Group 5 NebulaNet Installation Documentation

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Document Summary:

This document is intended for system administrators to install and setup the NebualNet website on a linux server. This program was created for an assignment for Computer Science 422 Software Methodologies. This document first lists the version dependencies of the program, how to install necessary dependencies, and finally how to run the setup script and access the website.

Version Dependencies:

The following list serves as a guide to highlight which software package versions are suggested or required to ensure proper installation and functioning of the NebulaNet website and it's Python update programs. It is possible that running an older version of the listed software dependencies will still result in the website working correctly, however this can not be advised. Likewise running a significantly newer software version of these dependencies might result in untested and unexpected side effects of the programs/website.

Software:

- Python v3.11.6
- SQLite3

Python Specific Packages:

- Pip (Python Pakage Manager) (latest version available)

Python Libraries:

- Astroquery
- Astropy
- Matplotlib
- Numpy
- Pandas
- Beautifulsoup
- Requests
- Pytest

Software Installation Instructions:

There is a simple bash script provided to assist and automatically install all necessary/required software packages/libraries. If for some reason the script fails to run correctly, it is setup to provide errors to assist with narrowing down the specific issue. Further debugging and manual install may be required on the system administrators part. This bash script is intended to run on the most commonly available Linux distributions.

```
chmod u+x install_script_linux.sh
```

```
./install_script_linux.sh
```

Software Execution Instructions:

There is another bash script provided that will pull and update the most recent james web space telescope photos. It also sets up the website package with the latest changes. To run this script, do the following:

```
chmod u+x install_script_linux.sh
./run_script_linux.sh
```

Upon successful completion you should see the following:

If for some reason the script failed, manually running the following programs in order can be done to troubleshoot the issue:

- mast_query_test.py
- jwstDataFinder.py
- jwstJson.py
- jwstDatabase.py
- fetch_process/main.py
- moveJSON.py

If all of the programs successfully run, while in the nebulanet directory run the following commands to build the website package:

```
npm install -g serve
serve -s build
```

To access the website once the scripts have ran successfully, simply