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Discovering Work Prioritisation Patterns from Event Logs

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Abstract

Business process improvement initiatives typically employ various process analysis techniques, including evidence-based analysis techniques such as process mining, to identify new ways to streamline current business processes.

While plenty of process mining techniques have been proposed to extract insights about the way in which activities within processes are conducted, techniques to understand resource behaviour are limited. At the same time, an understanding of resources behaviour is critical to enable intelligent and effective resource management - an important factor which can significantly impact overall process performance.

The presence of detailed records kept by today’s organisations, including data about who, how, what, and when various activities were carried out by resources, open up the possibility for real behaviours of resources to be studied. This paper proposes an approach to analyse one aspect of resource behaviour: the manner in which a resource prioritises his/her work. The proposed approach has been formalised, implemented, and evaluated using a number of synthetic and real datasets.

Keywords: Resource Behaviour Mining, Queueing, Process Mining.

1. Introduction

Business process management (BPM) enables organisations to improve the effectiveness and efficiency of their business operations by systematically documenting, managing, automating and
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