New Kids On The Blog

CPSC-476 Blog Microservice

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The Setup

1) Virtual Environment Setup

Python 3 is packaged with a virtual environment. Should be good so that we all have the same dependencies.

From the project directory, run the following commands:

a) On *nix environment:

Using [Tuffix (https://github.com/kevinwortman/tuffix)](https://github.com/kevinwortman/tuffix)? You'll also need this: `sudo apt-get install python3-venv`

```
python3 -m venv venv
```

b) On Windows:

```
py -3 -m venv venv
```

2) Start the virtual environment:

```
. venv/bin/activate
```

3) Then install dependencies with:

```
pip3 install -r requirements.txt
```

As a developer, to update dendency file:

```
pip3 freeze > requirements.txt
```

4) Additionally, you'll have to install foreman:

```
sudo apt install ruby-foreman
```

5) Nginx needs to be installed for load balancing support:

```
sudo apt install nginx nginx-extras
```

6) Delete default port 80 file

```
sudo rm /etc/nginx/sites-enabled/default
```

7) Copy blog file from project to your Nginx sites-available directory. Create a symlink to the sites-enabled and restart Nginx service:

```
sudo cp blog /etc/nginx/sites-available<br />
sudo ln -s /etc/nginx/sites-available/blog /etc/nginx/sites-enabled/blog<br />
sudo service nginx restart
```

8) Finally, the database must be initialized. From the top-level directory run the following command:

```
foreman run init-db
```

To Run

All microservices can be started in a formation using the following command

```
foreman start -m users=3,articles=3,tags=3,comments=3
```

Networking

Service	Port
Articles	:500n
Tags	:510n
Comments	:520n
Users	:530n

n indicates the individual instance of the microservice running in a formation. For three instances of the Users service, the instances should be running on ports 5300-5302.

API Documentation

API documentation is avaialble on our [Postman page (https://documenter.getpostman.com/view/262836/S11PpFTY)](https://documenter.getpostman.com/view/262836/S11PpFTY)

To Test

1) Initialize the database with test data

```
foreman run init-data
```

2) Run the tests

```
py.test
```

This will execute all tests in the `tests` directory in alphabetical order and has been tested to work with the default testing database.