Interactive, web-based visualization of scientific collaboration networks

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Mentors:

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Demo 4 Feedback

- Where is the D3 code for the visualization?
- For the docker file, it looks like you are just running things on your local machines, have you started working on openshift environment at all?
- Integration of visualization in WordPress

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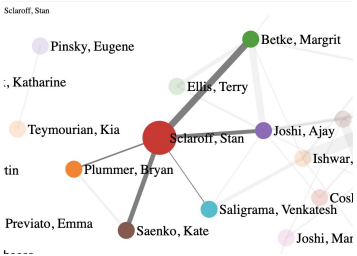
Visualization features

- Each **node** represents an individual person of the Hariri Institute.

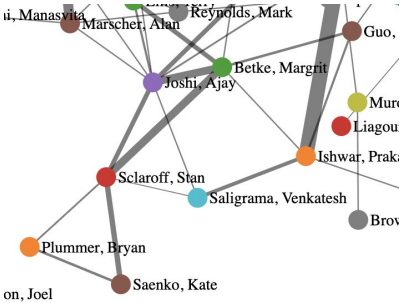
- **Hovering** your mouse over the **node** will increase the size

- A **link** between two nodes represents a direct collaboration; the **thicker** the link, the greater the number of collaborations between them.

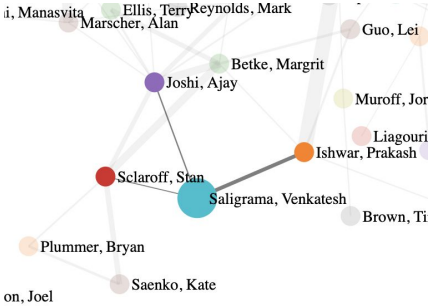


- **Clicking** on a **node** will display the person's name and isolate direct links.

Before **click:**



After **click:**



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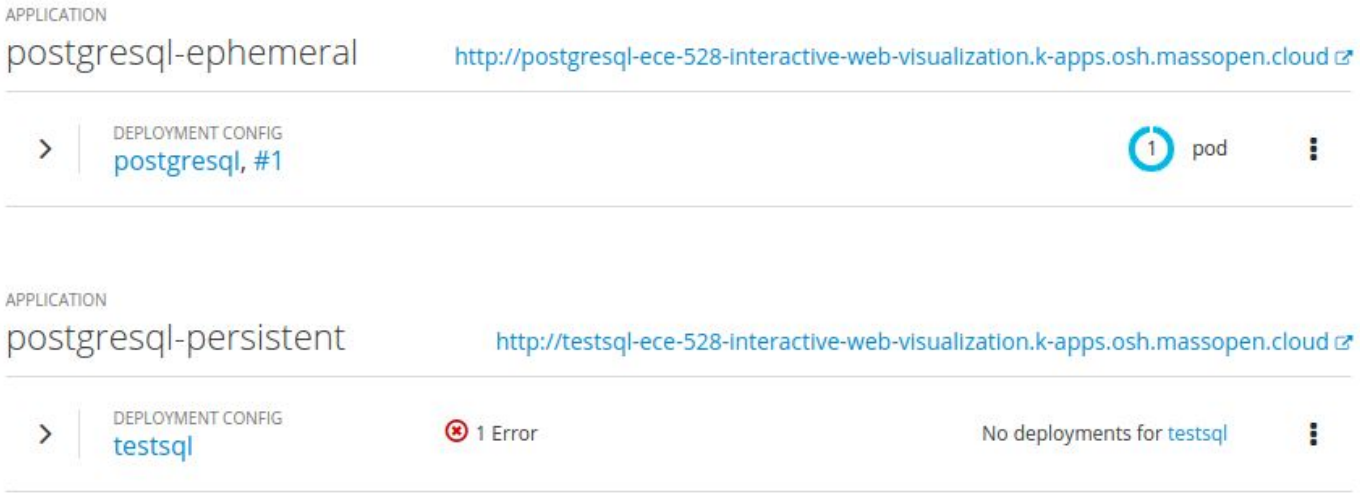
Setbacks

- Creating a persistent storage database in case it goes down
- Connecting the PosgreSQL database to the hosted API on OpenShift



Setbacks

- Connecting to database using GUI (i.e. pgAdmin) to upload the data to be used by the API
- Port forwarding did not expose the database to the service

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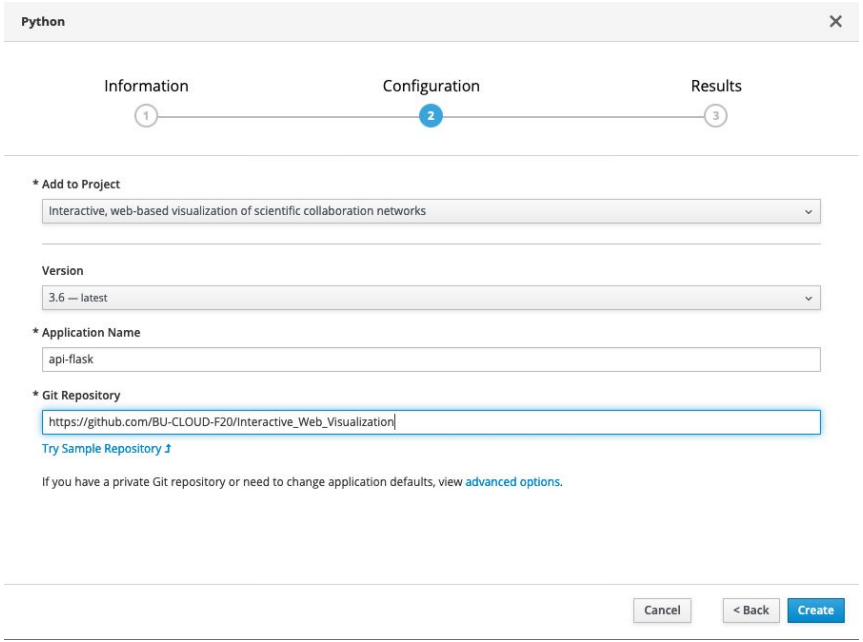
API

RestAPI hosted on OpenShift cloud using docker container



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API

API retrieves data from PostgreSQL by applying the credentials, and:

- Displays affiliate information
- Lists number of collaboration between each affiliates

URL:
http://api-flask-ece-528-interactive-web-visualization.k-apps.osh.massopen.cloud/api/v1/relations

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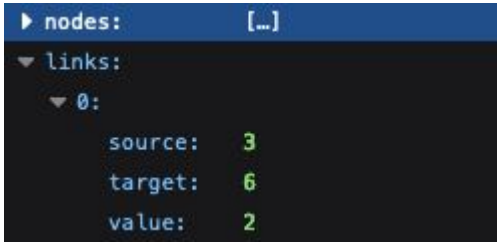
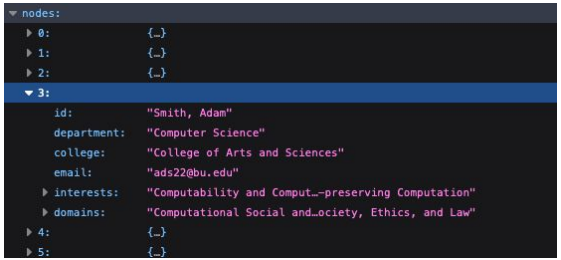
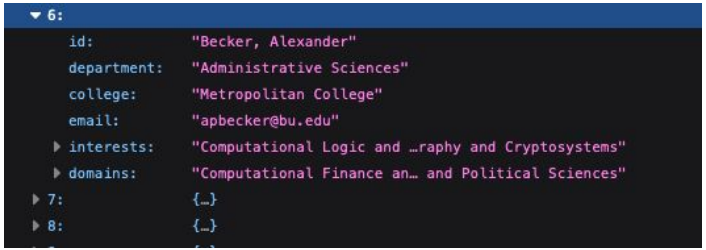
API



Source: Affiliate 1
Target: Affiliate 2
Value: How many collaborated papers





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Demo

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Taiga Burndown Chart

Flat holiday burndown but progress during our final week of development

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Wrapping up

Dec 8:

- Resolve remote database issues with OpenShift and connect to API
- Refine visualization for best UI/UX
  - Search/filter
  - Displaying emails and other info.
  - Department key color
  - Legend
- Finalize documentation on how to upload data to our database after the end of the project

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Thank you!
Questions?

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