DAMG 6210 DATA MANAGEMENT AND DATABASE DESIGN

THRIFTLIST DATABASE MANAGEMENT SYSTEM

TEAM NAME: DATA CREW

TEAM MEMBERS:

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INTRODUCTION:

Items or things that are intended to throw away can be reused. They can be anything like clothing, footwear, accessories, electronics, furniture, and cars. There are many walk-in thrift stores available but there is still an online demand for shopping used items. A website or an online system can store these records and items which are reusable and can be used again by many customers who are interested in buying them at a cheap price.

PROBLEM STATEMENT:

1. Customers must go to a local store for buying reused items because they don't have access to an online portal for purchasing these items which can be reused
2. Some online platforms like Amazon are mainly focused on new goods and have a limited inventory on used or reusable items. Other platforms like Craigslist lack security and payment options
3. Search conditions or filters do not apply to items since the website is post oriented. We cannot search an item based on item filter like quantities, brand, price etc.
4. Users cannot fetch buyer/seller data or information like review, selling posts, and other information. hence it is anonymous.
5. Users must update or remove the post on their own. An online payment cannot update the post automatically.
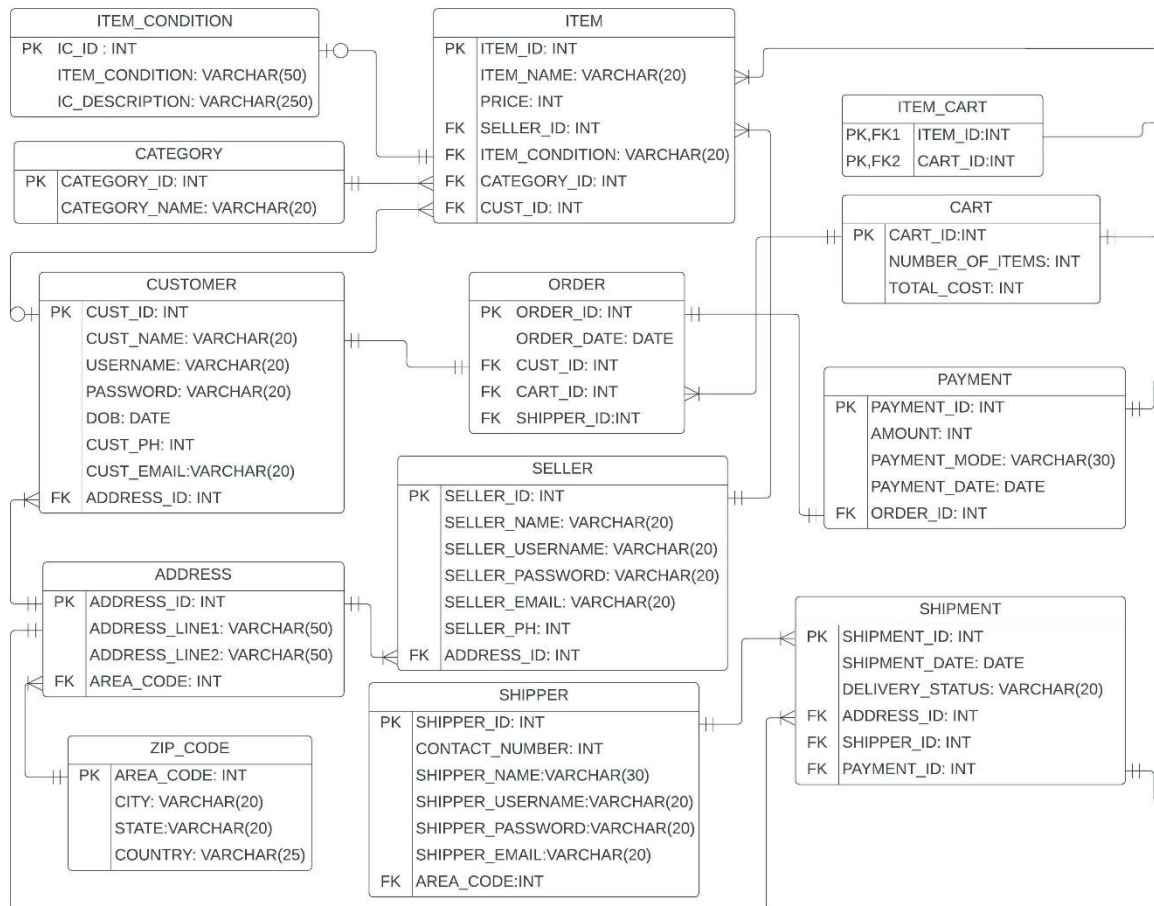
OBJECTIVES:

- Designing a database for selling and buying reusable items. This system consists of the following features:
  - New Users can sign up as a seller or customer using their Username, Password, Mobile Number, and email.
  - Existing or returning users need to login using their username and password.
  - Users can add and update details of an item.
  - The proposed system can be used to store and update all the information regarding the users, i.e., seller, customer, and shipper.
  - This system can also add, view, and update the details of the reusable items for sale.
  - Users can create a deal or bid for the reusable items.
  - Users can view the payment details of the ordered items for payment related activities.

DATABASE DESIGN DOCUMENT:

- There is a demand for an online platform to sell and buy used. This will allow customers to purchase a variety of items at ease online at an affordable range of price.

- This Database design supports a complete online interface with automated process consisting of 12 entities allowing users to sign-up and login as customers or sellers, auction and search items, purchase and payment and shipment and delivery status.

- The search conditions or filters apply to items since the website is item oriented. We can search an item based on item filter like quantities, brand, price etc.

- The category entity has a primary key PK as CATEGORY_ID. The Item entity has the CATEGORY_ID as Foreign Key FK. Hence users can assign an item under a specific category such as clothing, footwear, automobile, etc.

- User can retrieve information regarding the buyer/seller by their ID (CUST_ID, SELLER_ID) as have separate seller and customer entities with the corresponding attributes.

- To prevent duplicate entries when a user registers to the online platform the CUSTOMER/SELLER Entities are created by having their UNIQUE key as CUST_EMAIL and SELLER_EMAIL.

- User can retrieve and fetch data from CUSTOMER Entity and ITEM CONDITION entity regarding customer information and item condition. Item Entity has CUST_ID & ITEM_CONDITION as FOREIGN KEY.

- Users can retrieve a list of items being sold by the same seller as each item has SELLER_ID for SELLER ID as Foreign Key.

- Each payment and cart have a unique payment id and cart id. We created Payment and cart entity to allow a user to prefer checkout method/view cart items, costs etc.

- Items are assigned to a CART. Where it is in order by the customers who are having CART_ID as an FK in ORDER entity.

- Using SHIPPER_ID as FK in SHIPMENT Entity. Shipment which are assigned for a specific shipper can be viewed.

ENTITY RELATIONSHIP DIAGRAM:

ITEM_CONDITION
PK	IC_ID : INT
	ITEM_CONDITION: VARCHAR(50)
	IC_DESCRIPTION: VARCHAR(250)

CATEGORY
PK	CATEGORY_ID: INT
	CATEGORY_NAME: VARCHAR(20)

ITEM
PK	ITEM_ID: INT
	ITEM_NAME: VARCHAR(20)
	PRICE: INT
FK	SELLER_ID: INT
FK	ITEM_CONDITION: VARCHAR(20)
FK	CATEGORY_ID: INT
FK	CUST_ID: INT

ITEM_CART
PK,FK1	ITEM_ID:INT
PK,FK2	CART_ID:INT

CART
PK	CART_ID:INT
	NUMBER_OF_ITEMS: INT
	TOTAL_COST: INT

CUSTOMER
PK	CUST_ID: INT
	CUST_NAME: VARCHAR(20)
	USERNAME: VARCHAR(20)
	PASSWORD: VARCHAR(20)
	DOB: DATE
	CUST_PH: INT
	CUST_EMAIL:VARCHAR(20)
FK	ADDRESS_ID: INT

ORDER
PK	ORDER_ID: INT
	ORDER_DATE: DATE
FK	CUST_ID: INT
FK	CART_ID: INT
FK	SHIPPER_ID:INT

PAYMENT
PK	PAYMENT_ID: INT
	AMOUNT: INT
	PAYMENT_MODE: VARCHAR(30)
	PAYMENT_DATE: DATE
FK	ORDER_ID: INT

SELLER
PK	SELLER_ID: INT
	SELLER_NAME: VARCHAR(20)
	SELLER_USERNAME: VARCHAR(20)
	SELLER_PASSWORD: VARCHAR(20)
	SELLER_EMAIL: VARCHAR(20)
	SELLER_PH: INT
FK	ADDRESS_ID: INT

ADDRESS
PK	ADDRESS_ID: INT
	ADDRESS_LINE1: VARCHAR(50)
	ADDRESS_LINE2: VARCHAR(50)
FK	AREA_CODE: INT

SHIPMENT
PK	SHIPMENT_ID: INT
	SHIPMENT_DATE: DATE
	DELIVERY_STATUS: VARCHAR(20)
FK	ADDRESS_ID: INT
FK	SHIPPER_ID: INT
FK	PAYMENT_ID: INT

ZIP_CODE
PK	AREA_CODE: INT
	CITY: VARCHAR(20)
	STATE:VARCHAR(20)
	COUNTRY: VARCHAR(25)

SHIPPER
PK	SHIPPER_ID: INT
	CONTACT_NUMBER: INT
	SHIPPER_NAME:VARCHAR(30)
	SHIPPER_USERNAME:VARCHAR(20)
	SHIPPER_PASSWORD:VARCHAR(20)
	SHIPPER_EMAIL:VARCHAR(20)
FK	AREA_CODE:INT

ENTITY AND ATTRIBUTES WITH DATA TYPES DEFINED:

1. ITEM ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
ITEM_ID	INTEGER	PRIMARY KEY
ITEM_NAME	VARCHAR(20)	NOT NULL
PRICE	INTEGER	NOT NULL
SELLER_ID	INTEGER	FK which references SELLER_ID from SELLER ENTITY. NOT NULL

ITEM_CONDITION	INTEGER	FK which references ITEM_CONDITION from an ITEM CONDITION ENTITY. NOT NULL
CATEGORY_ID	INTEGER	FK which references CATEGORY_ID from CATEGORY ENTITY. NOT NULL
CUST_ID	INTEGER	FK which references CUST_ID from CUSTOMER ENTITY. NULL ALLOWED

2. ITEM CATEGORY ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
CATEGORY_ID	INTEGER	PRIMARY KEY
CATEGORY_NAME	VARCHAR(20)	NOT NULL

3. ITEM CONDITION ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
IC_ID	INTEGER	PRIMARY KEY
ITEM_CONDITION	VARCHAR(20)	NOT NULL
IC_DESCRIPTION	VARCHAR(250)	NOT NULL

4. CUSTOMER ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
CUST_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
CUST_NAME	VARCHAR(40)	NOT NULL
PASSWORD	VARCHAR(20)	NOT NULL
USERNAME	VARCHAR(20)	UNIQUE KEY, NOT NULL
DATE_OF_BIRTH	TIMESTAMP	CURRENT_TIMESTAMP
CUST_EMAIL	VARCHAR(40)	UNIQUE KEY, NOT NULL
CUST_PHONE	INTEGER	NOT NULL
ADDRESS_ID	INTEGER	FK which references ADDRESS_ID from ADDRESS ENTITY.

5. SELLER ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
SELLER_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
SELLER_NAME	VARCHAR(40)	NOT NULL
SELLER_USERNAME	VARCHAR(20)	NOT NULL
SELLER_PASSWORD	VARCHAR(40)	NOT NULL
SELLER_EMAIL	VARCHAR(20)	UNIQUE KEY, NOT NULL
SELLER_PHONE	INTEGER	NOT NULL
ADDRESS_ID	INTEGER	FK which references ADDRESS_ID from ADDRESS ENTITY. To fetch sellers's address details. NOT NULL

6. ADDRESS ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
ADDRESS_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
ADDRESS_LINE1	VARCHAR(40)	NOT NULL
ADDRESS_LINE2	VARCHAR(40)	NOT NULL
AREA_CODE	INTEGER	FK which reference AREA_CODE from ZIP CODE ENTITY.

7. ZIP CODE

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
AREA_CODE	INTEGER	PRIMARY KEY , NOT NULL
STATE	VARCHAR(20)	NOT NULL
COUNTRY	VARCHAR(24)	NOT NULL

8. CART ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
CART_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
TOTAL_COST	INTEGER	NOT NULL
NUMBER_OF_ITEMS	INTEGER	NOT NULL

9. ITEM_CART ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
ITEM_ID	INTEGER	FK which references ITEM_ID from ITEM ENTITY. To fetch item details. NOT NULL
CART_ID	INTEGER	FK which references CART_ID from CART ENTITY. To fetch cart details. NOT NULL

10. PAYMENT ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
PAYMENT_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
PAYMENT_MODE	VARCHAR(20)	NOT NULL
AMOUNT	INTEGER	NOT NULL
PAYMENT_DATE	TIMESTAMP	CURRENT_TIMESTAMP
ORDER_ID	INTEGER	FK which references ORDER_ID from ORDER ENTITY. To fetch order details. NOT NULL

11. ORDER ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
ORDER_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
ORDER_DATE	TIMESTAMP	CURRENT_TIMESTAMP

CUST_ID	INTEGER	FK which references CUST_ID from CUSTOMER ENTITY. To fetch customer's details. NOT NULL
CART_ID	INTEGER	FK which references CART_ID from CART ENTITY. To fetch cart details. NOT NULL
SHIPPER_ID	INTEGER	FK which references SHIPPER_ID from SHIPPER ENTITY. To fetch cart details. NOT NULL

12. SHIPPER ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
SHIPPER_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
CONTACT_NUMBER	INTEGER	CURRENT_TIMESTAMP
SHIPPER_USERNAME	VARCHAR(20)	NOT NULL
SHIPPER_PASSWORD	VARCHAR(40)	NOT NULL
SHIPPER_EMAIL	VARCHAR(20)	UNIQUE KEY, NOT NULL
AREA_CODE	INTEGER	FK which references AREA_CODE from ZIP CODE ENTITY. To fetch cart details. NOT NULL

13. SHIPMENT ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
SHIPMENT_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
SHIPMENT_DATE	TIMESTAMP	CURRENT_TIMESTAMP
DELIVERY_STATUS	VARCHAR(100)	NOT NULL
SHIP_METHOD_DESC	VARCHAR(250)	NOT NULL
ADDRESS_ID	INTEGER	FK which references ADDRESS_ID from ADDRESS ENTITY. To fetch customer's address details. NULL ALLOWED
SHIPPER_ID	INTEGER	FK which references SHIPPER_ID from SHIPPER ENTITY. To fetch shipper's details. NOT NULL

PAYMENT_ID	INTEGER	FK which references PAYMENT_ID from PAYMENT ENTITY. To fetch order details. NOT NULL

BUSSINESS RULES & LOGIC:

- To sign-up as a customer/seller/shipper, they need a valid username/password/email/phone.
- Each category should have at least one item
- An item can belong to only one category
- Each Item should be associated with an Item condition
- An item condition can be New, used, or refurbished
- An item should be sold to only one customer
- Every account must be linked with one unique email address either buyer/seller/shipper.
- A seller can auction more than one item for sale.
- One valid address is associated with each customer/seller.
- Every customer should have only one item_cart at a time. To create a new cart, they need to check out or remove items in the old cart.
- If you want to check out, the cart cannot be empty.
- More than 15 items cannot be added to the cart.
- For a user check out Cart items will be reserved for 20 minutes. After every 20 minutes it will be made available for other users.
- When a customer confirms the order, they need to complete the payment within the 20-minute session.
- Only one cart is associated with each order.
- Shipment date cannot be prior to payment date.
- Each shipper account should not have more than 8 active shipments.
- Shipping/Delivered/Cancelled are the three delivery status options.

SECURITY CONSTRAINTS (USER LEVEL ACCESS, PERMISSIONS):

The 4 users are Admin, Customer, Seller, and Shipper

ADMIN:

● Access to all the tables
● READ and WRITE permissions to all the tables
● Decide which data is available to the users

CUSTOMER is permitted to:

● ADD, UPDATE, DELETE the information in the Customer table.
● WRITE the Address, Address_zip table
● READ and WRITE the Cart table. A customer can ADD or DELETE items from the cart table.
● READ permission to the Payment table.
● READ only access to Item, Category, Item_condition, Order, Shipment tables.

SELLER is permitted to:

● ADD, UPDATE, DELETE information in the Seller table.
● WRITE permission to the Address table.
● ADD a new address, delete old address in the address table.
● READ and WRITE permissions to the Item, Item_condition tables.
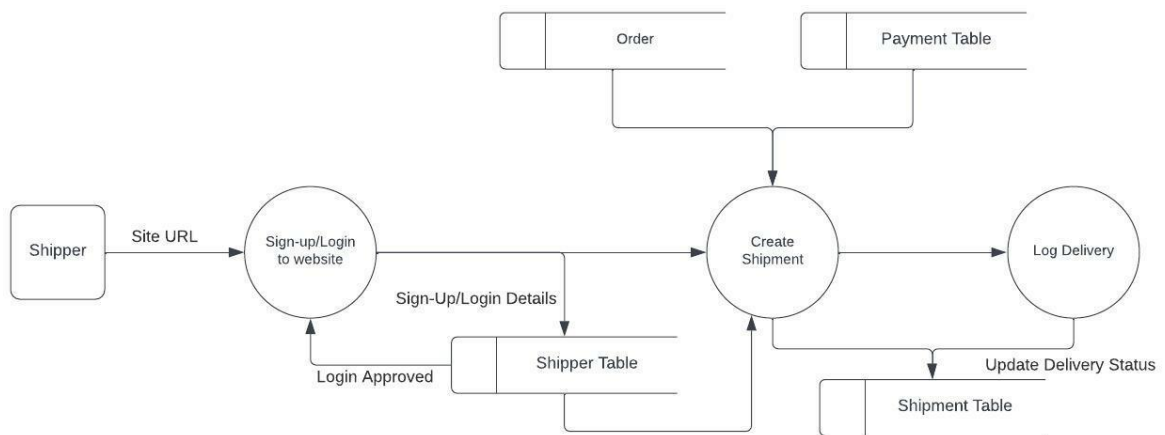● ADD and UPDATE items in those tables.

SHIPPER is permitted to:
● ADD, UPDATE, DELETE his/her information in the Shipper table.
● READ and WRITE permissions to the shipment table. A shipper can make changes regarding the shipment details in that table.
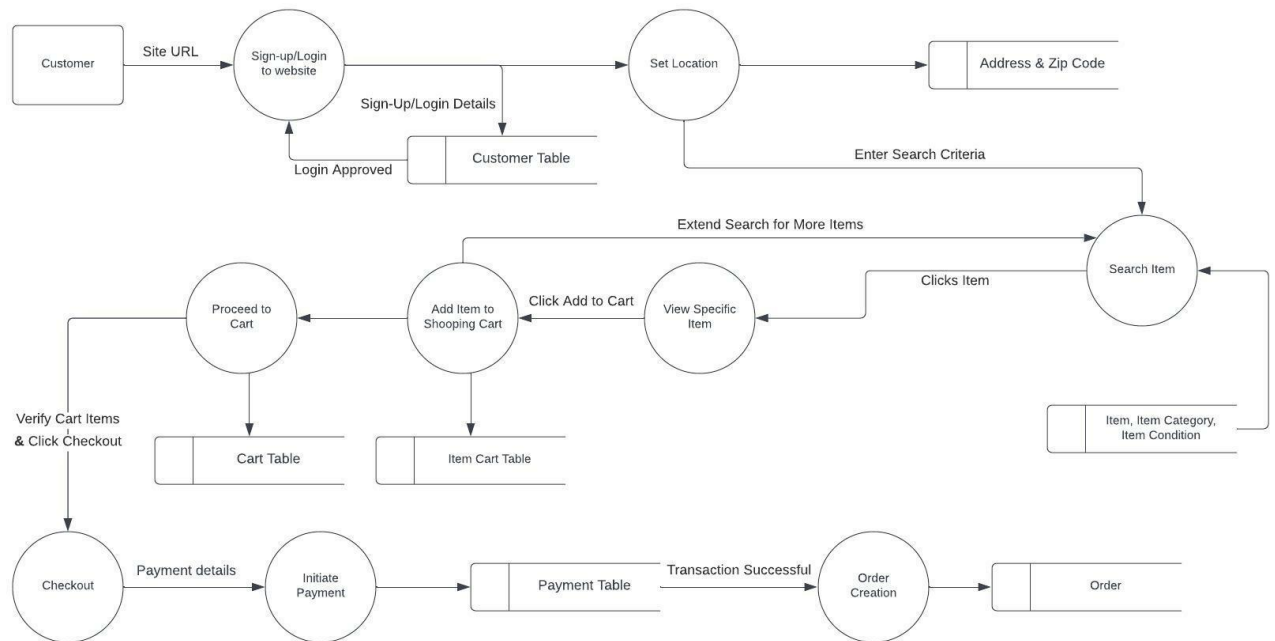
DATA FLOW DIAGRAM:

SELLER MANAGEMENT:
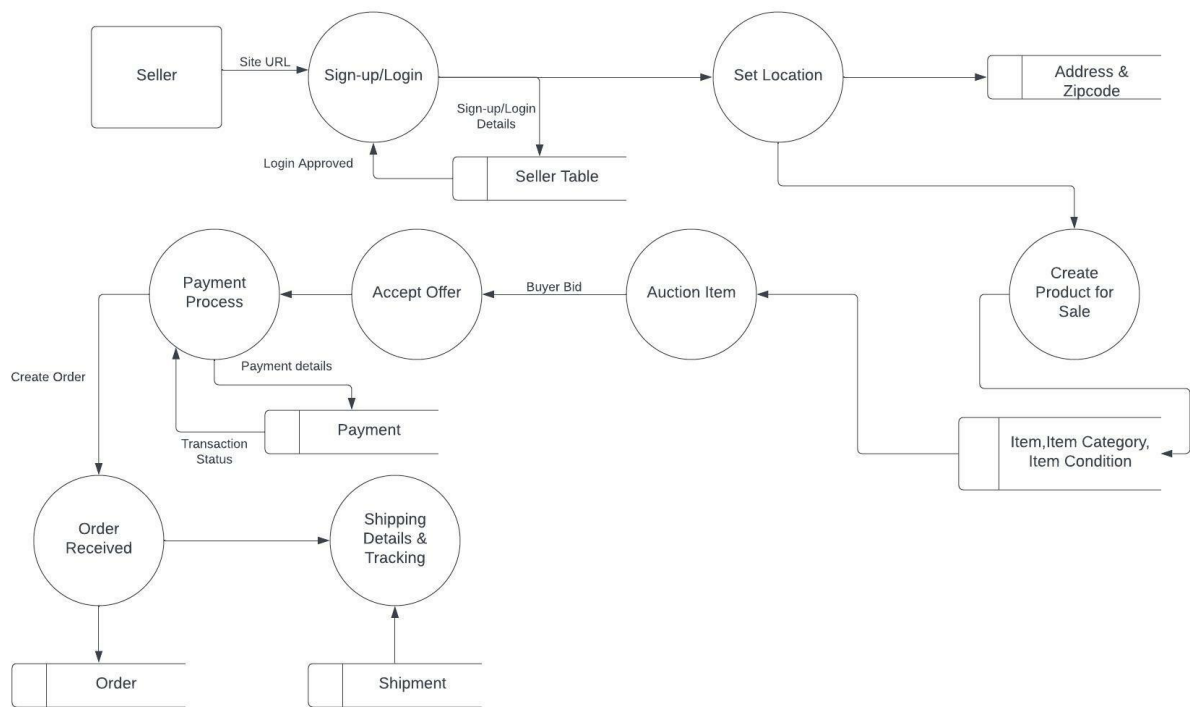
SHIPPER MANAGEMENT:

CUSTOMER MANAGEMENT:

VIEWS:

In our project we have used views to simplify the query complexity and have defined them to retrieve data based on conditions:

View 1: view ITEM_PRICE_CATEGORY

Item_price_category view is defined to retrieve data such as Item_id, name and price and categorise them based on price of an item and defining whether an item is expensive or cheap or affordable.

Creating this view will be helpful for the customers to select the items based on the price and purchase them.

View 2: view CUSTOMER_ORDER_HISTORY

Customer_order_history view is defined to retrieve data such as customer_id, customer_name,order_id from orders and payment table to get the customer orders till date.

Creating this view will be helpful for the customers to find out the orders they have placed and purchased so far.

View 3: view CUSTOMER_ORDER_STATUS

This view is used to determine the Customer order status of the customer with the general information of the customer and order

Creating this view will help the customer to visualize the order status of a product.

OUTPUT:

Zip code:

	AREA_CODE	CITY	STATEE	COUNTRY
1	1867	Reading	MA	USA
2	7728	Freehold	NJ	USA
3	91733	South El Mote	CA	USA
4	15401	Uniontown	PA	USA
5	6010	Bristol	CT	USA
6	11561	Long Beach	NY	USA
7	97603	Kamath Falls	OR	USA
8	17011	Camp Hill	PA	USA
9	27103	Winston Salem	NC	USA
10	32127	Port Orange	FL	USA
11	18901	Doylestown	PA	USA
12	32804	Saint Augustine	FL	USA
13	2852	North Kingstown	RI	USA
14	17402	York	PA	USA
15	20854	Potomac	MD	USA
16	30274	Riverdale	GA	USA
17	11791	Syosset	NY	USA
18	70605	Lake Charles	LA	USA
19	12401	Kingston	NY	USA
20	60085	Waukegan	IL	USA

Address:

	ADDRESS_ID	ADDRESS_LINE1	ADDRESS_LINE2	AREA_CODE
1	1001	4	Country Club Street	1867
2	1002	9482	Summerhouse Street	7728
3	1003	583	Cottage Street	91733
4	1004	340	Greenview Lane	15401
5	1005	7456	Lafayette St	6010
6	1006	36	4th Street	11561
7	1007	7043	S Goldfield Lane	97603
8	1008	98	Roehampton Rd	17011
9	1009	42	Clinton Street	27103
10	1010	7782	E. Glenlake Drive	32127
11	1011	9699	Green Lake Street	18901
12	1012	504	Roehampton Rd	32804
13	1013	614	Forest Street	2852
14	1014	756	W.Mechanic St	17402
15	1015	30	Galvin Street	20854
16	1016	2	South Ann Street	30274
17	1017	8029	Peachtree Lane	11791
18	1018	25	Nut Swampt Street	70605
19	1019	70	Constitution Rd	12401
20	1020	499	Morris Drive	60085

Customer:

	CUST_ID	CUST_NAME	CUST_USERNAME	CUST_PASSWORD	DATE_OF_BIRTH	CUST_PH	CUST_EMAIL	ADDRESS_ID
1	5001	Wade Alvarez	wade123	Wade_Alvarez	06-JUN-73	4894004252	Wade_Alvarez@gmail.com	1010
2	5002	Jody Carr	carrcarr	Jody_Carr	21-FEB-73	3428576263	Jody_Carr@gmail.com	1008
3	5003	Brad Black	brad_bl	Brad_Black	09-MAY-10	4319951173	Brad_Black123@gmail.com	1009
4	5004	Darrin Washington	darrinw144	Darrin_Washington	05-MAR-02	5655293441	Darrin_Washing@gmail.com	1011
5	5005	Karen Lopez	karenlopez@99	Karen_Lopez	30-NOV-69	7005928143	KarenLopez@gmail.com	1006
6	5006	Kelly Thomas	qwerty1122	Kelly_Thomas	29-APR-61	6506640312	Kellythomas@gmail.com	1016
7	5007	Julian Wells	wells@76	Julian_Wells	05-JAN-65	6397490511	Julianwells@yahoo.com	1001
8	5008	Gregory Palmer	palmergreg	Gregory_Palmer	07-FEB-92	4686720114	Gregory89Palmer@gmail.com	1018
9	5009	Carla Neal	neal11	Carla_Neal	06-APR-60	7485766983	Carlaneal@gmail.com	1017
10	5010	Mandy Hamilton	hamilton-mandy1	Mandy_Hamilton	21-SEP-60	4697521902	Mandy_hamilton@yahoo.com	1007
11	5011	Andrea Brewer	brewer_2	Andrea_Brewer	05-OCT-08	8542342689	Andreabrewer@gmail.com	1019
12	5012	Wallace Osborne	oswallace	Wallace_Osborne	22-NOV-77	5877636912	Wallaceosborne@yahoo.com	1012
13	5013	Vickie Pena	pena_v12	Vickie_Pena	08-JAN-94	4328927927	Vickie_123pena@yahoo.com	1002
14	5014	Danny Guerrero	dann754	Danny_Guerrero	19-OCT-74	8845814087	Dannyguerrero@gmail.com	1013
15	5015	Andrew Myers	myersandrew	Andrew_Myers	30-JAN-77	361968554	Andrewmyers@gmail.com	1005
16	5016	Betty Shelton	betty33	Betty_Shelton	03-MAR-73	3946433835	SheltonBetty@gmail.com	1014
17	5017	Amy Morris	amy21	Amy_Morris	11-NOV-89	7975690512	Amy_Morris@gmail.com	1003
18	5018	Nicole Larson	nicole_l	Nicole_Larson	17-MAY-02	2152369726	Larson_n@gmail.com	1015
19	5019	Vicki Simpson	vicks1	Vicki_Simpson	02-MAR-90	9184961776	Vickisimpson123@gmail.com	1020
20	5020	Amos Gibbs	amos23	Amos_Gibbs	01-DEC-94	5842256768	Amosgibbs@yahoo.com	1004

Seller:

	SELLER_ID	SELLER_NAME	SELLER_USERNAME	SELLER_PASSWORD	SELLER_PH	SELLER_EMAIL	ADDRESS_ID
1	6001	Faith Jennings	Faith_Jennings	faith123	2212786065	jennings_faith@gmail.com	1010
2	6002	Kelvin Williams	Kelvin_Williams	Kelvin_Williams	7546249541	williams@gmail.com	1008
3	6003	Nicole Weaver	Nicole_Weaver	nicole33	3049537937	weaver_ni123@gmail.com	1009
4	6004	Mindy Munoz	Mindy_Munoz	Mindy_Munoz	5006739512	mindy_munoz@gmail.com	1011
5	6005	Glen Gross	Glen_Gross	Glen093	4374048589	glengross@gmail.com	1006
6	6006	Tabitha Garner	Tabitha_Garner	TabithaGarner	5849798416	tabitha@gmail.com	1016
7	6007	Leroy Adkins	Leroy_Adkins	Leroy11Adkins	3679735652	leroyadkins@yahoo.com	1001
8	6008	Heather Ruiz	Heather_Ruiz	Heather_Ruiz	9612629933	ruizzheather@gmail.com	1018
9	6009	Candice Nash	Candice_Nash	Candice12Nash	6523538206	nashcandice@gmail.com	1017
10	6010	Louise Hubbard	Louise_Hubbard	LHubbard	8686555962	hubbard@yahoo.com	1007

Item condition:

	IC_ID	ITEM_CONDITION	IC_DESCRIPTION
1	2001	Used-Like New	Chair without arm rest
2	2002	Used-Good	Branded worn only once
3	2003	Used-Fair	Breathable running shoes for hot summer
4	2004	Used-Good	Stylish light weight compact and modern study table
5	2005	Used-Fair	Best crafting scissors for different patterns
6	2006	Used-Good	Best blend of camera quality and battery life, latest model at the right price
7	2007	Used-Fair	Fine fabric and modular design, L Shaped comfortable and accomodates 8
8	2008	Used-Good	A top quality floor lamp creating a cozy vibe
9	2009	Used-Fair	Unique material and gorgeous design
10	2010	Used-Good	Water resistant material that keep your laptop dust free
11	2011	Used-Like New	Durable holders used to store pens, pencils and other items
12	2012	Used-Like New	Long lasting teak wood with beautiful carvings
13	2013	Used-Good	Generous carrying capacity with laptop sleeve and headphone loop
14	2014	Used-Good	Pointed heels, branded and attractive color
15	2015	Used-Good	Leopard design case for iphone max series
16	2016	Used-Fair	Quick heating and easy cleaning
17	2017	Used-Like New	Down jacket that keeps you warm, attractive color and can be double sided
18	2018	Used-Good	Meshed back rest with arm rest
19	2019	Used-Like New	Versatile sweatshirt with long sleeves perfect for a chilly weather
20	2020	Used-Like New	Germ killing ability, antispetic and reasonable price

Category:

	CATEGORY_ID	CATEGORY_NAME
1	3001	FURNITURE
2	3002	CLOTH
3	3003	FOOTWEAR
4	3004	ELECTRONICS
5	3005	STATIONARY
6	3006	COSMETICS
7	3007	OTHERS

Item:

	ITEM_ID	ITEM_NAME	PRICE	SELLER_ID	IC_ID	CATEGORY_ID	CUST_ID
1	11001	Chair	60	6001	2001	3001	5001
2	11002	T-shirt	10	6002	2002	3002	5002
3	11003	Shoes	30	6003	2003	3003	5003
4	11004	Study table	50	6004	2004	3001	5004
5	11005	Scissor	5	6005	2005	3005	5005
6	11006	Smart phone	100	6010	2006	3004	5006
7	11007	Sofa	90	6009	2007	3001	5007
8	11008	Lamp	40	6008	2008	3001	5008
9	11009	Frock	20	6007	2009	3002	5009
10	11010	Laptop cover	150	6006	2010	3005	5010
11	11011	Pen stand	10	6010	2011	3005	5011
12	11012	Table	45	6002	2012	3001	5012
13	11013	Bagpack	25	6003	2013	3005	5013
14	11014	High heels	35	6004	2014	3003	5014
15	11015	Phone case	12	6005	2015	3005	5015
16	11016	Gas grill	90	6002	2016	3007	5016
17	11017	Jacket	45	6009	2017	3002	5017
18	11018	Chair	52	6008	2018	3001	5018
19	11019	Sweatshirt	48	6007	2019	3002	5019
20	11020	Soap	16	6006	2020	3006	5020

Shipper

	SHIPPER_ID	CONTACT_NUMBER	SHIPPER_NAME	SHIPPER_USERNAME	SHIPPER_PASSWORD	SHIPPER_EMAIL	AREA_CODE
1	4001	4106322422	Nessa Nicola	Nicola22	Nicola123@33	nicola.ne123@gmail.com	20854
2	4002	2173572537	Percival Coy	Coyper	Per@val	coy.coper123@yahoo.com	18901
3	4003	7084895983	Astrid Tennyson	Tennysonas	Te11nnysonas	astrid54@gmail.com	17402
4	4004	2538406821	Irma Sherman	sherman.i	sherman_123#	i.sherman@hotmail.com	17011
5	4005	2623777828	Debra Wagner	wagner.d	wagner12!)	debrawag@gmail.com	15401
6	4006	4075442029	Lori Moran	moran.l	moran*47	lori@yahoo.com	12401
7	4007	6062513667	Brent Ramirez	ramirez.b	brent)831!	brentram123@outlook.com	11791
8	4008	5702873056	Tony Miller	miller.t	tony.m!234	tony.miller123@gmail.com	11561
9	4009	8174534450	Brian Stokes	stokes.b	brian!376	brian.s98@gmail.com	7728
10	4010	5304673107	Pat Mendoza	mendoza123	patmend134!%	pat.men123@gmail.com	6010
11	4011	9856748391	Guy Mcbride	mcgug_pat	guymcb!23	guymcb34%@gmail.com	2852

Cart:

	CART_ID	NUMBER_OF_ITEMS	TOTAL_COST
1	7001	4	130
2	7002	2	105
3	7003	5	310
4	7004	3	105
5	7005	1	12
6	7006	2	135
7	7007	4	216
8	7008	3	525
9	7009	4	340
10	7010	2	150
11	7011	1	70
12	7012	4	270
13	7013	2	140
14	7014	3	270
15	7015	4	360
16	7016	6	540
17	7017	3	260
18	7018	5	450
19	7019	2	110
20	7020	6	510

Order:

	ORDER_ID	ORDER_DATE	CUST_ID	CART_ID
1	8001	11-JAN-20	5001	7001
2	8002	25-JAN-20	5002	7002
3	8003	24-FEB-21	5003	7003
4	8004	28-MAR-20	5004	7004
5	8005	27-APR-20	5005	7005
6	8006	09-MAY-20	5006	7006
7	8007	10-JUN-20	5007	7007
8	8008	16-JUL-20	5008	7008
9	8009	28-AUG-20	5009	7009
10	8010	14-SEP-20	5010	7010
11	8011	20-OCT-20	5011	7011
12	8012	12-NOV-20	5012	7012
13	8013	14-JAN-21	5013	7013
14	8014	27-FEB-21	5014	7014
15	8015	18-MAR-21	5015	7015
16	8016	26-APR-21	5016	7016
17	8017	22-APR-21	5017	7017
18	8018	23-APR-21	5018	7018
19	8019	05-MAR-21	5019	7019
20	8020	23-JAN-21	5020	7020

Payment:

	PAYMENT_ID	AMOUNT	PAYMENT_MODE	PAYMENT_DATE	ORDER_ID
1	9001	130	CREDIT	11–JAN–20	8001
2	9002	105	DEBIT	25–JAN–20	8002
3	9003	310	PAYPAL	24–FEB–21	8003
4	9004	105	CREDIT	28–MAR–20	8004
5	9005	12	PAYPAL	27–MAR–20	8005
6	9006	135	CREDIT	09–MAY–20	8006
7	9007	216	CREDIT	10–JUN–20	8007
8	9008	525	CREDIT	16–JUL–20	8008
9	9009	340	DEBIT	28–AUG–20	8009
10	9010	150	CREDIT	14–SEP–20	8010
11	9011	70	DEBIT	20–OCT–20	8011
12	9012	270	CREDIT	12–NOV–20	8012
13	9013	140	PAYPAL	14–JAN–21	8013
14	9014	270	CREDIT	27–FEB–21	8014
15	9015	360	CREDIT	18–MAR–21	8015
16	9016	540	DEBIT	26–APR–21	8016
17	9017	260	CREDIT	22–APR–21	8017
18	9018	450	CREDIT	23–APR–21	8018
19	9019	110	DEBIT	05–MAR–21	8019
20	9020	510	PAYPAL	23–JAN–21	8020

Shipment:

	SHIPMENT_ID	SHIPMENT_DATE	DELIVERY_STATUS	ADDRESS_ID	SHIPPER_ID	PAYMENT_ID
1	10001	21–JAN–20	DELIVERED	1015	4001	9001
2	10002	30–JAN–20	DELIVERED	1011	4011	9002
3	10003	17–APR–21	SHIPPING	1004	4002	9003
4	10004	01–MAY–20	CANCELED	1016	4001	9004
5	10005	04–APR–20	DELIVERED	1019	4003	9005
6	10006	30–MAY–20	DELIVERED	1005	4004	9006
7	10007	04–JUL–20	DELIVERED	1001	4006	9007
8	10008	30–JUL–20	DELIVERED	1003	4005	9008
9	10009	18–SEP–20	DELIVERED	1009	4007	9009
10	10010	30–OCT–20	DELIVERED	1007	4002	9010
11	10011	03–NOV–20	CANCELED	1015	4001	9011
12	10012	17–NOV–20	DELIVERED	1007	4009	9012
13	10013	22–FEB–21	DELIVERED	1013	4010	9013
14	10014	25–FEB–21	DELIVERED	1020	4011	9014
15	10015	04–APR–21	DELIVERED	1012	4003	9015
16	10016	29–APR–21	SHIPPING	1008	4001	9016
17	10017	24–APR–21	SHIPPING	1017	4004	9017
18	10018	25–APR–21	SHIPPING	1002	4006	9018
19	10019	20–APR–21	SHIPPING	1018	4005	9019
20	10020	30–JAN–21	CANCELED	1010	4008	9020

Item_cart:

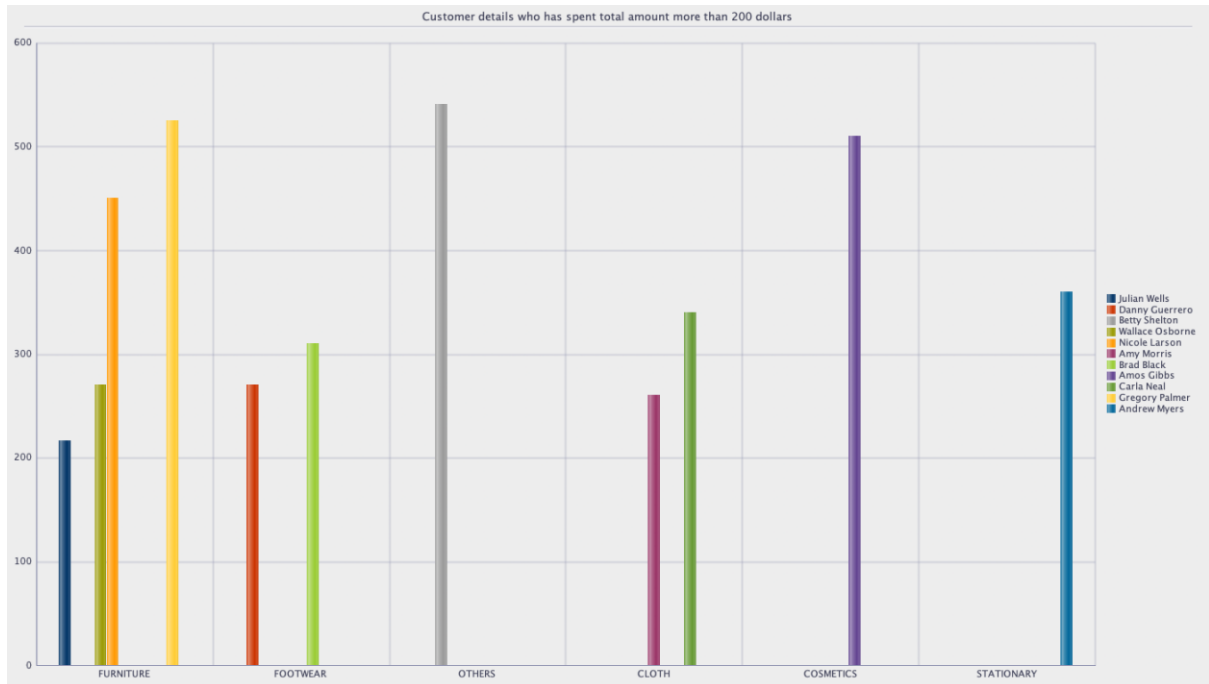|	ITEM_ID	CART_ID
1	11001	7001
2	11002	7001
3	11003	7001
4	11004	7001
5	11005	7002
6	11006	7002
7	11007	7003
8	11008	7003
9	11009	7003
10	11010	7003
11	11011	7003
12	11012	7004
13	11013	7004
14	11014	7004
15	11015	7005
16	11016	7006
17	11017	7006
18	11018	7007
19	11019	7007
20	11020	7007

REPORTS:

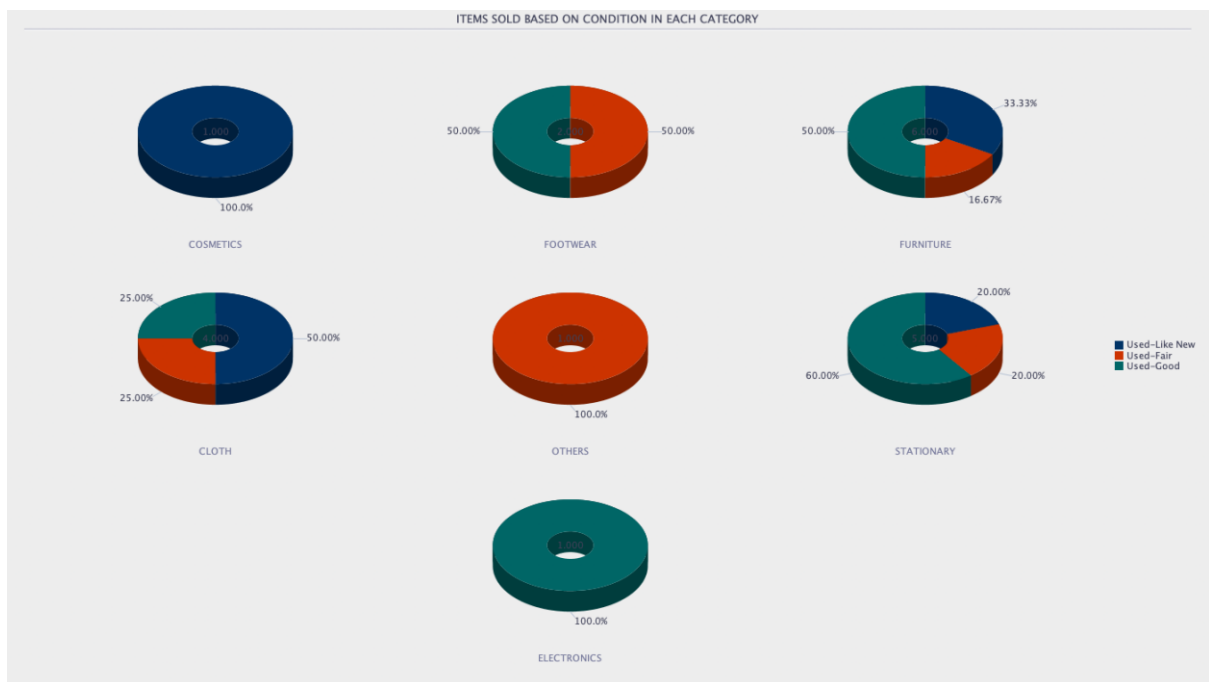**Fig: Customers who have spent more than 200 dollars on each category**

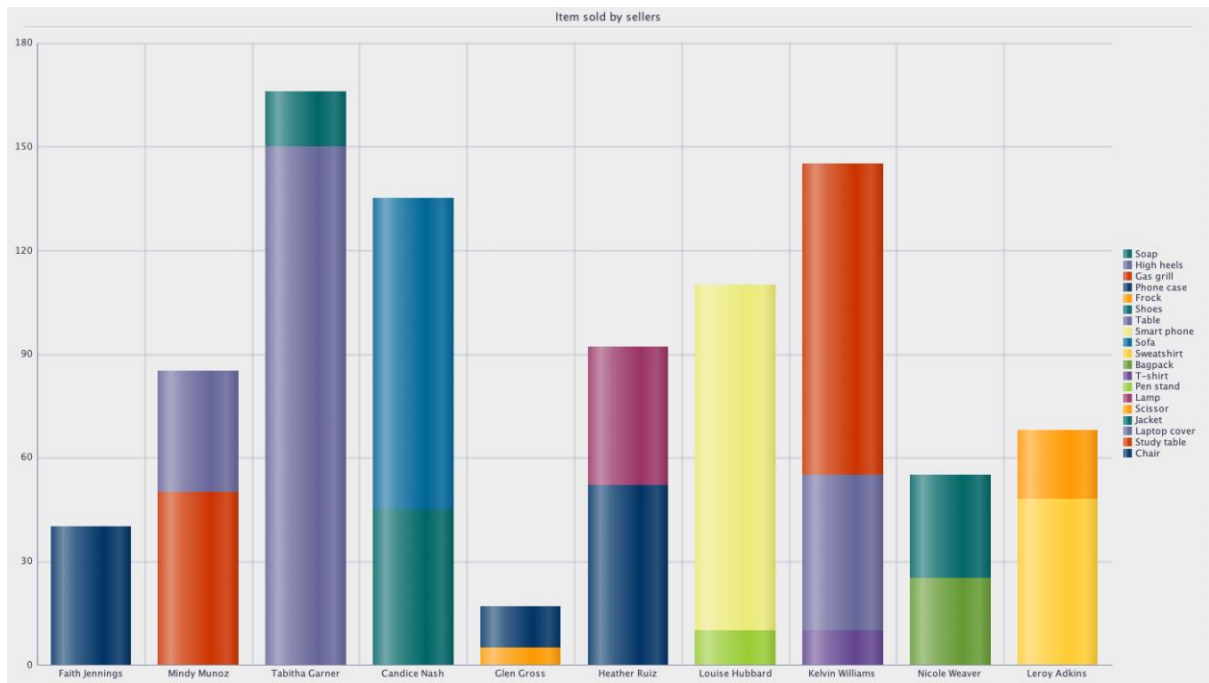**Fig: Item sold based on the condition in each category**
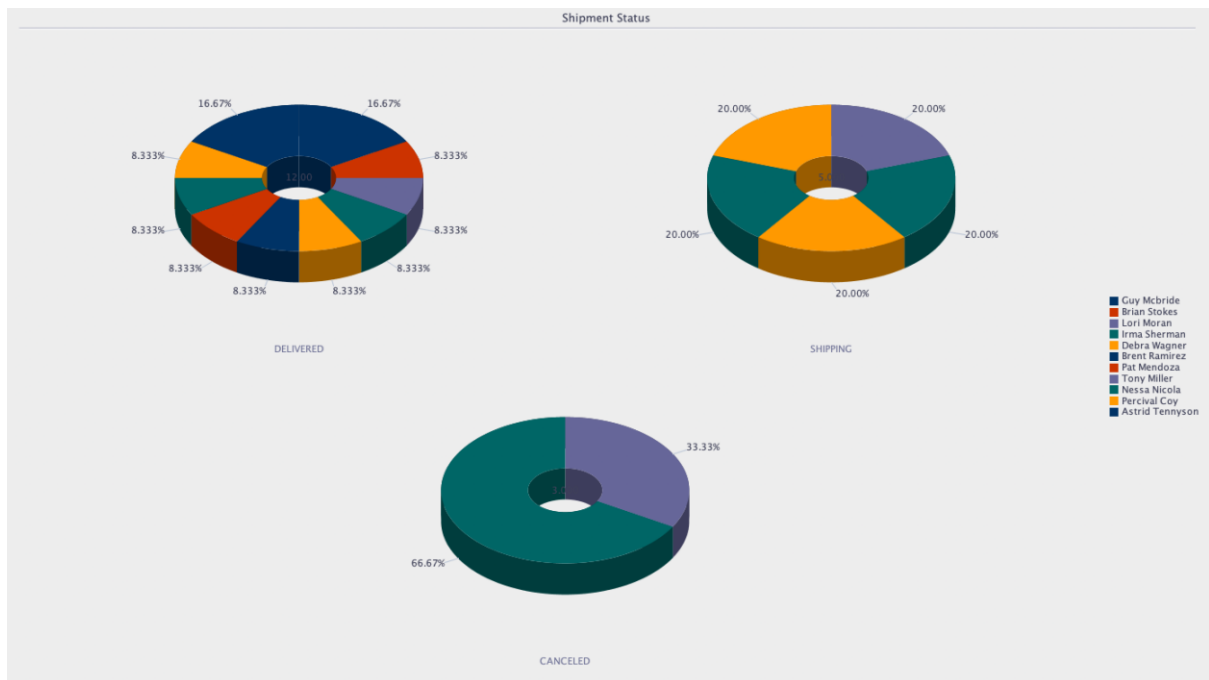
Fig: Items sold by sellers

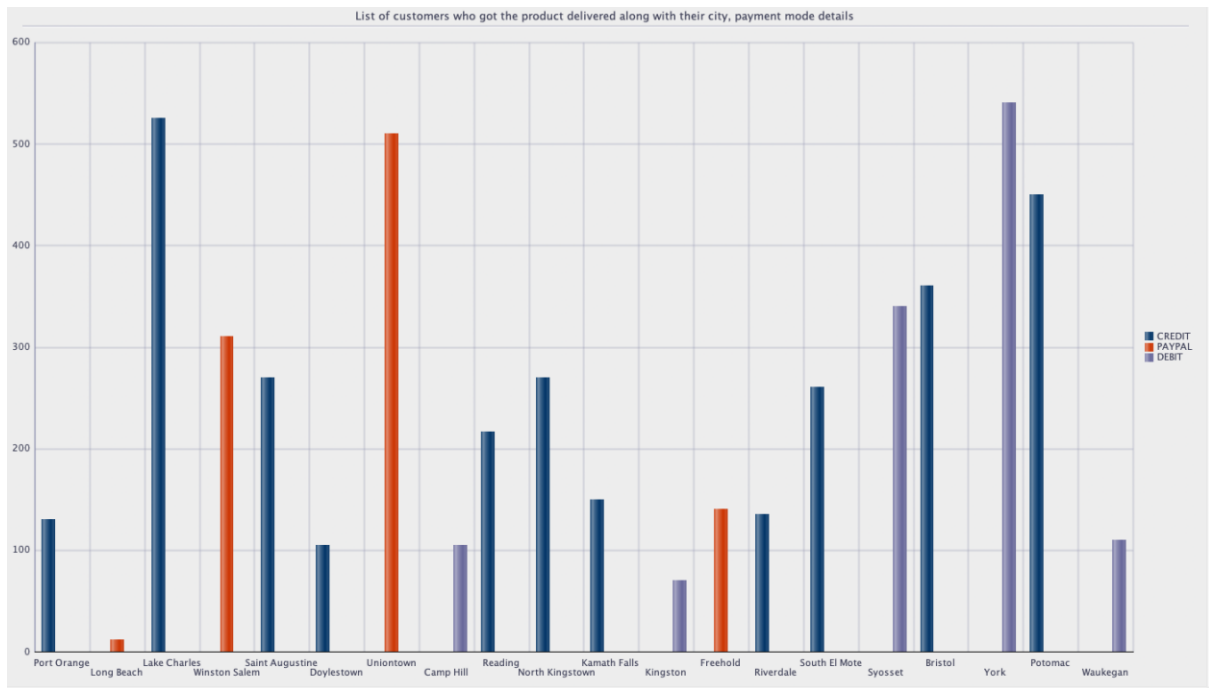**Fig: Shipment status – Delivered, Shipping, and Cancelled**

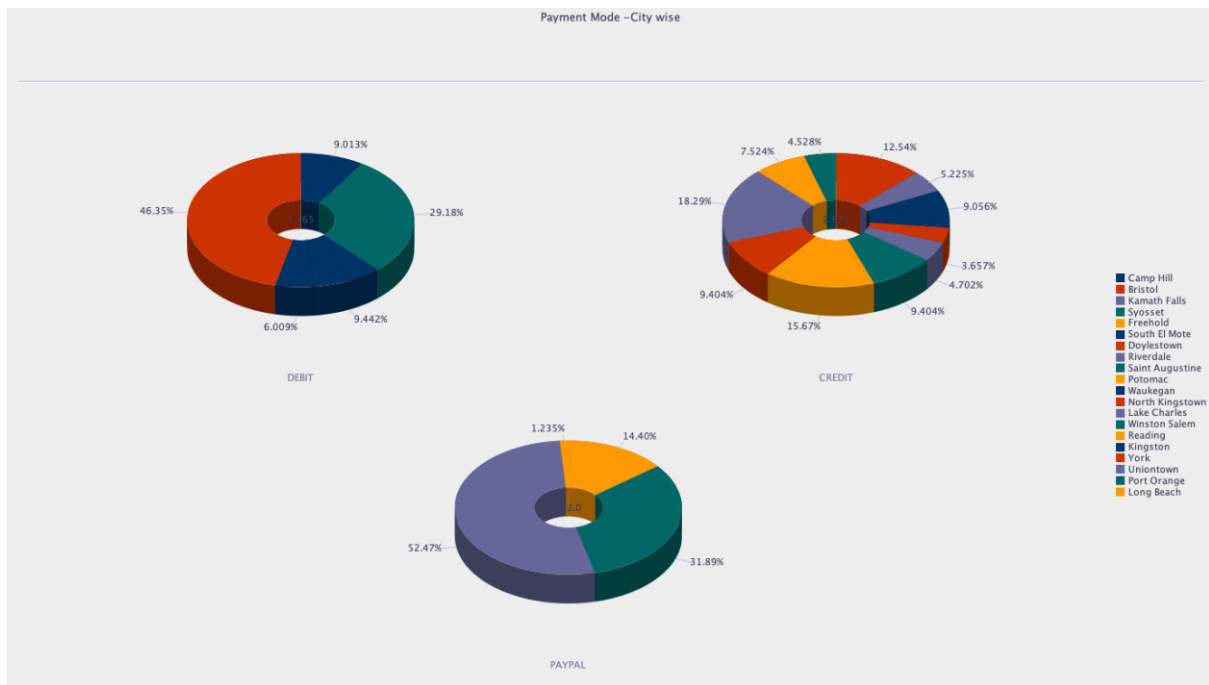**Fig: List of customers who got their product delivered along with their city and payment mode details**

Fig: Payment Mode city-wise