# 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.