Jon Day
CIS 250

CIS 250 – Final Project Scope Statement

Background Information

Many factors influenced Martha to open a catering company. Martha was always good at creating decorations for festivities and making good dinners for her family, friends and her husband's co-workers. A notebook was used to keep track of the events and associated food for the first year till she catered a fundraiser for chamber of commerce. Word spread of Martha's superior catering talents that made using a notebook no longer suitable for her needs. She also started getting help from her sister and daughters for catering till they were unreliable and then hired some part-time employees. One handled the paperwork and the other helped with the food. She was then advised to use spreadsheets. So she learned and started using spreadsheets to keep track of the data for customers, events and recipes. Martha's business continues to grow so she has hired more employees and the excel spreadsheet has become inadequate for her needs. Her business needs a database to make finding important information quickly to give customers superior customer service.

There are now so many employees who need to access and add information relating to their jobs. Right now they enter data differently so it is difficult to find recipes for specific themes. The business also caters in many locations and need to keep track of data and rules for each location. A database is needed to cut time and make more profits while paying more attention to event details. Betty handles setting up the event and the booking for location reservation and who is working each event. Martha and Betty plan the menu based on the events theme. Cherrie is in charge of menu, supplies for recipes, and food preparation staff. An accountant and bookkeeper using normal accounting software handle all financial data. Payroll is taken care of by another business. Anything not relating specifically to an event is outside the scope for the database. Anything regarding recipes is outside the scope for the database.

System Requirements

- **Problem –** Martha's business has outgrown using a notebook and spreadsheet. She needs a database to retrieve data for customers quickly. The employees enter data differently, which makes it not standardized. They need to keep track of data and rules for each location. An automated system will help to make more efficient creation, locating, updating, retrieving and maintenance for the events of their customers.
- **People –** The new system will affect Martha, Betty, Cherrie, as well as various other employees and the customers.
- **Current Processes** – Betty finds customer data and verifies it if they are a previous customer. If not, then she creates the customer data. She then enters the unique theme, the number of guests, specific menu requests, and the location reservation information including data pertaining to the date and time of the event. If the customer doesn't have a preferred location then she will find an appropriate location. She then determines the number of employees to be used based on previous events for the same location. Martha and Betty then plan the menu based on the event's theme. They create a list of menu items and get approval from the customer. Menu items are divided into categories of kosher, vegetarian, and vegan. Cost of menu items is determined by the number of guests in the event detail form. Cherrie works with Betty to design the menu. Various employees need to be able to access and add information relating to their jobs.
- **Strengths –** It is easy for the employees to use excel.
- **Weaknesses –** The format of each record is not standardized since different employees enter data differently. Various kinds of data cannot be found quickly. They need to keep track of the logistics and rules for each location.
- **Objectives –** The new system is intended to increase the speed of accessing data as well as to standardize data to reinforce data integrity. Implementation for the tracking of logistics and rules for each location will be added.
- **Benefits –** Accessing data will go faster since employees will be using a database with data integrity. Betty will be able to find how many employees are needed for each location faster as well as providing faster customer service. Martha and Betty will be able to find menu items usually given for themes faster.
- **Alternative Solutions –** Tell the employees to use the same format when entering data. Make macros to sort the data based on location or themes depending on what needs to be done. Add logistics and rules for each location to the spreadsheet. None of these would be as useful as a database though.

Purpose & Scope

The purpose of this project is to develop an automated system that will allow Martha's Catering staff to efficiently record, locate, update, retrieve and maintain customer records.
The scope of this project will involve/cover information about customers, locations, products, menu items, events, event staff, themes, and employees. Out of scope are recipes, payroll, and anything not specifically related to events.

Information Requirements

Customer number
Customer name
Customer address
Customer phone number
Customer email
Customer id
Customer notes
Customer contact
Event id
Event date
Event time
Event theme
Event guests
Event notes
Event quote
Event booking
Theme id
Product base price
Product name
Product item type
Product id
Menu item quantity
Employee id
Employee name
Employee title
Location id
Location base price
Location date
Location time
Location duration
Event staff

Business Rules

DATA

- Initially, Martha could keep all the information about each event together, including customer, location, recipe, and ingredient information.
- We cater our events at a large variety of locations, and need to keep track of the logistics and specific rules for each of those locations, whether they are a private home or a public hall or church.
- The next thing Betty needs from them is the type, or theme, of the request event.
- An event can only have one theme – be it wedding, cocktail party, bar mitzvah, Christmas Party, birthday etc.
- Then, Betty needs to know if they have a specific place they want to hold their event. It can be a private residence, office, church, meeting hall, country club –etc.
- Betty needs the customer information, location, theme, date, time, number of guests, and any specific menu requests.
- Each event can have more than one employee working it and our employees handle many, many different events.
- We categorize menu items according to whether it is kosher, vegetarian, or vegan.
- We also calculate the price for each menu item based on the number of guests.
- This information is included on the event detail form.

PROCESS

- Martha 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.
- Martha could use one worksheet to keep track of customers, one for events, and one for recipes.
- And now that Martha has hired additional people, various employees need access to various pieces of the stored information, as well as the ability to add information relating to their specific jobs.
- 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 recipes that pertain to that specific theme.

- Betty handles all the booking details. She makes all the arrangements for reserving the location, and determines which employees will be working each event.
- Betty often researches previous events at the same location, as this helps her decide how many workers to assign to the event.
- Martha and Betty sit down to plan the menu from our vast recipe repository based primarily on the event's chosen theme.
- Cherrie, my food coordinator, handles all the menu details. She works closely with me to design the menu, and then determines what supplies need to be ordered to complete each recipe. 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.
- Whenever a customer calls, the first thing Betty does is look for their name in Excel. She uses the "find" feature to find their information in the worksheet, and then verify that all information is correct.
- 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."
- After Betty has entered all this information, she needs to determine how many employees will be needed to properly service all the invited guests.
- 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.

Issues

- What kind of UI will Martha, Cherrie, and the various employees need?
- What are all the available locations?
- What are all the available themes?
- Do all menu items have categories?
- What kind of logistics and rules do you have to keep track of for locations?
- How do you determine number of employees for a location if it is the first job for that location?
- How do you determine menus for themes if it is the first time the theme is used?
- How do you determine the quoted price for the event?
- How is the customer id for the events determined?

Assumptions

None at this time

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Final Table List

Name	Type	Description
CUSTOMER	Data	The people who purchase the events to be held. Keeping track of customers helps to uphold speed and quality of customer service as well as minimize redundancy of data.
LOCATION	Data	The location is where the event is to be held. This information is important to make sure the location is properly reserved for a specific date, time, and duration for the given event.
EMPLOYEE	Data	The people who work for Martha's Catering service. This information is important to keep track of the employees and what jobs they will perform for events.
THEME	Validation	The theme is the overall general idea for the gathering of the event. This information is kept in order to define the specific themes that Martha's business caters to.
EVENT	Data	The event is the service provided by Martha's Catering for the customer. This includes the theme, location, and everything desired by the customer for the purchase of the event.
EVENT STAFF	Linking	The event staff has all the information regarding to which employee will be working which event. This information is important to make sure all events can be handled and that there is no overlapping.

MENU ITEM	Linking	The menu item has all the information regarding to the food (product) which will be provided for each event and how much is needed. This information is important to make sure there is enough food to feed the guests at the event.
PRODUCT	Data	The product is the food which will be provided at the event. This information is important since it gives the base price of the food and the type of food that it is.

Model Assertions

A CUSTOMER may have zero or more EVENTS and an EVENT must have one and only one CUSTOMER.

A LOCATION may have zero or more EVENTS and an EVENT must have one and only one LOCATION.

An EMPLOYEE may have zero or more EVENT_STAFF and an EVENT_STAFF must have one and only one EMPLOYEE.

An EVENT_STAFF must have one and only one EVENT and an EVENT may have zero or more EVENT_STAFF.

A THEME may have zero or more EVENT and an EVENT must have one and only one THEME.

An EVENT may have zero or more MENU_ITEM and a MENU_ITEM must have one and only one EVENT.

A MENU_ITEM must have one and only one PRODUCT and a PRODUCT may have zero or more MENU_ITEM.

ERD

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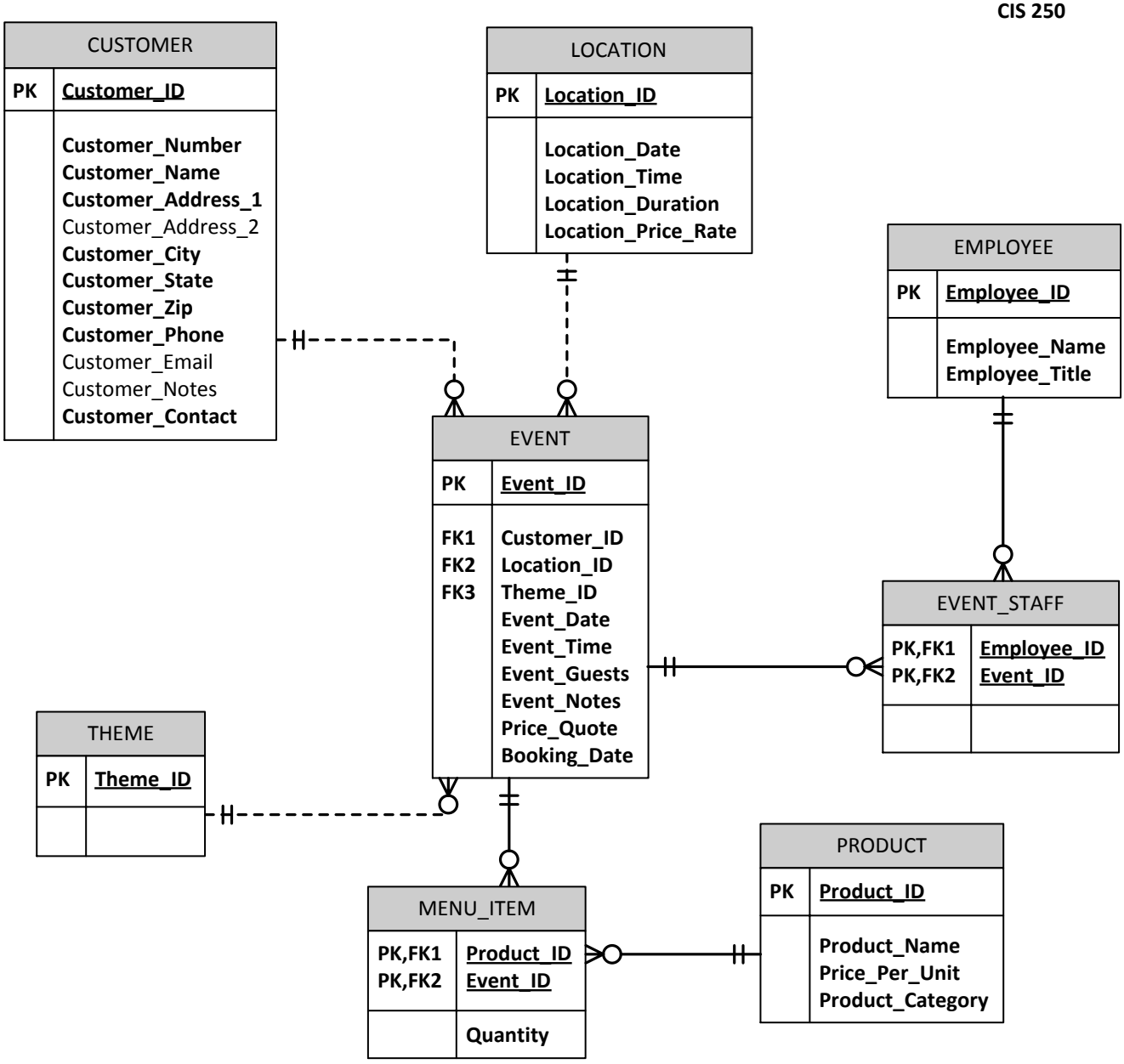

Meta Data Dictionary

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	The number assigned to a CUSTOMER	Required Non-Unique Char (10)	
	Customer_Name	The name of the CUSTOMER	Required Non-Unique Char (25)	
	Customer_Address_1	The street address of the CUSTOMER	Required Non-Unique Char (25)	
	Customer_Address_2	Additional space for the street address of the CUSTOMER	Required Non Unique Char (25)	
	Customer_City	The city the CUSTOMER is in	Required Non Unique Char (25)	
	Customer_State	The state the CUSTOMER is in	Required Non Unique Char (3) Lookup: Valid Values="WA", "MT", "CA", etc	
	Customer_Zip	The zip the CUSTOMER is in	Required Non Unique Char (9)	
	Customer_Phone	The main phone number to call for the CUSTOMER	Required Non Unique Text (20) Input Mask: Phone(###)###-####	
	Customer_Email	The email address of the CUSTOMER	Optional Notes Field Default Value: "None"	

	Customer_Notes	Any special notes for the CUSTOMER	Optional Notes Field Default Value: "None"	
	Customer_Contact	The name of the person to contact for any questions regarding the CUSTOMER	Required Non Unique Char (25)	
EMPLOYEE	Employee_ID	The unique identifier for an EMPLOYEE	System Assigned Unique Numeric (10)	**PK** (Primary Key)
	Employee_Name	The name of the EMPLOYEE	Required Non Unique Char (25)	
	Employee_Title	The job title of the EMPLOYEE	Required Non-Unique Char (25) Lookup: Valid Value=: "Cook", "Wait Staff", etc	
EVENT	Event_ID	The identifier for an EVENT	System Assigned Unique Numeric (10)	**PK** (Primary Key)
	Customer_ID	The identifier of the CUSTOMER	Required Non Unique **FK (CUSTOMER)**	An EVENT record can't exist without a CUSTOMER record
	Location_ID	The identifier of the LOCATION	Required Non-Unique **FK (LOCATION)**	An EVENT record can't exist without a LOCATION record
	Theme_ID	The identifier of the THEME	Required Non Unique **FK (THEME)**	An EVENT record can't exist without a THEME record
	Event_Date	The date on which the EVENT will take place	Required Non Unique Text (10) Input Mask: Date mm/dd/yy	
	Event_Time	The time which the EVENT starts at on the specific date	Required Non Unique Text (10) Input Mask: Time	

			hh:mm	
	Event_Guests	The number of guests planned to be at the EVENT	Required Non Unique Numeric (10) Valid Values: 20, 100, etc	
	Event_Notes	Any special notes for the EVENT	Optional Notes Field Default Value: "None"	
	Price_Quote	The price quote for the EVENT to be held	Required Non Unique Numeric (8) Values in USD	
	Booking_Date	The date on which the EVENT was entered into the computer	Required Non Unique Text (10) Input Mask: Date mm/dd/yy	
EVENT_STAFF	Employee_ID	The identifier of the EMPLOYEE working on the EVENT	Required Non Unique **FK (EMPLOYEE)**	**CPK** (Composite Primary Key), An EVENT_STAFF record can't exist without an EMPLOYEE record
	Event_ID	The identifier of the EVENT that is worked on by the EMPLOYEE	Required Non Unique **FK (EVENT)**	**CPK** (Composite Primary Key), An EVENT_STAFF record can't exist without a EVENT record
LOCATION	Location_ID	The unique identifier for each LOCATION	System Assigned Unique Numeric (10)	**PK** (Primary Key)
	Location_Date	The date the LOCATION is to be held for the EVENT	Required Non Unique Text (10) Input Mask: Date mm/dd/yy	

	Location_Time	The the time of day the EVENT is to be held at the LOCATION	Required Non Unique Text (10) Input Mask: Time hh:mm	
	Location_Duration	The duration the LOCATION is to be used for the EVENT	Required Non Unique Char (15) Valie Value = 2 hr, 3 hr, 10 hr, etc	
	Location_Price_Rate	The price per hour that the LOCATION charges to be used	Required Non Unique Numeric (8) Values in USD	
MENU_ITEM	Product_ID	The identifier of the PRODUCT served at the EVENT	Required Non Unique **FK** (PRODUCT)	**CPK** (Composite Primary Key), A MENU_ITEM record can't exist without a PRODUCT record
	Event_ID	The identifier of the EVENT	Required Non Unique **FK** (EVENT)	**CPK** (Composite Primary Key), A MENU_ITEM record can't be recorded without an EVENT record
	Quantity	The quantity of the PRODUCT which was served at the EVENT	Required Non Unique Numeric (6) Valid Values: 20, 200, etc	
PRODUCT	Product_ID	The unique identifier for each PRODUCT	System Assigned Unique Numeric (10)	**PK** (Primary Key)
	Product_Name	The name of the PRODUCT on the menu	Required Non Unique Char (50) Lookup: Valid Values= "Carmelized Onion Dip with Potato Thins", "Vegetarian Lasagna", Vegetarian",	

			"Vegan", "Ceaser Salad", etc	
	Price_Per_Unit	The price per unit for the PRODUCT	Required Non Unique Numeric (8) Values in USD	
	Product_Category	The category the PRODUCT would fall under for the menu	Required Non Unique Char (25) Lookup: Valid Values= "Kosher", "Vegetarian", "Vegan", NULL	
THEME	Theme_ID	The unique identifier for a THEME	Required Unique Char (30) Lookup: Valid Values= "Graduation", "Wedding", "Cocktail Party", etc	**PK** (Primary Key)