Piazza Data Mining

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Installation

Limitations: The instructions provided here are for Ubuntu and Mac OS X only.

Clone Gitlab Repository

First you have to clone the repository either with:

```
git clone git@gitlab.com:cloudmesh_fall2016/project-004.git
```

or:

```
git clone https://gitlab.com/cloudmesh_fall2016/project-004.git
```

Install pip if Necessary

On Ubuntu do:

```
sudo apt-get install python-pip
```

Install Piazza Miner from setup.py

From within the project directory call the install:

```
cd project-004
sudo python setup.py install
```

Install MongoDB (if not already installed)

You can install MongoDB manually or use the corresponding quickstart which is provided.

On Ubuntu do:

```
sudo bash quickstart/ubuntu.sh
```

On Mac OS X do:

```
cd quickstart
sudo bash mac.sh
```

Setup Working Directory

Create a new directory where you want to run Piazza Miner:

```
mkdir piazza
cd piazza
```

Install Piazza Miner

Install Piazza Miner and follow directions to complete piazza.cfg:

```
piazza install
```

Start MongoDB server

Before Piazza Miner can be run, the MongoDB server must be running. Use bind_ip to ensure MongoDB only allows connections on localhost:

```
sudo mongod --bind_ip 127.0.0.1
```

Setup Piazza Miner

Setup MongoDB for Piazza Miner. In a new terminal:

```
cd piazza
piazza setup
```

Update Piazza Miner

In order to analyze posts and users, the database must be updated. This could take some time depending on connection speed and number of posts:

```
piazza update
```

Usage

Install Piazza Miner ^^^^^^^^^^^^^^^^^^^

```
piazza install
```

Install files into currednt directory. Follow instructions on-screen to input login data (NOTE: login data is optional and will be stored in piazza.cfg).

Setup Piazza Miner

```
piazza setup
```

Setup MongoDB for Piazza Miner.

Update Piazza Miner

```
piazza update
```

Retrieve Folder Information

Download posts from folder as html or json:

```
piazza get <folder> [--comments]
```

This file will be saved in your config path folder/(folder)/posts.html. –comments includes comments.

Show visual for folder

```
piazza show <visual> for <folder>
```

This file will be saved in your config path /folders/(folder)/(visual).html.

"word cloud":

Image: wordcloud.png

"participation":

Image: participation.png

Search

List all students alphabetically:

```
piazza list students
```

Search users, posts, or post subjects:

```
piazza search (users|posts|subjects) <query>
```

Class participation for folder

```
piazza class participation for <folder>
```

Student completion

Numbers of folders from "mandatory" in piazza.cfg that student has posted in:

```
piazza completion <uid>
```

Student history

```
piazza history <uid> [--detailed --comments]
```

Shows user post history. –detailed includes post content. –comments includes comment history.

Flask Server

```
piazza flask
```

Runs on http://127.0.0.1:5000/ by default.

Configuration

The configuration is done with the help of the piazza.cfg file.

To set the login information modify the login section:

```
[login]
# your Piazza email
email =
# your Piazza password
password =
```

To seet class ID for class to be analyzed and frequency for update reminders, set the network section:

```
[network]
# network/class ID
id =
# auto update frequency
# options: hour, day, week, always, never
update = day
```

To set mandatory folders, which will be compared with folders that students have completed, set the folders section:

```
[folders]
# mandatory folders for completion, separated by commas
mandatory =
```