Capstone Project: -

Online Pantry

Simplilearn PG-BA April 2022 Cohort 1

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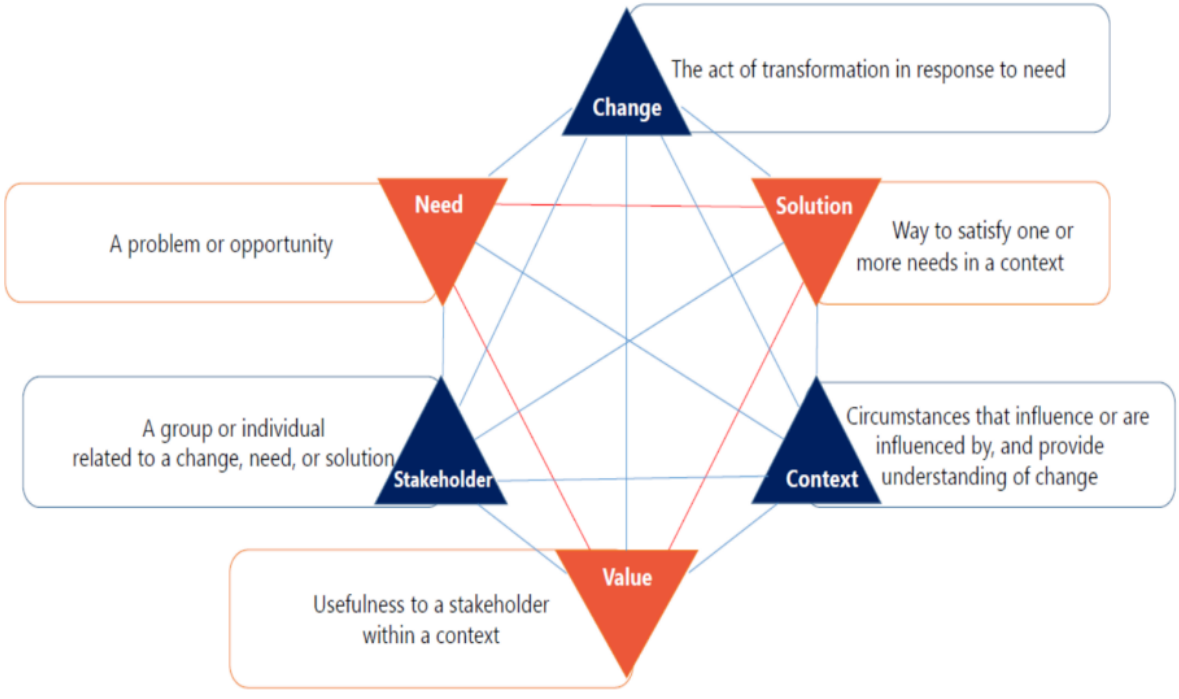
Overview and Summary:

ABC Company is the world's leading online e-commerce company. They started by selling books and now have a presence across the world selling more than 6 million items globally.

Most of the products that dominate ABC Company's sales are non-essential products like fashion products, electronic gadgets, mobile phones, beauty products, books and home furnishings. But ABC Company has realized that every household will need daily essential products like cereals, snacks, beverages, cleaning products, grooming products and so on. ABC Company is seeing a huge market globally in Daily Essential Products and wants to venture into this side of business.

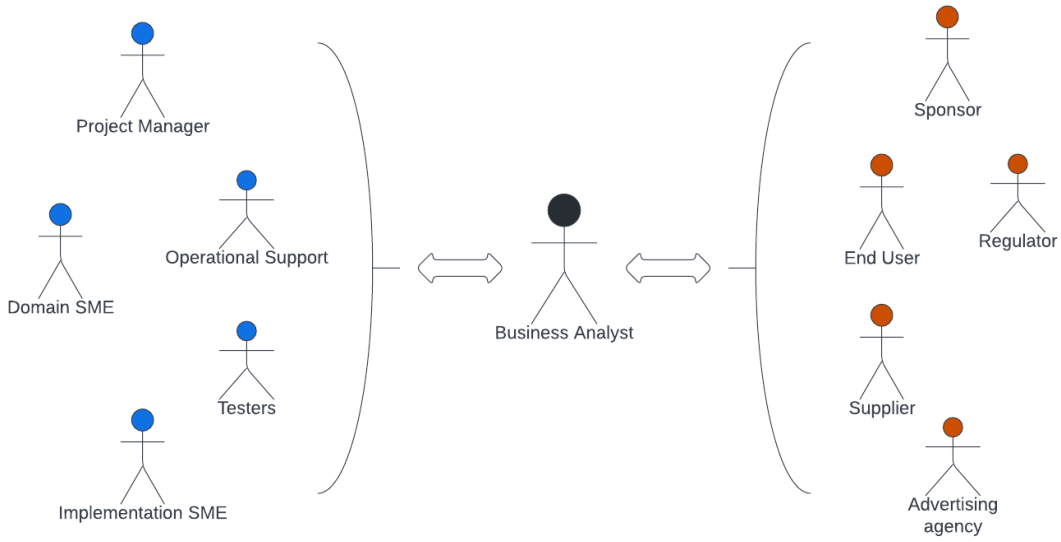
ABC Company decided to create a new feature known as ABC Pantry which would sell daily essential products. This would be an additional enhancement in the current website/app. This would be ABC Company's foray into daily essential products which are regular consumption products and would lead to repeat sales every month.

Business Analysis Core Concept Model (BACCM):



Need:	It is the opportunity to sell Essential Products along with non-essential products which ABC company is already selling.
Change:	Fully categorized essential products on the website/app enabling users to choose from variety of products available on website.
Solution:	Development of new option in current Website/App allowing users to place orders for Essential Products.
Value:	It will bring Business value, customer value to the business by attracting more customers and increasing the sales by existing customers who already trust the business model of ABC company.
Context:	Advancement of technology and growing need of essential products in e-commerce market triggered the need to develop such solution into ABC company's existing model.

Stakeholders:



Stakeholders List:

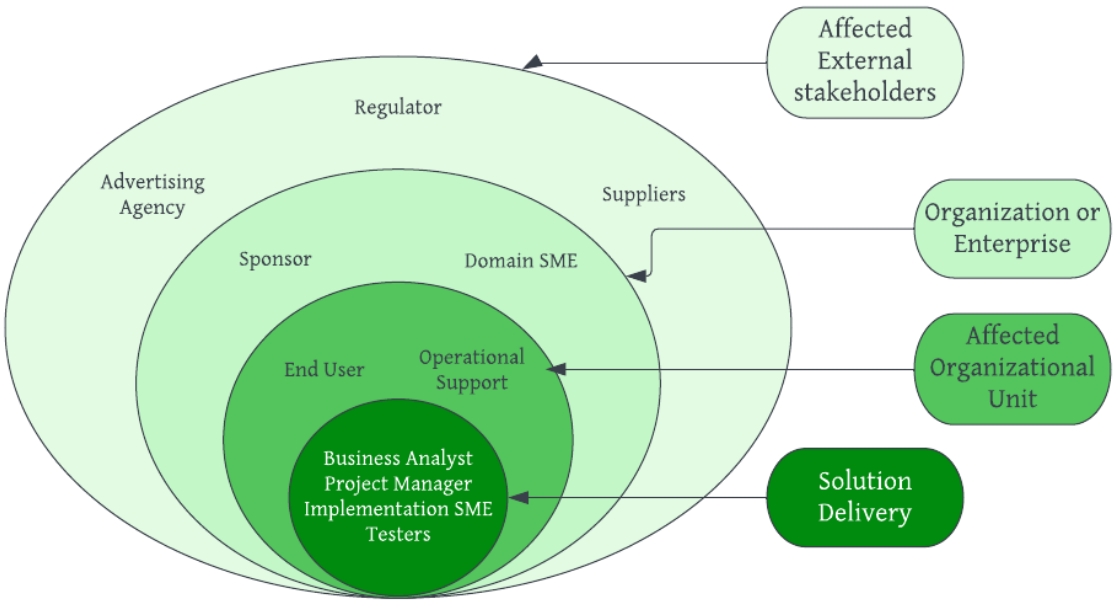
Project Manager:	Will ensure that project is properly worked upon and team has all the resources available to fulfil the project. He also ensures that team gets timely support, any roadblocks are removed and is solely responsible for whole project.
Domain SME:	Will help with complete knowledge of e-commerce domain in order to help the team for proper development of new option on the website/app.
Implementation SME: Developers	Coders/developers who will help in building new option on the website for essential products by fulfilling other requirements as stated by the ABC company.
Operational Support:	Expert who will support and provide any operational challenge faced by the project team.
Testers: QA	Will test the new functionality on the website by ensuring all qualitative parameters are met and find all associated risks or challenges in order to minimize the same allowing the user to place order conveniently.

Sponsor:	Responsible for all budget needs for project team and governing authority who will authorize all new changes in the new option.
End user:	End user will be the customer who will eventually use the developed function for daily use order placement of essential products.
Regulator:	Will ensure that all listed products are as per the government standards and no expired/unauthorized product is listed for selling purpose.
Supplier:	Will be the one who will maintain the inventory of essential products so as to fulfil the demand once order is placed by customer.
Advertising Agency:	Advertising agency who will be providing relevant ads in order to maximize advertising revenue.

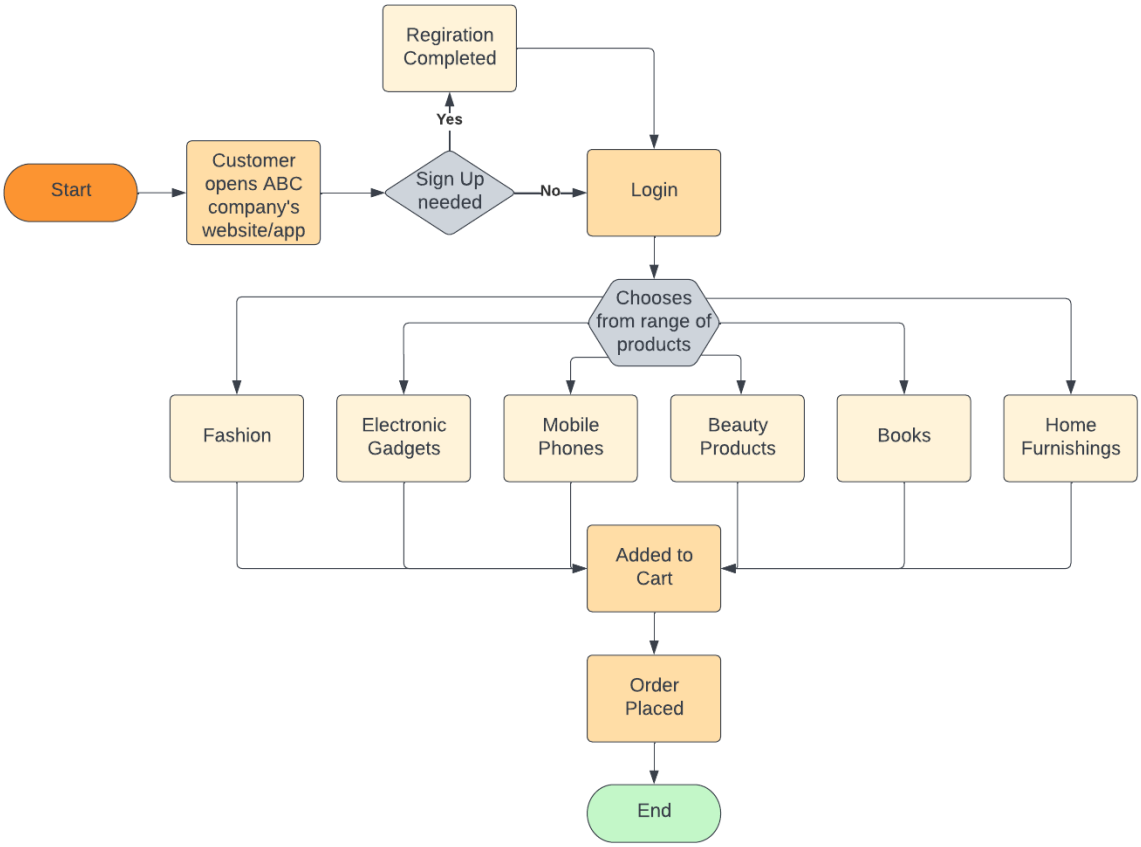
RACI Matrix:

Role	Responsible	Accountable	Consulted	Informed
Project Manager:		A		
Domain SME:			C	
Implementation SME: Developers	R			
Operational Support:	R			I
Testers: QA			C	
Sponsor:			C	I
End user:				I
Regulator:			C	
Supplier:				I
Advertising Agency:				I
Business Analyst:	R			

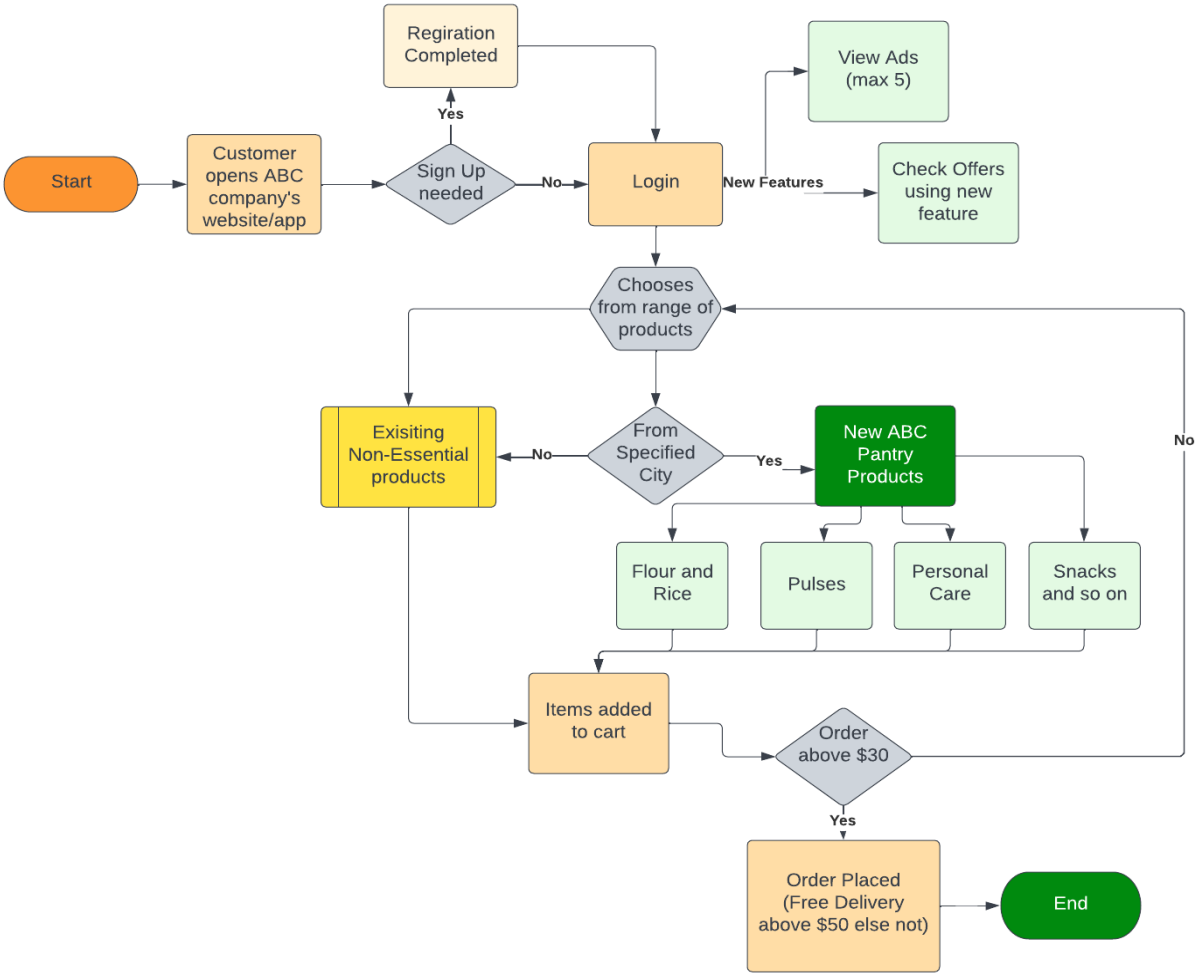
Onion Diagram:



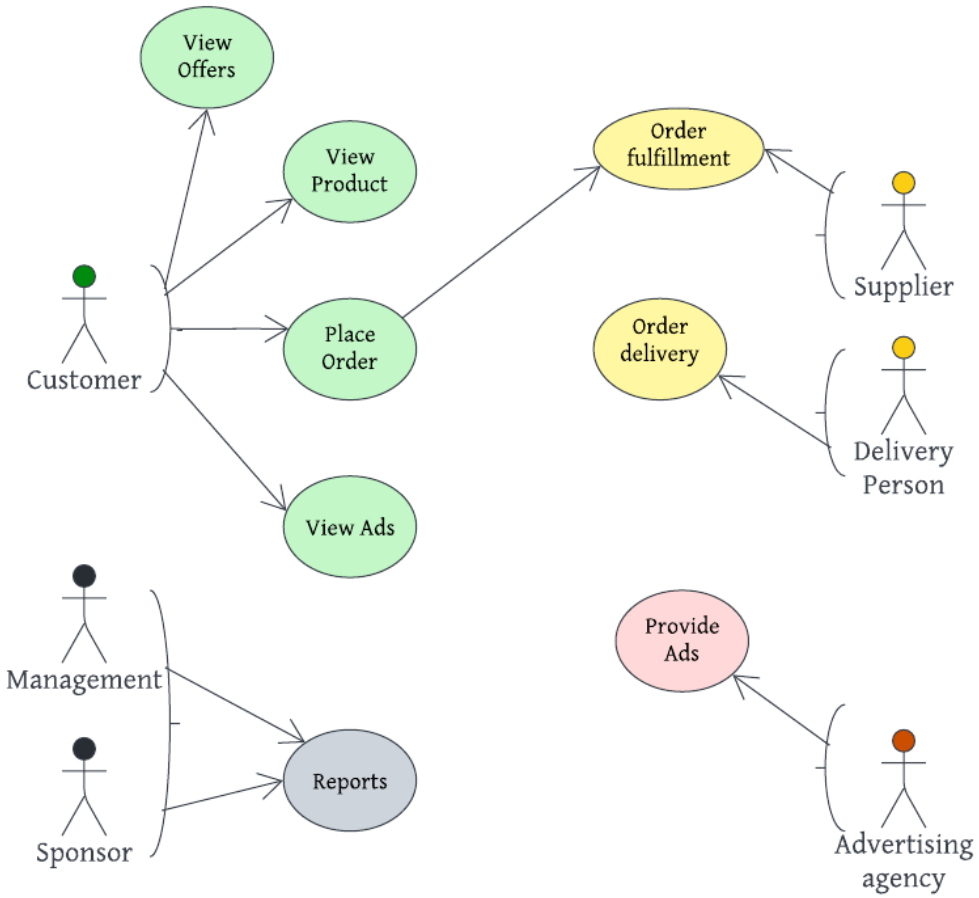
Current As-Is State:



Future State:



Scope of the ABS Pantry system using UML Diagram:



In-Scope & Out-of-Scope Items:

In-Scope
• Capability to add products from both essential and non-essential category into the cart. • Free delivery when order exceeds $50. • Not able to place order if order amount is below $30. • Introduction of new feature in certain cities only. • Feature to view selective offers for the customers. • Advertisements in the ABC pantry's feature to generate advertisement revenue. • Availability of categorized products so as to choose from variety of items. • Flexibility to use the new feature on desktop/mobile via website/app without any constraint. • No separate login is needed for this feature.

Out-of-Scope
• No information/update for customer beyond selected cities. • No feature to cancel/return/refuse the order once placed. • No information about type of payment method accepted by ABC Pantry items. • No feature to turn of advertisement if customer requests for the same. • No feature to subscribe or repeat the order automatically for daily use items on monthly/quarterly/annual basis.

Requirements Classification Schema:

Business Requirements:

It is to create a new feature known as ABC Pantry which would sell daily essential products. This would be an additional enhancement in the current website/app. This would enhance ABC company's business into essential products which are regular consumption products and would lead to repeat sales every month.

Stakeholder Requirements:

- Feature should be called ABC Pantry and should have range of products which are logically categorized/grouped.
- ABC Pantry should include advertisements which are not too intrusive.
- Separate feature to include selective offers for the customers depending on the purchasing style.
- Customer should be able to add products into cart along with non-essential products.
- Customer should not be able to place order for amount less than 30 USD and Free shipping only available when order exceeds 50 USD.
- Feature should show the products as available in the selected cities where this new feature will be launched initially. Those cities are listed below:
    - Chicago
    - New York
    - Seattle
    - Washington
    - Kansas City
    - San Jose
    - Dallas
    - Miami
    - New Orleans
    - Phoenix
    - Jersey City
    - Madison
- Management needs certain reports at the end of the day such as.
    - Total sales for each day
    - Total sales for each product category as mentioned in point four.
    - Total sales across USA
    - Total sales for each city.
    - Total sales for each zone that city falls into (that is, zone 1, 2, 3, and 4)
    - Identify best-selling categories
    - Identify the worst-selling categories
    - Total sales of each week city wise.

Functional Requirements:

- New feature to display properly on the existing website/app.
- This feature should open up range of categories of products.

- Logical grouping of products to be displayed efficiently. The following Categories should be included.
    - Flour and rice
    - Sugar, salt and spices
    - Pulses
    - Personal care
    - Snacks
    - Hand wash and sanitizers
    - Household cleaning essentials
    - Breakfast food items
    - Tea and Coffee
    - Baby care
    - Female hygiene
    - Tissues and fresheners
- Should display at most 5 advertisements in designated area on the website/app.
- Should include the option for special offers which can be clicked by the customer/end user so as to watch selective offers based on account.
- Should include the functionality to add products from essential and non-essential category.
- Should limit the user to place order below 30 USD.
- Should automatically offer Free delivery when order amount exceeds $50.
- This feature should not be displayed in cities which are not defined by stakeholders.
- Sales from ABC Pantry should be properly stored so as to generate day end reports as specified by stakeholders.

Non-Functional Requirements:

Scalable: Should be scalable feature so as to handle more no. of users once introduces in other cities.

Usability: Should be self-explanatory and easy to use.

Maintainable: Should be easy to maintain in the event of any outage or technical issue.

Compatibility: Should be compatible on desktop/mobile irrespective of the device used (Android/iPhone/Windows/Mac).

Extensibility: ABC Pantry feature should be extensible and allow the ABC company to introduce more features when needed.

Transition Requirements:

- Proper advertisement of the new feature to let the customers know about new functionality provided by the company in selected cities.
- Maintaining and introducing proper infrastructure so as to ship the essential products without causing any damage to the same.
- Proper guidelines for delivery persons when handling orders of essential products.

Wireframes:

1. New feature of ABC Pantry being introduced on existing website.

2. Website showing new categories along with 5 advertisements in ABC pantry feature.

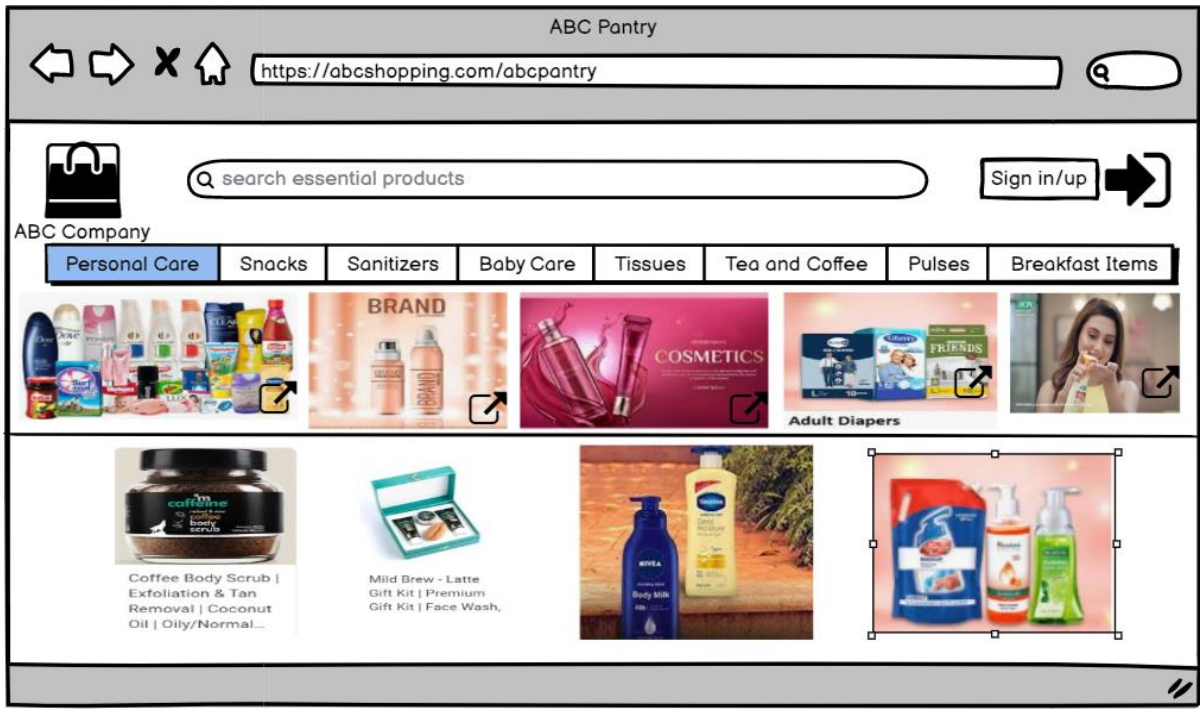
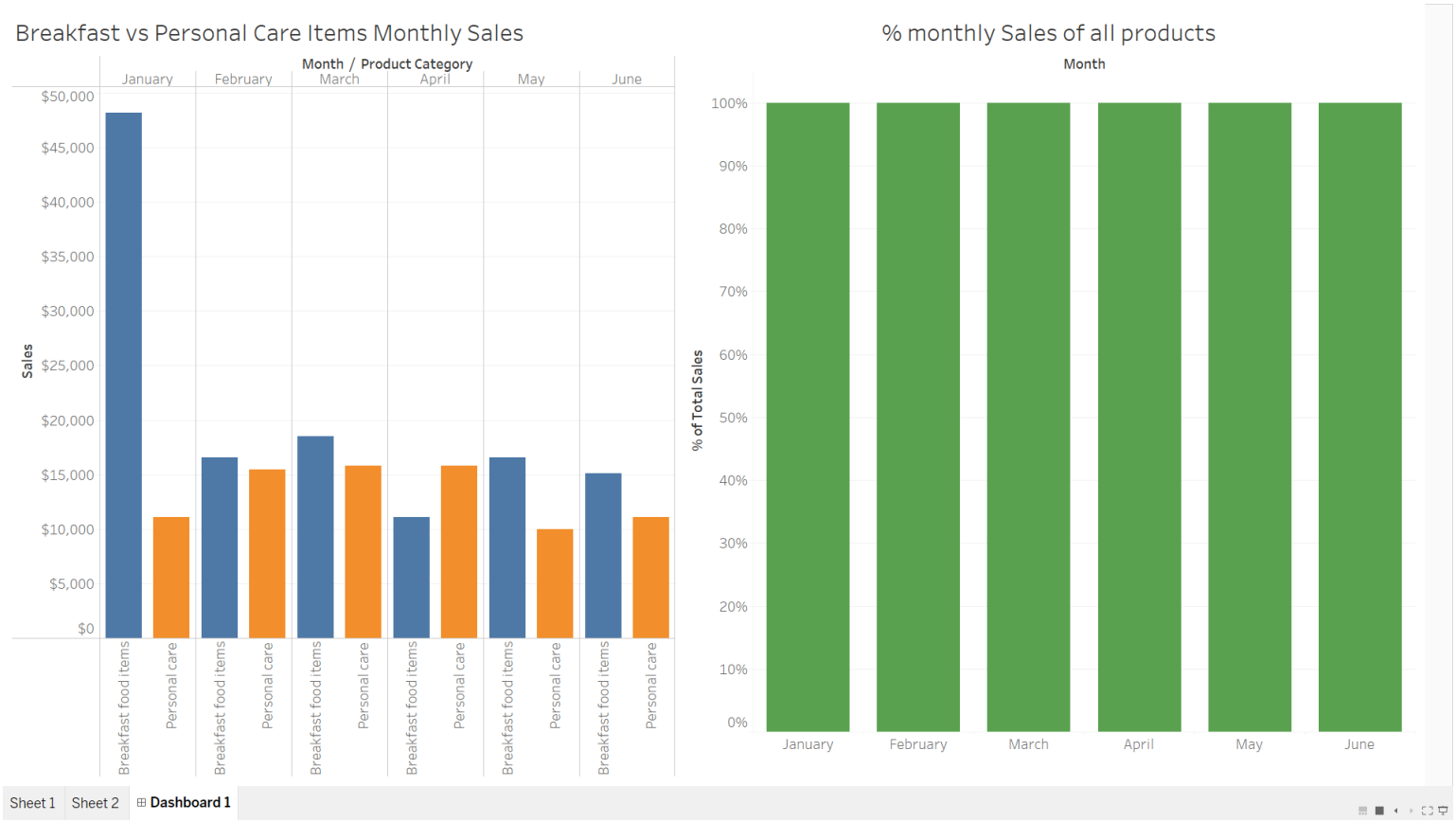
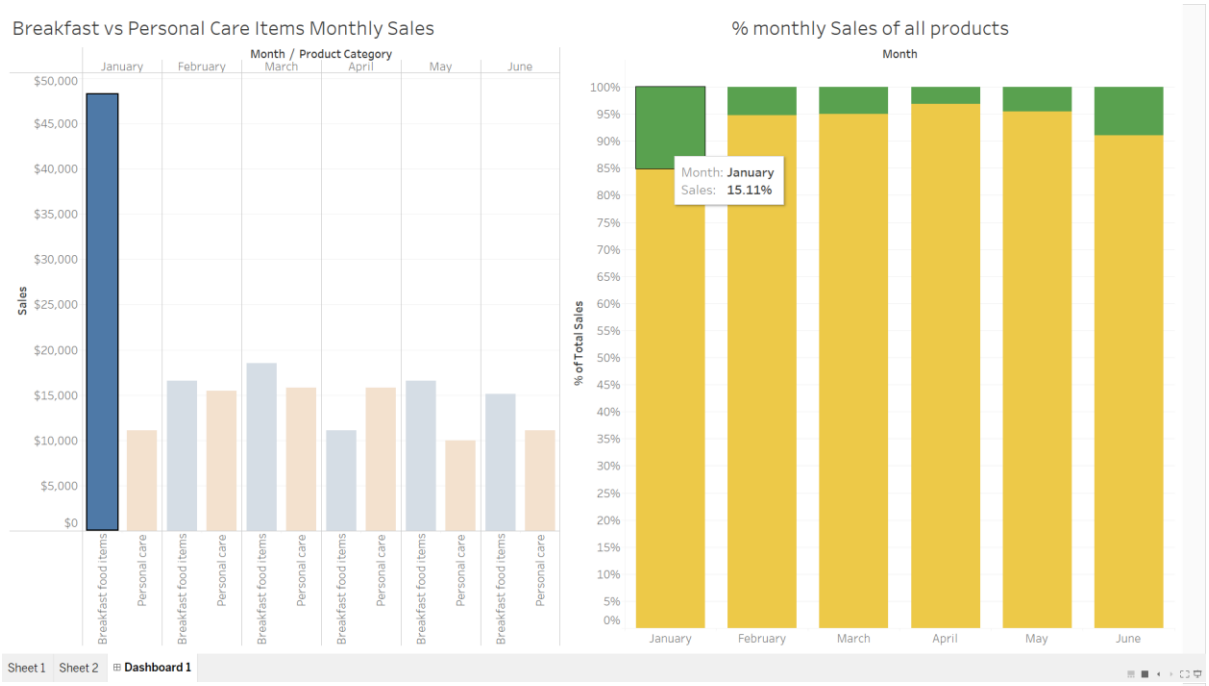


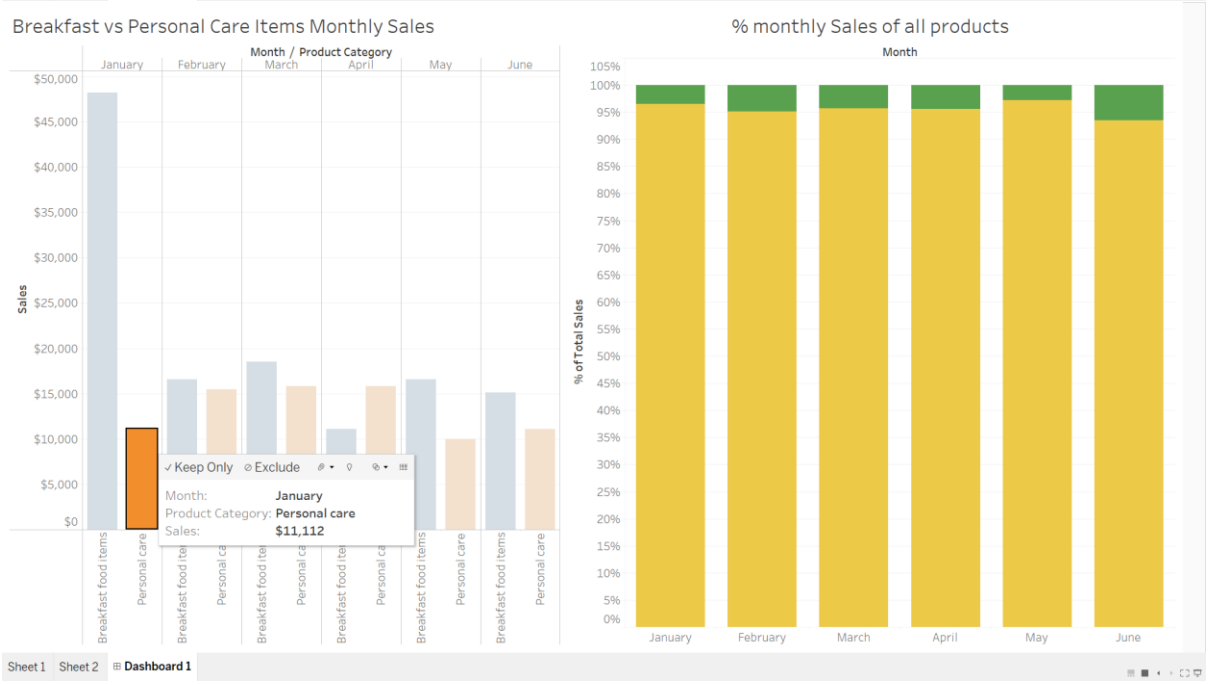
Tableau Task:

1. To Create a dashboard for senior management for Chicago to view sales of personal care products for the last 6 months.
2. To Create a dashboard to show Senior Management for Chicago to view sales of breakfast products for the last six months

***No Assumptions were made**



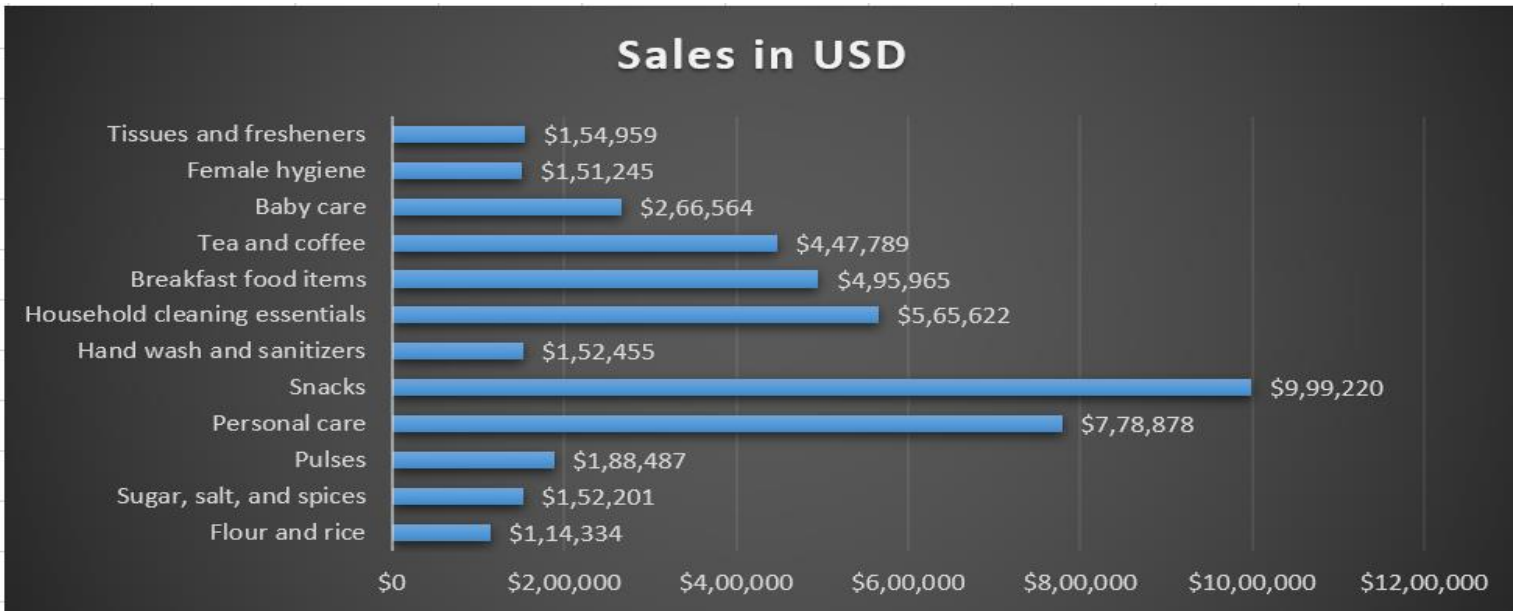

Breakfast vs Personal Care Items Monthly Sales
Month / Product Category
January
February
March
April
May
June
Sales
$50,000
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
Breakfast food items
Personal care
% monthly Sales of all products
Month
% of Total Sales
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Month: January
Sales: 15.11%
Sheet 1
Sheet 2
Dashboard 1


Breakfast vs Personal Care Items Monthly Sales
Month / Product Category
January
February
March
April
May
June
Sales
$50,000
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
Keep Only
Exclude
Month: January
Product Category: Personal care
Sales: $11,112
Breakfast food items
Personal care
% monthly Sales of all products
Month
% of Total Sales
105%
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Sheet 1
Sheet 2
Dashboard 1

Excel Task:

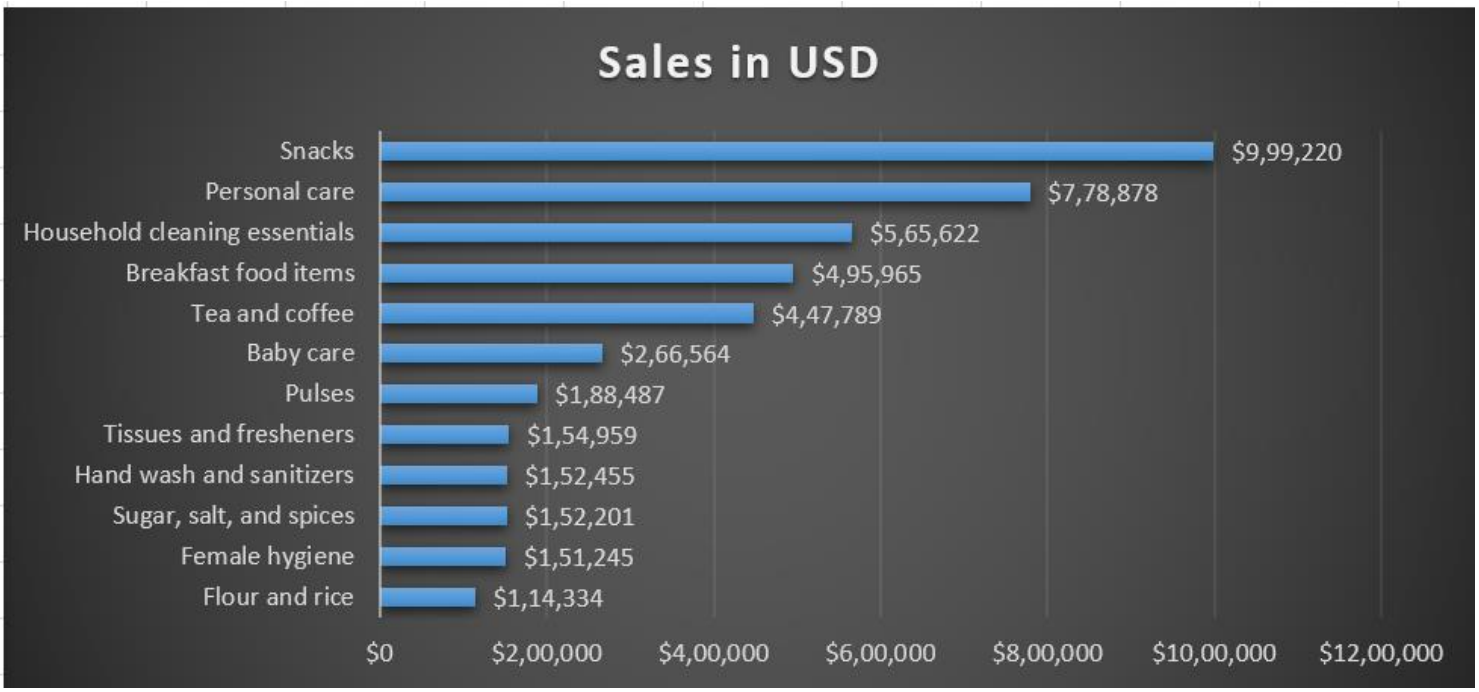
Question 1:

Create a bar graph showing the sales. Label the chart correctly so that senior management gets a clear report of sales.



Arrange the data above in excel in ascending and descending order.

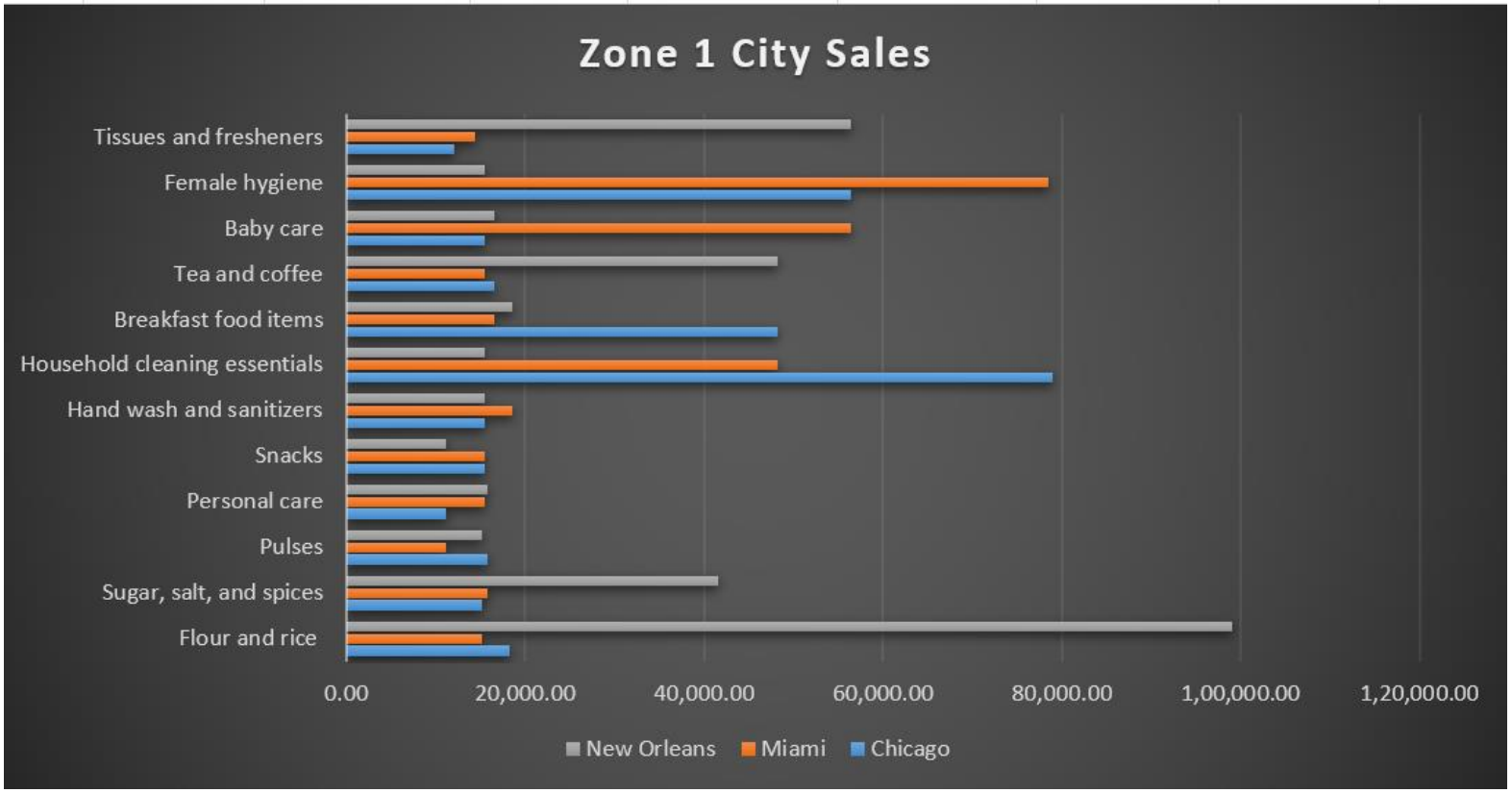
Descending Order:



Ascending Order:

Question 2.

Create bar graphs of sales for zone 1 cities



Find total sales across all cities

	Sales Across various Cities												
Product Categories	Chicago	New York	Seattle	Washingto n	Kansas City	San Jose	Dallas	Miami	New Orleans	Phoenix	Jersey City	Madison	Total Sales
Flour and rice	18,225	15,184	15,899	1,500	71,111	7,889	7,895	15,184	98,984	78,999	11,112	10,000	3,51,982
Sugar, salt, and spices	15,184	15,845	7,899	1,622	15,151	15,184	45,621	15,845	41,545	45,545	10,000	20,000	2,49,441
Pulses	15,845	11,112	9,852	15,184	4,848	15,845	12,500	11,112	15,184	15,184	10,000	15,000	1,51,666
Personal care	11,112	10,000	9,624	15,845	10,000	11,112	15,242	15,455	15,845	15,845	20,000	15,184	1,65,264
Snacks	15,455	20,000	15,184	11,112	20,000	10,000	1,566	15,454	11,112	11,112	15,000	15,845	1,61,840
Hand wash and sanitizers	15,454	15,000	15,845	1,588	1,511	20,000	18,562	18,498	15,455	1,544	15,544	11,112	1,50,113
Household cleaning essentials	78,888	45,454	78,445	16,895	1,515	15,000	7,899	48,211	15,454	10,000	4,518	1,578	3,23,857
Breakfast food items	48,211	71,111	10,000	7,826	1,515	15,151	15,184	16,595	18,498	20,000	15,184	1,588	2,40,863
Tea and coffee	16,595	15,151	20,000	4,562	4,554	44,544	15,845	15,487	48,211	15,000	15,845	1,879	2,17,673
Baby care	15,487	11,111	15,000	4,552	15,184	1,515	11,112	56,451	16,595	10,000	11,112	1,233	1,69,352
Female hygiene	56,451	1,452	1,589	1,262	15,845	5,655	7,878	78,451	15,487	20,000	15,789	1,511	2,21,370
Tissues and fresheners	12,121	1,515	1,899	7,899	11,112	8,985	78,787	14,414	56,451	1,511	35,000	10,001	2,39,695
Total Sales	3,19,028	2,32,935	2,01,236	89,847	1,72,346	1,70,880	2,38,091	3,21,157	3,68,821	2,44,740	1,79,104	1,04,931	26,43,116

Total Sales Across All Cities:	26,43,116

Question 3

Using vlookup for product code HS, find sales in Phoenix

Using vlookup for product code FR, find sales in Dallas

	Product Code	City	Sales	Formula Used
19	HS	Phoenix	1,544.00	VLOOKUP(A19,$B$2:$N$14,11)
20	FR	Dallas	7,895.00	VLOOKUP(A20,$B$2:$N$14,8)
21				

The End