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**Analysis and Improving company documentation usage by developing a chatbot and integrating it with existing messaging platforms**

Master Thesis

Name of the Study Programme

Professional IT Business and Digitalization

**Faculty ZbwS**

from

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ABSTRACT

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LIST OF ABBREVIATIONS

ALP example of abbreviation

# Part I

# INTRODUCTION

One page introduction of the thesis.[[1]](#footnote-0) What it is and what it is doing.

## Motivation

One page motivation of thesis explaining why I am doing the thesis, what am I solving with the thesis, purpose of the thesis

## Thesis Approach

How this thesis is going to be written and what the approach is going to be (theory, AI, Cloud)

## Contributions

Explain what all contributes to the thesis:

Theoretical Contributions (Processes in software development, existing tool studies)

Empirical Contributions (Practical work)

Methodological Contributions (Research papers)

## Thesis Structure

Part I – Explains the research work and background

Part II – Explains the Plan and Infrastructure

Part III – Explains the Implementation and Conclusion

# BACKGROUND, STATUS QUO, TECH INVENTORY,

Explain the background work done in the previous semester. Previous slack chatbot

## Existing Processes and Tools

About the process we use, confluence, JIRA, employee onboarding, project information

## Google DialogFlow

About the NLP platform which can be integrated into a conversational user interface

## Slack

About Slack, Slack app, integration with AWS and Google DialogFlow

# THEORETICAL BACKGROUND (move it to last)

Publications, Journals and Research papers studied for this thesis. Multiple sources mentioned and choosing a side to support and why

## Scientific Research on Company Wiki

What are the advantages and disadvantages in using the company wiki. Existing research work on company wiki

## Natural Language Understanding

About NLU in general, research on LLM, Advantages, biases and disadvantages in conversations

## Microservices (if necessary)

Rename and think about it later

**Part II**

# DEVELOPMENT PLAN

Explain the steps involved in building the application, Agile, Goals, Requirements, End product

## Requirements Analysis

Perform RA and write down the user expectation, features, BPM, flowcharts, etc

## Conversational Userflows

How the conversation is designed for the application. If a user types “abc” then the chatbot responds with "xyz".

## Step-by-Step Plan

Explain step-by-step plan on how the application will be built. Timeline, sprint plan, Continuous revisions and modifications

# ARCHITECTURE

Overview of the importance of having a clear well defined architecture. Changes from previous architecture.

## Google DialogFlow

Architecture of Google DialogFlow

## Slack Application

Architecture of Slack Application and Chatbots in Slack (not needed to define why Slack)

## Amazon Web Services

Architecture of AWS services used and how it connects to both Slack and Google DialogFlow

## Smart Slackbot Architecture

Architecture of entire application end-to-end

# INFRASTRUCTURE (Remove)

Infrastructure used to build the application. Monolithic vs Microservices(already in Arch), Cloud vs On premise (cover in RA), etc

## Microservices

Why microservices

## Cloud Deployment

Why cloud deployment and why AWS

## Infrastructure-as-a-Service

Why IaaS and its advantages and disadvantages

**Part III**

# IMPLEMENTATION

Implementation Plan and how the application will be integrated into our slack channels

## Application Implementation

How users can interact with it, multiple ways it can be deployed

## Monitoring and Improvements

Continuous Monitoring and Continuous improvements

# CONCLUSION

Conclude the thesis and state how the application will improve the company process (or not!)

# Statutory Declaration

I herewith formally declare that I have written the submitted thesis independently. I did not use any outside support except for the quoted literature and other sources mentioned in the paper.

I clearly marked and separately listed all of the literature and all of the other sources which I employed when producing this academic work, either literally or in content.

I am aware that the violation of this regulation will lead to failure of the thesis.

Student’s name Student’s signature

Matriculation number Berlin, date

REFERENCES

1. Footnote (if necessary). [↑](#footnote-ref-0)