



# Mass api data aggregator

## Project plan

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## PREFACE

Dear readers,

As part of my bachelor's thesis, I am writing this plan of action for the project that I am executing during my internship at the company Elmos in Mechelen.

In an era where social media plays a significant role in daily life, the collection and analysis of data on these platforms have become of great importance for businesses and organizations. Monitoring social media can lead to valuable insights about customers and their behavior, as well as trends in the industry and wider society.

This plan of action describes the steps we are going to take to realize a project focused on retrieving, storing, and analyzing data from social media. We aim to develop a system that can collect and organize these data, so they can be easily analyzed and visualized in dashboards that offer meaningful insights.

To achieve this, we will first conduct research on the different social media platforms and the types of data they provide. We will also explore which tools and technologies are most suitable for retrieving and storing these data.

Next, we will focus on the design and development of the system. We will define the data structures, APIs, and database specifications, and develop a working prototype. The system will be modular, so it can easily be adapted and expanded as needed.

Once the system is built, we will focus on data analysis and visualization. We will develop dashboards that provide insightful and intuitive visual representations of the collected data.

Finally, we will test and fine-tune the system to ensure it meets the requirements and expectations of our users. We will also provide documentation and training materials to ensure the system is easy to use.

This project offers the opportunity to gain valuable insights from social media data and use these to make decisions that improve business performance. We look forward to executing this project and are grateful for the chance to provide valuable solutions for our customers.

Best regards,

Noah Apers

# **1 INTRODUCTION**

The aim of this report is to present our approach for developing an efficient and effective social media analysis system for our clients. We want to build a user-friendly and scalable system capable of collecting, storing, analyzing, and visualizing social media data. The report describes the key milestones of the project, including the definition of system requirements and design, the development of authentication and data collection, the development of data analysis and visualization, testing and optimization, and documentation and training. We will approach the project following Agile Planning principles and aim to complete it within a timeframe of 12 weeks. This report also provides insights into the materials and costs required for system development. In conclusion, our goal is to develop a high-quality system that provides valuable insights to our clients based on social media data.

## 2 PROBLEM STATEMENT

The impetus for our research is the growing need of businesses and organizations to gain more insights into the behavior of their customers and market trends. With the increasing popularity of social media, the collection and analysis of data from these platforms have become an increasingly important tool for gaining these insights.

The goal is to develop a system that enables businesses and organizations to collect, store, and analyze social media data in an effective and efficient manner. The ultimate aim is to gain valuable insights from the data and use these to make decisions that improve business performance.

It's important to note that there are already various tools and technologies available for the collection and analysis of social media data. Our research will focus on developing a system that distinguishes itself from the competition by offering unique functionalities and user experiences that meet the needs of our customers.

Our stakeholders are the businesses and organizations that will use our system to collect and analyze social media data. By providing them with valuable insights and information about their customers and the market, we hope to help them make better decisions and improve their business performance.

My partners in this project are our colleagues at Elmos and another intern working on the project. We will work closely together to design, develop, and test the system to ensure it meets the requirements and expectations of our customers.

At the time we start our research, some preliminary research has already been done on the competition and the different social media platforms. We will use this information to further deepen our research and perform a thorough analysis of the various tools and technologies available for collecting and analyzing social media data.

In addition to developing the system itself, we will also focus on creating user-friendly dashboards that enable our customers to visualize and understand the data in a meaningful way. We will also provide documentation and training materials to ensure the system is easy to use.

In the current business environment, collecting and analyzing social media data has become crucial for businesses and organizations. Our research will contribute to providing valuable insights to our customers and help them improve their business performance through social media analysis.

By carrying out this project, we hope to emphasize the value of social media data for businesses and organizations. We aim to develop an effective and efficient system that enables our customers to gain valuable insights and use these to improve their business performance. We are confident that our research will contribute to the growth and development of our customers, and we look forward to executing this project.

### **3 PROJECT DESCRIPTION**

The goal of my project is to develop and optimize the backend of our social media analysis system. I will focus on writing the code for system authentication, which involves account creation, system login, and securing user data.

In addition to authentication, I will also be involved in developing the code for two other backend projects. The first project will focus on collecting and storing social media data, while the second project will focus on analyzing this data to obtain valuable insights.

The end product of my project will be a robust and scalable system capable of collecting, storing, and analyzing social media data, and presenting these insights to our clients through user-friendly dashboards. The system will be designed to be flexible and modular, allowing for easy adaptation and expansion as needed.

An important aspect of my project is testing and fine-tuning the system to ensure optimal performance and meet the needs and expectations of our clients. We will also provide documentation and training materials to ensure that our clients can easily use and understand the system.

In summary, my project will focus on developing the backend of our social media analysis system, with a focus on system authentication. The end product will be a robust and scalable system capable of collecting, storing, and analyzing social media data, and presenting these insights through user-friendly dashboards. We will prioritize testing and fine-tuning the system to ensure it meets the needs and expectations of our clients.

## 4 GOAL

The goal of my project is to develop an efficient and effective social media analysis system that enables our clients to obtain valuable insights from social media data. We aim to build a robust and scalable system capable of collecting, storing, analyzing, and visualizing social media data.

The expected end product is a user-friendly system that empowers clients to obtain insightful and intuitive visual representations of the collected data. The system will encompass various functionalities, including data retrieval and storage, data analysis to derive valuable insights, and presenting these insights through user-friendly dashboards.

An important aspect of our project is prioritizing the functionalities that need to be developed. We will first focus on the core features such as data collection, storage, and analysis, followed by the development of the dashboard functionality. We also want to ensure that the system is modular, allowing for easy adaptation and expansion as needed.

In summary, our goal is to develop a user-friendly and scalable system that provides valuable insights to our clients based on social media data. We will prioritize key functionalities and ensure a modular system that can be easily adapted and expanded.



## 5 PROJECT PLANNING

We will approach the project according to the principles of Agile Planning, which means we will break the project down into smaller, manageable tasks and regularly reassess progress and priorities. Below are the key milestones for the project:

Milestone 1: Definition of system requirements and design (week 1-2)

Determination of the main features and requirements of the system

Design of the system's architecture

Milestone 2: Development of the authentication and data collection (week 3-5)

Implementation of the system's authentication

Development of the code for collecting and storing data from social media

Milestone 3: Development of the data analysis and visualization (week 6-8)

Implementation of the analysis of collected data

Development of user-friendly dashboards for presenting insights

Milestone 4: Testing and optimization (week 9-11)

Testing the system to identify any bugs and issues

Optimization of the system based on feedback and test results

Milestone 5: Documentation and training (week 12)

Creation of documentation and training materials for customers

Completion and handover of the project

### 5.1 Materials & costs

For this project, we will require the following materials:

- Access to social media APIs for data collection.
- Hosting and storage space for the backend of the system.
- Tools and software for code development and dashboards.
- Fixed costs for the project will include software and tool licenses, hosting and storage expenses, and any costs associated with accessing social media APIs.

## **5.2 Time frame**

The project will be executed within a timeframe of 12 weeks, from April 1, 2023, to June 30, 2023. During this period, we will work on the project both during regular classes and during the project week.

## 6 CONCLUSION

In conclusion, my approach for the development of a social media analysis system aims to build an efficient and effective system that provides valuable insights to our clients based on social media data. We will prioritize key functionalities and ensure a modular system that can be easily adapted and expanded. The project will be executed following Agile Planning principles and will be completed within a timeframe of 12 weeks. The report outlines the key milestones of the project, including defining system requirements and design, developing authentication and data collection, data analysis and visualization, testing and optimization, and documentation and training. We have also provided insights into the materials and costs required for system development. Overall, our goal is to develop a high-quality system that offers valuable insights to our clients based on social media data.