InfoPulse Software System (IPSS)

v1.0

Software End-User Manual

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Master of Software Engineering

SWENG 894 (SUM 2024) – Capstone Experience

I. Introduction

a. Purpose

This document will provide clear and concise instructions and information regarding the utilization of the IPSS. Included in this document will be step-by-step instructions that will enable a user to stand up the system, configure their environment, and navigate through the application features.

b. Software Overview

IPSS is a web application leveraging the latest in web technologies to provide the user with quick access to the most current news pulled from NewsAPI, one of the most popular sources available to developers with API endpoints to cover any need. Users can utilize this web application to keep themselves up to date on the latest information on a particular topic without the normal distractions, like popups or advertisements, at a glance and promptly.

c. Intended Audience

The intended audience for this document is the end user.

II. Pre-requisites

The following list will provide the user with the current versions of the software that is leveraged for use within the IPSS. Please ensure that your host system meets or exceeds these requirements. The links provided will cover the installation of these dependencies.

a. Dependencies

- Python v3.10 - https://www.python.org/downloads/
- Pip v24.0 - https://pip.pypa.io/en/stable/cli/pip_download/
- Pipenv v2023.10.24 - https://pypi.org/project/pipenv/
- Node v20.13.1 / NPM v10.8.0 / NVM v0.39.1 - https://nodejs.org/en/download/package-manager
- Docker v20.10.23 - https://www.docker.com/get-started/
- Git v2.40.0 - https://git-scm.com/downloads

b. Operating Environment

- Windows 10/11 or Mac OS
- Up to date Web Browser (Chrome, Firefox, Edge)
- ≥ 16 RAM / 300 MB Free space on hard drive

III. Installation and Configuration

Please use either of the following links to download the source code. If you use the zip link to download the .zip file, you will need to unpack its contents. Additionally, you can use git clone to clone down the git repository with HTTPS.

a. IPSS Download Links

- Zip
- Git HTTPS

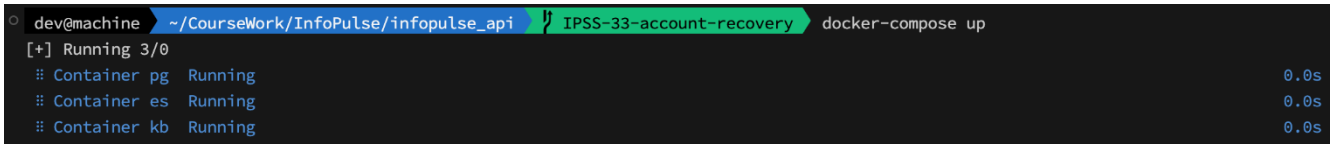
b. Setup

- Install dependencies
- Pull/download source files
- Navigate to the parent directory in the terminal/console
- Ensure your docker daemon is currently running
- Familiarize yourself with the instructions in the README.md in infopulse_api and infopulse_ui sub-directories
- For additional information, the Docs directory contains a few PDFs that provide context to the IPSS
- In the infopulse_api sub-directory, create a .env file based on the .env.TEMPLATE and fill in the necessary configuration values
    - For the config values and API keys please reach out to:
        - Joshua.bonner@outlook.com
        - Jbb5882@psu.edu

IV. Running IPSS

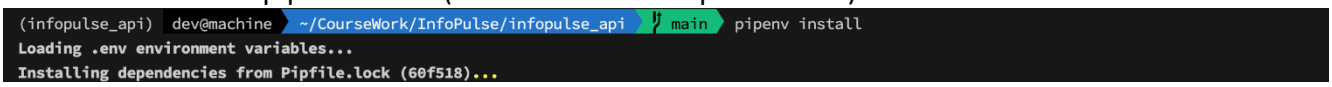
The following instructions provide a step-by-step guide on how to start up the IPSS:

1. Within a terminal in the infopulse_api sub-directory, run the following commands:
    a. docker-compose up (pulls docker images and runs them)



    b. pipenv shell (loads environment variables)

    c. pipenv install (installs backend dependencies)



d. fastapi dev src/app/main.py –port 8000 (runs the fastAPI backend)

```
(infopulse_api) dev@machine ~/CourseWork/InfoPulse/infopulse_api main fastapi dev src/app/main.py --port 8000
INFO     Using path src/app/main.py
INFO     Resolved absolute path /Users/dev/CourseWork/InfoPulse/infopulse_api/src/app/main.py
INFO     Searching for package file structure from directories with __init__.py files
INFO     Importing from /Users/dev/CourseWork/InfoPulse/infopulse_api/src/app

 Python module file

  main.py
```

2. Within a terminal in the infopulse_ui sub-directory, run the following commands:
   a. npm install (installs the frontend dependencies)

```
dev@machine ~/CourseWork/InfoPulse/infopulse_ui main npm i

up to date, audited 472 packages in 1s
```

   b. npm run dev (runs the Vue3 application/Node server)

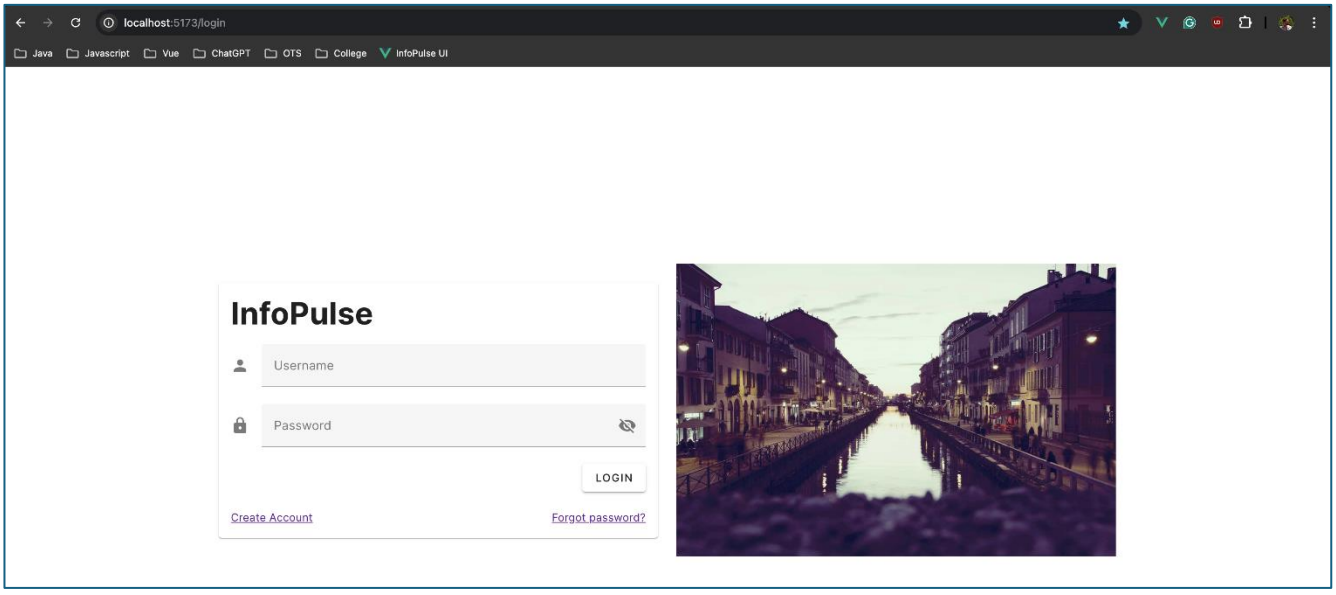
```
dev@machine ~/CourseWork/InfoPulse/infopulse_ui main npm run dev

> infopulse_ui@0.0.0 dev
> vite


  VITE v5.2.11  ready in 541 ms

  ➜  Local:   http://localhost:5173/
  ➜  Network: use --host to expose
  ➜  Vue DevTools: Open http://localhost:5173/__devtools__/ as a separate window
  ➜  Vue DevTools: Press Option(⌥)+Shift(⇧)+D in App to toggle the Vue DevTools
```

3. In a web browser, navigate to url: localhost:5173



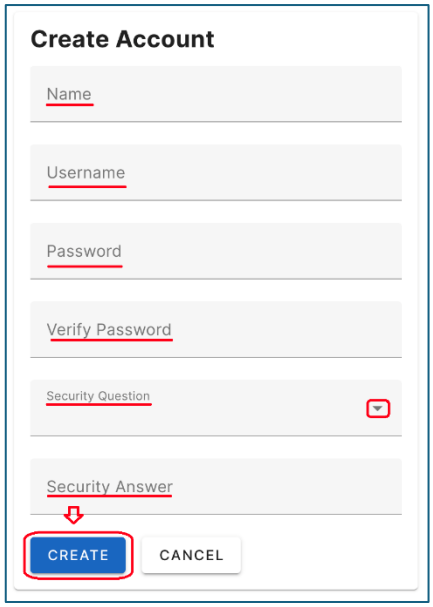
V. Instructions By Feature

a. Create An Account

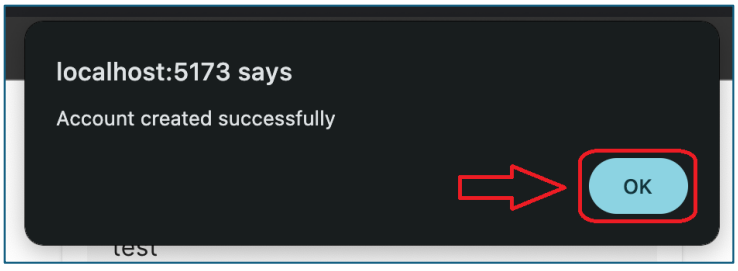
To get started using IPSS, you must first create an account. The process is relatively straightforward and follows basic norms that most websites adhere to.

1. From the login page, click on “Create Account”

2. Once redirected to the Create Account page, fill in the necessary fields provided in the form and click “Create”. Alternatively, you can click “Cancel” to return to the Login page



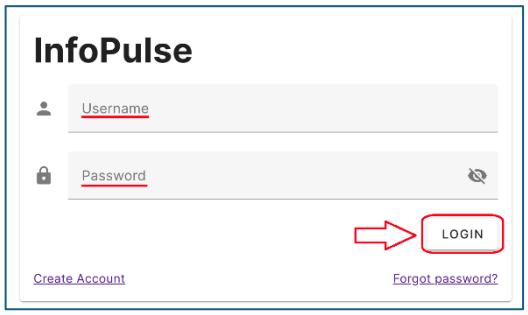
3. Once you have completed this process, you will be prompted by an alert that informs you that your account has been created, after it has been acknowledged, you will be redirected back to the Login page where you can now login with the account you just created.



b. Login

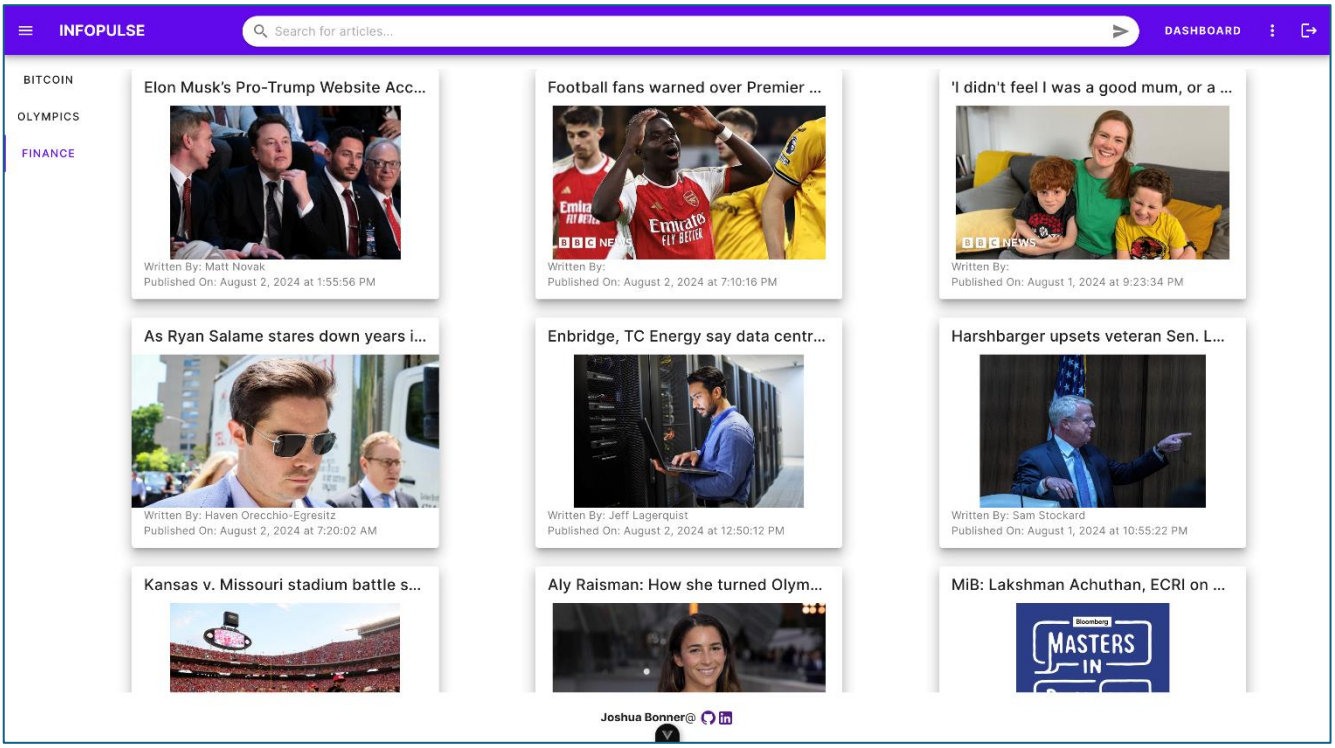
After an account has been created using the previous instructions, you are then able to utilize those credentials to access the User Dashboard through the login process.

1. At the Login page, provide your credentials. If they are incorrect, you will be alerted that your had incorrectly provided them. Once completed, you will be redirected to the User Dashboard page



c. User Dashboard Orientation

The User Dashboard is primarily where the user will interact with the system. The screenshot below represents a User Dashboard that has previously done 3 searches and is currently viewing the “Finance” Search Tab. The main area of the User Dashboard will house the Article Cards which, when clicked, will route you to their associated Article page



i. Search Bar

This component will be used to conduct searches using the IPSS

ii. Search Preferences

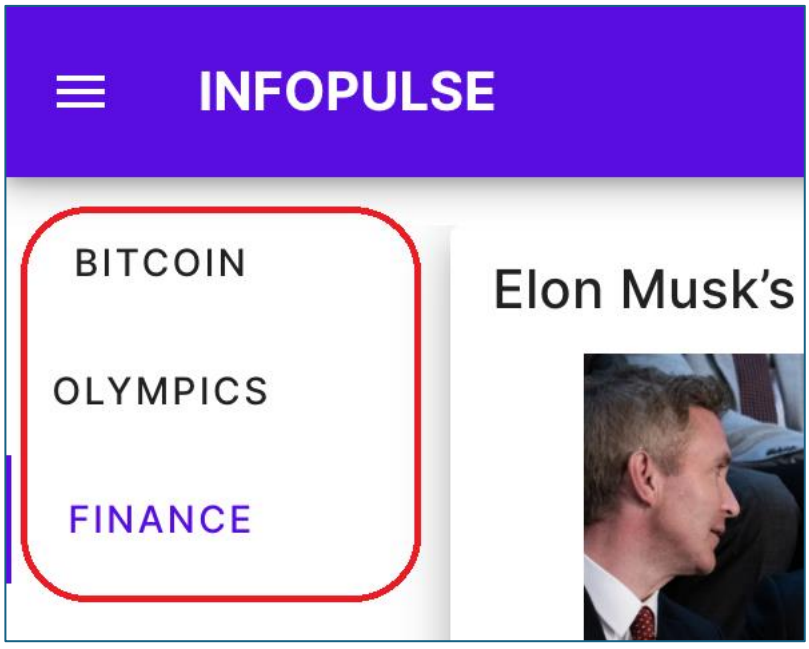
The User Search Preferences button will open up a dialog that will allow the user to set their user preferences

iii. Article Cards

Article Cards will populate after a search has been conducted and will redirect to the Article page when clicked in order to view the Article Content

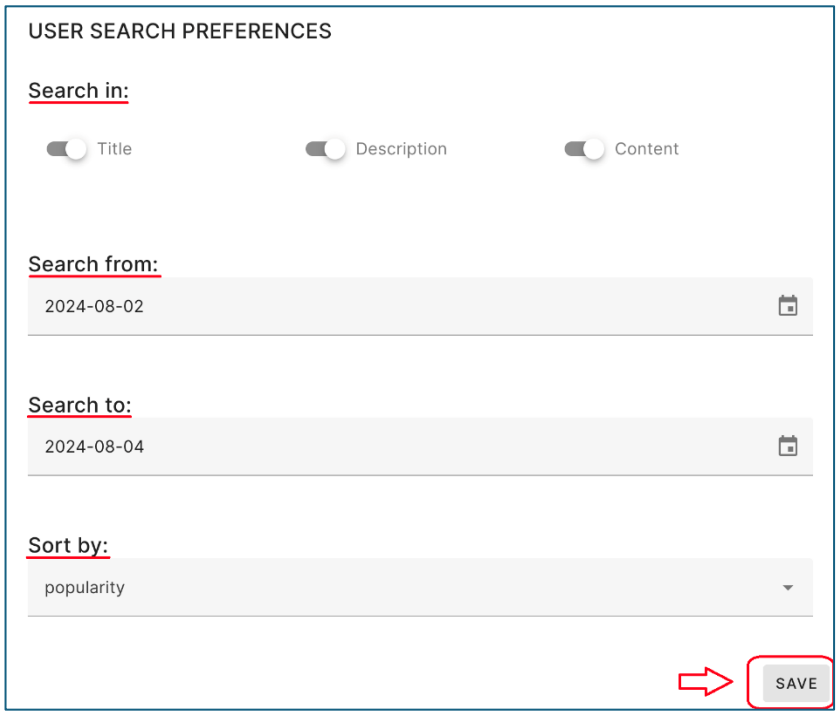
iv. Search Tabs

Search Tabs will populate on the left side of the User Dashboard for each search conducted. They can be toggled between to display Article Cards relevant to the Search they are associated with. The currently selected tab will be highlighted in blue



d. Set Search Preferences

Setting the User Search Preferences will alter the request sent to NewsAPI. A user can define the period of time to search in based on the dates provided in the “Search From” and “Search To” input fields. The “Search In” toggles can be used to define where the Keyword/Topic will be used to search, either in the title, description, or content of an Article. Finally, these Articles can then either be sorted by popularity, relevancy, or the date they were published. Once the selections have been made, hit the “Save” button and click outside of the dialog box to bring up the User Dashboard



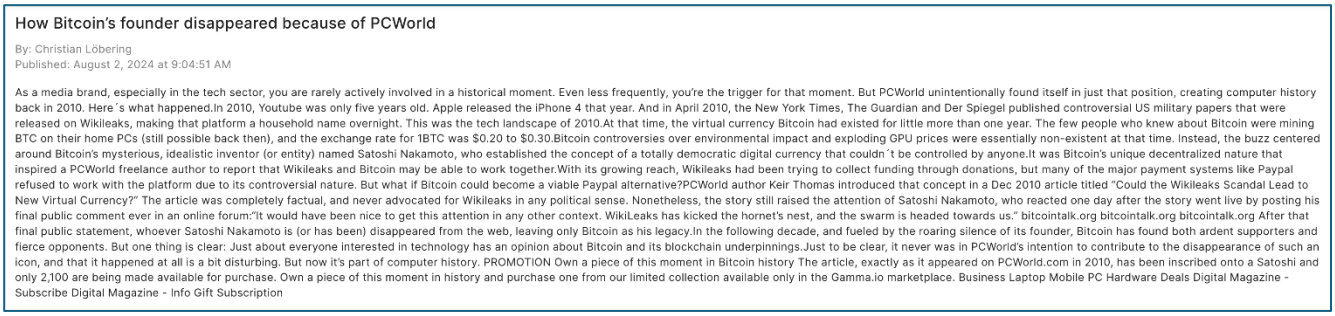
e. Search

To search, you must first enter a topic or keyword to search upon. Once completed, IPSS will use the User Search Preferences and the text provided in the Search Bar to search and populate the main area with Article Cards and a Search Tab.

1. Provide a keyword or topic in the search bar and either click the “Send” button embedded in the Search Bar or hit “Enter” on your keyboard

f. Access Article Content

An Article Card can be clicked to access the Article page which will house the Article Content. Here a user can view the content of the Article to include the author, date it was published, and the content of the Article. To return to the User Dashboard, simply click the “Dashboard” button on the Toolbar.



How Bitcoin’s founder disappeared because of PCWorld

By: Christian Löbering
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As a media brand, especially in the tech sector, you are rarely actively involved in a historical moment. Even less frequently, you’re the trigger for that moment. But PCWorld unintentionally found itself in just that position, creating computer history back in 2010. Here´s what happened.In 2010, Youtube was only five years old. Apple released the iPhone 4 that year. And in April 2010, the New York Times, The Guardian and Der Spiegel published controversial US military papers that were released on Wikileaks, making that platform a household name overnight. This was the tech landscape of 2010.At that time, the virtual currency Bitcoin had existed for little more than one year. The few people who knew about Bitcoin were mining BTC on their home PCs (still possible back then), and the exchange rate for 1BTC was $0.20 to $0.30.Bitcoin controversies over environmental impact and exploding GPU prices were essentially non-existent at that time. Instead, the buzz centered around Bitcoin’s mysterious, idealistic inventor (or entity) named Satoshi Nakamoto, who established the concept of a totally democratic digital currency that couldn´t be controlled by anyone.It was Bitcoin’s unique decentralized nature that inspired a PCWorld freelance author to report that Wikileaks and Bitcoin may be able to work together.With its growing reach, Wikileaks had been trying to collect funding through donations, but many of the major payment systems like Paypal refused to work with the platform due to its controversial nature. But what if Bitcoin could become a viable Paypal alternative?PCWorld author Keir Thomas introduced that concept in a Dec 2010 article titled “Could the Wikileaks Scandal Lead to New Virtual Currency?” The article was completely factual, and never advocated for Wikileaks in any political sense. Nonetheless, the story still raised the attention of Satoshi Nakamoto, who reacted one day after the story went live by posting his final public comment ever in an online forum:“It would have been nice to get this attention in any other context. WikiLeaks has kicked the hornet’s nest, and the swarm is headed towards us.” bitcointalk.org bitcointalk.org bitcointalk.org After that final public statement, whoever Satoshi Nakamoto is (or has been) disappeared from the web, leaving only Bitcoin as his legacy.In the following decade, and fueled by the roaring silence of its founder, Bitcoin has found both ardent supporters and fierce opponents. But one thing is clear: Just about everyone interested in technology has an opinion about Bitcoin and its blockchain underpinnings.Just to be clear, it never was in PCWorld’s intention to contribute to the disappearance of such an icon, and that it happened at all is a bit disturbing. But now it’s part of computer history. PROMOTION Own a piece of this moment in Bitcoin history The article, exactly as it appeared on PCWorld.com in 2010, has been inscribed onto a Satoshi and only 2,100 are being made available for purchase. Own a piece of this moment in history and purchase one from our limited collection available only in the Gamma.io marketplace. Business Laptop Mobile PC Hardware Deals Digital Magazine - Subscribe Digital Magazine - Info Gift Subscription

g. Logout

To logout from the IPSS, the user can click the “Logout” button at the top right of the Toolbar