

CONNECTED *to* RESEARCH

Funding Opportunities Component Requirements Document

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Abstract

This document contains the software requirements for the funding component of the web application *Connected to Research*. This project is our senior design project for the course CS461 at Oregon State University.

These requirements were developed with collaboration from our clients at Pacific Northwest National Laboratory. The funding component seeks to present researchers with funding opportunities based on their interests through a database populated with reliable sources of funding.

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1. Introduction

I.Purpose

Research scientists need to stay up-to-date on funding opportunities to continue their research. This is a time consuming process which can be streamlined by developing a system to automatically present a list of funding opportunities.

II.Scope

The component will pull data from multiple sources of funding and add them to a database. Information will be pulled from that database and presented to users in an understandable interface. Users can save opportunities and interact with them.

III.Overview

This document serves as a list of the requirements pertaining to the funding component of the web application.

2. Description

I.Function and purpose

There is going to be a function that takes the user's interest as input then outputs the opportunities that corresponds to their interests. The function will store the interests of the user into a list and compare them to a list of categories such as chemistry. After finding all of the corresponding categories and stored into a list, compare them to all opportunities that pertains to the categories then output the results onto the user's interface. The results can be stored into the user's opportunity table, a chronological list of opportunities.

The purpose of this function is to provide the user with opportunities that have some kind of correlation to them based off of their interests.

II.Limitations, Questions and Issues

One limitation is not having a fully functioning product for our component to interface with. This will require forethought from our team to account for future needs for the funding component. For example, changes to the interests tagging system.

3. List of tasks to complete

- I. Define a database to store funding information

- a. Investigate the metadata from FedBizOpps.gov and Grants.gov to determine how best to extract data from them.
 - b. Define a list of funding sources
 - c. Research those sources and define common attributes to be stored
 - d. Determine how other components of *Connected to Research* will interact with the funding component
 - e. Define the structure of the database and develop a database schema
 - f. Research the best method of pulling data from funding sources
 - g. There may need to be multiple ways of pulling information
 - h. Implement the database using the client's preferred database system
 - i. Implement the database accessor functions using the client's preferred language
(Because the component will need to be integrated with other components)
- II. Develop methods for interacting with the user interests
- a. Research the interests system of *Connected to Research* to determine how to apply interests to funding opportunities
 - b. Develop methods to search through the database and retrieve results related to the associated interest
- III. Develop a workable user interface
- a. Develop methods for displaying funding opportunities to the user, as shown in mockups by the previous team
 - b. Allow display of images embedded in the opportunity description
 - c. Allow users to bookmark opportunities and display them in a chronological list
 - d. Allow users to 'dog-ear' opportunities for later review
 - e. Allow users to share opportunities with other researchers through the site and through email

4. Results

The end result is to link researchers to funding opportunities with a functional user interface that collects reliable funding resources.

At presentation, we will present a working application. We will be able to retrieve data and present it in the user interface.

5. References

Final Capstone Book, stored in the documents section of this site, describes the overall usage of the site. It broadly outlines the requirements of the funding component.

Carolyn Cramer MLIS Capstone Abstract describes the motivation for the application.

<https://github.com/tstevens10182/connected-to-research/tree/master/img/mockup>

The previous Capstone group created mockups of the site design. It includes plans for the site as a whole and the funding component in particular.

6. Signatures

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