ImpressiveACDE

Pre-process Data

- Run ACDC on the system and take the result
  - e.g. hadoop–0.2.0_relax_clusters.rsf
- Run RELAX on the system and take the result
  - e.g. hadoop–0.2.0_acdc_clustered.rsf, hadoop–0.2.0_deps.rsf
- Run UCC on the system (compiled UCC 2017.01 executable can be found under `tool/`)
  - e.g. `UCC -dir hadoop-0.2.0`
- Rename the UCC Java outfile result
  - e.g. `mv Java_outfile.csv hadoop-0.2.0-Java_outfile.csv`

Group these 4 files under the same directory and run `main.py` to pre-process the data. The result will be written in json format and will serve as the input for visualization.

```
$ mkdir data
$ mv hadoop-0.2.0_relax_clusters.rsf hadoop-0.2.0_acdc_clustered.rsf, hadoop-0.2.0_deps.rsf hadoop-0.2.0-Java_outfile.csv data
$ # Run preprocessing script: python3 main.py in_dir sys_version out_dir
$ python3 main.py data hadoop-0.2.0 input
$ # Another example
$ python3 main.py input/hadoop/0.10.1/ hadoop-0.10.1 input
```

Deploy

Deploy at localhost

```
$ git clone https://github.com/USC-Seekers/ImpressiveACDC
$ cd ImpressiveACDC/server
$ npm install
$ mkdir public
$ cd public
$ git clone https://github.com/USC-Seekers/ImpressiveACDC
$ cd ..
$ node server.js
```

Note that you may need root privilege to start server at port 80. You can also modify server.js to start server at a different port.

To access visualization page, type following URL in your browser

```
http://localhost/ImpressiveACDC/index.html
```

Quick Start

Select version

You can choose the software version to be visualized using select filed at top left. Whenever a new version is selected, a force view will of that software will be displayed by default.

Force view

Force view is the default view. You can search certain cluster name by search text filed and search button at top left.

Consistent view

By clicking Toggle View button, you can enter consistent view from force view. Consistent view also support search function.

Class view

By clicking any cluster name in either force view or consistent view, you can enter class view, which display a certain cluster in much more detail. Clicking Toggle View button will lead you back to force view or consistent view.