

Project: Software Engineering

Course DLMCSPSE

**Portfolio Project**

SENOUCI BRIKSI Djelloul

Registration number: 9225022

dd.mm.yyyy

Fribourg, Switzerland

# Table of contents

[Table of contents 2](#_Toc169251362)

[Image directory 3](#_Toc169251363)

[Glossary 3](#_Toc169251364)

[Introduction 4](#_Toc169251365)

[Requirements 5](#_Toc169251366)

[Design 6](#_Toc169251367)

[Realisation 7](#_Toc169251368)

[Testing 8](#_Toc169251369)

[Conclusion - Lessons Learned 9](#_Toc169251370)

[References 10](#_Toc169251371)

[Tmp 14](#_Toc169251372)

[Literature 15](#_Toc169251373)

# Image directory

[Figure 1 Vote Probabilities 14](#_Toc169251374)

# Glossary

|  |  |
| --- | --- |
| CAB |  |
| Complex Action |  |
| mobile SQLite database |  |
| PIS | Passenger Information System |
| Route |  |
| Train Number |  |

# Introduction

Une image contenant texte, capture d’écran, Police, conception

Description générée automatiquement

# Requirements

This section contains the functional and non-functional requirements of our project. The requirements below are ordered following a top-down view. This order does \*not\* define the priority of the requirement. It is intended to implement all requirements listed in this section within the realization of this project.

## Functional Requirements

The CAB is web-based application that allows browsing complex action trees.

The CAB loads all complex actions contained in a PIS mobile SQLite database.

Complex actions are linked to train numbers (routes). The CAB shall show the corresponding list of train numbers contained in the mobile SQLite database.

Train numbers (routes) are usually valid on certain dates or range of dates. The CAB shall give a possibility to choose a date to filter with.

Furthermore, the CAB shall give the possibility to filter the train number (route) to search into.

The CAB shall enable browsing a complex action tree by collapsing and expanding the tree nodes (complex actions).

How this tree of complex actions is visually presented will be defined during the implementation phase.

The CAB shall however present an intuitive way to browse through the tree.

The CAB shall give the possibility to search complex actions by their attributes.

The following complex actions attributes (search criteria) are defined:

* 1111
* 2222
* 3333
* 4444
* 5555

The complete list of these attributes will be finalized during the implementation phase.

The CAB shall show the result of searching complex actions by attributes in a meaningful and intuitive presentation.

The CAB shall also give a way to check the plausibility of a given complex action tree.

The following plausibility checks are defined:

* 1111
* 2222
* 3333
* 4444
* 5555

The complete list of plausibility checks will be finalized during the implementation phase.

The following diagram shows the main features of the Complex Action Browser:

Une image contenant texte, capture d’écran, cercle, diagramme

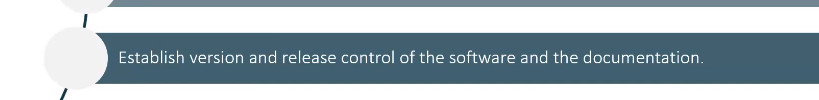
Description générée automatiquement

Figure 1 – CAB: Main Features

## Non-Functional Requirements

# Design

# Realisation



# Testing

# Conclusion - Lessons Learned

# References

# Tmp

Une image contenant texte, capture d’écran, cercle, diagramme

Description générée automatiquement

Figure 1 Vote Probabilities

# Literature

* Advanced Statistics DLMDSAS01 (2023). IU International University of Applied Sciences.
* Deisenroth, M. P., Faisal, A. A., & Ong, C. S. (2020). Mathematics for machine learning. Cambridge University Press.
* Hogg, R. V., McKean, J. W., & Craig, A. T. (2020). Introduction to mathematical statistics. Pearson.
* NIST Engineering Statistics Handbook. (access 2024-05-19):  
  <https://www.itl.nist.gov/div898/handbook/index.htm>
* Wasserman, L. (2013). All of statistics: a concise course in statistical inference. Springer.
* Wolfram Alpha (access 2024-05-19):  
  <https://www.wolframalpha.com/>