Project II Proposal (Draft)

**Project Requirements**

**Proposal**

**Stage -I**

* - WebApp - NutrOmeter
  + Creation of an individual user account, log the height,weight, gender.
  + A WebApp to log the food intake of individual users
  + Calculate the nutrition intake by looking up at the USDA database
  + Shows daily/weekly/monthly visualization of the nutrients consumed.
  + Comparison charts for the ideal needs - showing the deficit or excess.
  + Suggestions for food items incase of deficit of a nutrient
  + Create a report with the above information

Stage - II

* + calculate a $/calorie for a given diet.
  + Calculate the Ideal body weight and then return a recommended calorie to reach a goal.
  + We can then take that $/calorie and apply it to countries/regions suffering from famine.
  + Our visualizations can show how if an average american can reduce his/her caloric intake that we can feed x # or people.
  + I think we can feed the world but it would be cool to show that

Core App

* - Must use HTML and CSS
* - Must use a database (not Sqlite) - Mysql
* - Must use Flask

Routes

**Routes Details:**

**Route #1:** Home route (Home Page)

**Route #2:** Create User

**Route #3**: Login page

**Route #4:** That displays food with specific nutrients. Basically ask the user, what nutrient are you looking for?. Then have it return a list of foods that are high in that nutrient.

**Route #5:** Uses data from route#2 and displays related food info or recipes

**Route #6:** Take the desired weight loss as input and calculate a $/calorie for a given diet.

* - Must have at least 5 routes
* - Must have 1 home route that uses a Jinja template
* - Must at least 1 route that uses Plotly or D3 for visualization in a Jinja template
* - Must at least 1 route that access and filter and serves data from the database as a json
* - (May have a route the dynamically filters and displays data to the UI)
* - (May have a route that serves a model, returning result as json)
* - (May have a route that serves a model trough the UI)

Testing

* - Must use Postman with at least one request for each route

Deployment

* - Must be deployed (exceptions made for ML projects)
* - Must use Pipenv

Repo

* - The repo must have properly formatted a README.md
* - Code must be formatted with Black
* - Must have at least 5 GitHub Issues

Presentation

* - Prepare a 10-minute presentation

Individual

* - Every member must make at least 5 commits that are eventually merged to master
* - Every member must write code that solves at least one meaningful Issue

Role assignment is recommended to accomplish specific tasks and delegate responsibilities!

Here are some example roles:

**Project manager**

**Lead Developer**

**Frontend Developer**

**Backend Developer**

**Tester**

**Possible Data Sets:**

**If we go with Healthy Food**

[**https://fdc.nal.usda.gov/**](https://fdc.nal.usda.gov/)

[**https://wwwn.cdc.gov/nchs/nhanes/Default.aspx**](https://wwwn.cdc.gov/nchs/nhanes/Default.aspx)

[**https://www.who.int/data/gho**](https://www.who.int/data/gho)

[**https://www.choosemyplate.gov/myplatekitchen/recipes?f%5B0%5D=program%3A128&f%5B1%5D=program%3A140**](https://www.choosemyplate.gov/myplatekitchen/recipes?f%5B0%5D=program%3A128&f%5B1%5D=program%3A140)