Florida International University
School of Computing and Information Sciences

Software Engineering Focus

INSTALLATION GUIDE

Project Title: EnvoScholar v2.0

Team Members: Sheila Alemany, Carlos Bravo
Product Owner: Mark Finlayson, Ph.D.
Instructor and Mentor: Masoud Sadjadi, Ph.D.

This document provides a step-by-step instruction on how to set up development environment and deployment environment. The YouTube video (here) also goes through the steps to install and run EnvoScholar. Prior to using EnvoScholar v2.0, make sure you follow all the steps described below to ensure functionality of all features. Navigate to the `nvos-scholar` folder. Inside you will find two folders, `nvos-scholar` and `user_database_server`. These folders contain all the source code you will need. The `user_database_server` folder contains all the code for the server and the database.

Angular Frontend

The `nvos-scholar` folder contains all the source code for the Angular frontend. Inside you will see a folder named `src`. Navigate to that folder. Inside the `src` folder, navigate to the `app` folder. The `app` folder contains all the `component.ts`, HTML, and CSS files. The ontology page was not created using Angular. It was created on a basic HTML page which is found in the `src` folder.

Backend Database Server

Inside the `user_database_server` folder, the three main folders you will be working with if you need to add/change anything in the database are the `controllers`, `models`, and `routes` folders. The `config` folder will probably stay the same, and `server.js` file will also probably not need anything changes/additions. The `server.js` file is the main file in the `user_database_server` folder.

Installation Prerequisites

1. NodeJS: Can be downloaded at the following link: https://nodejs.org/en/
2. Angular: Go to the Go into the project folder, NVOS-Scholar, and type

   ```
   $ npm install -g @angular/cli
   ```

   Note: This will allow you to run the command `ng serve` which runs the Angular application. Installing the program should be fairly simple. You should not have to install any libraries because the `package.json` files already have the libraries necessary to run the program. But just in case it does say that any libraries are missing, you can go to either the `nvos-scholar` folder or the `user_database_server` folder and type `npm install`. It will reinstall the libraries necessary. If you're on a Mac and you get any permission conflicts, do `sudo npm install` and type your password when prompted.
3. MongoDB: Can be installed at the following link (for both Windows and MacOS): https://www.mongodb.com/download-center/community

- For Windows 10 specifically, create database directory: The first time you run EnvoScholar you need to create a database directory. Open the command prompt and navigate to the directory you want to save your database. For example, you can do

  ```
  $ cd C:\
  ```

  to go to the root folder in the `C` drive. Once you choose where you want to create your database. Run in the command prompt:

  ```
  $ md "\data\db"
  ```

  This will create the database directory.

4. Compass: Can be installed at the following link:
   https://www.mongodb.com/download-center/compass

5. For off-campus access using FIU VPN: Helpful links to connect to the VPN:
   https://network.fiu.edu/vpn/ and
   https://castic.fiu.edu/main/app/core/helpguides/HowtoVPN.pdf

Run EnvoScholar v2.0

Open 3 terminals.

With the first terminal, navigate to the `nvos-scholar` folder. Run the command:

```
$ ng serve --aot
```

After this finishes compiling, open your web browser of choice and open the Angular based frontend on `localhost:4200`.

Once you have this running you can connect to the VPN. The reason you need this VPN is to get access to the articles database which is being hosted from a server on FIU. If you are at FIU when running the program, you do not need to sign into the VPN because you're already on the same network.

The 2nd terminal will be used to run the MongoDB server. Run the following commands:

MacOS

If you installed MongoDB through HomeBrew (recommended) then you can simply start and stop MongoDB with the following commands, respectively.

```
$ brew services start mongodb
$ brew services stop mongodb
```

Windows 10

```
$ "C:\Program Files\MongoDB\Server\4.0\bin\mongod.exe"
      --dbpath="c:\data\db"
```

At this point you want to open up MongoDB Compass. Leave the default settings and click `Connect`. You should now see on the terminal "connection accepted from..."

With the 3rd terminal, navigate to the `user_database_server` and run the following command:

MacOS

```
$ node server.js
```

Windows 10

```
$ nodemon server.js
```

You should see "Server started on port: 3000" and "Mongodb connection succeeded". Now you are free to use EnvoScholar v2.0.