('P-612','C-101',100,4),('P-614','C-
   101',106,45),('P-616','C-101',100,2),('P-617','C-101',0,2),('P-618','C-
   101',200,2),('P-620','C-101',100,2),('P-622','C-101',200,2),('P-623','C-
   101',106,2134);
25. CREATE TABLE `phone customer` (
     `phone` bigint NOT NULL,
    `customerID` varchar(45) NOT NULL,
    PRIMARY KEY ('phone', 'customerID'),
    KEY `custphone idx` (`customerID`),
    CONSTRAINT `custphone` FOREIGN KEY (`customerID`) REFERENCES `customer`
   ('customerID') ON DELETE CASCADE ON UPDATE CASCADE
26. INSERT INTO `phone customer` VALUES (8326785566, 'C-101'), (8328896754, 'C-
   102'),(6782289878,'C-103'),(2026673456,'C-104');
27. CREATE TABLE `product_shops` (
     `shopID` varchar(45) NOT NULL,
     'productID' varchar(45) NOT NULL,
    PRIMARY KEY ('shopID', 'productID'),
    KEY 'shops product idx' ('shopID'),
    KEY 'product shops idx' ('productID'),
    CONSTRAINT 'product_shops' FOREIGN KEY ('productID') REFERENCES
    `products` (`productid`),
    CONSTRAINT 'shops product' FOREIGN KEY ('shopID') REFERENCES 'shops'
   ('shopID') ON DELETE CASCADE ON UPDATE CASCADE
```

```
)
28. INSERT INTO `product shops` VALUES ('S-401','P-303'),('S-401','P-304'),('S-
   401', 'P-305'), ('S-402', 'P-303'), ('S-402', 'P-305'), ('S-403', 'P-301'), ('S-404', 'P-302');
29. CREATE TABLE 'products' (
     `productid` varchar(45) NOT NULL,
     'pname' varchar(45) NOT NULL,
     'quantity' int NOT NULL,
     'price' double NOT NULL,
    PRIMARY KEY ('productid')
   )
30. INSERT INTO 'products' VALUES ('P-301', 'mouse', 10,6), ('P-
    302','keyboard',10,10),('P-303','printer',24,100),('P-304','monitor',12,200),('P-
    305','mobile',10,500),('P-306','Washing Machine',15,24);
31. CREATE TABLE 'shops' (
     `shopID` varchar(45) NOT NULL,
     `name` varchar(45) NOT NULL,
     `street` varchar(45) NOT NULL,
     `city` varchar(45) NOT NULL,
     'zip' varchar(45) NOT NULL,
    PRIMARY KEY ('shopID')
   )
32. INSERT INTO 'shops' VALUES ('S-401', 'Gadget
   zone','Eldridge','Houston','77077'),('S-402','Techie
   spot','Kirkwood','Austin','77051'),('S-403','Every
   Gadget','Willcrest','Houston','77045'),('S-404','Pro tech
   gear','Fondren','Destin','77031');
33. CREATE TABLE 'shopslogin' (
     'ShopID' varchar(45) NOT NULL,
     `username` varchar(45) NOT NULL,
     `password` varchar(45) NOT NULL,
    PRIMARY KEY ('ShopID', 'username', 'password'),
```

```
CONSTRAINT `shopslogin` FOREIGN KEY (`ShopID`) REFERENCES `shops`
(`shopID`) ON DELETE CASCADE ON UPDATE CASCADE
)

34. INSERT INTO `shopslogin` VALUES ('S-401','electro','hello'),('S-402','techie','welcome'),('S-403','gadget','dnd'),('S-404','techgear','gear123');

35. CREATE TABLE `tracking` (
    `trackingID` varchar(45) NOT NULL,
    `status` varchar(45) NOT NULL,
    `location` varchar(45) NOT NULL,
    PRIMARY KEY (`trackingID`)
)

36. INSERT INTO `tracking` VALUES ('T-501','Delivered','Houston'),('T-502','Pending','Austin'),('T-503','Dispatched','California'),('T-504','Delivered','Houston');
```