

## **PHASE 1: GOALS**

### **Main goal of the project:**

The main goal of the project is to develop an AI auto-highlighter that can help students quickly identify and retain important information from a document.

### **Specific objectives:**

The specific objectives of the project are:

- To develop a machine learning algorithm that can identify and highlight important parts of a document.
- To implement natural language processing techniques to extract important information and provide a summary of the document.
- To design a user-friendly interface that can be easily used by students.
- To test and refine the algorithm to ensure accuracy and efficiency.

### **Success criteria:**

The success criteria for the project are:

- The AI auto-highlighter should be able to accurately identify and highlight important parts of the document.
- The auto-highlighter should be able to provide an accurate summary of the document.
- The interface should be user-friendly and easy to use.
- The algorithm should be efficient and capable of processing large documents in a reasonable amount of time.

## **PHASE 2: ENVIRONMENT**

### **The stakeholders for the system:**

The stakeholders for the system are:

- Students who will use the AI auto-highlighter to study and complete academic tasks.
- Educators who may recommend the tool to their students.
- Academic institutions who may consider implementing the tool for their students.
- Software developers who will develop, maintain, and update the tool.
- Investors who may invest in the development and marketing of the tool.

### **Positive or negative effects on each of the stakeholders:**

Students: The AI auto-highlighter will positively affect students by saving them time and helping them efficiently and effectively study for exams, write research papers, and complete other

academic tasks. However, it may also negatively affect them by creating a reliance on technology and reducing their ability to critically analyze information.

Educators: The tool may positively affect educators by helping them improve the learning outcomes of their students. However, it may also negatively affect them by reducing their control over the learning process and increasing the workload to create documents suitable for the tool.

Academic institutions: The tool may positively affect academic institutions by improving the academic performance of their students and attracting potential students. However, it may also negatively affect them by increasing the cost of technology implementation and the need for training students and faculty to use the tool.

Software developers: The tool may positively affect software developers by providing a new product to develop, maintain, and update. However, it may also negatively affect them by increasing the workload to maintain and update the tool and the risk of technical problems that may affect the reputation of the company.

Investors: The tool may positively affect investors by providing a potentially profitable product. However, it may also negatively affect them by the risk of low adoption rates, technical issues, or competitors developing similar tools.

### **PHASE 3: ADAPTATION**

#### **Potential challenges or obstacles that may arise during the development of the system:**

The potential challenges or obstacles that may arise during the development of the system are:

- The accuracy and efficiency of the algorithm may be challenging to achieve, especially when dealing with complex and technical documents.
- Natural language processing techniques may not be able to extract all the necessary information from the document accurately.
- The user interface may not be intuitive and user-friendly, reducing the adoption rate of the tool.
- The implementation of the tool may require a significant investment of time and resources.
- The competition from existing or emerging tools may reduce the market share of the AI auto-highlighter.