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- **Project Description:**
  - The name of this term project is called “The Food Mentor”. This project consists of three main components: scanning your food product’s barcode to determine if you should/shouldn't eat, remembering recurring user’s data, and a food intake checker.

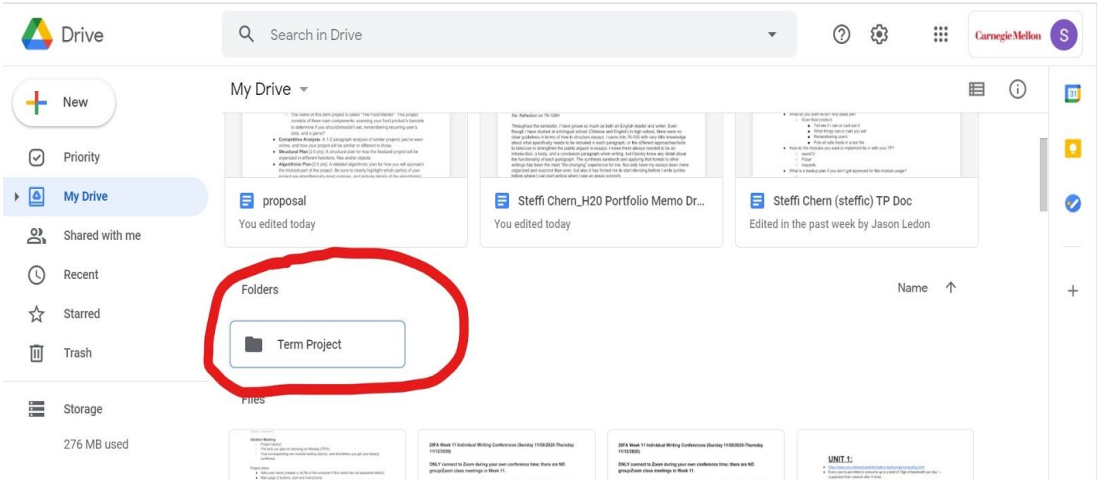
- **Competitive Analysis**:
  - A similar project I’ve seen is Isabella Fons’ project on scanning barcodes and determining if the food is safe / not safe for the user to eat. However, I've added other features to the project, such as remembering the user’s input information through constantly reading and updating the txt file and an intake checking mode where the user will be inputting some information and receive feedback.

- **Structural Plan**:
  - Main.py: all the UI and controllers
  - Scanner.py: scans barcode
  - Webscaping.py: use requests to extract data from the USDA website (database) for the products’ ingredients + formatting the data better to increase accuracy
  - FoodData.py: determines should/shouldn't eat + extract data from txt file regarding conditions
  - GetUserInfo.py: receives input from users + build profile for user + read and update past information
  - IntakeChecker.py: algorithms that calculate and determine and graph how the user is doing with their calorie/ macros intake with scanned products
  - Image.py: all images
  - *might add/combine files along the way

- **Algorithmic Plan**:
  - Recursively find and extract data from remembered names and past information; update the file if any changes were made
  - Calculate estimated food calories/macros by incorporating the Harris-Benedict principle and add variances to make the results more accurate
  - Graphing the results with opencv? Not quite sure with this step

- **Timeline Plan**:
  - 11/29/2020: User inputs + check should/shouldn’t eat + develop a profile for user
  - 12/2/2020: Remember recurring users (able to access and modify past data)
  - 12/4/2020: algorithms on checking user’s food intakes (calories/macros)
  - 12/5/2020: Debugging and hopefully reach MVP by now

- **Version Control Plan**:
  - I am backing up my term project in my CMU email’s google drive (update the files constantly)



- **Module List**:
  - Opencv (cv2)
  - Pyzbar
  - Requests (webscraping)

- **TP2 Update:**
  - Webscraping.py: added a function that retrieves macros(carbs, protein, fat) from the USDA website based on the user's scanned product
  - GetUserInfo.py: added some functions that recursively finds all the txt files and matches the name with the filename while also reading/modifying the data inside
  - intakeChecker.py: controllers and drawings for the "intake checker" mode
  - Calculations.py: asks for inputs, does calculations, and make recommendations for the "intake checker" mode
  - * no more images.py, substituted with startings.py where all initializations, images, and "food checker" mode's controllers and drawings are stored
- **TP3 Update:**
  - Repeated scanning for the 'Intake Checker' mode (accumulates the calories and macros intake)
  - Graphs for 'lose weight' and 'gain weight'
  - A food recommendation list that takes into account the user's daily projected calories intake and the amount they have already consumed
  - UI improvements