

### Data lake para agregação de dados de produção e ferramentas de visualização na indústria de estampagem

#### Leonardo Leite Meira dos Santos - 54363

Thesis presented to the School of Technology and Management in the scope of the Master in Information Systems.

Supervisors:

Prof. Paulo Alves

Prof. Kecia Marques

This document does not include the suggestions made by the board.

Bragança

2019-2020



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# Acknowledgment

This work was supported by  $\dots$ 

## Abstract

The abstract in english.

 ${\bf Keywords:}\ \ {\bf Data}\ {\bf lake},\ {\bf ferramentas}\ {\bf de}\ {\bf visualiza}\\ {\bf c}\tilde{\bf ao}\ {\bf de}\ {\bf dados},\ {\bf anal}{\bf ftica}\ {\bf descritiva},\ {\bf anal}{\bf ftica}$  preditiva

## Resumo

O resumo em português.

 ${\bf Palavras\text{-}chave:}\ \ {\bf palavras\ chave.}$ 

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#### Introduction

To check how acronyms work, just try to write Escola Superior de Tecnologia e Gestão (ESTiG).

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Figure 1.1: Example of figure.

## Context and Technologies

In this chapter it is expected to have a generic description of the problem and area: scope, concepts and technology and/or a literature review (state-of-the-art). In case of a practical project, there should also be described the tools and the justification for their use.

Usually, this chapter is divided in multiple sections, to complement the topics.

## Approach/Analysis/Methodology

In this chapter it is expected a detailed description of the problem and proposed solution.

In the case of software development projects, there should include tools and concepts related to the modeling and analysis (such as UML diagrams or others). There should also describe the tasks that the system should implement and the authors that interact with it. The description should be detailed to understand the difficulties associated to the problem resolution.

## Development

In this chapter, you should describe the implementation, highlighting the most important aspects, the difficulties and the technical solutions that were followed. In particular, if code from others was used (available as open-source), should be easily identified.

## Tests/Discussion

This chapter presents and describes the tests that were developed to check if the project fulfills the objectives and solves the problem described in Analysis/Methodology.

To better understand, the results of each test should be preceded by a description of the test and the expected results.

The work results are commented, including:

- What can be learned from the results?
- What could be done differently?
- What was beyond initial objectives?
- What are the objectives there were not met and why?

### Conclusions

The conclusions should synthesize and provide a single view to the work developed. It can be done a brief reference to similar work of others and to the knowledge that emerged from it, as well as future work suggestions. The consistency of the document implies that the conclusions should be coherent with the main ideas in the introduction.

# Appendix A

Original project proposal



#### Curso de Licenciatura em Engenharia Informática

Projeto 3º Ano - Ano letivo de 2016/2017

#### <Título do projeto>

Orientador: <Nome do orientador>

Coorientador: <Nome do coorientador>

#### 1 Objetivo

<Objetivo do projeto>

#### 2 Detalhes

<Detalhes que julguem ser necessários>

#### 3 Metodologia de trabalho

<Eventual metodologia de trabalho>

Dimensão da equipa:

Recursos necessários:

# Appendix B

# Other appendix

Source code listing, text/images produces, complementary tests, etc.