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TechFlow, Inc. Response to Request for Quotation (RFQ) 4QTFHS150004 Agile Delivery Services (ADS I)

User Stories

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1.0 Purpose and Overview

The purpose of this document is to familiarize the reader with the user stories developed by TechFlow for the Food and Drug Administration (FDA) in support of the Drug and Risk Information (DARI) public information website. It includes the stories grouped by product increments and the acceptance criteria around which the stories will be evaluated.

User stories were developed with attention to the end user's point of view and were grouped to provide discrete pieces of functionality that deliver business value. User stories providing basic functionality were prioritized first in the backlog with increased functionality prioritized later.

We intentionally drafted more stories than could be delivered in the development timeframe to indicate stretch goals. Additional backlog items and one known defect based on sprint review feedback were also incorporated into the backlog; anticipated delivery of those items extending beyond the delivery of the initial product increments.

2.0 User Stories

For the development of this application we focused on three different users who would be the primary consumers of the information provided in the website, which were:

- Consumer
- Health Professional
- Legal Professional

We worked with these users to identify all of the functional user stories and continued to work then throughout our iterative design process. It was there feedback that lead us to the development of a simple to use, user centric, website that allows the consumer to easily search on drug related information.

2.1 Minimally Viable Product (MVP) → Basic Search

2.1.1 Story 1 \rightarrow Search Returns Label Info – STORY POINTS = 13

As a user interested in researching drugs and their side effects,

I want to be able to search on a drug and be presented with general information regarding the drug,

so that I can educate myself to make the best decision regarding drug usage.

Acceptance Criteria

- User is able to input a drug generic name into a text box and initiate a search on that particular drug exact name match, case insensitive
- User is able to access the application on a mobile phone, tablet and personal computers
- User is able to execute a new search with existing search results displayed
- System displays FDA provided drug label information for the drug queried (i.e., API)



- System displays search drug label (possible field values, when available)
 - o Generic Name
 - o Brand Name
 - o Manufacturer name
 - o Purpose
 - o Indications and Usage
 - Adverse Reactions
 - Active Ingredients
 - o Inactive Ingredients
 - o Warnings
 - Stop Use
 - o Do Not Use
 - Ask Doctor
 - o Ask Doctor or Pharmacist
 - o Dosage

2.1.2 Story $2 \rightarrow$ Disclaimer – STORY POINTS = 3

As the application owner,

I want a disclaimer displayed in the footer of all pages accessible by any user interacting with the system,

so that the scope of rights and obligations inherent with the use of the system are clearly communicated.

Acceptance Criteria

- Disclaimer is displayed on page footer
- Disclaimer text is indicative of sites with similar functionality The prescription drug related information on this website is meant for basic informational purposes only. It is not intended to serve as medical advice, substitute for a doctor's appointment or to be used for diagnosing or treating a medical condition. Users of this website are advised to consult with their physician before making any decisions concerning their health.

2.1.3 Story $3 \rightarrow FDA$ API Error Handling – STORY POINTS = 5

As a user searching drugs and their side effects,

I want to be prompted when an error occurs with my search attempts,

so that I am aware of the status of my search and so that I can initiate a new one as needed.

Acceptance Criteria

- System provides an alert message on the interface that indicates that the FDA data is not available
- System provide a means to initiate a new search from the same interface after the alert is displayed

2.1.4 Story $4 \rightarrow$ Docker Container – STORY POINTS = 3

As the application owner,

I want to utilize the deployment container Docker



so that I can ensure that the application can be easily installed in any environment. **Acceptance Criteria**

• Application code is deployed to Docker container

2.2 Product Increment → Search Enhancements

After completion of the MVP we reconnected with the users in the sprint review to evaluate the MVP and to identify those features that, with their addition, would advance the MVP. This iterative approach builds upon features delivered in the MVP to identify the user stories that most improve the product.

2.2.1 Story $5 \rightarrow$ Search Returns Adverse Events – STORY POINTS = 8

As a user interested in researching drugs and their side effects,

I want to be able to search on a drug and be presented with adverse events and the number of occurrences of those events,

so that I can educate myself to make the best decision regarding drug usage.

Acceptance Criteria

- System displays FDA provided adverse event information for the drug queried
- System displays search results aggregated by drug and event
 - o Adverse Event
 - Occurrences

2.2.2 Story 6 → Search Returns Graphical Representation – STORY POINTS = 8

As a user interested in researching drugs and their side effects,

I want to be able to search on a drug and be presented with a graphical representation of the search results data returned,

so that I can educate myself to make the best decision regarding drug usage.

Acceptance Criteria

- System displays a bar chart that demonstrates FDA provided adverse event information for the drug queried.
- Adverse events & aggregate # of occurrences for each drug queried

2.2.3 Story $7 \rightarrow$ Add Links to Footer – STORY POINTS = 1

As the application owner,

I want the search page footer to display a link to the code repository and a link to the TechFlow website on all pages that are accessible to a user interacting with the system so that links to the code and TechFlow are available for RFQ evaluators.

Acceptance Criteria

- A link to the code repository is present and working at the bottom of the page
- A link to 'about TechFlow' is present and working at the bottom of the page



2.2.4 Story $8 \rightarrow$ Auto-Complete – STORY POINTS = 8

As a user interested in researching drugs and their side effects, I want drug search inputs to auto-complete based on my initial keystrokes so that I may execute my searches more efficiently.

Acceptance Criteria

- System auto-completes drug names based on initial keystrokes
- Auto-complete options displayed will match partial search text against brand name information and will continue to display until search text does not match
- User is able to select an auto-complete suggestion and execute successful search on the suggested drug
- User is able to not select an auto-complete suggestion and execute successful search

2.2.5 Story 9 \rightarrow Google Analytics – STORY POINTS = 5

As the application owner,

I want to incorporate Google analytics into the drug search page, so that I can drive more users to the site and improve the overall search experience.

Acceptance Criteria

• Google analytics are enabled on the website to view traffic

2.3 Product Backlog

2.3.1 Story 10 → Expand Search Capabilities

As a user searching drugs and their side effects, I want to be able to have additional search capabilities so that I may execute my searches more efficiently.

Acceptance Criteria

- Hover graph
- Implied wildcards on partial text strings
- Auto-complete 'no suggestion' text change use 'fuzzy search' (did you mean...)

2.3.2 Story 11 → Expand Search Parameters

As a user searching drugs and their side effects, I want to be able to search utilizing different search parameters so that I may have greater flexibility with my searches.

Acceptance Criteria

- Multiple drugs
- Adverse effects
- Indications



2.3.3 Story $12 \rightarrow$ Results Filter

As a user reviewing search results, I want to be able to filter search results by age and/or sex so that I may have the ability to further refine my search results.

Acceptance Criteria

- Filter by sex
- Filter by age

2.3.4 Story 13 → Label Info UI Cleanup

As a user reviewing drug search results, I want drug label information to be displayed in a manner that is more user friendly so that I may view my search results easier.

Acceptance Criteria

• Raw text within 'Read More' windows are parsed

2.3.5 Story $14 \rightarrow 508$ Compliance

As the application owner, I want the application site to be 508 compliant so that it may be accessible to users with disabilities.

Acceptance Criteria

DARI site is 508 compliant

2.3.6 Story 15 → Additional Google Analytics Metrics

As the application owner,

I want additional Google Analytics metrics deployed so that I may have actionable feedback from the users interacting with the application.

Acceptance Criteria

Keyword search metrics

2.3.7 Story 16 → Additional Docker Container Configurations

As the application owner,

I want to enable additional Docker configurations so that I may increase development and deployment efficiencies.

Acceptance Criteria

Additional Docker enhancements enabled



2.4 Known Defects

2.4.1 Defect 1 → Auto-Complete Suggestions Not Receiving Search Results

In some cases the suggestions made by the auto-complete functionality are not producing search results. If the auto-complete is making a suggestion, the suggestion should yield results. Possible root cause is a difference in source of the auto-complete and actual drug information and adverse events search.

Steps to reproduce

- Type 'inm'
- System will suggest InMind
- Select suggestion and click search
- System shows 'drug not found' message

