Analytics App for a Ghost Kitchen

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1.1. Business Requirements (Katerina Bosko)

"We are an Italian chain **restaurant** "Golden Triangle" with 5 **locations** across several **states.** Due to COVID and limited in-restaurant dining, our **revenue** was *hit* hard last year. Now things are getting better. Yet we would like to *avoid* such **risks** in the **future** and *try out* a new **business model** –maybe you've *heard* the term – a **"ghost kitchen"**. So, we *need* a new **database** *designed* specifically for this purpose.

Our **goal** is to *increase* our current restaurant **deliveries** of about 15-20 **orders** per hour to at least 50 orders per hour *keeping* **costs** relatively low. We also *want* to *experiment* with the **meals** to *find* the bestselling virtual brands. I believe we will *start* with **pizza**, **chicken wings** and **burgers** because they are popular **delivery items**. But we want to be flexible and be able to *adjust* the menus to *match* current **trends** or *target* multiple **demographics**.

Speaking of demographics, it's important for us to *know* our **customers**. So, we would like to *track* customer data like **age, address**, etc., if possible. The idea is to *create* in-house **analytics** for the ordering **process** to make data-driven **decisions**. Basically, we would like to know which items are popular, what are the average **wait times**, what is customer **feedback** (maybe through **ratings**) and so on. This will *allow* us to *adjust* our menus accordingly.

We are also thinking about experimenting with **brand names** and **logos**, so the database should *track* different **design ideas** and the respective **number of orders**.

Finally, we will be *listing* our **virtual brands** on multiple delivery **applications** like GrubHub, DoorDash, Uber Eats and others. But apart from delivery, we want to *offer* **takeout** and a **drive-through** options as well."

1.2. Business Requirements Analysis (Jiayi Li)

Nouns:
- Restaurant
- Locations
- States
- Revenue
- Risks
- Future
- Business model
- Ghost kitchen
- Database
- Goal
- Deliveries
- Orders
- Costs
- Menu
- Pizza
- Chicken wings
- Burgers
- Delivery items
- Trends
- Demographics
- Customers
- Age
- Gender
- Address
- Analytics
- Process
- Decisions
- Wait times
- Feedback
- Ratings
- Brand names
- Logos
- Design ideas
- Virtual brands
- Applications
- Takeout
- Drive-through

Verbs:
- Revenue was hit
- Avoid risks

- Try out new business model
- Heard
- Need a new database
- Increase restaurant deliveries
- Keep costs low
- Experiment with the menu
- Find the bestselling virtual brands
- Start with
- Adjust menus
- Match current trends
- Target multiple demographics
- Know customers
- Track customers' age, gender, location
- Create in-house analytics
- Allow to adjust menu
- Track design ideas, number of orders
- List virtual brands
- Offer takeout and drive-through

Nouns to be used in conceptual model:

As Entities:

- Location
- Meal
- Order
- Delivery
- Takeout
- Drive-through
- Customer
- Rating

As Attributes:

- States
- Revenue will be calculated based on unit price and quantities
- Wait times will be calculated as pickup-time - order time
- Applications
- Age
- Address