**Large Applications Practicum**

**Group-3**

Software Requirements Document

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**Evoice:** The **Text-to-Speech** Synthesizer

Requirements Document

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author(s)** | **Description** |
| v1.0 | 10/16/19 | Vishnu Priya Jindal, Aaditya Arora, Aman Saxena, Ananya Shukla | Initial version |

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# Introduction

Evoice is a text-to-speech synthesizer for English and several other languages.

## Need and Purpose*.*

Text-To-Speech synthesizers were developed in order to help the visually impaired people using computer generated voice which can read the text to the user. Also, it can cater to the needs of the students who face difficulty in reading and learning. The users can also choose a file to read from and this can be useful for children as well. Users can benefit from this software irrespective of their age.

## Intended Audience*.*

This document is intended for software designers and students who have an interest in the field of software development. This may also be read by the users of this product.

## References

[1] <http://espeak.sourceforge.net/>

[2] <http://www.cstr.ed.ac.uk/projects/festival/>

[3] <https://en.wikipedia.org/wiki/Speech_synthesis>

# Description

*A detailed, precise description of the features and functions of Evoice.*

## Features and Functions

#### Features

*Evoice* enables users to either enter the text into a field or choose a file which is read by the software to the user. It also provides the option to change the speed at which the text is read

#### Functions

The software handles:

1. Input from a text file to be read.
2. Text that can be input manually.
3. Slider to change the speed.

## Users

1. Visually impaired people.
2. Children.
3. Students who face trouble in reading.
4. Old people.

[Note: This product can be used by the users who have an OS that supports Festival}

## Operating Environment

### Hardware

*Evoice* requires a PC with keyboard and speaker.

### Software

* Operating system that supports Festival TTS.
* Festival TTS
* Python2 version 2.7.15+
* G++ version 7.4.0
* Make
* Tkinter

# Specific Requirements

## External Interfaces

* PC
* Keyboard
* Speaker

## Design Constraints

Festival TTS includes limited languages and accents.

## Additional Comments

Evoice enables users to use a text file to read currently. However, this will be extended to the usage of PDFs to read from in the next version.

# Mini-Project Plan

***Future Deliverables:***

**18/10/2019** Improving the GUI (Ananya)

**18/10/2019** Enable PDFs (Aman)

**19/10/2019** Adding the Pause Option (Vishnu)

**20/10/2019** Support more voices (Aaditya)

**20/10/2019** Testing software and performance check (Aaditya

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