

PG BA – Capstone Project

Restaurant Management System



Annapoorani

Parameswaran



PGP BA FEB 2021

Cohort 1

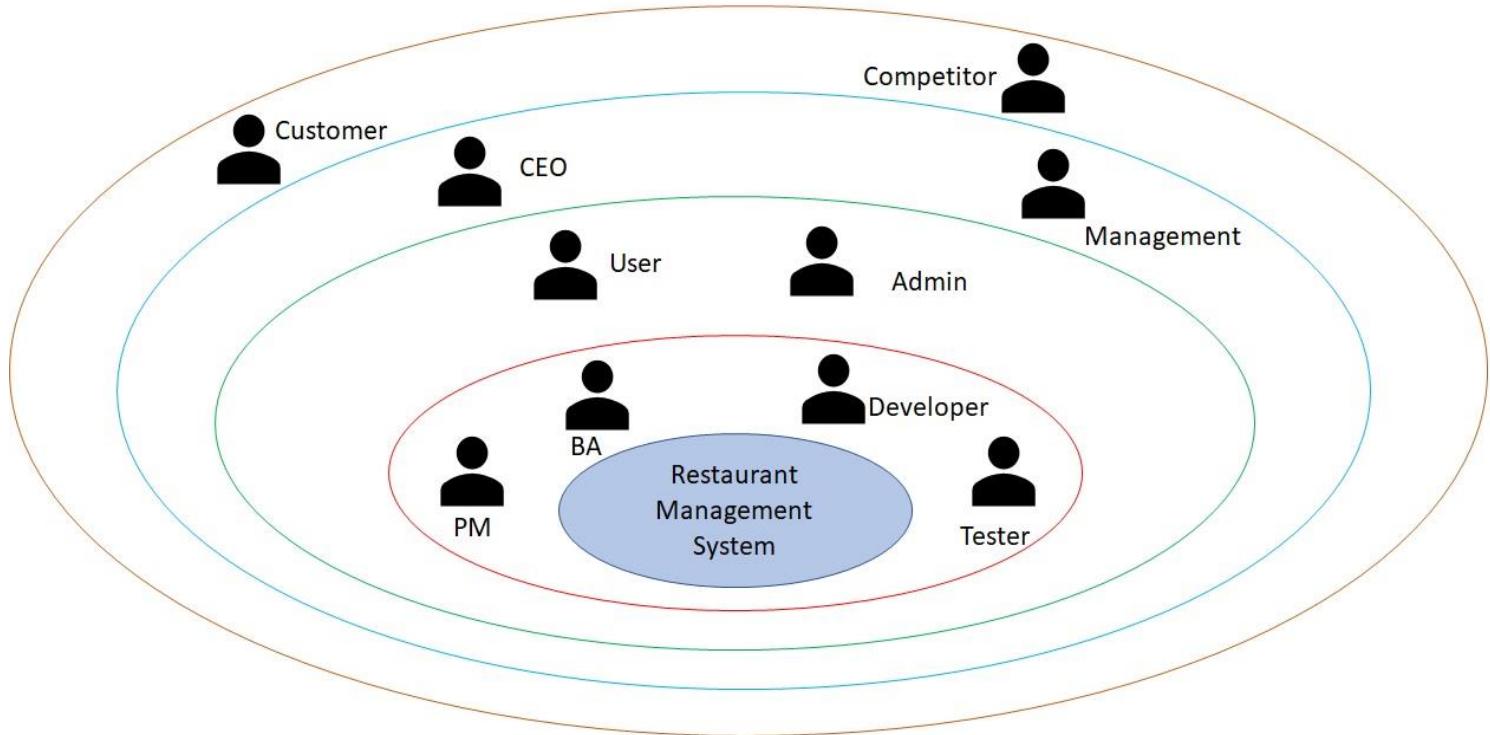
Project Task: Week 1 and Week 2 (This is on the Business Analysis concepts taught)

1. Identifying Stakeholders – Create a list of Stakeholders (as taught in Business Analysis Planning and Monitoring Knowledge Area)

The list of stakeholders is.

- James Oliver (CEO)
- Customer
- Waiter
- Restaurant Manager
- Business Analyst
- Developer
- Tester
- Project Manager

Stakeholder Onion Diagram James Oliver – The Grill House



ACTOR	What they can do on the software created
CEO	<p>The CEO must be able to login into the Restaurant Management. A forgot password link and a registration link must be provided. The CEO must be able to view reports and the feedback form.</p> <p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • The CEO must be able to login into the system. • The change password facility must be provided. • The CEO must be able to access the reports such as total sales of the day based on different subcategory such as dine-in, home delivery and the total sales across cities. • He would also view the feedback form filled by the customers. This feedback form in paper format will be manually filled by the manager into the system.
Customer	<p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • Customers can pay by cash or card. • There should be a payment gateway on the system. • The customers should be able to fill the feedback form.
Waiter	<p>The waiter must be able to login into the Restaurant Management. A forgot password link and a registration link must be provided.</p> <p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • The waiter must be able to login into the system. • The change password facility must be provided. • Waiters should be able to search items in the menu using the search facility. • Waiters shall use the system for generating the bill table wise. Every bill shall be tagged to the waiter generating it and the table number. Waiters cannot edit the menu. • Waiters shall use the system only to generate bills. • The waiters shall not seat anyone on the tables reserved. The waiters shall investigate the software to determine which tables need to be reserved. • The table layout for the waiter's is to be stored in the system.
Restaurant Manager	<p>The Restaurant Manager should play the role of a admin. The manager should be able to create, edit, delete, and search a menu/item. The manager must be able to login into the Restaurant Management. A forgot password link and a registration link must be provided.</p> <p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • The Restaurant manager must be able to login into the system. • The change password facility must be provided. • The manager should be able to create and edit menus.

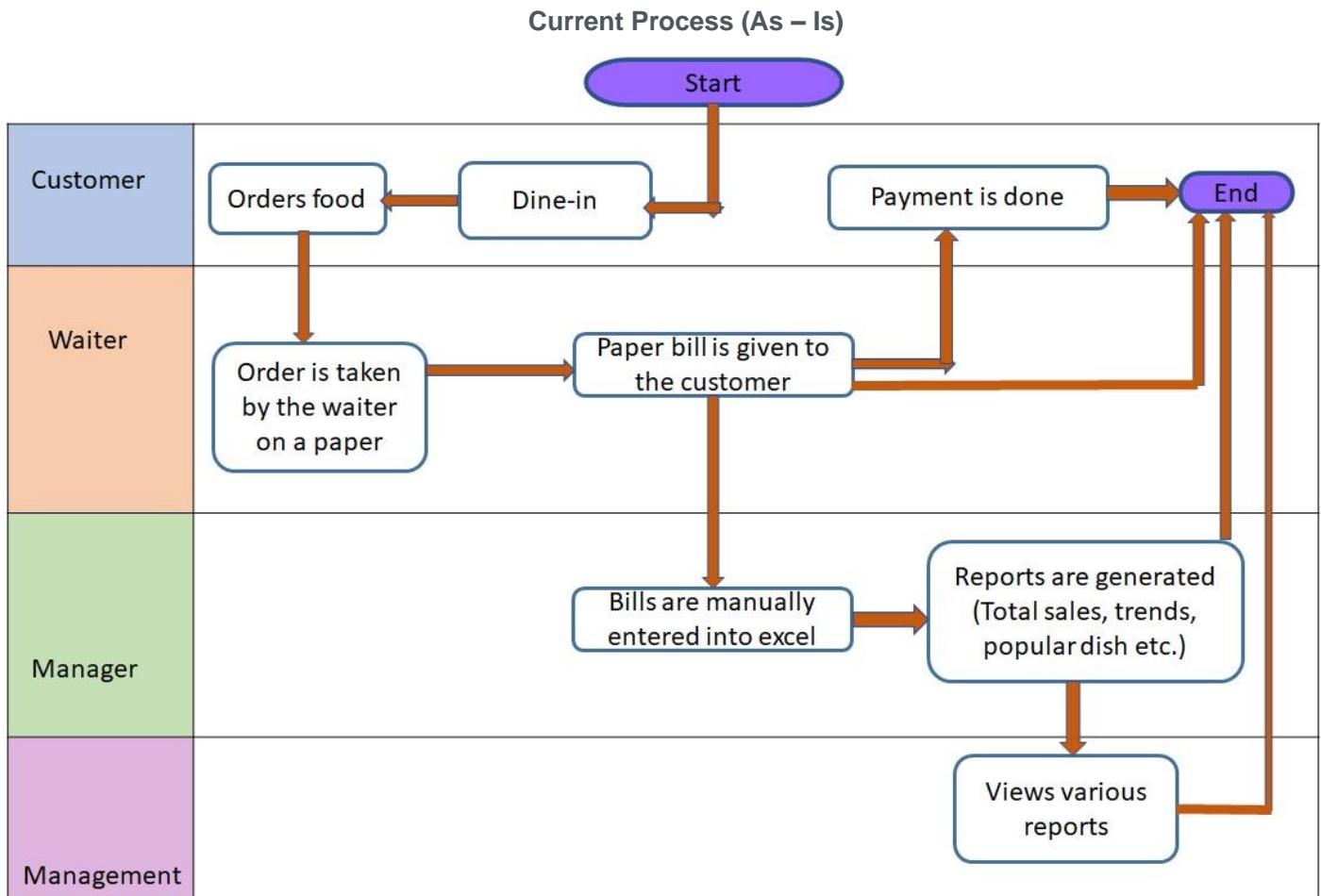
	<ul style="list-style-type: none"> • They should be able to add new items, delete existing items, as well as create new menus from scratch. • The manager should be able to search items in the menu using the search facility. • The managers should only be able to make reservations. • The manager should get the feedback form filled by the customers. This form shall capture details like name, address, mobile number, email, date of birth, anniversary dates of the customers, and their feedback. • The manager should add the details from the feedback manually into the system.
Business Analyst	<p>The business analyst must be a liaison with the development team comprising the developer, tester/QA and the project manager and the stakeholders such as CEO, restaurant manager and the waiter.</p> <p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • The BA must act as the scrum master and co-ordinate with the team to ensure incremental project delivery. • The BA must be a good communicator and ensure everyone is contributing to the shared common goal.
Developer	<p>The developer must ensure certain stipulated criteria for the system which is the core element of the Restaurant management system.</p> <p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • The developer must create a system that creates a menu. • The menu should be categorized into the following sections such as starters, soups, main course, desserts, and drinks. • Each item should be saved in the system along with its price. • The system must generate the bill table wise.
Tester/QA	<p>The tester must ensure there are no bugs in the portal. The system should allow the user based on the role and profile. For E.g. A CEO and management must be able to view several reports.</p>
Project Manager	<p>The project manager must be a liaison with the development team comprising the developer, tester/QA, and the stakeholders such as CEO, restaurant manager and the waiter.</p> <p><u>Detailed Acceptance Criteria</u></p> <ul style="list-style-type: none"> • The project manager must co-ordinate with the team to ensure incremental project delivery. • The PM must be a good communicator and ensure everyone is contributing to the shared common goal.

RACI Matrix

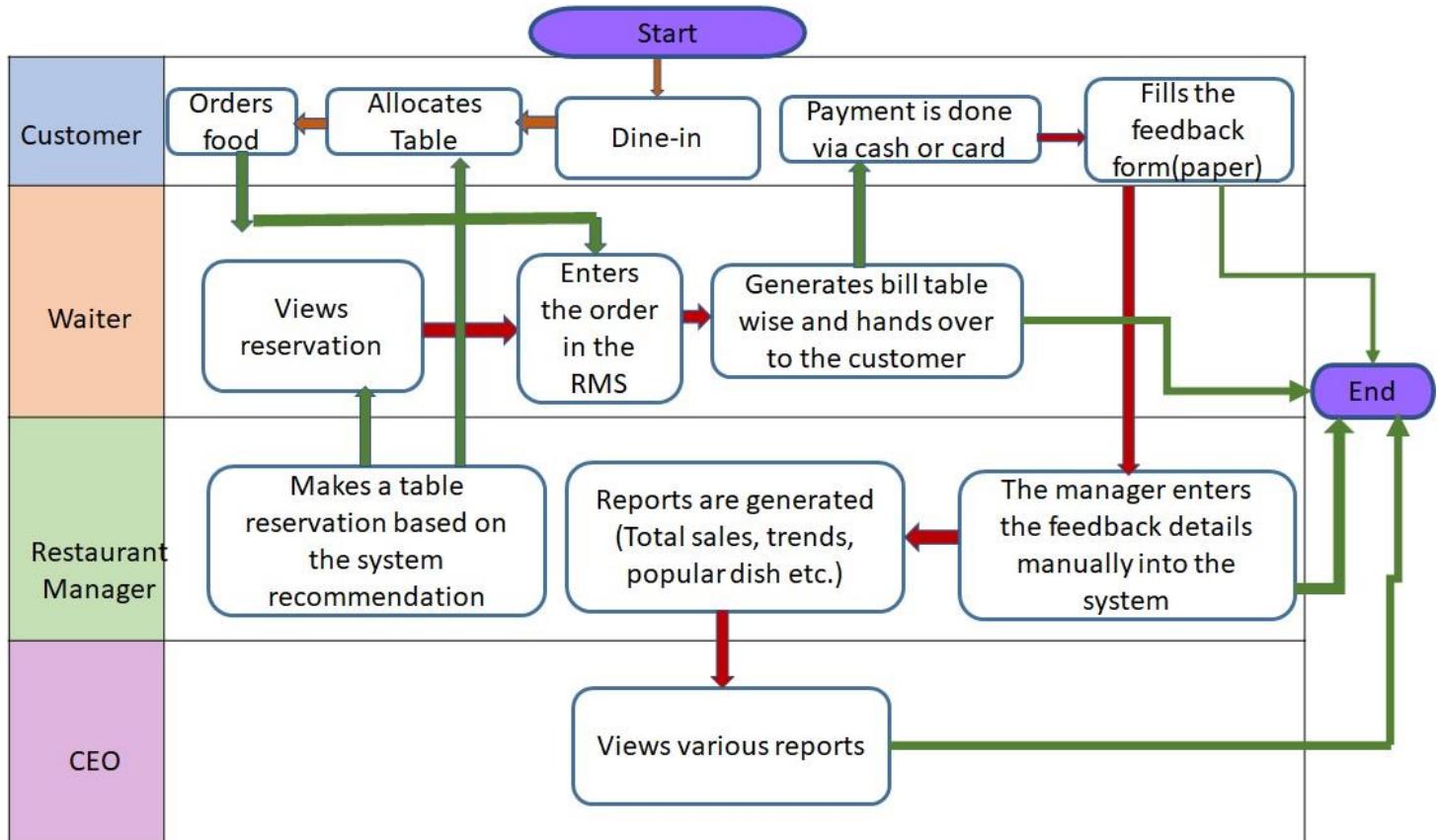
R - Responsible A – Accountable C – Consulted I – Informed

Project Tasks	BA	Developer	Tester/QA	Project Manager	CEO	Restaurant Manager	Waiter	Customer
Project kick off/ sign off	I	I	I	R	C	I	I	I
Gap Analysis	R	I	I	A	I	I	I	C
Requirement Analysis	R	C	C	A	I	I	I	I
Solution Design	R	R	C	A	I	I	I	I
Software Development	C	R	R	A	I	I	I	I
User Testing	C	C	R	A	I	I	I	I
Go-Live	C	R	R	A	C	I	I	I
Postproduction Support	C	R	R	A	I	I	I	I

2. Create As-Is and Future Process map (using flowcharts). You can use any of the popular tools in the market like Microsoft Visio, Lucid chart, Creately, Pidoco, or Balsamiq



Future Process Map



3. As a Business Analyst working on this project, find out the scope of the Restaurant Management Software. Write down the main features that need to be developed.

Main-Features

- System should be able to create a menu. The menu should be categorized into following sections such as starters, soups, main course, desserts, and drink.
- Every item in the menu stored should be categorized into any one of the above heads. Each item should be saved in the system along with its price. For example, Green Thai Curry - price \$12, Pasta – \$10 and so on. This menu should be created and edited by the managers only. They should be able to add new items, delete existing items, as well as create new menus from scratch.
- Waiters and managers should be able to search items in the menu using the search facility.
- Every waiter and manager should have access to the software. Waiters shall use this system for generating the bill table wise. Every bill shall be tagged to the waiter generating it and the table number. Waiters cannot edit the menu.
- Waiters shall use the system only to generate bills.

- The system should be able to reserve tables. This reservation would be done by managers *only*. The waiters shall not seat anyone on the tables reserved. The waiters shall investigate the software to determine which tables need to be reserved. The table layout is to be stored in the system.
- Management wants certain reports at the end of the day. Please give the report formats for the following reports:
 - Total sales of the day by dine in customers.
 - Total sales of the day by home delivery customers
 - Total sales of the day (home delivery and dine in customers consolidated)
 - Name the top 10 most sold dishes for the day.
 - Total sales every weekend (to be done by inputting the dates)
 - Total sales every month (to be done by inputting the dates)
 - List of dishes not sold in the current month (this is to phase out dishes that customers are not ordering)
 - Total sales across all cities
 - Total sales for each city
- Login for waiters, managers, and James Oliver (CEO). *Change password* facility to be offered.
- Customers can pay by cash or card. There should be a payment gateway on the system.
- System should be able to generate the bill.
- James Oliver would like a feedback form (paper) to be given to every customer. These details shall be added by the manager manually into the system.

4. Write the in-scope and out-of-scope items for this software.

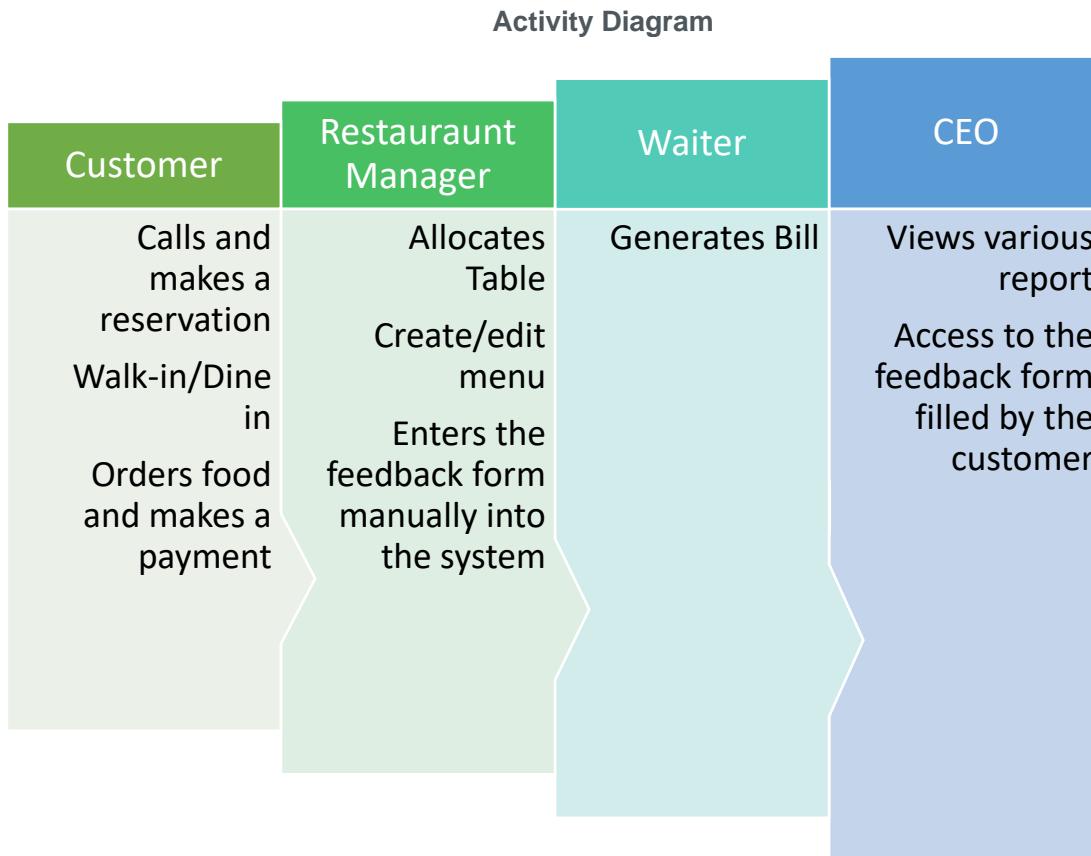
In-scope

- The primary goal to have the restaurant management system running is high internet connectivity and cloud access. The cloud operation eases the use of memory space and faster access.
- All the data will be stored in the database allowing easy retrieval, storage, and usage.
- The payment gateway will be faster and secure.
- The feedback form will be manually entered into the system by the manager.
- The CEO will have access to different reports and feedback form.
- All the strategic implementations will be based on the feedback by the customers.
- The restaurant manager will be able to maintain both the inventory and the menus. Based on the inventory available, he will be able to create, edit and modify menus.
- All the menus will be based on the following subcategory such as starter, soup, main course, dessert, and drinks.
- The grill house is a chain of restaurants hence all the restaurants will be networked based on the locations.
- The Table reservations will be strictly managed by the restaurant manager only.
- The CEO should be able to view his dashboard with the following data, charts or trends of various sales report, feedback form and other reports.
- The system would recognize different types of users such as manager, waiter, customer, or admin.
- We will be creating and maintaining the program in Java. We chose Java because it will not change much over time, and if we make it well, there will be very little maintenance to be done on the code.
- The menu will be created and edited by the managers only. They should be able to add new items, delete existing items, as well as create new menus from scratch.

- Waiters and managers should be able to search items in the menu using the search *facility*.
- Every waiter and manager will have access to the software. Waiters will use this system for generating the bill table wise. Every bill shall be tagged to the waiter generating it and the table number. Waiters cannot edit the menu. Waiters shall use the system only to generate bills.
- The system should be able to reserve tables. This reservation would be done by managers *only*. The waiters shall not seat anyone on the tables reserved. The waiters shall investigate the software to determine which tables need to be reserved. The table layout is to be stored in the system.
- Login for different roles such as waiters, managers, and James Oliver (CEO) will be provided.
- Change password facility to be offered.
- Customers can pay by cash or card. There should be a payment gateway on the system.
- System should be able to generate the bill.
- The password policy is completed.
- All the user roles and associated tasks are mapped.
- The primary goal for the Restaurant Management System is menu order entry and bill generation.

Out-of-scope

- The staff at the kitchen must work to reduce the ETA (Expected Time of Arrival) of food.
- The RMS must also include a link for attendance, holiday request, service requests related to the software.
- If incase the customer's order food and a request pick up through door-dash, uber eats, swiggy or Zomato is initiated then all these 3rd party integrations with food vendors must be well coordinated.
- The grill house is a chain of restaurants, so all the data must be accessible across different locations.
- The RMS is currently designed for easy ordering of food and creation of menus. However, the customers are still filling up paper feedback forms. The option for the customers to fill in the feedback form electronically must be included.
- The customers must be able to view the table setting and reserve tables for themselves. This is like passengers booking their seat in a flight travel.
- The interaction after the table reservation is not mentioned. The chef must also be able to update when the food is ready so that the waiters can pick up the food and the chef must be able to view open orders.
- The management must train the staff on schedule management and inventory management and other value-added services to improve customer service, customer acquisition and retention.
- The CEO must be provided with a dashboard and visualization tools to view different charts and reports. (Power BI or Tableau)
- Audit trail of user actions is not tracked.
- All the bills are generated in USD only. It does not support other form of currencies.
- There is no Ad hoc querying of data. Only the preconfigured reports appear in the dashboard.



5. Write out the business requirements, both functional and nonfunctional requirements.

Business Requirements

- System should be able to create a menu. The menu should be categorized into following sections such as starters, soups, main course, desserts, and drink.
- Every item in the menu stored should be categorized into any one of the above heads. Each item should be saved in the system along with its price. For example, Green Thai Curry - price \$12, Pasta – \$10 and so on. This menu should be created and edited by the managers only. They should be able to add new items, delete existing items, as well as create new menus from scratch.
- System shall allow waiters and managers to search items in the menu using the search facility.
- System should allow every waiter and manager access to the software. Waiters shall use this system for generating the bill table wise. Every bill shall be tagged to the waiter generating it and the table number. Waiters cannot edit the menu.
- Waiters shall use the system only to generate bills.
- The system should be able to reserve tables. This reservation would be done by managers *only*. The waiters shall not seat anyone on the tables reserved. The waiters shall investigate the software to determine which tables need to be reserved. The table layout is to be stored in the system.
- Management wants certain reports at the end of the day. Please give the report formats for the following reports:
 - Total sales of the day by dine in customers.

- Total sales of the day by home delivery customers
- Total sales of the day (home delivery and dine in customers consolidated)
- Name the top 10 most sold dishes for the day.
- Total sales every weekend (to be done by inputting the dates)
- Total sales every month (to be done by inputting the dates)
- List of dishes not sold in the current month (this is to phase out dishes that customers are not ordering)
- Total sales across all cities
- Total sales for each city
- Login for waiters, managers, and James Oliver (CEO). *Change password* facility to be offered.
- Customers can pay by cash or card. There should be a payment gateway on the system.
- System should be able to generate the bill.
- James Oliver would like a feedback form (paper) to be given to every customer. These details shall be added by the manager manually into the system.

Functional Requirements

FR 1	All the different users such as Restaurant Managers, waiter and the CEO must be able to login into the portal. The change password facility must be provided for all the users. They can register for the first time. The forgot password link must also be provided.
FR 2	All the different users must be able to do their appropriate tasks. For instance, only the manager must be able to do table reservations and the waiter should not be able to edit menus.
FR 3	Requirements for different users Customers – They should be able to make a reservation via call or walk in and make an order. They must be able to make a payment via cash or card. A payment gateway must be provided.
FR 4	Restaurant Manager – System must allow the manager to create or edit menus. Make a reservation for a table based on the system. Access various reports. Make a system entry manually of the feedback form filled by the customers. The Manager must be able to search items in the menu using the search facility. System should display the layout of the table.
FR 5	Waiter – System must allow the waiter to generate bill for a particular table. He should not be able to edit the menu. Waiters should be able to search items in the menu using the search facility. System should display the layout of the table. System should allow the payment gateway.
FR 6	CEO – The CEO should have access to different reports such as sales at the end of the day, item wise, total sales, total sales every weekend, total sales across the city and each city. He must be able to view the feedback form filled by the customers, that is manually entered by the restaurant manager into the system.
FR 7	Developer – The developer must create the system based on the user and the roles. The developer must create a system that creates a menu. The menu should be categorized into the following sections such as starters, soups, main course, desserts, and drinks. Each item should be saved in the system along with its price. The system must generate the bill table wise.

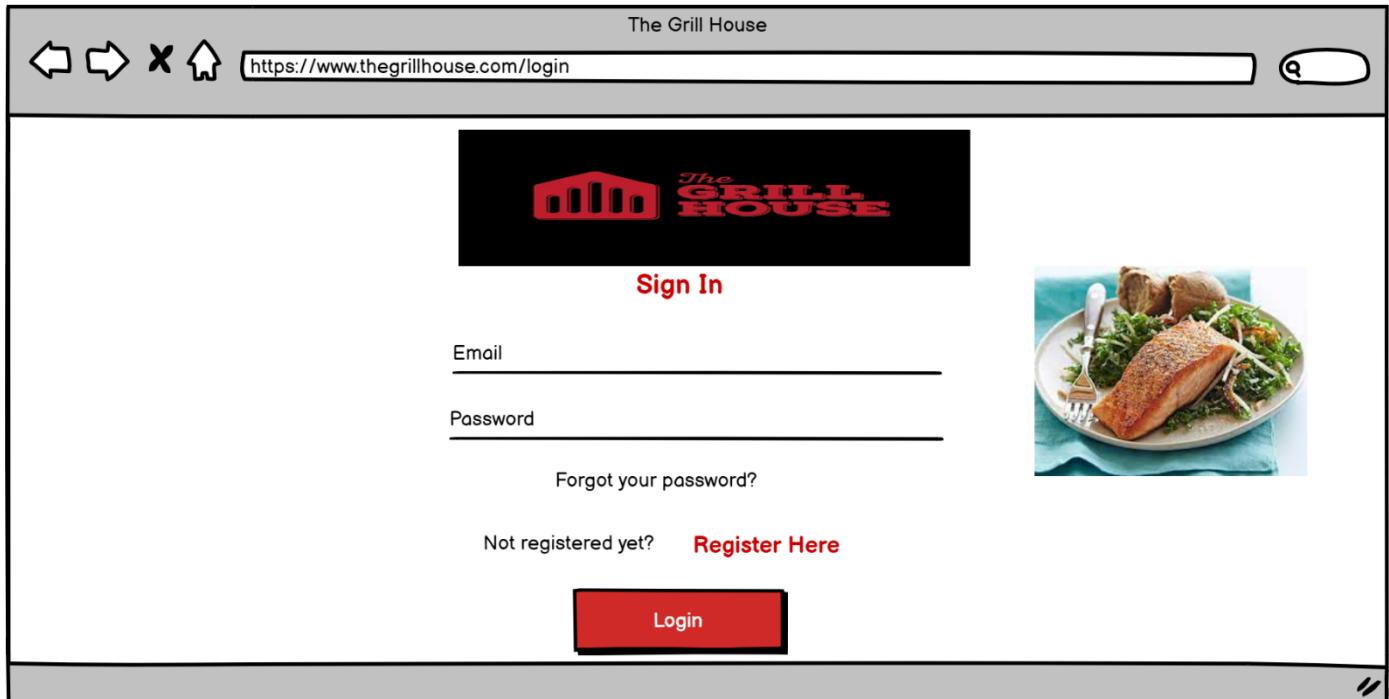
FR 8	Tester/QA - The tester must ensure there are no bugs in the portal. The system should allow the user based on the role and profile. For E.g. A CEO and management must be able to view several reports.
FR 9	Project Manager - The project manager must be a liaison with the development team comprising the developer, tester/QA, and the stakeholders such as CEO, restaurant manager and the waiter. The project manager must co-ordinate with the team to ensure incremental project delivery. The PM must be a good communicator and ensure everyone is contributing to the shared common goal.
FR 10	Business Analyst - The business analyst must be a liaison with the development team comprising the developer, tester/QA and the project manager and the stakeholders such as CEO, restaurant manager and the waiter. The BA must act as the scrum master and co-ordinate with the team to ensure incremental project delivery. The BA must be a good communicator and ensure everyone is contributing to the shared common goal.

Non-functional requirements

FR 1	The customers will not be able to reserve a table based on their choice. Only the restaurant managers will be able to reserve a table.
FR 2	Currently the system does not include other stakeholders such as Chef. The master chef must be able to update the order status as "Ready for pick up" to the waiter. This way there would be speedy delivery of the food and allow reduced expected time of arrival.
FR 3	Security - The RMS should allow the users to raise service request for the IT team/ customer support to work on it.
FR 4	The RMS is currently designed for easy ordering of food and creation of menus. However, the customers are still filling up paper feedback forms. The option for the customers to fill the feedback electronically must be included.
FR 5	Scalability - If incase the customer's order food and a request pick up through door-dash, uber eats, swiggy or Zomato; 3 rd party integrations with the Restaurant Management System must be well coordinated. 3rd party integrations with the food vendors.
FR 6	Turn Around Time (TAT) - The grill house is a chain of restaurants, so all the data must be accessible across different locations. The response time for data fetching other processes must be lesser than 10 seconds. System must be up and running for 24/7 .
FR 7	The CEO must be provided with a dashboard and visualization tools to view different charts and reports.
FR 8	The RMS must be made holistic, all the staff must be able to apply for leave, mark their attendance and view HR related task such as payroll accessible in their RMS.
FR 9	Change Password – All the users must have the option to change their password irrespective of the roles.

6. Draw wireframes or mock screens for two of the features namely *menu creation* and *table reservation*. Use the technique prototyping or wireframing that is taught in the training. You can use any of the wireframing tools like Microsoft PowerPoint, Microsoft Word, Balsamiq, Sketch, Adobe XD, Adobe ILLUstrator, Figma, UXPin, InVision Studio, Invision Freehand, or Mockups.

Login Screen



Add Menu - category

The Grill House

<https://www.thegrillhouse.com/addmenu>



Add Menu Edit Menu Delete Menu View Open Orders Price List Add Inventory Payment Search

Select a category ▾

- Starter
- Soup
- Main Course
- Dessert
- Drink





Add menu - Dessert category.

The Grill House

<https://www.thegrillhouse.com/addmenu/dessert>



Search a item

<input type="checkbox"/> Brownie	\$25
<input checked="" type="checkbox"/> Carrot Cake	\$13
<input type="checkbox"/> Vanilla mousse cake	\$10
<input type="checkbox"/> Apple pie	\$13
<input checked="" type="checkbox"/> Midnight chocolate	\$20
<input type="checkbox"/> Cupcake	\$5

[Save Menu](#)









Table Reservation

The Grill House
https://www.thegrillhouse.com/table_reservation

2021 Mon Jun 28

JUNE 2021

<	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

CANCEL OK

GRILL HOUSE

10:10 AM

Table 1 Table 2 Table 3

Table 4 Table 5 Table 6

Table 7 Table 8 Table 9

Not Available Available Reserved

Name	Contact Number	Number of People	Table No#
Raj	9845126472	3	Table 6

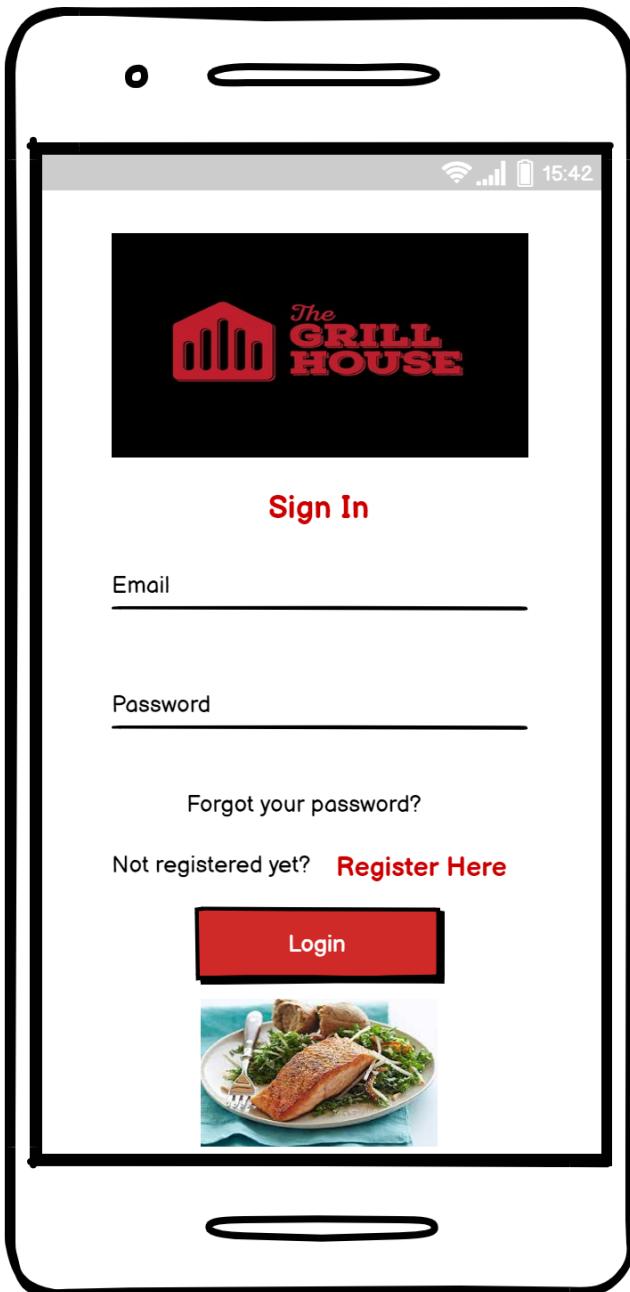
< Book a Table

Change Password

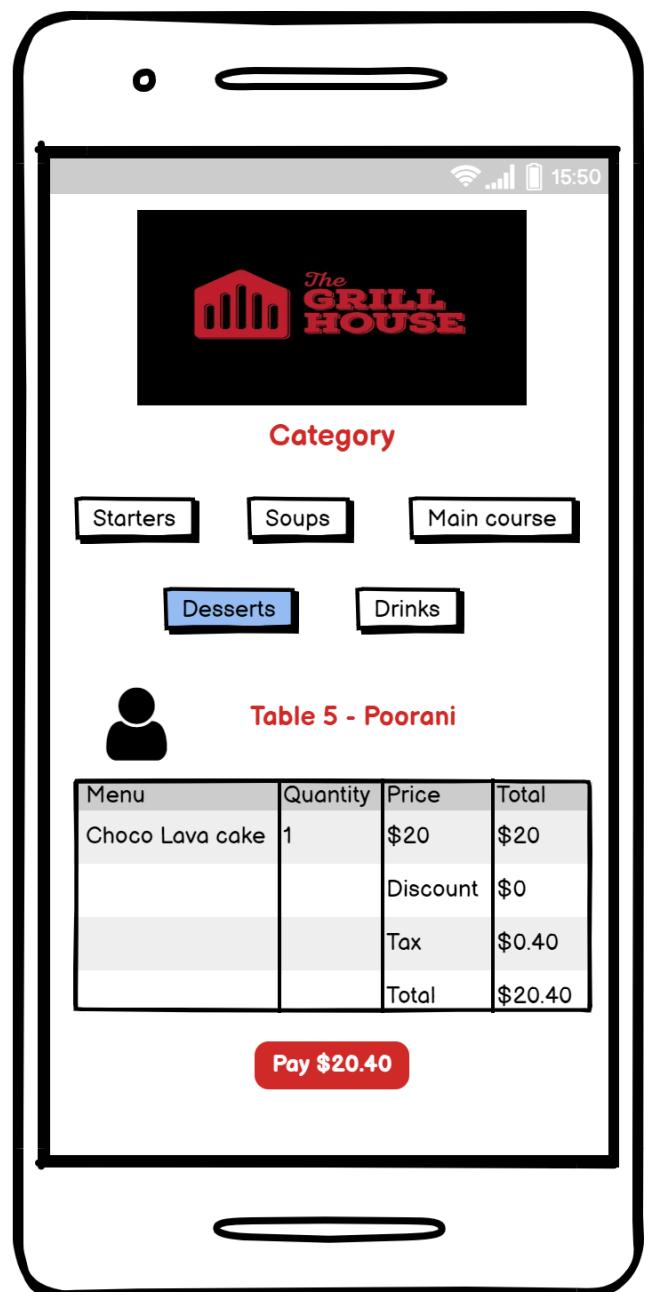
The screenshot shows a web browser window for 'The Grill House' at the URL <https://www.thegrillhouse.com/viewopenorders>. The page features a navigation bar with links: Add Menu, Edit Menu, Delete Menu, View Open Orders (which is highlighted in blue), Price List, and Add Inventory. On the right side, there is a user profile icon and a dropdown menu with options: Change Password (highlighted with a red border), Profile, Settings, Support Request, HR Request, Change Password (repeated), and Log Out.

The main content area displays four images of food: a stack of brownies with chocolate sauce, a bowl of soup, a salmon fillet with vegetables, and a bowl of fried dumplings.

Waiter- Login screen



Waiter- Bill Generation



Project Task: Week 3 (This is on the agile scrum concepts taught)

1. Make a product backlog of user stories for the given case study. User Stories should be in the format of As a <type of user>, I want <goal> so that <reason>

Example:

As a Restaurant Business Owner, I can monitor menu response so that I can stay informed about menu trends.

As an online bank customer, I should be able to open a E-fixed deposit online so that I need not visit the branch to do it.

User Stories	
CEO	<ul style="list-style-type: none"> • As a CEO I should be able to login into the system so that I can view different reports and make strategic implementations • As a CEO I must be able to access the reports such as total sales of the day based on different subcategory such as dine-in, home delivery and the total sales across cities so that I can know the financial situation of my organization. • As a CEO I should be able to view the feedback form filled by the customers so that I can plan to increase customer acquisition and retention.
Customers	<ul style="list-style-type: none"> • As a customer I should be able to pay by cash or card so that I can chose the mode of payment as per my wish. • As a customer I should have access to a secure payment gateway so that my credit card details are safe.
Waiter	<ul style="list-style-type: none"> • As a waiter I must be able to login into the system and view the layout of the table so that I can deliver the food in less time. • As a waiter I should be able to search items in the menu using the search facility so that I can offer great customer service and reduce the turnaround time. • As a waiter I should be able to use the system for generating the bill table wise so that there is no confusion in the customer service I provide. • As a waiter I should be using the system only to generate bills so that there is no overlap in my job role and the restaurant manager. • As a waiter I should have access to the table layout that is stored in the system so that I can attend the customer immediately.
Restaurant Manager	<ul style="list-style-type: none"> • As a restaurant manager I must be able to login into the system and view the table layout so that I allocate vacant table to the walk-in customers. • As a restaurant manager I should be able to create and edit menus so that I can come up new menus according to the inventory. • As a restaurant manager I should be able to add new items, delete existing items, as well as create new menus from scratch so that I can attract new customers with new food items on the menu. • As a restaurant manager I should be able to search items in the menu using the search facility so that I can complete tasks and works in lesser time.

	<ul style="list-style-type: none"> As a restaurant manager I should be able to make reservations so that I can allocate vacant tables to walk-in customers. As a restaurant manager I should get the feedback form filled by the customers. This form shall capture details like name, address, mobile number, email, date of birth, anniversary dates of the customers, and their feedback so that I can share the details with the management and offer great customer service. As a restaurant manager I should be able to add the details from the feedback manually into the system so that I share the details to the CEO so that he can make strategic plans to improve sales and business.
Business Analyst	<ul style="list-style-type: none"> As a Business Analyst I must co-ordinate with the team to ensure incremental project delivery so that the restaurant management system will be live soon. As a Business Analyst I must be a good communicator and ensure everyone is contributing to the shared common goal so that there is incremental project completion.
Developer	<ul style="list-style-type: none"> As a developer I must develop a system that creates a menu, so the restaurant manager is able to create new menu items. As a developer I must develop a system that creates a menu based on the following category such as starters, soups, main course, desserts, and drinks so that all the menus can be filtered as per the category. As a developer I must develop a system that saves each item along with a price system so that the other users can access the system easily. As a developer I must develop a system that must generate the bill table wise so that the waiter can generate the bill easily without any confusion.
Tester/ QA	<ul style="list-style-type: none"> As a tester I must ensure there are no bugs in the portal so that there are no errors in the portal.
Project Manager	<ul style="list-style-type: none"> As a project manager I must co-ordinate with the team to ensure incremental project delivery so that the project goes live in the planned time duration. As a project manager I must be a good communicator and ensure everyone is contributing to the shared common goal so that there is incremental project completion.

2. For each story, write the acceptance criteria.

User Story	Acceptance Criteria
As a CEO I should be able to login into the system so that I can view different reports and make strategic implementations.	<ul style="list-style-type: none"> • The CEO must be able to access the reports such as total sales of the day based on different subcategory such as dine-in, home delivery and the total sales across cities. • He would also view the feedback form filled by the customers. • View various reports such as <ul style="list-style-type: none"> ○ Total sales of the day by dine in customers. ○ Total sales of the day by home delivery customers ○ Total sales of the day (home delivery and dine in customers consolidated) ○ Name the top 10 most sold dishes for the day ○ Total sales every weekend (to be done by inputting the dates) ○ Total sales every month (to be done by inputting the dates) ○ List of dishes not sold in the current month (this is to phase out dishes that customers are not ordering) ○ Total sales across all cities ○ Total sales for each city
As a customer I should be able to choose any payment mode so that I can have an uninterrupted dine in experience.	<ul style="list-style-type: none"> • Customers should be able to pay by cash or card. • There should be a secure payment gateway.
As a waiter I should be able to login into the RMS and view the table layout so that I can deliver the food at a fast pace and improve customer service.	<ul style="list-style-type: none"> • Waiters should be able to search items in the menu using the search facility. • Waiters shall use the system for generating the bill table wise. • Every bill shall be tagged to the waiter generating it and the table number. • Waiters shall use the system only to generate bills. • The waiters shall investigate the software to determine which tables need to be reserved.
As a restaurant manager I should be able to login into the RMS and view the table layout so that I can make reservation for the customers.	<ul style="list-style-type: none"> • The manager should be able to create and edit menus. • They should be able to add new items, delete existing items, as well as create new menus from scratch. • The manager should be able to search items in the menu using the search facility. • The managers should only be able to make reservations. • The manager should get the feedback form filled by the customers. This form shall capture details like name, address, mobile number, email, date of birth, anniversary dates of the customers, and their feedback. • The manager should add the details from the feedback manually into the system.

	<ul style="list-style-type: none"> • When the dashboard is open <ul style="list-style-type: none"> ◦ Must be able to view the open orders. ◦ Chart the menu items based on the popular dishes. • View various reports such as <ul style="list-style-type: none"> ◦ Total sales of the day by dine in customers. ◦ Total sales of the day by home delivery customers ◦ Total sales of the day (home delivery and dine in customers consolidated) ◦ Name the top 10 most sold dishes for the day ◦ Total sales every weekend (to be done by inputting the dates) ◦ Total sales every month (to be done by inputting the dates) ◦ List of dishes not sold in the current month (this is to phase out dishes that customers are not ordering) ◦ Total sales across all cities ◦ Total sales for each city
As a Business Analyst I must co-ordinate with the team to ensure incremental project delivery so that the restaurant management system will be live soon.	<ul style="list-style-type: none"> • The BA must act as the scrum master and co-ordinate with the team to ensure incremental project delivery. • The BA must be a good communicator and ensure everyone is contributing to the shared common goal.
As a developer I must develop a system that creates a menu, so that the portal is user friendly to all the users.	<ul style="list-style-type: none"> • The developer must create a system that creates a menu. • The menu should be categorized into the following sections such as starters, soups, main course, desserts, and drinks. • Each item should be saved in the system along with its price. • The system must generate the bill table wise.
As a tester I must ensure there are no bugs in the portal so that there are no errors in the portal.	<ul style="list-style-type: none"> • The tester must ensure there are no bugs in the portal. • The system should allow the user based on the role and profile. For E.g. A CEO and management must be able to view several reports.
As a project manager I must co-ordinate with the team to ensure incremental project delivery so that the project goes live in the planned time duration.	<ul style="list-style-type: none"> • The project manager must co-ordinate with the team to ensure incremental project delivery. • The PM must be a good communicator and ensure everyone is contributing to the shared common goal.

JIRA Software – User Story Creation

The screenshot shows the JIRA Software interface for a project titled "Restaurant Management System Capstone Project 21". The left sidebar navigation includes "Roadmap", "Backlog" (selected), "Board", "Code", "Project pages", "Add item", and "Project settings". The main area displays the "Backlog" section with an "Epic" view. An "Epic" card for "Restaurant Management Architecture" contains sub-tasks like "Design and Documentation", "RMS - software development", and "User Testing". A "Backlog" section lists two issues: "RMSCP2-9 Project requirement" and "RMSCP2-10 Bug fix", both labeled "TO DO". To the right, a "Project requirement" card for "RMSCP2-9" is shown with a "Description" field containing the text: "As a project manager I must co-ordinate with the team to ensure incremental project delivery so that the project goes live in the planned time duration." The JIRA header shows the URL "pooraniparameswaran21.atlassian.net/jira/software/projects/RMSCP2/boards/1/backlog?selectedIssue=RMSCP2-9&sprintCompleted" and the status bar indicates "11:49 PM 7/4/2021".

This screenshot shows the same JIRA interface for the same project. The "Backlog" section now displays an "Epic" card for "RMSCP2 Sprint 3" which contains issues "RMSCP2-9 Project requirement" and "RMSCP2-10 Bug fix". A new "Customer Payment" card is visible on the right side, showing a "Description" field with the text: "As a customer I should have access to a secure payment gateway so that my credit card details are safe." The JIRA header and status bar are identical to the previous screenshot.

Create issue

Issue Type* Story

Some issue types are unavailable due to incompatible field configuration and/or workflow associations.

Summary* Table reservation

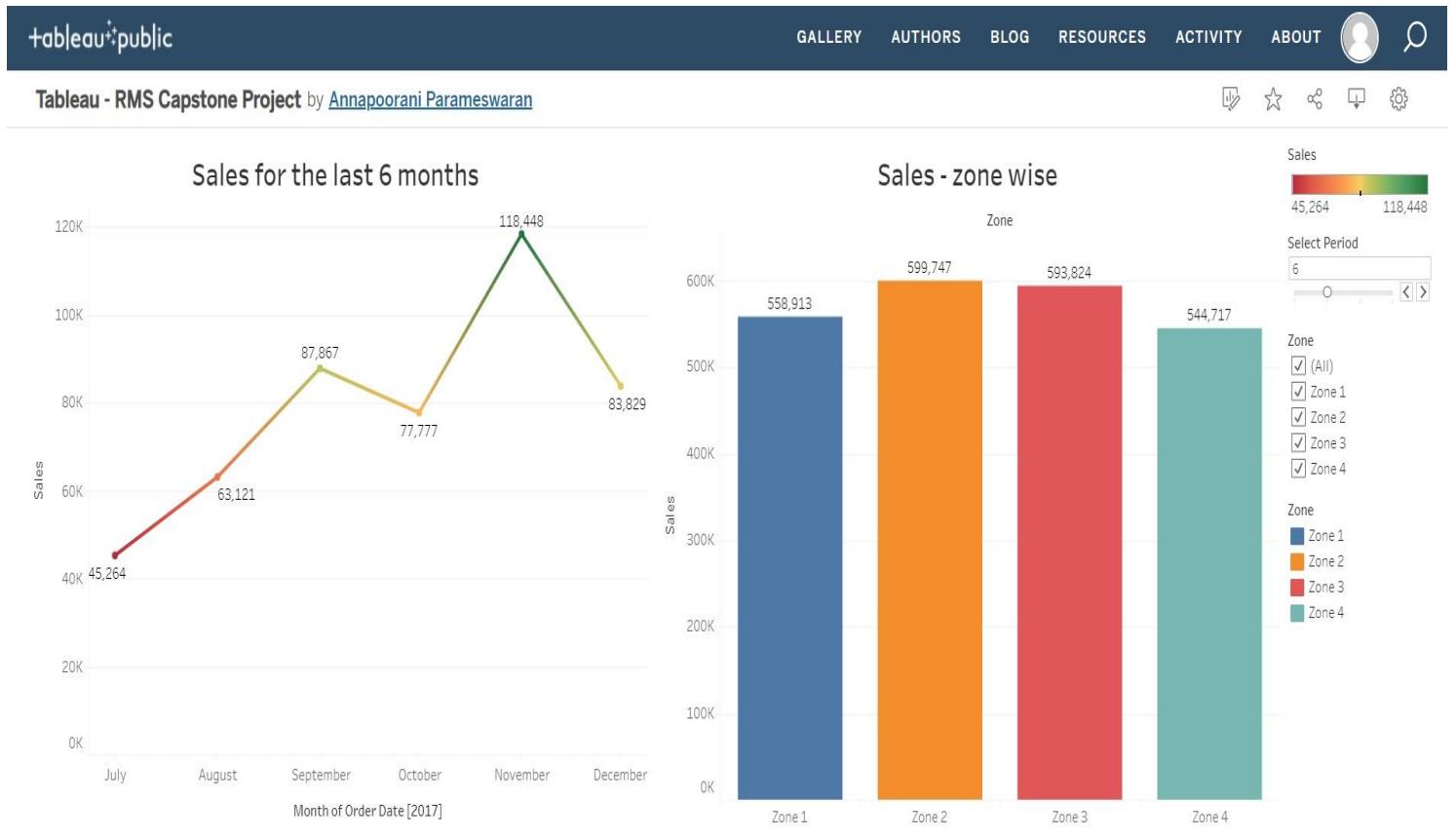
Description

As a restaurant manager I should be able to make reservations so that I can allocate vacant tables to walk-in customers.

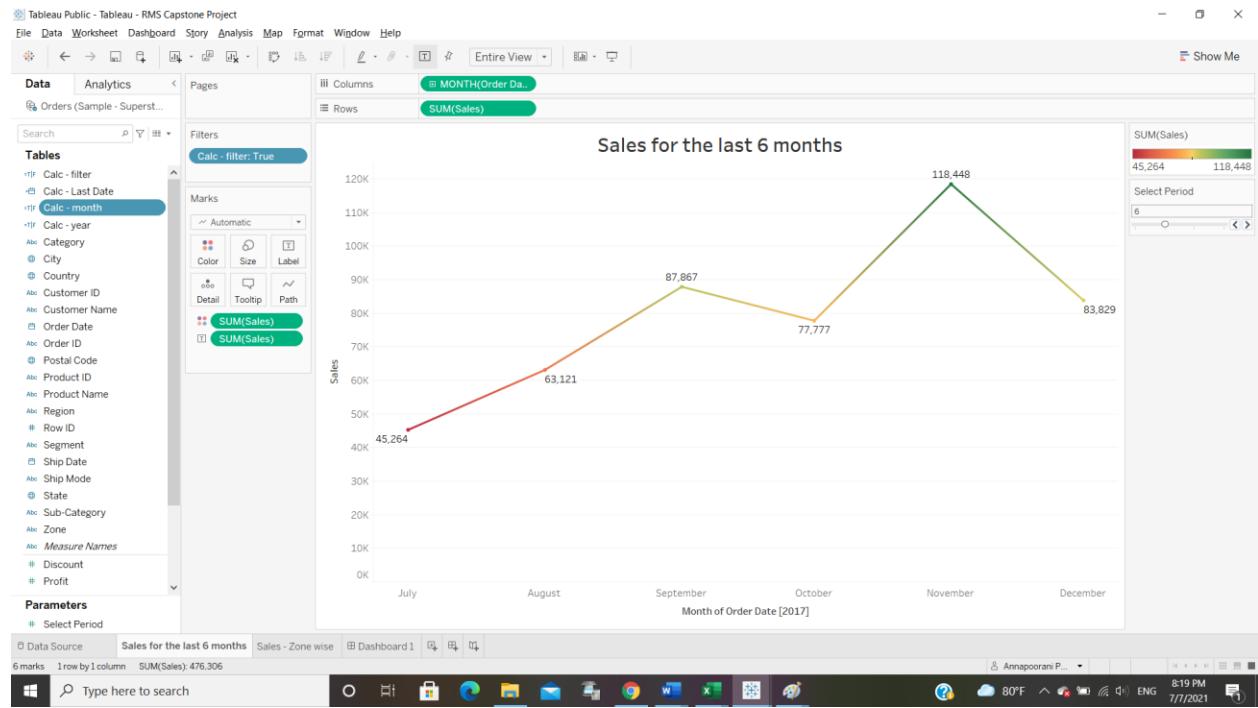
Create another **Create** Cancel

Project Task: Week 4 (This is on the Tableau concepts taught)

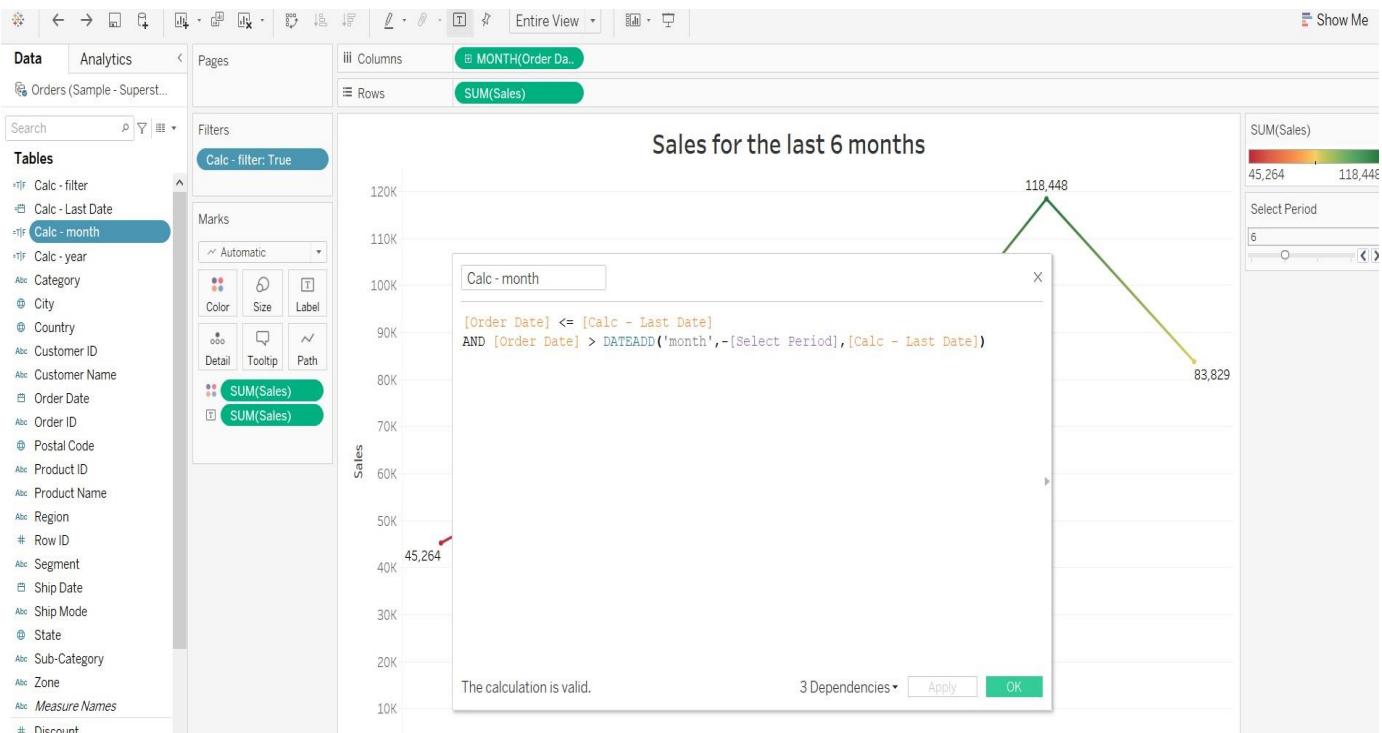
1. Create a dashboard for senior management to view sales of restaurants for the last six months. Make assumptions as appropriate and create the dashboard using your own mock data.



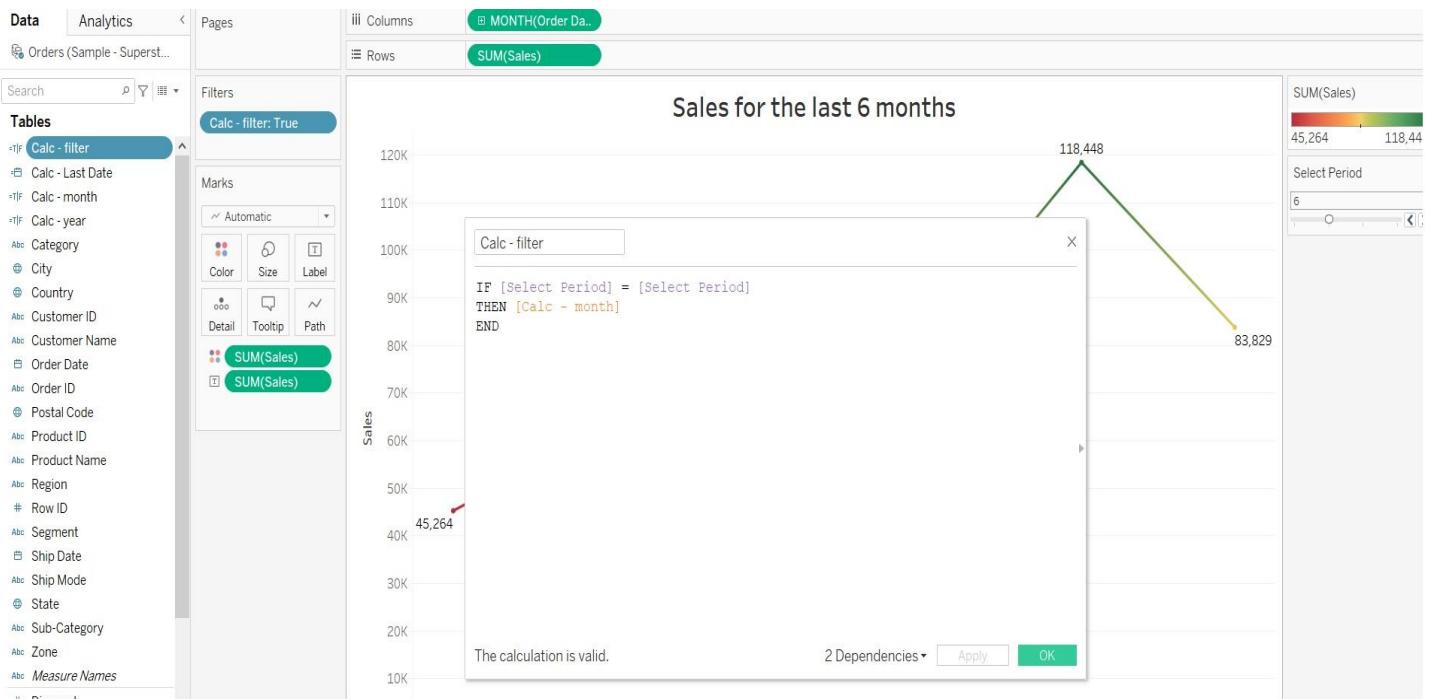
Dashboard Link - <https://public.tableau.com/app/profile/annapoorani.parameswaran/viz/Tableau-RMSCapstoneProject/Dashboard1>



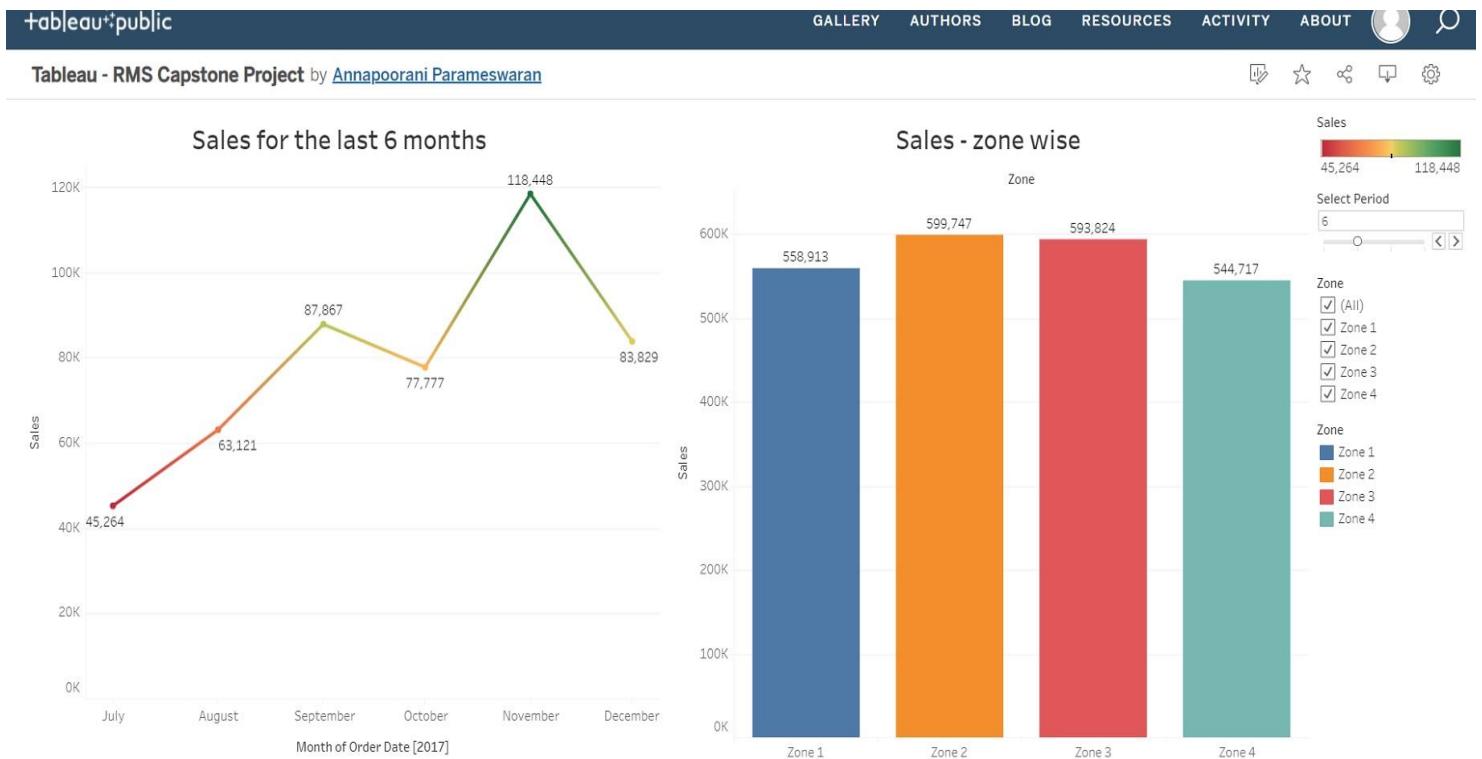
I created a calculated field to find the sales for the last 6 <n> months.

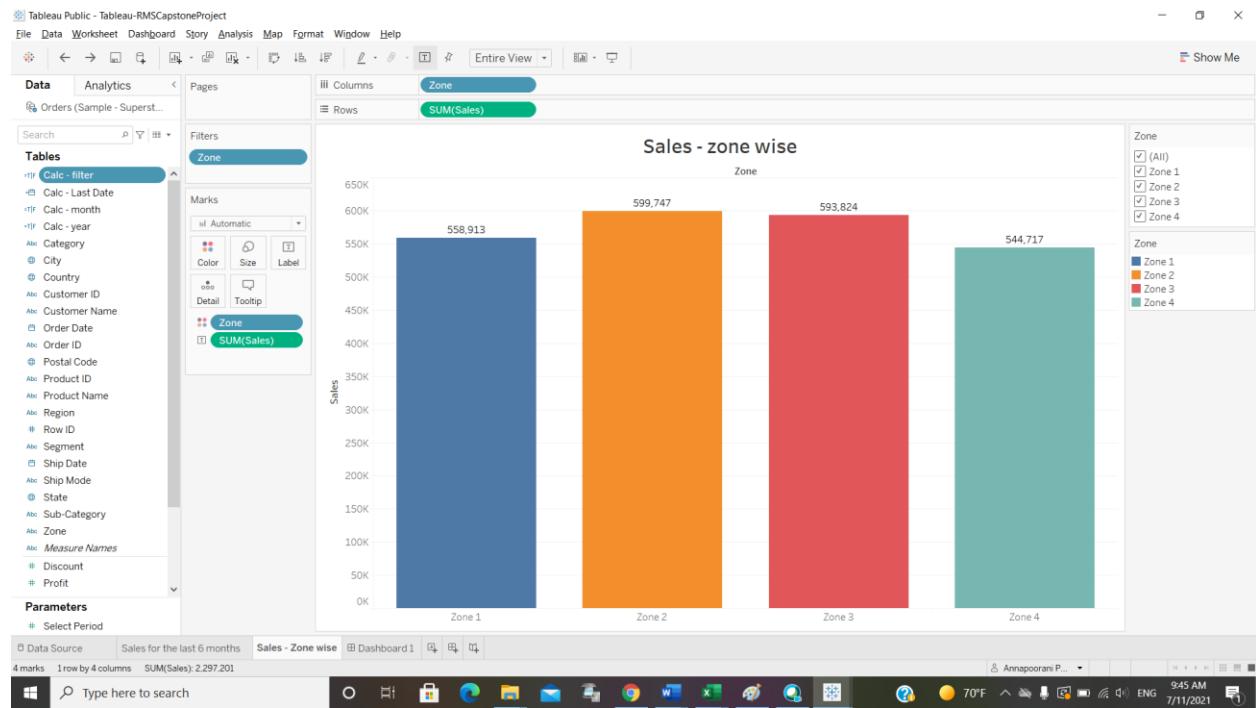


I created a calculated field for the filter.



2. Create a dashboard to show which zone (Zone 1, 2, 3, or 4) has highest sales. Make assumptions as appropriate and create the dashboard using your own mock data.





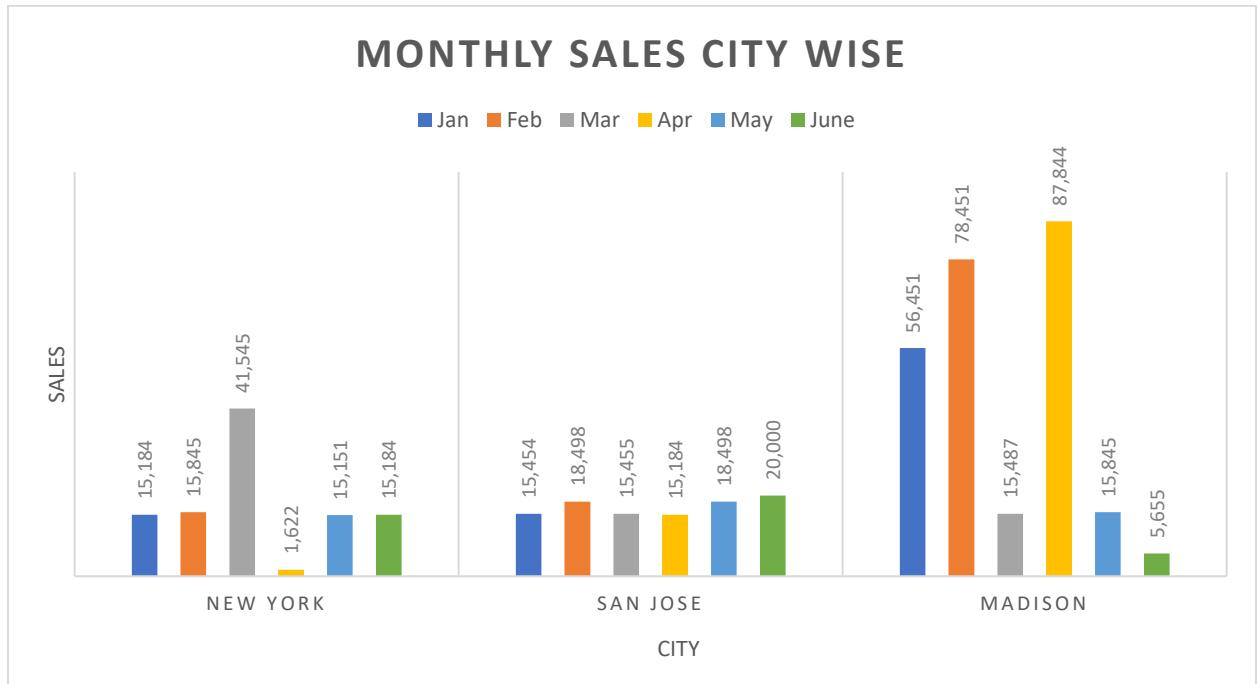
Dashboard Link - <https://public.tableau.com/app/profile/annapoorani.parameswaran/viz/Tableau-RMSCapstoneProject/Dashboard1>

Excel

Question 1:

Restaurant ID	City	Jan	Feb	Mar	Apr	May	June
1200333	Chicago	18,225	15,184	98,415,500	71,111	7,889	
1200352	New York	15,184	15,845	41,545	1,622	15,151	15,184
1200669	Seattle	15,845	11,112	15,184	15,184	78,715	845
1200888	Washington	11,112	15,455	15,845	15,845	10,000	11,112
1200989	Kansas City	15,455	15,454	11,112	11,122	0,000	10,000
1200444	San Jose	15,454	18,498	15,455	15,184	18,498	20,000
1200358	Dallas	78,888	48,211	15,454	15,845	48,211	5,000
1200289	Miami	48,211	16,595	18,498	11,112	16,595	15,151
1200739	New Orleans	16,595	15,487	48,211	78,745	48,444	5,444
1200498	Phoenix	15,487	56,451	16,595	15,487	15,184	1,515
1200789	Madison	56,451	78,451	15,487	87,844	15,845	5,655
1200432	Jersey City	12,121	14,414	56,451	89,894	11,112	8,985

1. Create a bar graph for San Jose, Madison, and New York showing the sales. Label the chart drawn correctly so that senior management gets a clear report of sales.



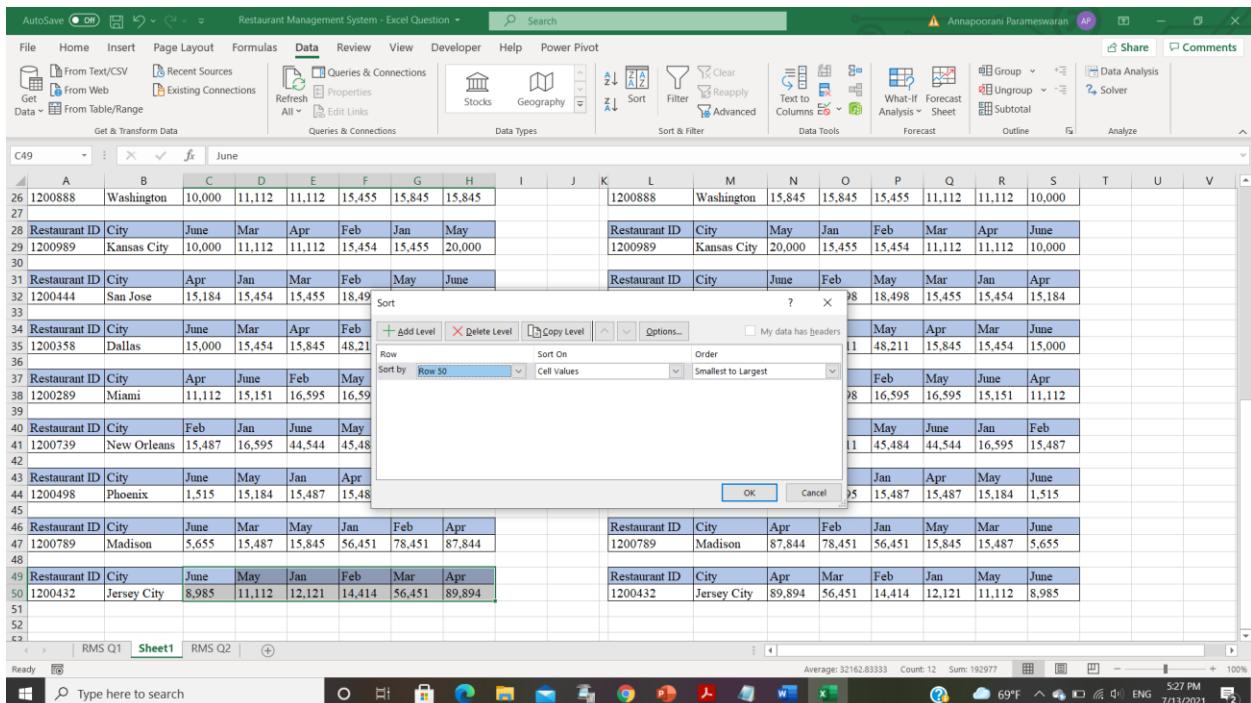
2. Arrange the data above in excel in an ascending and descending order for each city.

Ascending order

I used the Sort options in the Data Tab.

Data -> Sort -> Sort Left to Right -> Sort Tab.

Select Row -> Sort on Cell Values -> Order by Smallest to Largest



Restaurant ID	City	Apr	June	Feb	Jan	May	Mar
1200333	Chicago	1,500	7,889	15,184	18,225	71,111	98,984

Restaurant ID	City	Apr	May	Jan	June	Feb	Mar
1200352	New York	1,622	15,151	15,184	15,184	15,845	41,545

Restaurant ID	City	Feb	Mar	Apr	Jan	June	May
1200669	Seattle	11,112	15,184	15,184	15,845	15,845	78,787

Restaurant ID	City	May	Jan	June	Feb	Mar	Apr
1200888	Washington	10,000	11,112	11,112	15,455	15,845	15,845

Restaurant ID	City	June	Mar	Apr	Feb	Jan	May
1200989	Kansas City	10,000	11,112	11,112	15,454	15,455	20,000

Restaurant ID	City	Apr	Jan	Mar	Feb	May	June
1200444	San Jose	15,184	15,454	15,455	18,498	18,498	20,000

Restaurant ID	City	June	Mar	Apr	Feb	May	Jan
1200358	Dallas	15,000	15,454	15,845	48,211	48,211	78,888

Restaurant ID	City	Apr	June	Feb	May	Mar	Jan
1200289	Miami	11,112	15,151	16,595	16,595	18,498	48,211

Restaurant ID	City	Feb	Jan	June	May	Mar	Apr
1200739	New Orleans	15,487	16,595	44,544	45,484	48,211	78,787

Restaurant ID	City	June	May	Jan	Apr	Mar	Feb
1200498	Phoenix	1,515	15,184	15,487	15,487	16,595	56,451

Restaurant ID	City	June	Mar	May	Jan	Feb	Apr
1200789	Madison	5,655	15,487	15,845	56,451	78,451	87,844

Restaurant ID	City	June	May	Jan	Feb	Mar	Apr
1200432	Jersey City	8,985	11,112	12,121	14,414	56,451	89,894

Descending order

I used the Sort options in the Data Tab.

Data -> Sort -> Sort Left to Right -> Sort Tab.

Select Row -> Sort on Cell Values -> Order by Largest to Smallest

The screenshot shows a Microsoft Excel spreadsheet titled "Restaurant Management System - Excel Question". The data is organized into columns A through V, representing Restaurant ID, City, and monthly sales figures for April through June. The "Data" tab is selected, and the "Sort & Filter" icon is highlighted. A "Sort" dialog box is open, showing the settings: "Sort On" is set to "Row", "Sort by" is set to "Row 50", and the "Order" dropdown is set to "Largest to Smallest". The data table includes rows for Restaurant IDs 1200888, 1200989, 1200444, 1200358, 1200289, 1200739, 1200432, and 1200789, along with their respective cities and sales data for the specified months.

Restaurant ID	City	Mar	May	Jan	Feb	June	Apr
1200333	Chicago	98,984	71,111	18,225	15,184	7,889	1,500

Restaurant ID	City	Mar	Feb	Jan	June	May	Apr
1200352	New York	41,545	15,845	15,184	15,184	15,151	1,622

Restaurant ID	City	May	Jan	June	Mar	Apr	Feb
1200669	Seattle	78,787	15,845	15,845	15,184	15,184	11,112

Restaurant ID	City	Mar	Apr	Feb	Jan	June	May
1200888	Washington	15,845	15,845	15,455	11,112	11,112	10,000

Restaurant ID	City	May	Jan	Feb	Mar	Apr	June
1200989	Kansas City	20,000	15,455	15,454	11,112	11,112	10,000

Restaurant ID	City	June	Feb	May	Mar	Jan	Apr

1200444	San Jose	20,000	18,498	18,498	15,455	15,454	15,184
---------	----------	--------	--------	--------	--------	--------	--------

Restaurant ID	City	Jan	Feb	May	Apr	Mar	June
1200358	Dallas	78,888	48,211	48,211	15,845	15,454	15,000

Restaurant ID	City	Jan	Mar	Feb	May	June	Apr
1200289	Miami	48,211	18,498	16,595	16,595	15,151	11,112

Restaurant ID	City	Apr	Mar	May	June	Jan	Feb
1200739	New Orleans	78,787	48,211	45,484	44,544	16,595	15,487

Restaurant ID	City	Feb	Mar	Jan	Apr	May	June
1200498	Phoenix	56,451	16,595	15,487	15,487	15,184	1,515

Restaurant ID	City	Apr	Feb	Jan	May	Mar	June
1200789	Madison	87,844	78,451	56,451	15,845	15,487	5,655

Restaurant ID	City	Apr	Mar	Feb	Jan	May	June
1200432	Jersey City	89,894	56,451	14,414	12,121	11,112	8,985

Question 2:

1. In the above chart for restaurant ID 1200789, find the sales for the month of June.

I used the formula =VLOOKUP(A12,A1:H13,8, FALSE) **Ans – 5655**

	A	B	C	D	E	F	G	H	I	J	K	L
1	Restaurant ID	City	Jan	Feb	Mar	Apr	May	June				
2	1200333	Chicago	18,225	15,184	98,984	1,500	71,111	7,889		Answer for restaurant ID 1200789 (June Sales)	5655	
3	1200352	New York	15,184	15,845	41,545	1,622	15,151	15,184		Answer for restaurant ID 1200739 (April Sales)	78787	
4	1200669	Seattle	15,845	11,112	15,184	15,184	78,787	15,845		Answer for restaurant ID 1200352 (Jan Sales)	15184	
5	1200888	Washington	11,112	15,455	15,845	15,845	10,000	11,112				
6	1200989	Kansas City	15,455	15,454	11,112	11,112	20,000	10,000				
7	1200444	San Jose	15,454	18,498	15,455	15,184	18,498	20,000				
8	1200358	Dallas	78,888	48,211	15,454	15,845	48,211	15,000				
9	1200289	Miami	48,211	16,595	18,498	11,112	16,595	15,151				
10	1200739	New Orleans	16,595	15,487	48,211	78,787	45,484	44,544				
11	1200498	Phoenix	15,487	56,451	16,595	15,487	15,184	1,515				
12	1200789	Madison	56,451	78,451	15,487	87,844	15,845	5,655				
13	1200432	Jersey City	12,121	14,414	56,451	89,894	11,112	8,985				
14												
15												
16												
17												
18												
19												

2. In the above chart for restaurant ID 1200739, find the sales for the month of April.

I used the formula =VLOOKUP(A10,A1:H13,6, FALSE) **Ans – 78787**

	A	B	C	D	E	F	G	H	I	J	K	L
1	Restaurant ID	City	Jan	Feb	Mar	Apr	May	June				
2	1200333	Chicago	18,225	15,184	98,984	1,500	71,111	7,889		Answer for restaurant ID 1200789 (June Sales)	5655	
3	1200352	New York	15,184	15,845	41,545	1,622	15,151	15,184		Answer for restaurant ID 1200739 (April Sales)	78787	
4	1200669	Seattle	15,845	11,112	15,184	15,184	78,787	15,845		Answer for restaurant ID 1200352 (Jan Sales)	15184	
5	1200888	Washington	11,112	15,455	15,845	15,845	10,000	11,112				
6	1200989	Kansas City	15,455	15,454	11,112	11,112	20,000	10,000				
7	1200444	San Jose	15,454	18,498	15,455	15,184	18,498	20,000				
8	1200358	Dallas	78,888	48,211	15,454	15,845	48,211	15,000				
9	1200289	Miami	48,211	16,595	18,498	11,112	16,595	15,151				
10	1200739	New Orleans	16,595	15,487	48,211	78,787	45,484	44,544				
11	1200498	Phoenix	15,487	56,451	16,595	15,487	15,184	1,515				
12	1200789	Madison	56,451	78,451	15,487	87,844	15,845	5,655				
13	1200432	Jersey City	12,121	14,414	56,451	89,894	11,112	8,985				
14												
15												
16												
17												
18												
19												

3. In the above chart for restaurant ID 1200352, find the sales for the month of January.

I used the formula = =VLOOKUP(A3,A1:H13,3, FALSE) Ans – 15184

The screenshot shows an Excel spreadsheet titled "Restaurant Management System - Excel Question". The table has columns for Restaurant ID, City, and months Jan through June. Row 1 contains the column headers. Row 2 contains data for Restaurant ID 1200333. Row 3 contains data for Restaurant ID 1200352. Row 4 contains data for Restaurant ID 1200669. Row 5 contains data for Restaurant ID 1200888. Row 6 contains data for Restaurant ID 1200989. Row 7 contains data for Restaurant ID 1200444. Row 8 contains data for Restaurant ID 1200358. Row 9 contains data for Restaurant ID 1200289. Row 10 contains data for Restaurant ID 1200739. Row 11 contains data for Restaurant ID 1200498. Row 12 contains data for Restaurant ID 1200789. Row 13 contains data for Restaurant ID 1200432. Row 14 is blank. Rows 15 through 19 are also blank. The formula bar shows the formula =VLOOKUP(A3,A1:H13,3, FALSE). Three cells are highlighted with formulas: K6 contains "Answer for restaurant ID 1200789 (June Sales)" with the value 5655; K7 contains "Answer for restaurant ID 1200739 (April Sales)" with the value 78787; and K8 contains "Answer for restaurant ID 1200352 (Jan Sales)" with the value 15184. The status bar at the bottom right shows the date 7/18/2021 and time 11:16 AM.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Restaurant ID	City	Jan	Feb	Mar	Apr	May	June				
2	1200333	Chicago	18,225	15,184	98,984	1,500	71,111	7,889				
3	1200352	New York	15,184	15,845	41,545	1,622	15,151	15,184				
4	1200669	Seattle	15,845	11,112	15,184	15,184	78,787	15,845				
5	1200888	Washington	11,112	15,455	15,845	15,845	10,000	11,112				
6	1200989	Kansas City	15,455	15,454	11,112	11,112	20,000	10,000				
7	1200444	San Jose	15,454	18,498	15,455	15,184	18,498	20,000				
8	1200358	Dallas	78,888	48,211	15,454	15,845	48,211	15,000				
9	1200289	Miami	48,211	16,595	18,498	11,112	16,595	15,151				
10	1200739	New Orleans	16,595	15,487	48,211	78,787	45,484	44,544				
11	1200498	Phoenix	15,487	56,451	16,595	15,487	15,184	1,515				
12	1200789	Madison	56,451	78,451	15,487	87,844	15,845	5,655				
13	1200432	Jersey City	12,121	14,414	56,451	89,894	11,112	8,985				
14												
15												
16												
17												
18												
19												