



Live Lite

Empowering you to rewrite your Obesity story...



Team

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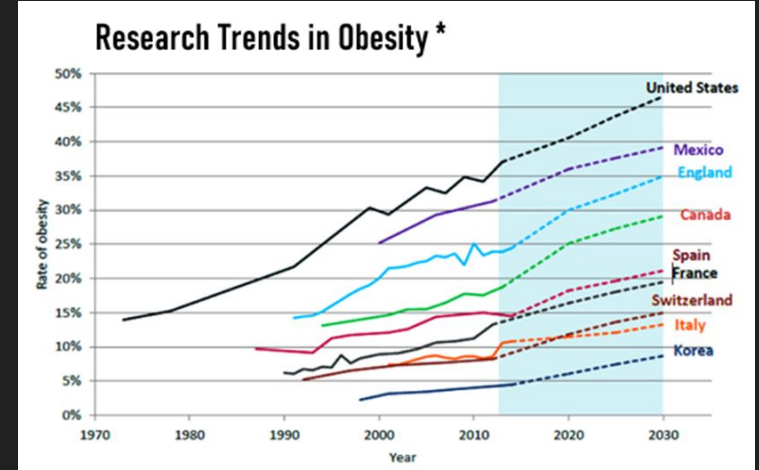
Background



Understanding how lifestyle factors, particularly physical activity levels and dietary choices varies is crucial for finding ways to prevent and treat obesity effectively!

Live Lite is a promising solution, aiming to

- Educate users on obesity through our research.
- Predict any users' risk of obesity.
- Recommend appropriate food and physical activities.



* Reference: [OECD projections assuming that BMI will continue to rise as a linear... | Download Scientific Diagram \(researchgate.net\)](#)

Data Sources



- Health and Nutrition Survey data - [NHANES](#)
 - Research Visualizations, Machine Learning model for predicting Obesity
- Global Burden of Disease - 2019 Report: [IHME](#)
 - Research Visualization
- Estimate Calorie Intake - [Medical News Today](#)
 - Diet and Physical Activity Recommendation
- Calorie burning exercises - [Harvard health publishing](#)
 - Physical Activity Recommendation
- USDA National Nutrient Database - [USDA \(data.world\)](#)
 - Diet Recommendation



User Story



WHO?

- Individuals wanting to get into a healthy BMI range.
- User who want to learn about nutritional information of food

WANTS?

- Educate themselves about obesity.
- Predict risk based on existing lifestyle.
- Get Personalized recommendations.

INTERACTION METHOD?

- Webpage

NEEDS?

- Reliable data on obesity, nutrition, and physical activity while safeguarding user privacy.

SKILLS?

- Proficient in web browsing, form filling, and interpreting visualizations.



Use Case

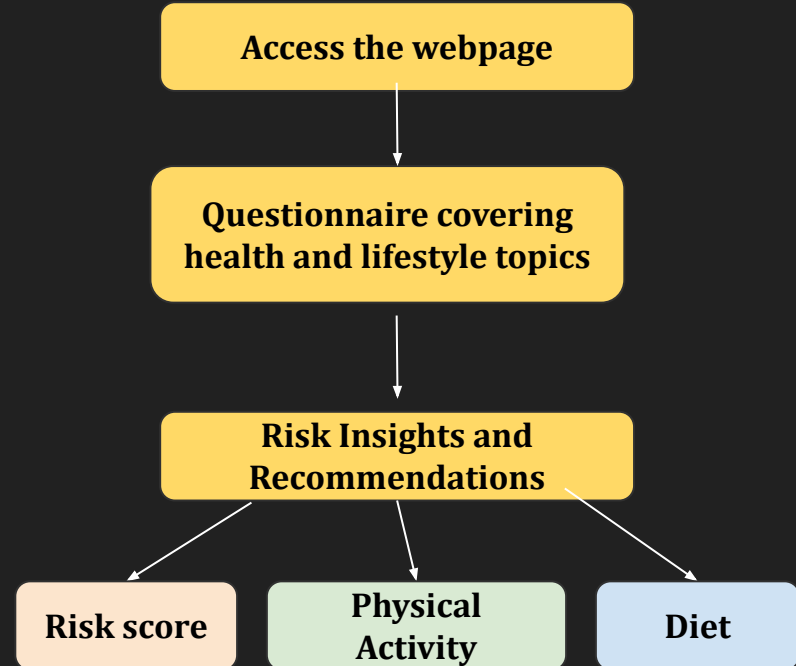


OBJECTIVE:

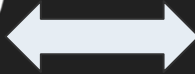
- Get risk of obesity and recommendation to stay fit or become fit.

EDGE CASES:

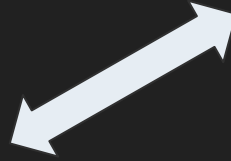
- User Input
 - Age (less than 0/more than 120)



Component Design



**Webpage
(Streamlit UI)**



Understand Obesity



Obesity Assessment

**Risk Insights and
Recommendations**

Background & Research



Name: generate_violin_plot

Function: Visualizes BMI and Weight over designated years.

Name: plot_ihme_data

Function: Visualizes death by risk factor over designated years.

Name:

plot_obesity_overweight_trends

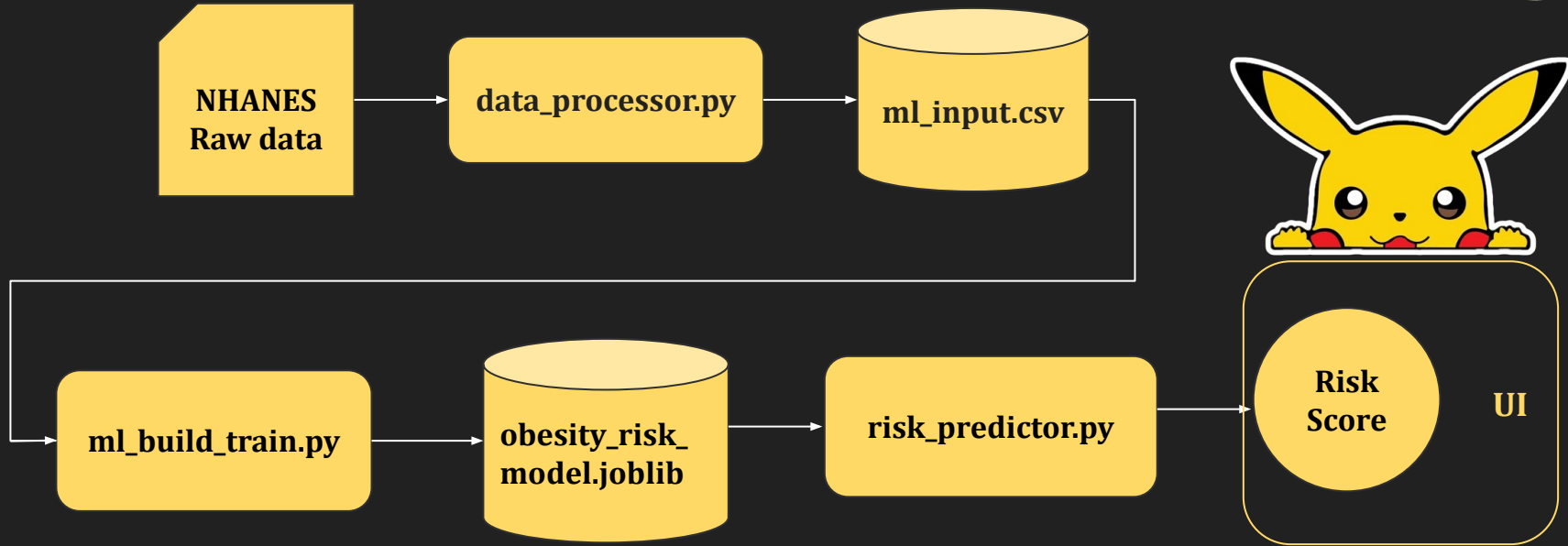
Function: Visualize proportion of overweight and/or obesity by designated years

Name: plot_obesity_trends

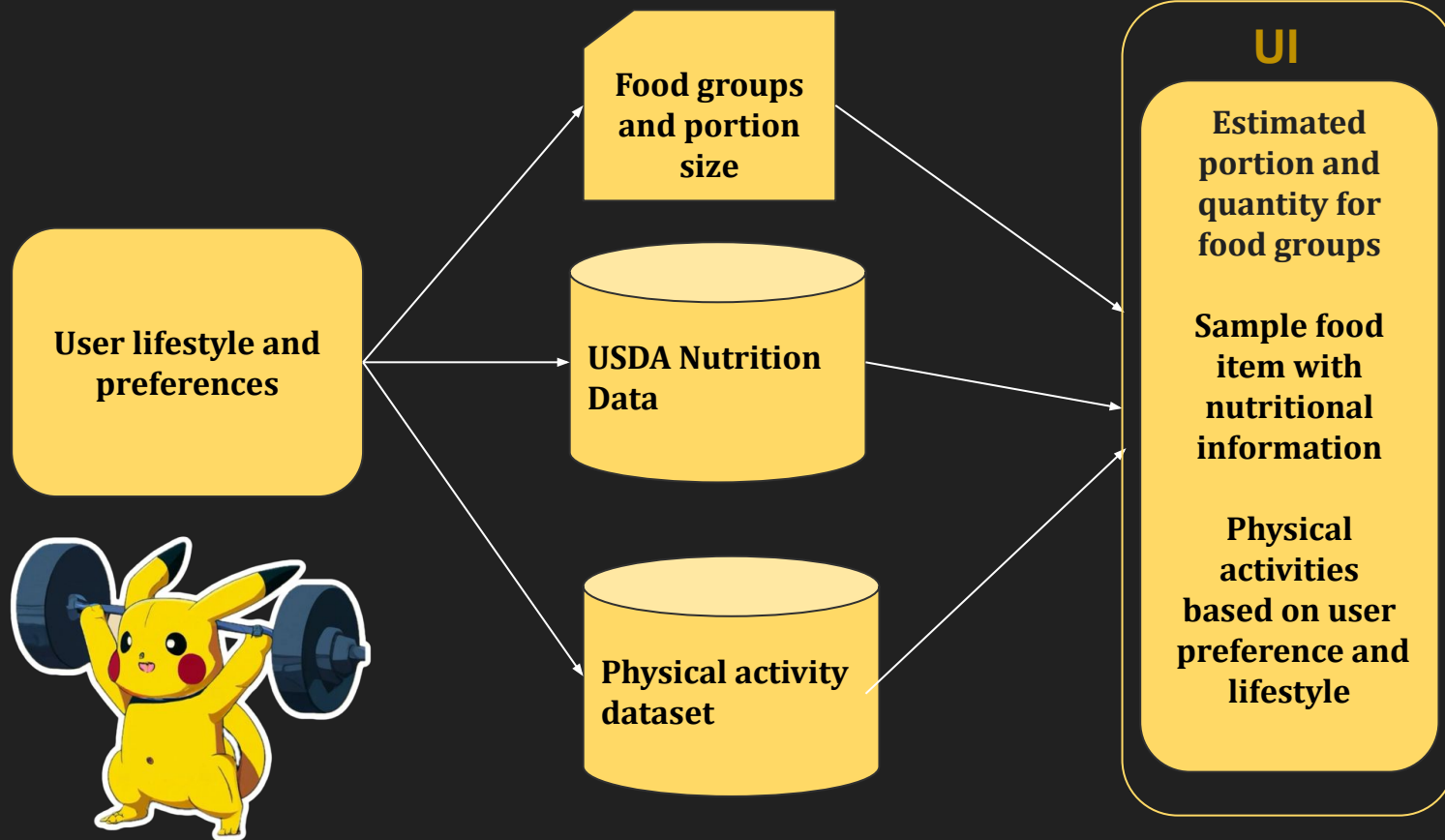
Function: Visualize proportion of obese individuals stratified by gender.



Obesity Risk Predictor



Recommendation Tool





Demonstration!

Lessons Learnt



- Component specification is very important and must be as detailed as possible, especially when the project has too many components and interactions.
- The CI-CD setup must be done at earlier staged, to enable easy and faster testing along with code review.
- Writing documentation at the time of writing the function is easier.
- Mocking and testing are essential practices in software development to ensure code quality, reliability, and maintainability.



Future Work

- Recommend the healthy recipes along with food items.
- Provide customised meal plan for a day or and even for a week.
- Include more factors to make to improve model robustness and accuracy.
- Consider body vital reports to make better prediction.
- Consider existing health conditions if any





Questions ?