The Scenario – Mama's 'Jet-City' Catering

Three years ago, Mary Jo Steinway decided to go into business for herself after raising three children and helping her husband with his construction business. She had always been quite the little homemaker, creating fantastic and clever decorations for every festive occasion. She is also quite the accomplished chef, and is well known for the sumptuous dinners she has served up to family, friends, and her husband's business associates. Thus, it seemed natural for her to choose catering for her new venture.   Mary Jo started out small, doing roughly two to three events per month. For the first year, she used a spiral-bound notebook to keep track of both the events & the food that she catered for each one. This worked OK for the relatively small number of customers & the dishes in her culinary repertoire. However, after she catered a fundraiser for her local chamber of commerce, word started to spread of her superior culinary talents, & before long, she was getting requests to cater more events per week. Before long, the paper notebook became filled with information about all the events and she started to have trouble finding dishes she wanted to recreate for other events as well as information about previous customers for which she had worked.   In addition to her problems keeping and finding information about her various catering jobs, she found that she could no longer do all the work herself. Smaller dinner parties had not been too much of problem, and she worked from time to time with one of her grown daughters to pull them off. For larger events, she would recruit her sister as well, and the three of them would share in the ensuing profits. However, her daughter became pregnant and her sister was not always available to assist her. This ended up forcing Mary Jo to hire a couple of part-time employees. One of them would handle the event bookings and logistics, while the other would help with the food preparation and menu management. This helped greatly, but the problem remained about how to organizing all the information needed for her business. Her event coordinator suggested she use a spreadsheet application to collect and organize her information. She could use one worksheet to keep track of customers, one for events, and one for menu items. Mary Jo liked this idea – her husband used spreadsheets in his business, yet she had never actually used one herself. Her event coordinator knew how to use Excel and set up the initial workbook for her. She tried to teach Mary Jo the basics of the software, and while she eventually became somewhat proficient using it, she continued to have trouble scrolling through all the various records trying to find the information she needed.

Over the last two years, Mary Jo's business grew and her company became deluged with new catering requests. She has become a sort of celebrity and has even appeared on her local PBS station, participating in their annual fundraising cook-offs. She has gotten so much attention that she brought her two part-time employees on as fulltime, and hired additional part-timers to work each event and assist with food preparation. In addition, she has found that the Excel spreadsheet currently in use is completely inadequate to manage all the information needs of her burgeoning business. Therefore, she is looking to find an alternate solution to

provide better management of her information needs. The following are short interviews with Mary Jo and Betty Booker, her event coordinator. Interview with Mary Jo Steinway, CEO, & Pres. of Mama's 'Jet-City' Catering:

"Mama's 'Jet-City' Catering has mushroomed from a very small initial idea of a hobby-type business into a virtual brand-name enterprise. I never thought it would grow as fast as it has. Initially, I could keep all the information about each event together, including customers and locations. But the spreadsheets we are using have become so large that it is virtually impossible to efficiently manage this information in such a way that it can be easily accessed. We need to be able to find the information we need quickly so that we can offer our customers the best possible level of customer service. And now that I have hired additional people, various employees need access to various pieces of the stored information, as well as the ability to add information that relate to their specific job responsibilities." "All these different people enter information their own way, and this has caused the format of each record to differ from entry to entry. If a customer asks to have a particular themed event, it is difficult and time consuming to search for menu items appropriate for that specific theme. In addition, we cater our events at a large variety of locations, and we need to track the logistics and specific rules for each location, be it is a private home, public hall, or church. Again, all this extra time is cutting into the bottom line profits. If we had an automated system that we could use to retrieve the information we need in a quick and efficient manner, we could spend the time saved paying closer attention to event details." "My event coordinator, Betty, handles all the booking details. She makes all the arrangements for reserving the location. Cherrie, my food coordinator, handles all the menu details. She works closely with Betty and I to design each custom event menu, including the dishes that we will serve for the event. She is in charge of the kitchen staff that assist in the food preparation. All financial activities and information are handled by an accountant and bookkeeper who use a standardized accounting software program. The payroll is managed by another firm that specializes in

processing payroll, so I don't need to be bothered with those details. I only want to have to deal with the actual event catering functions. Anything that doesn't relate specifically to each event is outside of the scope of the system that I am hoping you can design for me." Interview w/ Betty Booker, Event Coordinator of Mama's 'Jet-City' Catering: "I handle all the details relating to each catering event. We have a fairly large number of customers, and many of them use our services on a regular basis. Whenever a customer calls, the first thing I do is look for their name in Excel. I use the "find" feature to find their information in the worksheet, and then verify that all information is correct. The next thing I need from them is the type, or theme, of the requested event. An event can only have one theme – be it wedding, cocktail party, bar mitzvah, Christmas Party, birthday etc. Then, I need to know if they have a specific location where they want to hold their event. It can be a private residence, office, church, meeting hall, country club –etc. If they don't

have a preference, I will usually try to find an appropriate location for them and make all the arrangement to reserve it." "Once I have all the information I need, I give the event a "name". This could be "Pete's Birthday", "Joan & Ted's Anniversary", "Josh's Bar Mitzvah", or "John's Retirement Party", etc. I then enter that into the spreadsheet for events. I need the customer information, location, theme, date, time, number of guests, and any specific menu requests. I often research previous events at the same location, as this helps me decide what all is needed for the particular event. This can be very, very time consuming, because I have search for various records and often end up scrolling through hundreds of event records."

"Once all this information is complete, Cherrie, Mary Jo, and I sit down to plan the menu from our vast menu-item repository based primarily on the event's chosen theme. We create a list of menu items for each function and then run it by the customer to make sure it meets with their approval. We track each menu item according to type – appetizer, salad, main dish/entrée, dessert, beverage, etc. In addition, we categorize certain menu items as either kosher, vegetarian, vegan, or regular. We also calculate the price for each menu item based on the number of guests. This information is included on the event detail form. While we have many different menu items to choose from, we maintain the actual recipes for them in a separate filing system and we do not plan to include the recipes and their various ingredients in the new catering reservation system. Lastly, we do a rough calculation of food and other expenses, including location rental fees, decorations, labor, along with any other miscellaneous expenses, and then provide the customer with a price quote for their event reservation."

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CIS 250 - Spring 2015

Term Project – Mama's 'Jet-City' Catering

Background Information

Mary Jo used to be a quite the little homemaker, creating fantastic and clever decorations for every festive occasion. She decided to go into business for herself and naturally, she chose catering for her new venture. She started out two to three small events per month. For the first year she used a spiral-bound notebook to keep track of both events and food that she catered for each one. After her business is larger, her paper notebook became filled with information about all the events and she started to have a trouble finding dishes she wanted to recreate.

Over the last two years, Mary Jo's business grew up and she became a sort of celebrity and has even appeared on her local PBS station, participating in their annual fundraising cook-offs. She hired two part-time employees, but they became fulltime employees and she hired more part-timers to work each event and assist with food preparation. She looks for alternate solution to provide better management of her information needs.

System Requirements

- ❖ **Problem -** The used the paper notebook to track all the events and food but after their business grew up, the notebook became filled with all the information about events. They started to have trouble to find dishes they wanted, so they need an alternative solution to provide better management of the information needs.

- ❖ **People -**
    - Customers
    - Part-time employees
    - Fulltime employees
    - Event Coordinator
    - Food Coordinator

- ❖ **Current Processes -**
    - The first thing to do when a customer calls is looking for their name in Excel.
    - They use the "find" feature to find the customer's information in the worksheet, and then verify that all information is correct.

- Next, the customers need to provide the type, or theme, of the event to create a menu item list.
- The customers give a specific location where they want to hold their event.
- If the customers do not have a preference for location, they usually try to find an appropriate location for the customers and make all the arrangement to reserve it.

❖ **Strengths –**
- Employees are familiar with current system.
- Current system has all of the customer's information.
- Current system has all information regarding any event (dishes, menus, locations, theme, date, time, number of guests, etc.)

❖ **Weaknesses –**
- The system is filled with too much information that it cannot support all of the information.
- Searching and finding information for catering job is difficult.
- Current system is unorganized.
- Current system is very time consuming.
- Since the spreadsheets is so large, it is hard to track the logistics and specific rules for each location.

❖ **Objectives –** The objective of the new system is to create a new automated system that will resolve the many problems and inefficiencies with the current service entry system. The new system must be efficient and quick to retrieve the information they need.

❖ **Benefits –**
- It will be faster to find the information they need so that they can offer their customers the best possible level of customer service.
- Ability to better manage and edit data entered into the system
- It will be easier to retrieve the information from the new system
- It will be less time consuming.

❖ **Alternative Solutions –**
- Hire more programmers who is professional to update the current system to better manage.
- Train employees to better understand how to use the current system

Purpose and Scope

PURPOSE: ***The Purpose of this project is*** creating new automated database system that will support the current needs future goals of the business and solve the current issues they are having with the current overly modified system.

SCOPE: ***The scope of this project will involve/cover*** information relating to customers, events, menu items, employees, themes, event menu items, menu item types, and locations. Out of scope includes all financial activities, payroll, recipes, and their various ingredients.

Information Requirements

- CUSTOMER (Customer_ID, Cust_Number, Cust_Name, Cust_Address, Cust_Phone, Cust_Contact_Name, Cust_Email)
- EMPLOYEE (Employee_ID, Emp_Sales_Agent, Emp_Agent_Contact)
- EVENT (Event_ID, Evt_Number, Evt_Date_Taken, Evt_Res_Price_Quote, Evt_Date, Evt_Name, Evt_Time, Evt_Service_Style, Evt_Number_of_Guest)
- EVENT_MENU_ITEM (Event_Event_ID, Menu_Item_Menu_Item_ID, Evnet_Menu_Item_Servings)
- LOCATION (Location_ID, Loc_Event_Location, Loc_Event_Address, Loc_Contact_Name, Loc_Contact_Phone)
- MENU_ITEM (Menu_Item_ID, Memu_Item_Name, Menu_Item_Price_Per, Menu_Item_Category)
- MENU_ITEM_TYPE (Menu_Item_Type_ID, Menu_Item_Type_Menu_Item_Type)
- THEME (Theme_ID, Thm_Event_Theme)

Business Rules

- An event can only have one theme – wedding, cocktail party, bar mitzvah, Christmas party, birthday etc.
- Location can be a private residence, office, church, meeting hall, country club etc.
- Events has a name
- Each menu item is tracked according to type – appetizer, salad, main dish/entree, dessert, beverage, etc.
- Certain menu items are categorized as either kosher, vegetarian, vegan, or regular.

Issues

- Do you want automated reminders sent to customers?
- Do you want add more options that you would provide for customers?
- Would you like to store all information about each locations?
- Do you want a warning system for duplicated locations for event?
- Is customer name same as contact name?

Assumptions

None at this time.

Final Table List

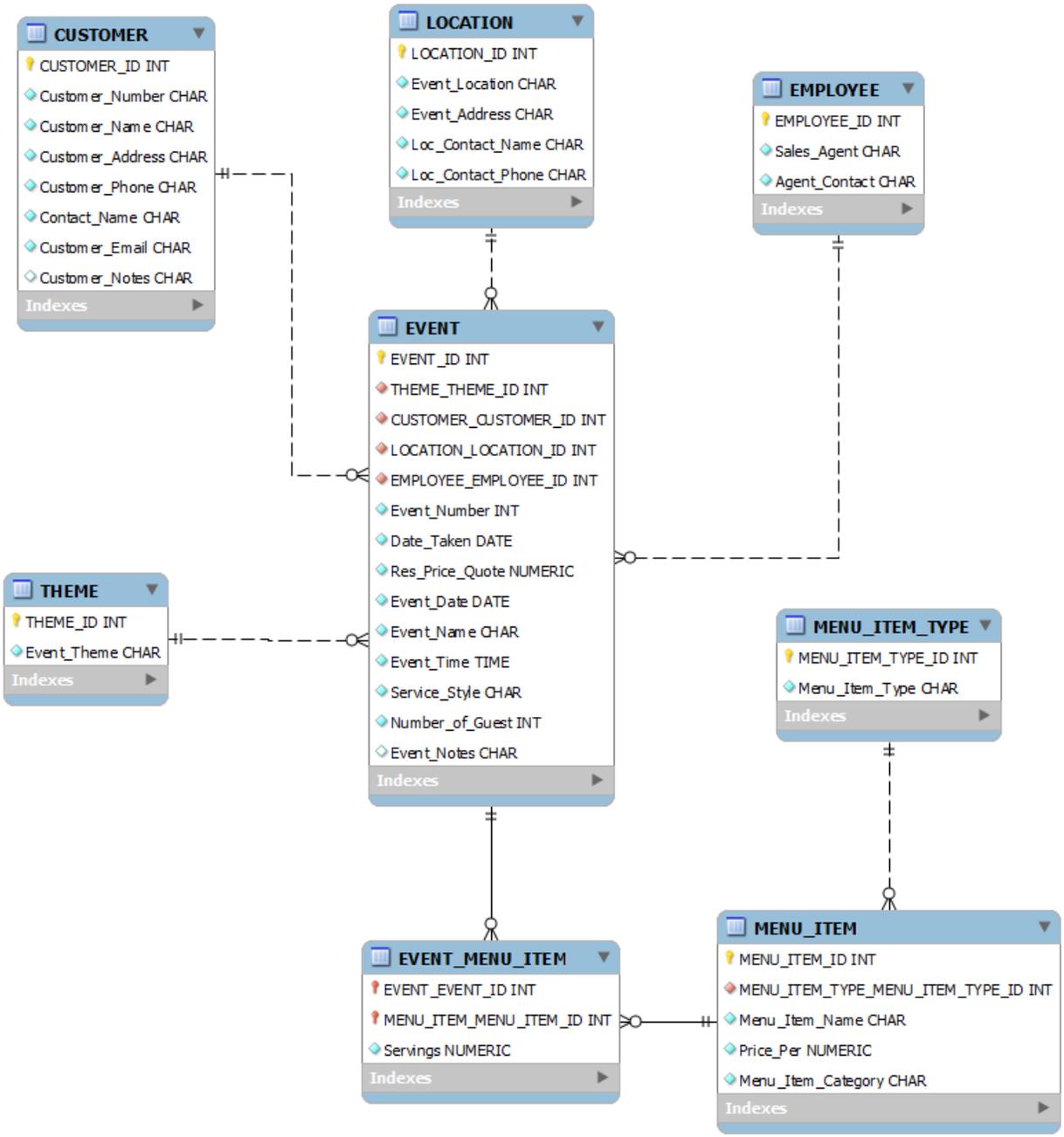| Name	Type	Description

CUSTOMER	Data	The individuals that are clients of Mama's 'Jet-City' Catering. Information that pertains to each individual customer. It is important to identify each clients of Mama's 'Jet-City' Catering.
EMPLOYEE	Data	This table contains (information about) personnel within the company that perform the services offered by Mama's 'Jet-City' Catering. It includes (names), contact information, and job title. (It is important because it allows the business to track which employee provided service for customers).
EVENT	Data	The providing information offered by Mama's 'Jet-City' Catering. It is important to organize each event information.
EVENT_MENU_ITEM	Linking	It contains the specific event menu items.
LOCATION	Data	Locations (are the events are held). (The locations are important so the owner and employees know where each event is prepared).
MENU_ITEM	Data	It contains the specific dishes/recipes provided by Mama's 'Jet-City' Catering for customers.
MENU_ITEM_TYPE	Validation	It contains the specific types of menu items. It is important to organize more specifically.
THEME	Validation	The providing of themes offered for events. These themes are important because they are an integral part of the order system.

Model Assertions

1. A CUSTOMER may be related to zero or more EVENTS and an EVENT must be related to only one CUSTOMER.

2. An EMPLOYEE may be related to zero or more EVENTS and an EVENT must be related to only one EMPLOYEE.

3. A LOCATION may be related to zero or more EVENTS and an EVENT must be related to only one LOCATION.

4. A THEME may be related to zero or more EVENTS and an EVENT must be related to only one THEME.

5. An EVENT may be related to zero or more EVENT_MENU_ITEMS and an EVENT_MENU_ITEM must be related to only one EVENT.

6. A MENU_ITEM may be related to zero or more EVENT_MENU_ITEMS and an EVENT_MENU_ITEM must be related to only one MENU_ITEM.

7. A MENU_ITEM_TYPE may be related to zero or more MENU_ITEMS and an MENU_ITEM must be related to only one MENU_ITEM_TYPE.

Entity Relationship Diagram

Mama's 'Jet-City' Catering
SPRING 2015
Sujin Ryu, Creator

CUSTOMER
- CUSTOMER_ID INT
- Customer_Number CHAR
- Customer_Name CHAR
- Customer_Address CHAR
- Customer_Phone CHAR
- Contact_Name CHAR
- Customer_Email CHAR
- Customer_Notes CHAR
- Indexes

LOCATION
- LOCATION_ID INT
- Event_Location CHAR
- Event_Address CHAR
- Loc_Contact_Name CHAR
- Loc_Contact_Phone CHAR
- Indexes

EMPLOYEE
- EMPLOYEE_ID INT
- Sales_Agent CHAR
- Agent_Contact CHAR
- Indexes

EVENT
- EVENT_ID INT
- THEME_THEME_ID INT
- CUSTOMER_CUSTOMER_ID INT
- LOCATION_LOCATION_ID INT
- EMPLOYEE_EMPLOYEE_ID INT
- Event_Number INT
- Date_Taken DATE
- Res_Price_Quote NUMERIC
- Event_Date DATE
- Event_Name CHAR
- Event_Time TIME
- Service_Style CHAR
- Number_of_Guest INT
- Event_Notes CHAR
- Indexes

THEME
- THEME_ID INT
- Event_Theme CHAR
- Indexes

MENU_ITEM_TYPE
- MENU_ITEM_TYPE_ID INT
- Menu_Item_Type CHAR
- Indexes

EVENT_MENU_ITEM
- EVENT_EVENT_ID INT
- MENU_ITEM_MENU_ITEM_ID INT
- Servings NUMERIC
- Indexes

MENU_ITEM
- MENU_ITEM_ID INT
- MENU_ITEM_TYPE_MENU_ITEM_TYPE_ID INT
- Menu_Item_Name CHAR
- Price_Per NUMERIC
- Menu_Item_Category CHAR
- Indexes

Meta data Dictionary

ENTITY NAME	ATTRIBUTE NAME	DEFINITION	DOMAIN CONSTRAINTS	REFERENTIAL INTEGRITY CONSTRAINTS
CUSTOMER	Customer_ID	The unique identifier for each Customer	System Assigned. Unique. Numeric (10)	**PK** (Primary Key)
	Customer_Number	Legacy record of Customer	Required. Non-unique Numeric (10)	
	Customer_Name	The name of Customer.	Required. Non-unique. Char (20)	
	Customer_Address	The address of Customer.	Required. Non-unique. Char (25)	
	Customer_Phone	The phone number of Customer	Required. Non-unique. Char (12) Input Mask: (____)-_____-____	
	Customer_Email	Email address of each Customer	Required. Non-unique. Char (40)	
	Customer_Notes	Important notes about Customer event and/or requests.	Optional. Note Field. Char(200)	
EMPLOYEE	Employee_ID	The unique identifier for each Employee	System Assigned. Unique. Numeric (10)	**PK** (Primary Key)
	Sales_Agent	The name of Employee	Required. Non-unique. Char (30)	
	Agent_Contact	Contact number of Employee	Required. Non-unique. Char (30)	
EVENT	Event_ID	The unique identifier for each Event	System Assigned. Unique. Numeric (10)	**PK** (Primary Key)
	Theme_ID	Identifier of Theme	Required. Non-unique. **FK** (THEME)	An EVENT cannot exist without a having a related THEME record
	Customer_ID	Identifier of Customer	Required. Non-unique. **FK** (CUSTOMER)	An EVENT cannot exist without having a related CUSTOMER record.
	Location_ID	Identifier of Location	Required. Non-unique. **FK** (LOCATION)	An EVENT cannot exist without a having a related LOCATION record

	Employee_ID	Identifier of Employee	Required. Non-unique. **FK** (EMPLOYEE)	An EVENT cannot exist without a having a related EMPLOYEE record
	Event_Number	Legacy record of event	Required. Non-unique. Integer (8)	
	Date_Taken	The date that customer provided all necessary catering service request information.	Required. Non-unique. Date. Input Mask: MM/DD/YYYY	
	Res_Price_Quote	The total amount invoiced to customer for respective catering service.	Required. Non-unique. Numeric (8).	
	Event_Date	The date that catering service will occur.	Required. Non-unique. Date. Input Mask: MM/DD/YYYY	
	Event_Name	The name of Event	Required. Non-unique. Char(45)	
	Event_Time	The time of day that event holds	Required. Non-unique. Time(5)	
	Service_Style	The serving style for event; such as, banquet, table, lunch boxes, etc.	Required. Non-unique. Char(3)	
	Number_of_Guest	The number of guests per respective event.	Required. Non-unique. Integer(6)	
	Event_Notes	Comments and notes related to event	Optional. Note Field. Char(200)	
EVENT MENU ITEM	Event_ID	Event ID number for respective catering service event	Required. Non-unique. **FK** (EVENT)	**CPK** (Composite Primary Key) An EVENT MENU ITEM cannot exist without an EVENT record
	Menu_Item_ID	Event ID number for respective catering service event	Required. Non-unique. **FK** (MENU ITEM)	**CPK** (Composite Primary Key) An EVENT MENU ITEM cannot exist without a MENU ITEM record
	Servings	Number of servings portion per menu item for respective event	Required. Non-unique. Numeric	
LOCATION	Location_ID	The unique identifier for each	System Assigned. Unique.	**PK** (Primary Key)

		Location	Numeric (10)	
	Event_Location	Location name that Event is held	Required. Non-unique. Char (40)	
	Event_Address	The address of Event's location	Required. Non-unique. Char (25)	
	Loc_Contact_Name	Name of contact person for respective location.	Required. Non-unique. Char (30)	
	Loc_Contact_Phone	Phone number of contact for respective Location	Required. Non-unique. Char (30)	
MENU ITEM	Menu_Item_ID	Event ID number for respective catering service event	System Assigned. Unique. Numeric (10)	**PK** (Primary Key)
	Menu_Item_Type_ID	The unique identifier for each menu item	Required. Non-unique. **FK** (MENU ITEM TYPE)	**CPK** (Composite Primary Key) An MENU ITEM cannot exist without a MENU ITEM TYPE record
	Menu_Item_Name	The name for a respective single dish	Required. Non-unique. Char (45).	
	Price_Per	The price for a single dish based upon pre-determined portion	Required. Non-unique. Numeric.	
	Menu_Item_Category	The category of Menu item	Required. Char (45). Valid Value Type = Kosher, Vegetarian, Vegan, etc.	
MENU ITEM TYPE	Menu_Item_Type_ID	The identifier for the variety of courses/dishes that are available to customer.	System Assigned. Unique. Numeric (10)	**PK** (Primary Key)
	Menu_Item_Type	Courses of menu available	Required. Char(20) Valid Value = Appetizer, Salad, Main, Dessert, Beverages, etc.	
THEME	Theme_ID	The unique identifier for each Theme	System Assigned. Unique. Numeric (10)	**PK** (Primary Key)
	Event_Theme	Theme name for catering event	Required. Non-Unique. Char(40)	