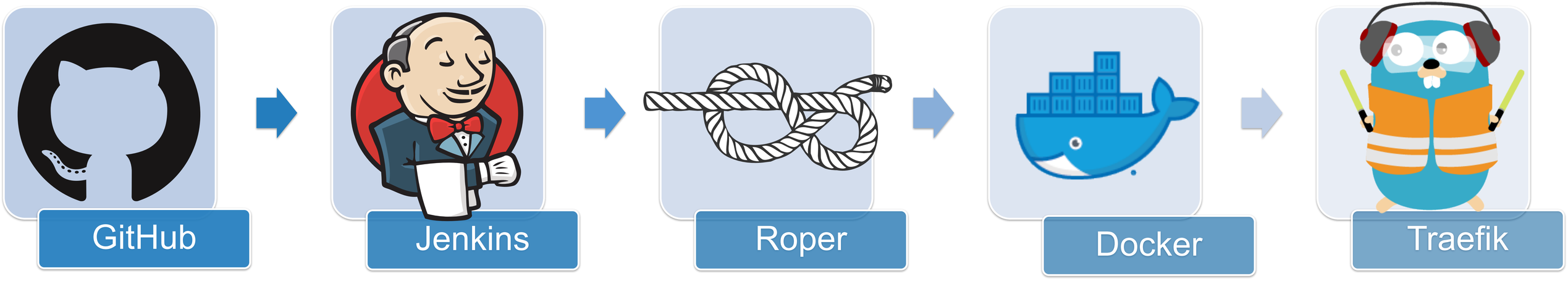
Setting up QA Sites for GitHub PRs

David Kinzer

Temple University Libraries

Abstract: Automatically creating a version of an application based on submitted pull request (PR) code and adding a link from the PR to the build can facilitate quicker turn around on feature iterations. This poster describes one way to achieve this feature in your DevOps process by leveraging a new reverse-proxy server, Traefik, that can be configured to serve a Dockerized version of your application.



- Configure GitHub web-hook to post to a Jenkins Job.
- The web-hook should post with content type application/json.
- It should be set to trigger at least by pushes and pull-requests.

- Use the Generic Webhook Trigger Plugin to create a job that receives the request from GitHub.
- The job should limit access via a token verification.
- The job should parse the GitHub payload for the repo's full name, PR branch, sha of HEAD commit, and the action.
- The job should trigger only for correct repo name, and action.
- Extra credit: parameterizing the trigger with a second job using the parameterizing plugin.

- The Roper cli gem gets invoked by Jenkins using either the lasso command or the release command.
- If Roper is invoked with the lasso command then it:
  - Adds an in progress status to the GitHub PR.
  - Clones and checks out the PR branch or fetches the latest code if already cloned.
  - Runs docker-compose up.
  - Updates the GitHub PR with link to the QA site.
- If Roper is invoked with the release command, then it:
  - Runs docker-compose down.
  - Deletes the local repo clone.

- The repository is a Dockerized application.
- There should be a docker-compose.yml file with labels added to configure the Traefik network.
- Docker-compose up should be the only command required to invoke an instance of the application.

- A Traefik reverse proxy server is configured to use a Dockerized back-end.
- Traefik observes when docker images start or stop and automatically serves them or sops serving them.

@see https://github.com/dkinzer/code4lib-2018