Mendl’s Goes Digital

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Abstract

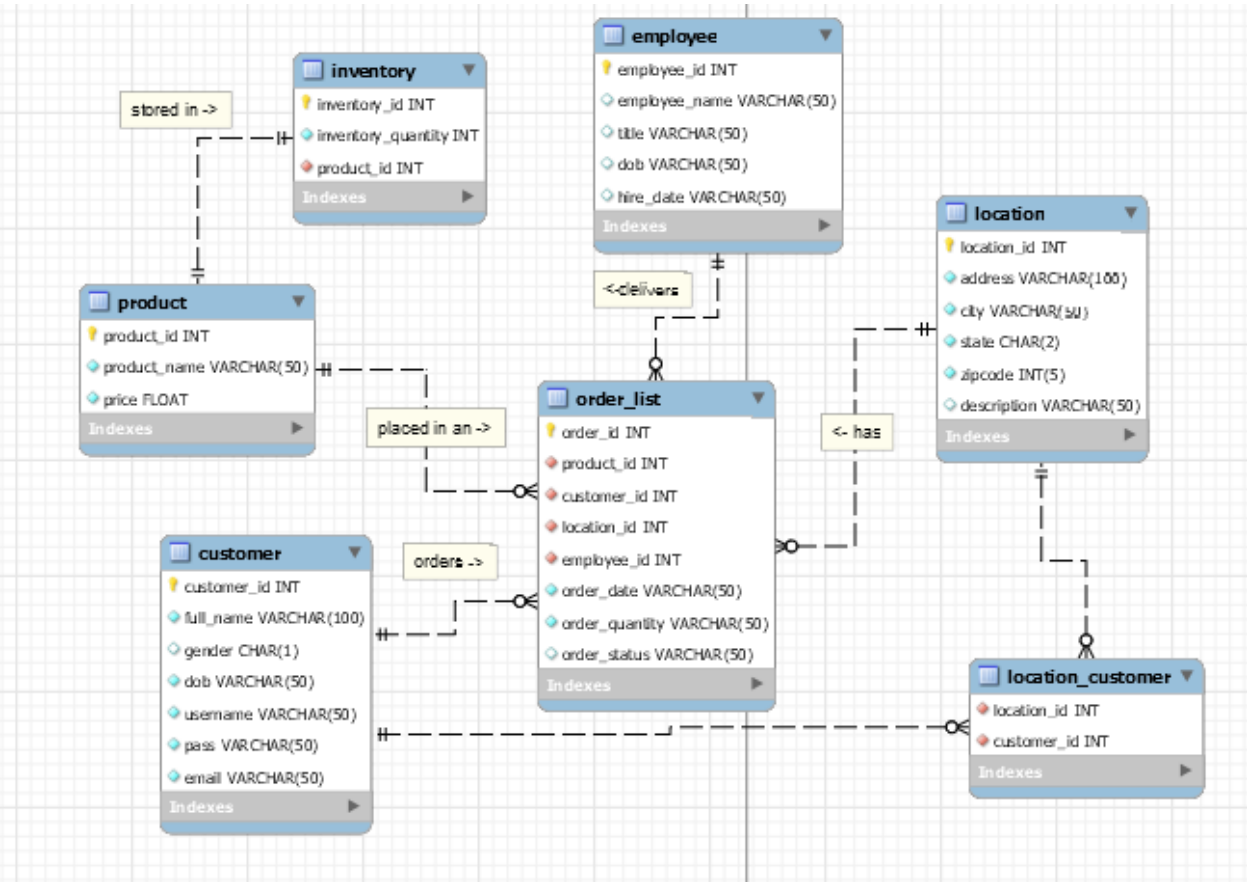
Mendl’s, residing near the Grand Budapest Hotel, requests to hire an outside consultant to help their business go digital by creating a relational database to make better business decisions and improve business processes.

Introduction

Mendl’s has recently been hit by the recent COVID-19 coronavirus pandemic and its customers are no longer ordering their favorite pastries from Zubrowka’s finest bakery. Herr Mendl finds this as an optimal opportunity to pivot his business so it can survive the new digital age. He hires an outside consultant that can create a database that can keep track of its business practices so that Mendl’s can continue delivering their famous Courtesan au Chocolat and other delicious pastries. They key business requirements are that the database can keep track of all online orders, do analysis on the different orders, and making sure all deliveries are delivered.

Database Design

MySQL was used to develop an ER diagram. The conceptual model of the database was developed to keep track of Mendl’s core post-coronavirus business strategy: keep delivering Courtesan au Chocolat to keep people from going insane in lockdown. The database keeps track of all orders, deliveries, and products Mendl’s needs to evaluate the supply and demand of the business. Every order has one and only corresponding employee delivering the order, a location of where it goes to, a customer who orders, and the product that is ordered. Each product has inventory keeping track of the supply and each customer has one or more corresponding locations they reside in.



Data Sources and Methods

This project utilizes mock data because it is based off a fictional bakery called Mendl's from the movie The Grand Budapest Hotel directed by Wes Anderson. In the movie, Agatha, a baker at Mendl's, delivers the pastries by tying the packages on sticks that she carries on her back while riding a bicycle. I was inspired by this scene and wanted to create a better business process for the fictional bakery.

The mock data was created using Mockaroo to choose fields that would populate the tables. The auto generated data was then modified slightly to fit the narrative of a bakery.

User Cases

The user can keep track of each online order and do analysis on the different orders. For example, the user can ask who the most frequent customer is by the number of orders or the customer that spends the most. The user can also ask if orders are usually delivered to customers themselves or as a gift. As seen below, Mendl's can get insight that Monsieur Gustave is a key customer for their business and can make smarter business decisions using data. These insights give Mendl's a competitive advantage against other bakeries and pastry shops.

```
-- Who is the customer that spends the most?
select full_name, sum(order_quantity * price) as total_spent
from order_list o join customer c using (customer_id)
join product p using (product_id)
group by customer_id;
```

full_name	total_spent
Monsieur Gustave H.	552
Elonore Carmen	100
Elene Furmonger	80
Mercedes Perrottet	96
Emmi Yuryatin	76
Aeriel Keller	160
Robbert Colnett	140
Bogey Rosin	89

The database also contains triggers and stored procedures that make new orders for customers by checking inventory first and keeps track of the delivery status.

Conclusions

The database is a great starting point in keeping track of Mendl's business operations. From the database I have analyzed that Mendl's creates revenue of about $39.53 per order, 42.3% of all customers order online as a gift and that Monsieur Gustave is the most frequent and lavish customer etc. Using the power of databases, Mendl's business can now make decisions from key information found in data. Perhaps the database can be further improved by adding in the suppliers, payment methods, costs that can give more insightful analysis.