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. Functional Requirements

This section contains all the functional requirements of this project. They describe how the system should behave, so those requirements are essential and must be implemented in full.

2.1 Login Page

- The user is able to log in with Google.

2.2 Settings Page

- The user is able to sign out from the app.

2.3 Resources Page

- The user is able to see and navigate between "Resources", "Add resource", "Settings" main pages.
- The system must display all added resources by a specific user on "Resources" page.

2.3.1 Add Resource page

- The user is able to add resources to the list of Resources.
- The 'Add Resource' page must contain a 'Title' mandatory field, a 'Notes' non-required field, and an 'Image' mandatory field.
- The system must allow uploading pictures in jpg, jpeg, png format only.

2.3.2 Single Resource Page

- The user can navigate to the 'Resource' page by clicking on a specific item on the 'Resources' page.
- The user is able to edit specific 'Resource'.
- The user is able to delete specific 'Resource'.
- The system must delete all related audio to resource if resource is deleted.
- The user is able to add a 'Media' by uploading a picture of the book page.
- The system must generate audio from text from added media by user.
- The system must display a list of added audios for specific resource.
- Single audio item must contain added date, first 100 characters of generated text, 'play' button with approx listening time.
- The user is able to play specific audio.

2.3.3 Single Media page

- The user can navigate to media page by clicking on a specific media item in 'Available audios' list on single resource page.
- The system must display resource title and generated text on specific media page.
- The user is able to open a source image.
- The user is able to delete specific media.

2.3.3 Audioplayer footer

- The user is able to pause and resume playing audio.
- The user is able to jump forward and back to 10 seconds of playing audio.

3. Identity management

Users can create an account using Google login provider.

Types of roles: Guest, User

Guest	User that have not authenticated yet: • Can sign in/sign up.
User	User that have already authenticated: • Can add, view, edit, delete resource; • Can add photos to resource; • Can convert photo to text; • Can generate audio file from text; • Can listen to generated audio; • Can delete photo and media from resourse; • Can sign out.

4. UML Diagram

Web service use case diagram