

Enterprise Platform and Integration Concepts | Research Group of Prof. Dr. Hasso Plattner

# Usage Mining for the Enterprise – Discovering Usage Patterns in Cloud- based Business Applications

## MOTIVATION

Understanding how exactly applications are used (or not used) in the execution of business processes is crucial for organizations in order to improve user interfaces, optimize processes, and respond to change effectively. To address this need, Web tools such as Google Analytics became state-of-the-art for collecting and analyzing real-time information about usage patterns on public websites. With the growing trend towards cloud-provisioned and mobile business apps, similar concepts are now applicable to enterprise-grade software solutions. However, careful consideration must be given to the special requirements and complexities in enterprise scenarios in order to reveal relevant information about usage patterns in business applications.

## GOAL

Building on previous work and state-of-the-art technology, the goal of this Bachelor's project is to evaluate how usage patterns can be efficiently collected and analyzed in the context of SAP's recent cloud-based application portfolio. This will most likely include a combination of client- and server-side event logging and process mining into a coherent view across applications and user sessions. By tracking and combining user activity on different levels, a much more complete picture of how business processes are executed can be revealed. The footprint of the solution in terms of performance and additional lines of code should be minimal in order to keep the integration overhead as low as possible.

## SETTING

This Bachelor's project will be a joint effort of HPI and the SAP Innovation Center Network. We expect a close collaboration between both parties. Project participants will regularly visit ICN offices to facilitate proper information exchange in both directions. The team will have

access to state-of-the-art IT resources provided by HPI. The project consists of 4-6 students and starts in October.

## **SKILLS**

Prior knowledge and experiences with business applications are not required. However, participants are expected to be motivated to learn the state of the art in deploying and provision enterprise-scale business applications on a cloud platform. Motivation to work as a team, communicate results, and do a deep dive in existing technology is a must. Prior experiences in either Web mining, JavaScript, log analysis, or stream processing (Apache Kafka, Flink, Spark, etc.) are beneficial.

## **CONTACT**

For questions and details visit us in the Villa, 2nd floor on Campus II or write us an email.

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