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| Julie Sweany | | |
|  | Paste in your answers for each step below in this column. Paste your actual SQL text, not a screen shot of it. Paste a screen shot of your Result Grid. Be sure to “Snip” your screen shots as instructed in Assignment 02. | | |
| **1** | Executive Summary | My proposed database addresses the organizational challenges that Brenda’s Bakeries now faces and provides easy analysis of the company’s purchasing of ingredients and its sales of products.  To better track ingredients, the database would include a record of each order placed with a vendor. Information stored pertaining to the ordering of ingredients would include: the employee making the order, the date, the amount of each ingredient ordered, the vendor, and the price. The database would also store a recipe for each product produced by Brenda’s Bakeries.  In addition to creating an organized tracking system for all vendor orders, this information will allow the business to easily keep track of its inventory of ingredients. This will simplify planning for upcoming orders, saving the business time, and it may even help make it possible to coordinate the timing of purchases with days when vendors are offering low prices.  Sales will also be recorded, including the following information: quantity of each product purchased, the price(s), the date, the retail shop in which the sale was made, and the employee making the sale. If the customer making the purchase participates in Brenda’s Bakeries’ loyalty program, the record for that sale will also link to that customer’s account. For customers enrolled in the program, the database will store the customer’s name, email address, and phone number.  The database will keep all sales transactions organized, making it possible to easily analyze the company’s sales. For example, because it will be so easy to find out how much of each product is sold at each location, it will be easy to determine which products do best at which locations. This may lead to different decisions about how to stock products at the various locations. Additionally, the loyalty program will require very little work since sales to particular customers can be tracked by the database. This will save the company time when assessing whether customers qualify for rewards.  The proposed database will capture valuable data, and I believe it will be a great asset for Brenda’s Bakeries. However, it is designed to meet only the requirements outlined above. Other needs of the business, such as employee scheduling, tax and accounting, compliance with regulations, etc., are outside the scope of this particular project. Of course, I would be happy to discuss any other business needs with you, so please let me know if you have other concerns I may be able to address. | | |
| **2** | EER Diagram |  | | |
| **3** | Crayon Definition | |  |  | | --- | --- | | **Entity Name** | **Crayon Definition** | | Customer | The Customer table contains records about people who make purchases in the shops. | | Shop | The Shop table contains records for each of the bakery’s retail locations. | | Sale | The Sale table contains records about each purchase of bakery product(s). | | SaleLineItem | The SaleLineItem table is a linking table which allows for the many-to-many relationship between the Sale and Product tables. | | Employee | The Employee table contains records for the people who work at the shops. | | Product | The Product table contains records for each of the products offered for sale in the shops. | | Recipe | The Recipe table contains records for the recipe used to make each of the products. | | IngredientRecipe | The IngredientRecipe table is a linking table which allows for the many-to-many relationship between the Ingredient and Recipe tables. | | Ingredient | The Ingredient table contains records for each of the ingredients used in producing the products. | | UnitOfMeasure | The UnitOfMeasure table contains records for different units of measure used to indicate amounts of ingredients. | | Order | The Order table contains records for orders of ingredients that the bakery is purchasing from vendors. | | OrderLineItem | The OrderLineItem table is a linking table which allows for the many-to-many relationship between the Order and Vendor tables. | | Vendor | The Vendor table contains records for each of the vendors from which the bakery buys ingredients. | | IngredientUnit | The IngredientUnit table is a linking table which allows for the many-to-many relationship between the UnitOfMeasure and Ingredient tables. | | | |
| **3** | Biz Rules | 1. The same ingredient can be used in many different recipes. 2. Each product has just one recipe. 3. An ingredient may be measured with different units of measurement. 4. A single sale may include more than one product. 5. The customer loyalty program is based on purchases company-wide; it does not total purchases separately at each location. 6. Each order must be placed by one employee and include employee name. 7. Although customers shop at one or more shops, each sale takes place only in one particular shop. | | |
| **4** | Output Requirements | 1. Output today’s best total price for the amount of milk needed to make 3 batches of cinnamon rolls. 2. Output all the customers in the loyalty program who have spent a total of $100 or more. 3. Output all the customers in the loyalty program who have purchased more than 25 individual products this month. 4. Output the sales totals for a particular day for each of the retail shops. 5. By retail location, output the three employees who conducted the most sales transactions. | | |