**Restaurant Management System:**

**Overview and Summary:**

A US celebrity chef James Oliver has his own chain of restaurants, The Grill House, across different cities in the USA. He wanted to put a new Restaurant Management System to track the day-to-day management of his restaurant.

They have a paper-based system for the same, which has many issues. Currently, the orders are taken by the waiters on paper and a paper-based bill is presented to the customers.

All the bills were entered into an Excel sheet by the manager at EOD to know the total sales and item-wise sales for the day. Then reports were generated in Excel to know trends and details like daily, weekly, and monthly sales. Which dishes were popular, and which weren’t doing so well?

Restaurants need a system that will allow them to update their menu easily. The clients currently do not have a system that recognizes the different types of users such as managers, waiters, etc. and they would like to be able to limit the access of some options of the system to certain users.

The client invited Business Analysts trained at Simplilearn to capture the requirements for creating this software.

Project task (This is on the Business Analysis concept taught)

* **Identifying Stakeholders – Create a list of Stakeholders (As taught in the Business Analysis Planning and Monitoring Knowledge Area)**

**List of Stakeholders:**

* James Oliver (CEO/ Sponsor)
* Managers
* Waiters
* Customers
* The Grill House management team
* **Create As-Is and Future Process map (using flowcharts). You can use any of the popular tools in the market like Microsoft Visio, Lucidchart, Creately, Pidoco, or Balsamiq**

**As-in process:**

A diagram of a restaurant

Description automatically generated

**Future process:**

**A diagram of a customer service

Description automatically generated**

* **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 that need to be developed:**

* **Menu:**
* System should be able to create a menu and categorize them into these sets a) Starters b) Soups c) Main Course d) Desserts e) Drinks.
* Each item should be saved in the system along with its price. Waiters and Managers should be able to search items in the menu using the search facility.
* This menu should be created and edited by the managers only. They should be able to add new items, delete existing items, and create new menus from scratch. Waiters cannot edit the menu.
* **Access:**
* Every waiter and manager should have access to the software.
* Each user should be verified before giving access to features depending on their role in the restaurant.
* **Billing:**
* Waiters shall use the RMS (Restaurant management system) to generate bills for the customers and it will be tagged to the waiter generating it.
* Customers can pay by cash or card. There should be a payment gateway on the system.
* **Reports:**
* The RMS system should be able to generate reports for the management team which include sales in different categories like sales on dine-in, takeout, sales every month, across cities and each city.
* Listing the dishes not sold in the current month (Dishes that are not been ordered by customers recently). Also, list the top 10 dishes for the day.
* **Reservations:**
* The RMS system should be able to reserve tables. These reservations should be made by managers only.
* The waiters shall not seat anyone on the tables reserved. The waiters shall be looking into the software to determine which tables need to be reserved. The table layout is to be stored in the system.
* **Feedback:**
* Feedback forms will be issued to every customer as per CEO instructions and they contain details like name, Date of birth, Contact details, anniversary dates, and feedback.
* Filled feedback forms will be entered into the RMS system by the manager only and can be viewed by the manager and CEO.
* **Write the in-scope and out-of-scope items for this software.**

|  |  |
| --- | --- |
| **In-scope** | **Out-of-scope** |
| **Menu creation and editing by managers only** | **Menu editing and updating by waiters** |
| **Waiters, Managers, and CEO have access to the RMS system** | **Customers access to the system** |
| **Reservations for table before arrival will be taken by managers only** | **Reservations for booking a table by waiters** |
| **Waiters generating the bills table-wise** | **Bill generation by customer** |
| **Managers enter filled feedback forms into the system** | **Waiters able to see feedback-filled forms** |
| **Payment gateway so that customers pay through cash or card** | **Prepaid payment by dine-in customers** |

* **Write out the business requirements, both functional and non-functional requirements.**

**Functional requirements:**

* All Employee details should be stored in the system. Employee information is verified by the system before setting up login credentials with change password facility.
* The waiter can open the web page of the Restaurant Management System. He/she can select a table for seating customers, search the menu, place orders, generate customer bills, process payment, and print a feedback form.
* The waiter can check available tables and select a table for dine-in customers to be seated. And they generate bills table-wise with their name tagged along.
* The waiter or manager can search the menu for a specific dish. The restaurant Manager (the Grill House employee) can create the menu and update the menu for his restaurant.
* The waiter will take the customer's payment as either cash or credit card. The card payment will be processed using a payment gateway.
* The waiter or manager will give the customer a feedback form. Filled feedback forms will be entered manually into the system by the manager only. And viewing permitted to manager and CEO.
* The reservations will be made by managers only. Waiters shouldn’t be able to reserve tables or place the walk-in customers in reserved tables.
* Management needs a report by the end of each day with the following details to make important decisions:
* 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. List of dishes not sold in the current month (this is to phase out dishes that customers are not ordering)
* Total sales every weekend (to be done by inputting the dates). Total sales every month (to be done by inputting the dates)
* Total sales across all cities. Total sales for each city.

**Non-functional Requirements:**

* The system is to be created and maintained in Java. Java will not change much over time, and if the system is developed well, the code will need very little maintenance.
* **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 Moqups.**

**Mockscreens:**

**1.**

**A screenshot of a menu

Description automatically generated**

**2.**

A screenshot of a computer

Description automatically generated

**Project Task: Week 2 (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>
2. For each story, write the acceptance criteria.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

**Tableau project tasks:**

Mock data used for creating the Tableau dashboard:

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.

A screenshot of a computer

Description automatically generated

**Dashboard: Last six months sales**

A screenshot of a computer

Description automatically generated

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

A screenshot of a graph

Description automatically generated

**Dashboard- Zone wise sales:**

A screenshot of a computer

Description automatically generated

**Dashboard for overall sales with different prospects:**

A screenshot of a computer

Description automatically generated

Tableau link: [Profile - poojitha.prathipati | Tableau Public](https://public.tableau.com/app/profile/poojitha.prathipati/vizzes) (Under the name of Restaurant management system (Capstone project)

**Excel task**

**Question 1:**

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.
3. **Bar graph of sales for San Jose, Madison, and New York cities:**

A graph of sales comparison

Description automatically generated

1. **Data arranged in ascending order:**

A table with numbers and a number of people

Description automatically generated

* **Data arranged in descending order:**

A table with numbers and a number of people

Description automatically generated with medium confidence

**Question 2:**

1. In the above chart for restaurant ID 1200789, find the sales for the month of June.
2. In the above chart for restaurant ID 1200739, find the sales for the month of April.
3. In the above chart for restaurant ID 1200352, find the sales for the month of January.

* Sales for June with restaurant ID 1200789: 5655

Formula used in excel: =VLOOKUP(1200789,A1:H13,8,FALSE)

* Sales for April with restaurant ID 1200739: 78787

Formula used in excel: =VLOOKUP(1200739,A1:H13,6,FALSE)

* Sales for January with restaurant ID 1200325: 15184

Formula used in excel: =VLOOKUP(1200352,A1:H13,3,FALSE)