Microservices in a DevOps context

A review of "A Systematic Mapping Study on Microservices Architecture in DevOps"

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Abstract

Short abstract about the goal of this paper. It should summarize the topics briefly and explain the sections very shortly.

1   Introduction

Describe the goals of the paper. Give an example why DS & ESE is relevant in research and / or software engineering.

1.1   Design Science

Describe what "Design Science" means and how it contributes to the topic.

TODO: reference papers that describe DS

1.2   Empirical Software Engineering

This section will also introduce terms like "SMS" "SLR" "SGLR", and the general definition of "Empirical Software Engineering".

TODO: reference papers that describe ESE

1.3   Microservices and DevOps

Introduce terms like "MSA", "microservice" and "DevOps" so everybody is on the same page about those terms. Those terms should be introduced by reference of other papers/articles or even websites.

2   Summary of Waseem et al.

This section does summarize the goal, idea and result of the paper. This part will be a neutral summary. Give an abstract about the paper of [WLS20].

2.1   Motivation

Describe and analyze the motivation of the researcher group that made the SMS.

2.2   Methodology

Analyze and summarize their methods. Describe the process they used and the additional changes they made to conduct their SMS.

2.3   Research Questions

Give a brief summary about their questions that they want to answer in the study.

2.4   Results

Summary of the results of the paper.

2.5   Discussion

Summary of the given "discussion" in the paper.

2.6   Threats to validity

Summary of their threads to validity.

2.7   Conclusion

Summary of the given conclusion.

3   Review of Waseem et al.

Points to address:

- Why 2009 until 2018 (and not 2020 oder 2019)
- Day1 / Day2 Optimization
- Topic Performance: What about service depth (i.e. "deep services")

3.1   Empirical Research Methods

Approvement / Disapprovement in the used methods and how they were applied to the study. Question the decision to limit the search to the year 2018.

3.2   Research Questions

Analyze the research question and may give feedback or alternatives to them.

3.3   Results and Discussion

Give feedback to the compiled results and the discussion that followed that results.

4   MSA in DevOps

Give an opinionated statement about what MSA in DevOps is and how the study does support this topic. Add references to gitops as a modern idea on how solve some problems (because they weren't in the search params?)

TODO: find papers about day1/2 optimization

TODO: find papers about gitops

5   Conclusion

Give the conclusion to the review of [WLS20].

References

[WLS20] Muhammad Waseem, Peng Liang, and Mojtaba Shahin. A systematic mapping study on microservices architecture in devops. *Journal of Systems and Software*, 170:110798, 08 2020.