Capstone Project: Restaurant Management System

Course-end Project 1

Description

**Current State**

**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.

Currently they have a paper-based system for the same and this has many issues. Currently the orders were taken by the waiters on paper and a paper-based bill was 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 on 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 easily update their menu. 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 the creation of this software.

**Environments**

We are going to 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.

**Future State**

**Client has given them the following requirements:**

1. System should be able to create a menu. The menu should be categorized into following sections:

* Starters
* Soups
* Main Course
* Desserts
* Drinks

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.

1. Waiters and managers should be able to search items in the menu using the search*facility*.
2. 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.
3. 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 look into the software to determine which tables need to be reserved. The table layout is to be stored in the system.
4. 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

1. Login for waiters, managers, and James Oliver (CEO). *Change password* facility to be offered.
2. Customers can pay by cash or card. There should be a payment gateway on the system.
3. System should be able to generate the bill.
4. James Oliver would like a feedback form (paper) to be given to every customer. This form shall capture details like name, address, mobile number, email, date of birth, anniversary dates of the customers, and their feedback. These details shall be added by the manager manually into the system.

**You can download the data set, variable description, and menu from here.** - [](https://lms.simplilearn.com/user/project/download-attachment?file=1592301794_datasethospitability.xlsx)

**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)
2. 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
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.
4. Write the in-scope and out-of-scope items for this software.
5. Write out the business requirements, both functional and nonfunctional requirements.
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 Moqups.

**Project Task: Week 3 (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.
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.

**Excel**

Question 1:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Restaurant ID | City | Jan | Feb | Mar | Apr | May | June |
| 1200333 | Chicago | 18,225 | 15,184 | 98,984 | 1,500 | 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 | 78,787 | 15,845 |
| 1200888 | Washington | 11,112 | 15,455 | 15,845 | 15,845 | 10,000 | 11,112 |
| 1200989 | Kansas City | 15,455 | 15,454 | 11,112 | 11,112 | 20,000 | 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 | 15,000 |
| 1200289 | Miami | 48,211 | 16,595 | 18,498 | 11,112 | 16,595 | 15,151 |
| 1200739 | New Orleans | 16,595 | 15,487 | 48,211 | 78,787 | 45,484 | 44,544 |
| 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.

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