Envo Scholar v 1.0 *Fall 2018 Senior Design Project*

Students: Bryan Bastida, Andrew Castillo
Product Owner: ***Dr.*** *Mark Finlayson*
Instructor: *Dr. Masoud Sadjadi*, Florida International University

Problem

Environmental Scientists need to find papers in order to further their research. They rely on academic search engines to help them find those papers, but there isn't a search engine solely dedicated to environmental science papers. This is where Envo Scholar comes into play.

Current System

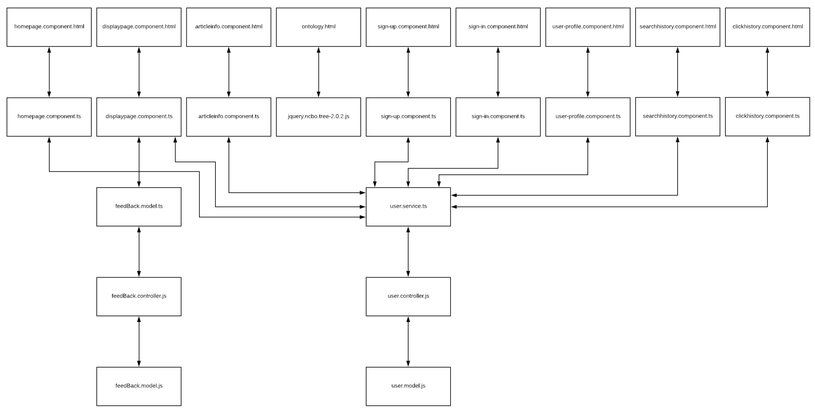
- **The current system allows users to:**
- Enter a search query.
- Click on an article to view more information on that article.
- Go to the articles Science Direct page.
- Leave feedback on user experience
- Create an account.
- Save articles.
- View the history of
  - Search queries they have entered.
  - Articles they have clicked on.
  - Articles they have saved.
- View the ontology

Requirements

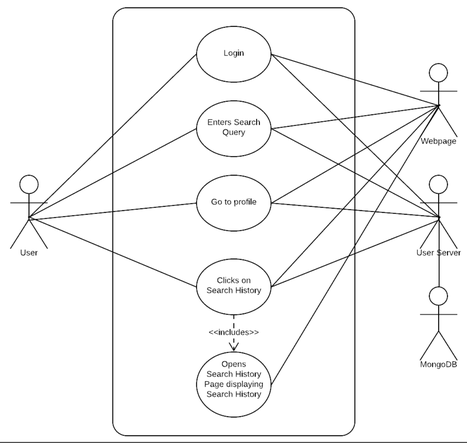
- **For my contributions, a user should be**
- Displayed a set of articles.
- Able to view the article information.
- Able to go to the Science Direct page.
- Able to create an account.
- Able to save articles.
- Able to view their history.
- Able to view the ontology.

Object Design

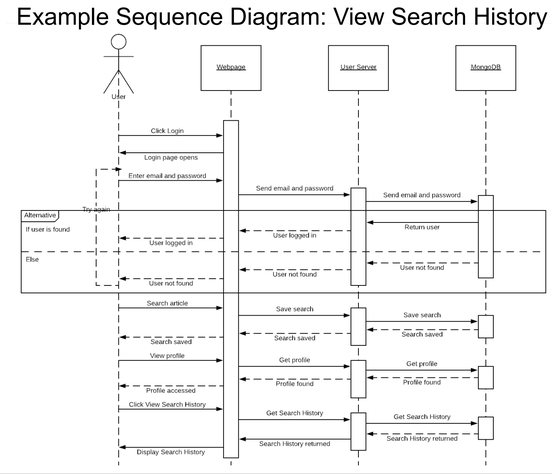
Minimal Class Diagram



Example Use Case Diagram: View Search History



Example Sequence Diagram: View Search History



Implementation

- Angular 6 was used to create the functionality of the front end.
- HTML5, CSS, and Bootstrap Studio were used to style and edit the front end.
- Elasticsearch was used to enhance the GET requests to the PostgreSQL database containing the articles.
- NodeJS and Express were used to create the server that connects to the Mongo Database containing the users.
- JWT and Passport were used for user authentication

Screenshots

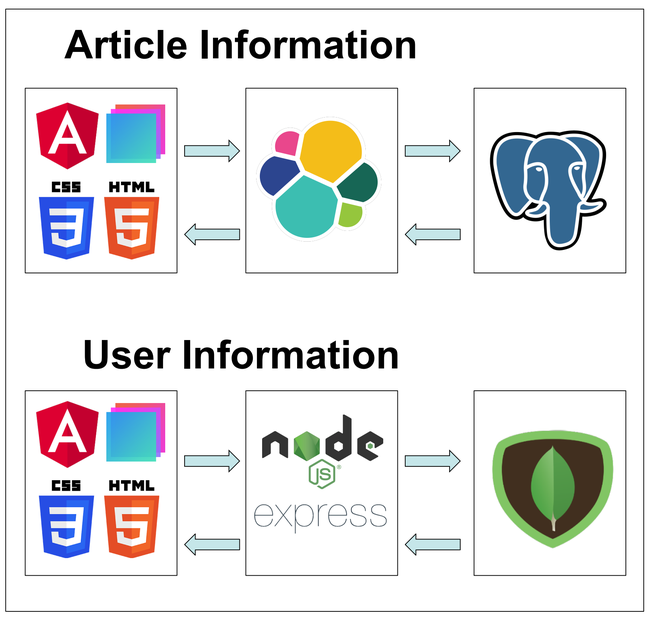
Summary

Envo Scholar was created with the intention of assisting environmental scientists in their research. The focus of version 1 was to get basic functionality such as searching for articles and allowing users to create their own profiles, and we've been able to accomplish much more than that. Going into this project, my partner and I were unequipped with the set of skills it takes to build a website. But we came out strong and created something that we are both extremely proud of and cannot wait to see the continuation of Envo Scholar.

Verification

- **Example for Display Results**
- Test case ID: NVOS-3-Display-Results
- Description/Summary of Test: User has entered a search into the search box and the display
- Page loads the related articles
- Pre-condition: User has entered a
- search query on any page with a search bar. User has submitted the search.
- Expected Results: Articles related to the search will appear on the screen.
- Actual Result: Articles related to the search appeared on the screen.
- Status (Fail/Pass): Pass

System Design



Acknowledgement

The material presented in this poster is based upon the work supported by Dr. Masoud Sadjadi and Dr. Mark Finlayson. I thank Andrew Castillo, Maria Presa, and Deya Banisakher for assistance, cooperation and mentorship that I received throughout this process