

**Data Mining Project**

**MASTER DEGREE PROGRAM IN DATA SCIENCE AND ADVANCED ANALYTICS**

**<TITLE>**

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# Title 1

## Introduction

In today's competitive business environment, it is essential for organizations to understand their customers in order to effectively meet their needs and drive growth. One way to achieve this understanding is through market segmentation, the process of identifying groups of customers with similar characteristics and behaviors. By understanding the differences between these segments, organizations can make more informed strategic decisions about opportunities, product definition, positioning, promotions, pricing, and target marketing.

Clustering is a powerful data mining technique that can be used to identify and understand customer segments. It involves grouping similar data points together into clusters, based on their characteristics and behaviors. In this report, we will apply clustering techniques to the customer database of A2Z Insurance, a Portuguese insurance company, in order to identify and understand the different segments within the customer base. Our goal is to not only understand the demographics and value of each segment, but also to identify opportunities for targeted marketing and cross-selling of insurance products.

A2Z Insurance has provided us with a sample of 10,290 customers from its active database, along with data on their characteristics and behaviors. Our analysis will involve cleaning and preprocessing the data, selecting appropriate clustering algorithms, and evaluating the resulting clusters to determine their relevance and value to the organization. By using data-driven approaches to market segmentation, A2Z can better serve its existing customers and improve its targeting of prospective customers.

### Title 1.1.1

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This word file provides a "standard" proposal structure. The format of the report (headers, spacings, fonts, and other formations) should be employed as defined in this template. However, students may change the structure and the titles according to their needs.

The report should be written in English.

In the case references point to the “source code” make sure the code is correctly annotated.

All bibliographic references should be presented in the APA standard; this standard also applies the formatting of references and respective forms of referencing throughout the text[[1]](#footnote-1).

# Title 2

## Title 2.1

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Figure 2.1 – Illustrative figure

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Table 2.1 – Illustrative table

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# References

Author, A. A., Author, B. B., & Author, C. C. (Year). Title of article. *Title of Periodical, volume number* (issue number), pages.

# Appendix (Doesn’t count for the 10page limit)

1. Example of a footnote. [↑](#footnote-ref-1)