

# 1. Overall description

## 1.1 Product perspective

**Heard** is a web service with an adapted interface for mobile devices that allows you to upload photos of a book or other text publication to convert them into audio files and listen to them.

## 1.2 Product features

The service will have the following major features:

- authorization and authentication of users using the Google Account service;
- the ability to create a resource and add photo text to it;
- the ability to disable the resource and related media;
- saving and sorting photo and audio resources;
- conversion of photo materials into coherent text with support for Ukrainian and English languages;
- the ability to re-generate an audio file when changing settings.

## 1.3 Assumptions and dependencies

The system will be developed by using Node.js platform. Other dependencies will also include:

- React.js;
- MongoDB;
- Ajax;
- Google API.

# 2. Project description

## 2.1 Goals:

- Develop a web service that converts images of text into audio files to increase accessibility to books and other text publications.
- Provide a user-friendly interface for mobile devices to make the service accessible to a wide range of users.
- Enable users to save and organize photo and audio resources for ease of access and use.
- Support two major languages, Ukrainian and English, to cater to a wider audience.
- Use Google API for authorization and authentication to ensure secure user access.
- Provide the option to re-generate audio files when changing settings to allow for customization and flexibility.

## 2.2 Objectives

- Develop a Node.js platform for the system to run on.
- Implement React.js to create a user-friendly interface.
- Incorporate MongoDB to save and sort photo and audio resources.
- Use Ajax to enable seamless interaction between the user and the service.
- Utilize Google API for authorization and authentication.
- Develop a photo-to-text conversion feature with support for Ukrainian and English languages.
- Develop an audio file generation feature based on the converted text.
- Develop a feature to enable users to disable resources and related media.
- Ensure the service is scalable and capable of handling increasing user traffic and data storage requirements.
- Test the system to ensure it meets quality and performance standards before release.

## 2.3 Target audience

The target audience for Heard are individuals who face difficulties reading printed or digital text, such as individuals with visual impairments or learning disabilities. The service can also be used by individuals who prefer to listen to books or other publications while doing other tasks.

## 2.4 Stakeholders

**Users** - Individuals who will use the Heard service to convert text to audio files.

**Developers** - The team responsible for developing and maintaining the Heard service.

**Investors** - Individuals or organizations who have invested in the development of Heard and expect a return on their investment.

**Partners** - Third-party providers of tools and services, such as Google API, that are necessary for the functioning of Heard.

## 2.5 Executive team

**Oleksii Pasternak** – PM and partially BA, team's motivator. Workproducts: Project Plan, Wireframes and Prototypes

**Anna Pavliuk** – QA. Workproducts: Functional, non-functional test cases, Smoke suite, defect reports.

**Ihor Medvid** – AQA. Workproducts: sets of unit, integration, UI tests, defect reports.

**Vovchyk Halamaha** – DEV. Workproducts: CI/CD

**Time** - There may be a strict timeline for the development of the service.

**Budget** - The project budget may be limited, which could impact the scope and quality of the service.

**Technology** - The project may be limited by the available technology or the need to integrate with other technologies.

**Languages** - The accuracy of the text-to-speech conversion may be impacted by the complexity of the languages being used (Ukrainian and English).

**Compatibility** - The service may need to be compatible with different types of mobile devices, operating systems, and web browsers.

### 3.1 Gantt chart



Adequate financial resources are crucial for the successful completion of the Heard project. The largest portion of the budget will be allocated to salaries for the project manager, quality assurance specialists, and developer, who will be working full-time to ensure that the project is completed on time and within budget. Additionally, reliable equipment such as laptops and mobile devices will be required for development, testing, and deployment.

In addition to salaries and equipment, software licenses for tools and services such as Node.js, React.js, MongoDB, Ajax, and Google API will be needed to develop and integrate

various features and services into the application. Other related costs, such as cloud services, office rent, and utilities, will also need to be considered in the budget plan.

To ensure that we have sufficient financial resources, a detailed budget plan will be created that takes into account all the necessary expenses. We will also monitor our expenses regularly and make adjustments as necessary to ensure that we stay within budget and complete the project on time. By properly allocating financial resources, we can ensure the success of the Heard project.

## 3.3 Budget

### 3.3.1 Salaries

- Project Manager (3 months) - **\$9,000**
- Quality Assurance Specialist (3 months) - **\$6,000**
- Automation Quality Assurance Specialist (3 months) - **\$7,500**
- Developer (3 months) - **\$12,000**

### 3.3.2 Equipment

Laptops and mobile devices - **\$5,000**

### 3.3.3 Software Licenses

Node.js - **\$500**

React.js - **\$500**

MongoDB - **\$1,000**

Ajax - **\$500**

### 3.3.4 Cloud Services

Google API - **\$1,000**

Hosting and maintenance - **\$1,500**

### 3.3.5 Total

Total budget for the Heard project for 3 months: **\$44,000**.