- **Team Name**

  Runtime Terror

- **Team Members**

  Alexander Mills, Masen Beliveau, Michel El Chalfoun

- **Problem: What problem are we trying to solve? [0.50 point]**

  Providing fast and reliable information on prescriptions or over the counter drugs that are approved by the FDA.

- **Motivation: Why is this a problem? [0.25 point]**

  Many drugs are advertised to consumers in America without vital unbiased information. FDA is an unbiased source that hosts valuable drug information about approved drugs however does not make their data easily accessible.

- **Features: When do we know that we have solved the problem? [0.50 point]**

  When we provide all accurate information from our FDA approved drug data list in a simple and condensed UI.

- **Data: (Public data set we will be using and the link to the public data set) or (Schema of randomly generated data - i.e. what are the different columns in our dataset and the respective datatypes) [0.25 point]**

  Public dataset that pulls from surveys conducted by the CDC, FDA, CMMS, and AHRQ that help provide demographics on drugs, their compositions and package information. We will mainly take in consideration the product type name, proprietary name, nonproprietary name, dosage form name, and route name.(Only using Drugs_product.csv from this data set)
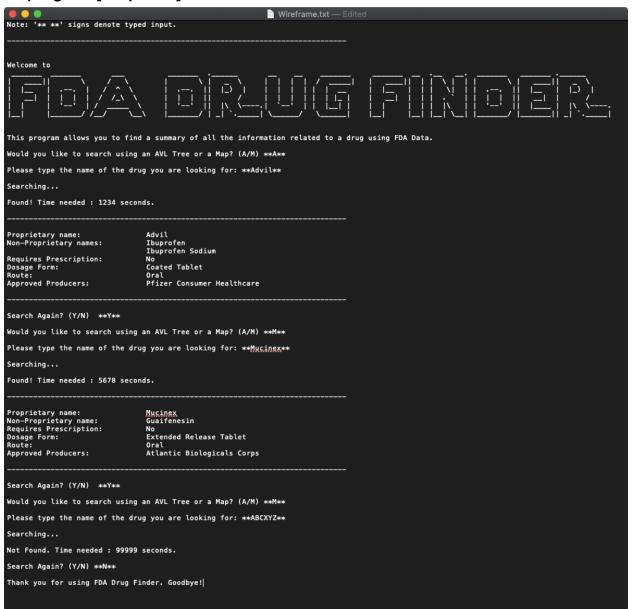 **https://www.kaggle.com/maheshdadhich/us-healthcare-data?select=Drugs_product.csv**

- **Tools: Programming languages or any tools/frameworks we will be using [0.25 point]**

  The programming language we plan on using is C++. As a result our menu is going to be through the terminal, and we are implementing our own data structures. We don't plan on using any additional

tools/frameworks besides some included C++ functions or possibly JSON handling for grouping drug data.

- **Visuals: Wireframes/Sketches of the interface or the menu driven program [0.5 points]**

- **Strategy: Preliminary Data Structures/Algorithms we may want to implement [0.25 points]**

AVL tree with nodes holding class or json drug data, Maps with drug names as keys leading to drug information class or json.

- **Distribution of Responsibility and Roles: Who is responsible for what? [0.25 points]**
  - Design and implementation of the user interface System - Masen Beliveau
  - Design and implementation of data import tools - Alexander Mills, Michel El Chalfoun
  - AVL Trees design and implementation - Alexander Mills
  - Map design and implementation - Michel El Chalfoun
  - Testing of data structures and UI - Alexander Mills, Michel El Chalfoun
  - Creating a video - Masen Beliveau
  - Creating Documentation & Analyzing Time Complexity - Alexander Mills, Masen Beliveau, Michel El Chalfoun

- **References [0.25 points]**
  - All Information used is from Kaggle
    https://www.kaggle.com/maheshdadhich/us-healthcare-data?select=Drugs_product.csv