BizBite

1. Project Summary:

a. BizBite is a revolutionary platform that connects businesses with local restaurants to provide discounted meals for employees. By leveraging bulk ordering and catering agreements, BizBite offers a win-win solution for companies looking to provide meal benefits and restaurants seeking to increase their customer base and order volume. It will also give employees more flexibility when ordering the specific meal they want, giving restaurants accurate food counts, which will avoid food waste.

2. Description of an application of your choice:

a. We want to connect business with the catering services the restaurants offer. We will have three UIs for the web application, a customer UI, a business UI, and a restaurant UI. In the restaurant UI, restaurants will be able to input their items and nutrition info into our database, as well as any pre-approved deals they offer, their location info, and contact information. The business UI will allow businesses to search for restaurants in their area and either select pre-approved deals or contact the restaurants for further negotiation. Finally, the employee UI will allow employees to view the restaurants their company has done deals with and select the food meals they want.

3. What would be a good creative component that can improve the functionality of your application?

a. The AI-powered virtual nutritionist is an advanced feature within the BizBite web app that provides personalized nutritional guidance and meal recommendations to employees. This intelligent system combines natural language processing, machine learning, and nutritional science to offer a unique, interactive experience that promotes healthier eating habits in the workplace. This can be accomplished with CHAT-GPT implementation using their free API.

   i. Real-time Meal Recommendations
      1. Analyzes available menu options in real-time
      2. Suggests meals that align with the user's nutritional profile and daily nutritional needs

   ii. Personalized Nutritional Profiling
      1. Conducts an initial assessment of each user's dietary preferences, restrictions, and health goals

   iii. Dietary Goal Tracking
      1. Sets and monitors progress toward user-defined nutritional goals
      2. Offers weekly and monthly reports on nutritional intake and goal achievement

   iv. Smart Meal Planning
      1. Generates balanced meal plans for individuals or teams

2. Considers factors like variety, nutritional balance, and user preferences

v. Allergy and Intolerance Management
   1. Flags potential allergens or problematic ingredients based on user profiles
   2. Suggests safe alternatives for users with dietary restrictions

4. Usefulness

a. There are many benefits for both companies and local restaurants by simplifying corporate meal services. BizBite enhances employee satisfaction by providing them with discounted meal options and helping them save time and money. Local restaurants are gaining access to more customers without the need for extra marketing efforts. The platform's bulk order management system ensures efficiency and drives revenue growth. By focusing on bulk ordering, BizBite ensures greater discounts for companies and smoother operations for restaurants, leading to cost efficiency on both ends. Its focus on promoting local restaurants sets it apart from competitors, driving community-based growth and establishing future business relationships.

b. There are a few applications that are competitors to BizBite. Companies like Ezcater and Fooda both have large food ordering services.
   i. Ezcater focuses on large-scale events, however, their menu is predefined and is limited to the company's preferences when it comes to a customizable menu. Ezcater is also more of a large event catering service, which is less focused on daily or individual employee needs.
   ii. Fooda was designed to bring restaurant food into the office for employees regularly, primarily serving offices with catering and popup services from local restaurants. Fooda does not focus on discounts for employees or companies, however, it focuses on convenience. The pop-up restaurant service requires logistical planning which may not be practical.

c. BizBite is different because we allow companies to work directly with local restaurants to create personalized, company-specific menus. We also inform the employee the amount of discount the company will give given x amount of orders. BizBite also focuses on daily or weekly meal plans rather than only large events. We also offer automation of a company's meal planning with customizable scheduling on a daily, weekly, or monthly basis. This reduces the constant need for manual ordering every time.

5. Realness

a. ms_annual_data_2022.xlsx Our data source is from menustat.org. This website was built by the New York City Department of Health and Mental Hygiene, with funding in part from the U.S. Department of Health and Human Services, and Centers for Disease Control and Prevention. At the time of its last update in 2022, it was being run by Harvard Pilgrim Health Care Institute with funding from the National Institutes of Health. The dataset comes in the xls format. The cardinality is 26,238 and the degree is 17, excluding empty columns. This dataset contains food categories (classifies food into soup, salads, entrees,

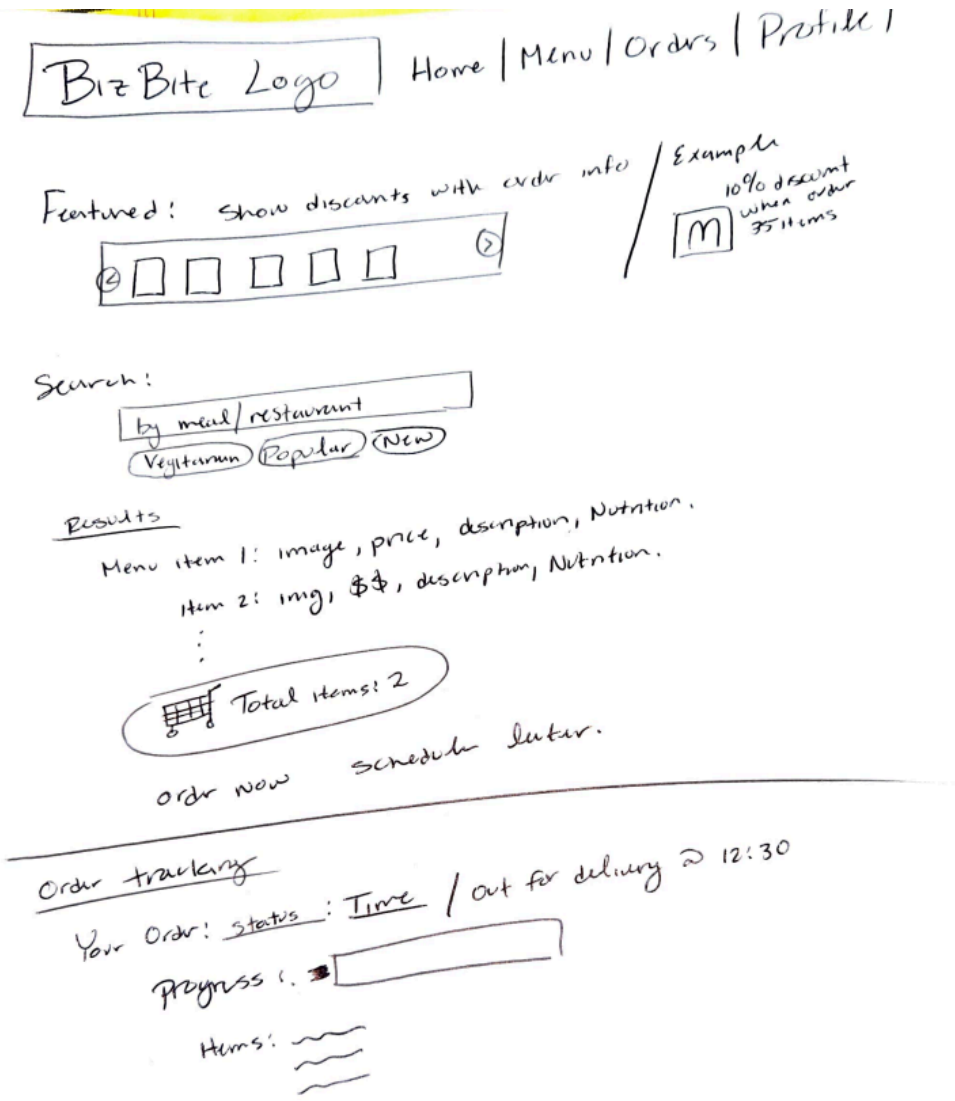
beverages …etc), name of restaurant, item name, and item description. It is then followed by nutritional information including calories, total fat, saturated fat, trans fat, cholesterol, sodium, carbohydrates, dietary fiber, sugar, and protein.

b. FastFoodRestaurants.csv This data source is from kaggle.com and it is in the csv format. It lists 10,000 restaurants across the US, and specifies the address, city, country, keys, LongLat. postalCode, province and websites. The cardinality is 10,000 and the degree is 10.
c. companies.xlsx This is a synthetic data source in the xls format, containing addresses obtained from kaggle.com. Other than the fictional company names that were inserted in the first column, each row contains a real address. The cardinality is 90 and the degree is 5. Columns consist of company name, address, city, state, and zip.
d. employees.xlsx This is a completely synthetic data source in the xls format, made with the help of fakenamegenerator.com. It contains columns for identification number, given name, surname, username, password, company, and dietary restriction. The cardinality is 3,000 and the degree is 6.

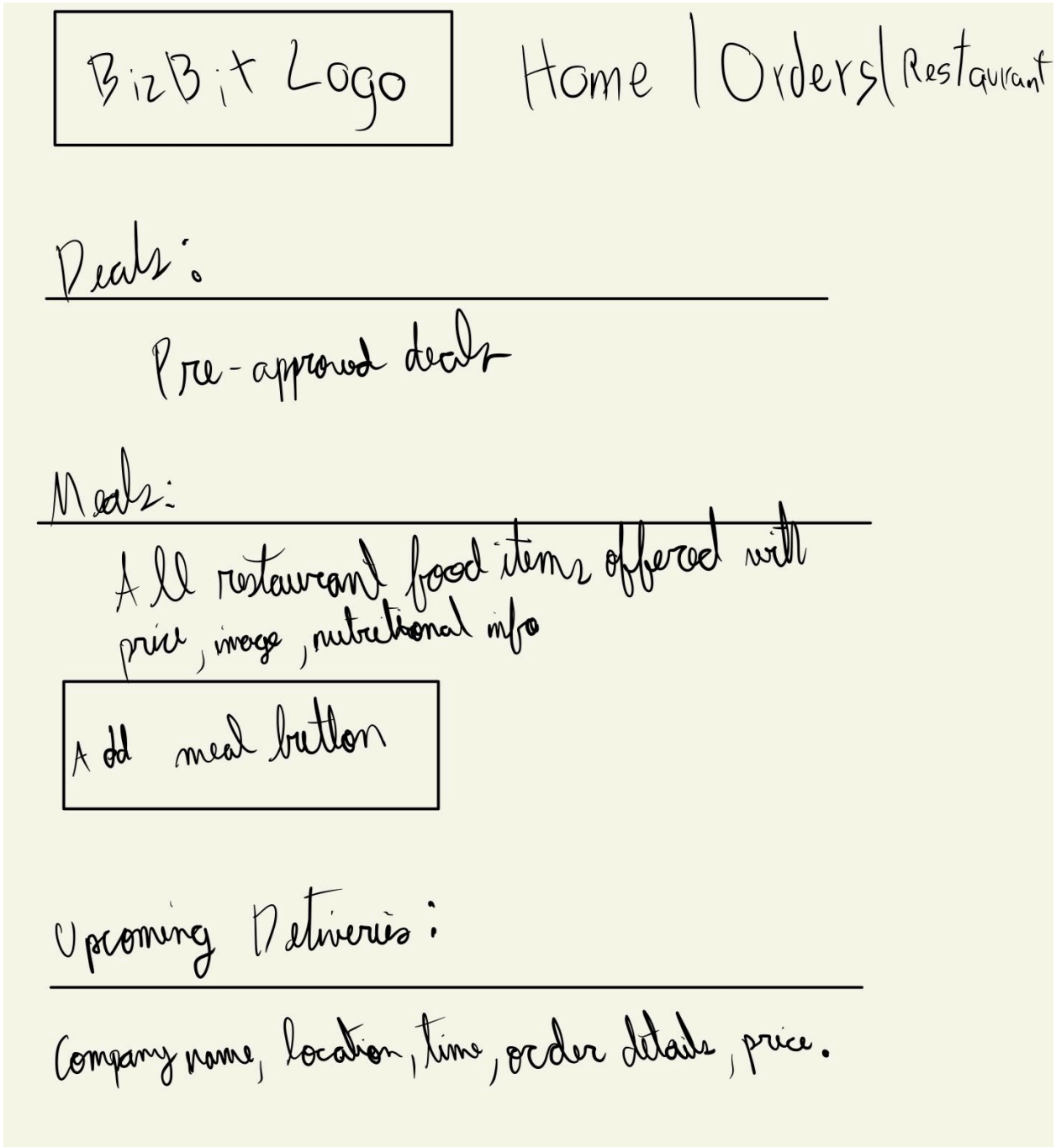
6. A detailed description of the functionality that your website offers. You should include:

a. A low-fidelity UI mockup:

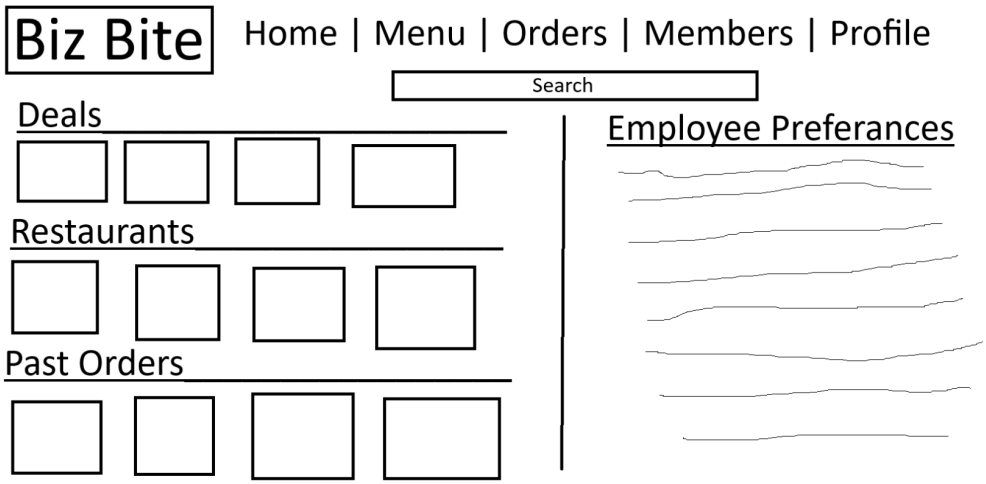
Employee UI:



Restaurant UI:


BizBit Logo
Home | Orders | Restaurant
Deals:
Pre-approved deals
Meals:
All restaurant food items offered with price, image, nutritional info
Add meal button
Upcoming Deliveries:
Company name, location, time, order details, price.

Company UI:



b. Project work distribution: Who will be responsible for each of the tasks or subtasks? Explain how backend systems will be distributed across members. Be as specific as possible as this could be part of the final peer evaluation metrics.

i. Database implementation: Juan Diego Sanz
ii. GPT implementation: Hrishi Kini
iii. UI design: Calvin Sato & Nick Krowicki
iv. Tasks will primarily be split as shown above but we will most likely collaborate on each task.

c. CRUD Operations for Key Entities:

i. **User Accounts (Customers, Businesses, Restaurants)**
   1. *Create*: New users (employees, businesses, restaurants) should be able to register via the respective UIs. User verification user verification is important, passwords can be encrypted.
   2. *Read*: Users need access to their profiles, order history, and restaurant options (for businesses).
   3. *Update*: Account details, dietary preferences, and business-restaurant partnerships should be editable.
   4. *Delete*: Users should be able to deactivate accounts, while restaurant partnerships might be removed upon contract termination.

ii. **Menu Items and Nutrition Information**
   1. *Create*: Restaurants should input new menu items along with nutritional data.
   2. *Read*: Employees can view menu options and nutritional info to make informed decisions.
   3. *Update*: Restaurants need to regularly update menu items, nutrition info, and deals.

4. *Delete*: Outdated menu items or deals should be removable to avoid confusion.

iii. **Orders and Deals**

1. *Create*: Businesses should initiate bulk orders, while employees select meals within those deals.
2. *Read*: Users need access to current and past orders for tracking purposes.
3. *Update*: There should be flexibility in modifying or canceling orders within specific timeframes.
4. *Delete*: Canceled or completed orders should be removed from active lists but stored in history.