PPTAM: Production and Performance Testing based Application Monitoring

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Problem

- Traditional performance testing approaches require long-running tests to be executed according to operational profile specifications
- In continuous integration environments, there is a need to continuously run tests to
  - assess scalability and other performance-related properties of new software versions
  - account for changing workload situations and system configurations

Approach

- The approach quantitatively assesses and compares testing results of performance-related properties of different system configurations, as for instance, with different deployments or parameters based on expected workload situations (e.g., number of users).
- Tooling infrastructure for continuous assessment and comparison of system configurations. APM tools are used to derive the best test sets from production data. Load tests are generated and executed to continuously assess the performance of new software versions in the test environment based on the operational profile. The results are visualized in reports and on smartphone-based user interfaces.

Framework Overview
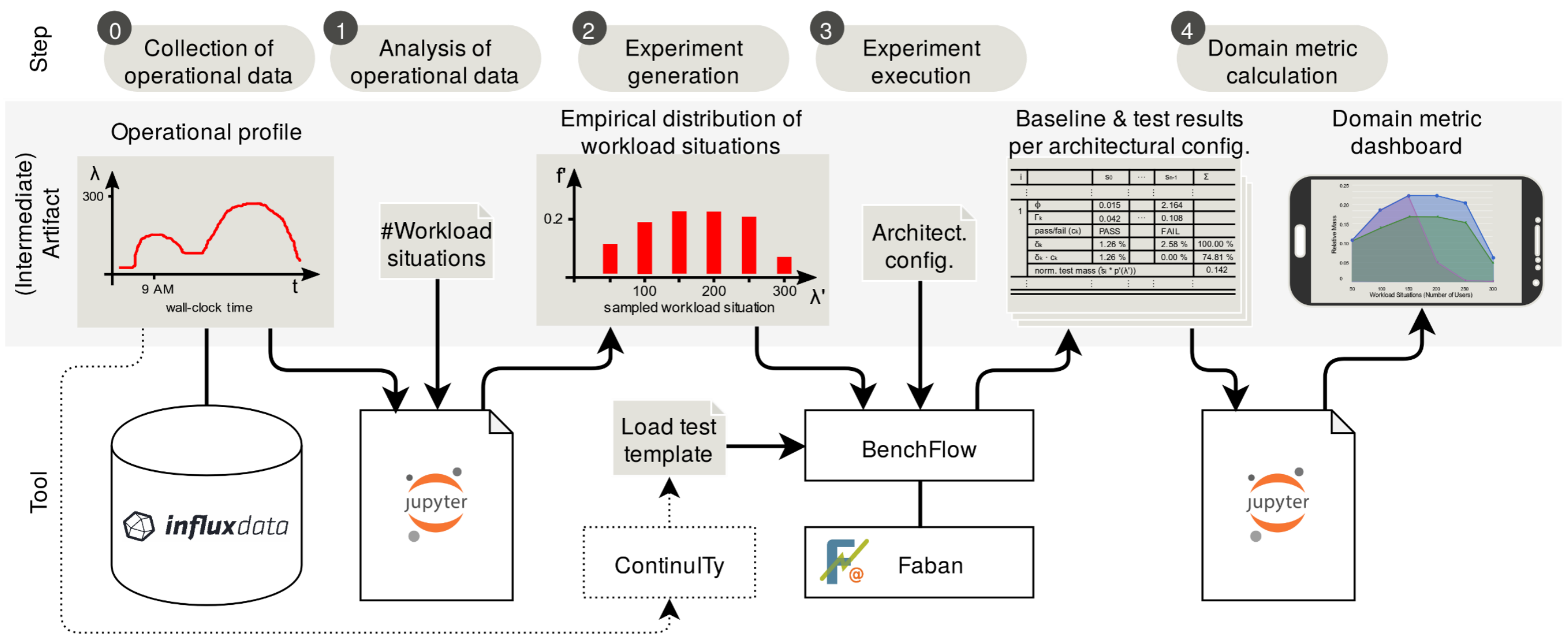
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https://github.com/pptam