

PROJECT SPECIFICATION TEMPLATE

Project Title: AI-Driven Review Aggregator and Analyzer for Strategic Product Insights

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Introduction:

This document aims to provide all stakeholders with a common understanding and high-level information about “AI-Driven Review Aggregator and Analyzer for Strategic Product Insights”. It outlines the project’s solution, initial requirements, objectives, constraints, and professional and ethical responsibilities associated with the project’s execution. The ultimate goal of this document is to ensure transparency and alignment among the project contributors and stakeholders.

Project Description:

Our project aims to make a tool using artificial intelligence and web scraping. It will collect product reviews with web scraping methodologies and give useful product review insights that artificial intelligence calculates. The goal is to create a system that can gather feedback from different websites, understand feelings, find important points, and show scores and categories.

Business Goals:

The main aim of this project is to help businesses by giving them useful insights from customer reviews. This can help them make better products, improve their marketing strategies, and gather fast and accurate customer reviews. By using AI, we want to give product owners, marketing teams, and community managers the tools to gather fast and accurate customer reviews based on lots of data.

Constraints:

Economic Constraints: We have to consider a budget for hosting a website and managing costs for accessing and storing data on the cloud servers.

Time Constraints: In our project, time constraints are critical. We need to meet the project milestones and delivery deadlines on time. This involves careful planning and effective time management.

Environmental Constraints: We aim to reduce carbon footprint through efficient data processing methods, focusing on minimizing energy usage in data centers and hardware operations.

Stakeholders:

- Clients: Product owners, marketing teams
- Project development team
- Consumers: people who write reviews on the product
- Supervisor and jury members

Requirements:

The initial requirements of our project are as follows:

1- Feedback and Data Collection: We want to be able to find user feedback about products from various online sources, extract this data, and collect it to feed to our AI model. This data should be publicly available and contain valuable feedback about the product. Therefore, after the initial aggregation of feedback, we will be extracting the valuable ones.

Also, to fine-tune our model we will be using different datasets from online sources such as Kaggle.

2- Data Analysis: Our fine-tuned large language model will be fed user feedback to perform sentimental analysis and highlight the features the user is satisfied with or has concerns with. Based on the output of the model to various feedbacks, we will calculate an overall score of the product and categorize the most liked and disliked features.

3- Dashboard: After the feedback collection and data analysis parts, we are going to need to present these valuable insights to our customers. We will build an intuitive and user-friendly dashboard that visualizes and presents the data. This dashboard should provide an excellent user experience because it will be the feature of our product that the customers will interact with and see.

4- Project Goals: We want the finished product to help businesses meet customer demands and desires. Our target audience is product owners, marketing teams, and customer service departments of organizations.

Professional and Ethical Issues:

The project team will conform to professional and ethical standards throughout the development process. Our project will not collect personal identifiers such as names or surnames. The team will be responsible for handling data privacy and complying with government regulations. Effective communication plans and reporting schedules will be planned to facilitate collaboration and address any concerns.

Communication Plan

- We will meet with our supervisor once every two weeks.
- We will communicate with our team members through social media platforms such as Discord, WhatsApp, etc.
- We will report the necessary documents at the given time to our supervisor and jury members.