

A Patch-Flow Crawler Plugin for Gitlab

Summary

We want to measure the patch-flow within organizations using inner source. Inner source is the collaboration with open source practices for proprietary development within organizations). Patch-flow is the flow of code contributions within an organization across intra-organizational boundaries such as organizational unit boundaries. For doing so, we developed the patch-flow crawler which is part of our collaboration management suite (CMSuite). It measures the patch-flow for selected IS projects of an organization based on input from source code repositories and organizational directories.

In this project, the students implements and thoroughly tests a plugin for our patch-flow crawler that allows us to extract patch-flow data from the Gitlab forge. If necessary, the student evolves the crawler's plugin interface. If some data cannot be extracted from the Gitlab API, the student implements small API views to allow users to manually enter or groom this data.

Work Results

- Literature review, investigation:
 - Gitlab API documentation
- Methods
 - Software design, implementation with Java (and maybe some TypeScript)
 - Scrum and inner source influenced development approach
 - Requirements elicitation with a product backlog (jointly with supervisor)
 - Releasable version after every merge request
 - Intensive automated unit and module testing
- Work results
 - Requirement elicitation in form of a product backlog (in collaboration with supervisor)
 - Modified CMSuite (primarily patch-flow crawler) that allows patch-flow measurement using the Gitlab APIs.

Supervisor

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