

Background

This document describes the requirements for developing a Single Page Application for ACME Company that can quickly show prescription drugs that have been related to a selected patient reaction.

Story Board

ACME Company needs user interface allowing users to select a reaction (from a list or typed in a box) and display the prescription drug that were associated with reaction as documented by the FDA. The FDP provided [OpenFDA API](#) allowing for the query of these reactions.

An example REST Query is:

[https://api.fda.gov/drug/event.json?search=patient.reaction.reactionmeddrapt:"fatigue"&limit=1](https://api.fda.gov/drug/event.json?search=patient.reaction.reactionmeddrapt:)

Project Deliveries

Below are the deliverables for this project. Please ensure to read them before starting the application.

Requirements for OpenFDA Single Page Application

The goal of this project is to develop a Single Page Application that takes input from the user to query a REST API and return the display the results to the user. It is preferred to implement in Angular2 using TypeScript. Web Design is not necessarily a requirement but should use CSS/Bootstrap for styling.

- Story 1: As a prescription drug user, I need to input 1 reaction (symptom) so that I can see a list of prescription drugs have been associated with that reaction.

1. The user should either select from a drop-down

selector, a list, or input text box. If the design allows the user to type a reaction, then some kind of validation or error message should be displayed for invalidate reactions

2. This page can be the landing page or be navigated to from a landing page

- Story 2. As a prescription drug user, I need to see the results of the reaction entered so that I can view which prescriptions drug were associated with the selected reaction.

1. prescription drugs should be listed in any order

2. the reaction used for the query should be displayed

- Story 3. As a prescription drug user, I need to see the results of the reaction sorted by relevancy so that I know which ones are prescriptions are most often associated with the reaction.

- Story 4. As a prescription drug user, I need to conduct additional searches after view the results so that I can search for different reactions.

1. either navigation back to the reaction input or have the reaction input on the result page

- Story 5. As a prescription user, I want the reactions list to be validated or populated by known FDA reactions so that I view possible reactions.

1. call the OpenFDA for unique reactions and populate the reaction input

Deliverables

- Complete as many stories as you wish or have time. (

- All source code should be checked into GitHub (

- Readme should be provided on how to build and run the application (
- Provide an entry point URL to view the application running locally (
- Readme should document which stories have been completed. (

Supporting Information

1. Use the OpenFDA API: <https://open.fda.gov/api/>
 - a.
2. You may use a Yeoman generate of your choice. <http://fountainjs.io/> is very easy to use.

3. Reactions come from: results → patient → reaction → reactionmeddrapt

```

.      "reaction": [
.      {
.          "reactionoutcome": "6",
.          "reactionmeddraversionpt": "18.1",
.          "reactionmeddrapt": "Oedema"
.      },
.      {
.          "reactionoutcome": "6",
.          "reactionmeddraversionpt": "18.1",
.          "reactionmeddrapt": "Fatigue"
.      },
.      {
.          "reactionoutcome": "6",
.          "reactionmeddraversionpt": "18.1",
.          "reactionmeddrapt": "Dyspnoea exertional"
.      },
.      {
.          "reactionoutcome": "6",
.          "reactionmeddraversionpt": "18.1",
.          "reactionmeddrapt": "Fluid retention"
.      }
.  ]

```

4. Prescription Drugs come from results → patient → drug → openfda → generic_name

```

.      "drug": [
.      {
.          "drugstartdateformat": "102",
.          "drugindication": "COR PULMONALE CHRONIC",
.          "drugadministrationroute": "048",
.          "drugdosageform": "TABLET",
.          "drugstartdate": "20120207",
.          "openfda": {
.              "product_ndc": [
.                  "61958-0802",

```

```
•      "61958-0801"  
•    ],  
•    "nui": [  
•      "N0000175581",  
•      "N0000175364"  
•    ],  
•    "package_ndc": [  
•      "61958-0801-6",  
•      "61958-0801-4",  
•      "61958-0801-5",  
•      "61958-0801-2",  
•      "61958-0801-3",  
•      "61958-0801-1",  
•      "61958-0802-5",  
•      "61958-0802-1",  
•      "61958-0802-3",  
•      "61958-0802-2"  
•    ],  
•    "generic_name": [  
•      "AMBRISANTAN"  
•    ],
```