**ANDROID BASED TEXT-TO-SPEECH APPLICATION**

PROJECT PLAN

CSE 325-SOFTWARE ENGINEERING

PROF. LYDIA JANE

SUBMITTED BY:

ISHAN KRISHNA (12BCE0501)

SHOBHIT GUPTA (12BCE0503)

SLOT: B1

**Aim:**

To develop a Text-to-speech Android application which will convert the input text into voice. Further, Also add Hind or some regional language as a recognisable language.

**Abstract:**

Text-to-speech (TTS) is the ability to play back written text as spoken words. As the Human-Computer Interfaces (HCI) come of age, the need for a more ergonomic and natural interface than the current one (keyboard, mouse, etc.) is being constantly felt. Talking of natural interfaces, what comes to mind, is sound (speech) and sight (vision). These form the basis of many intelligent systems research like robotics.

**Objectives:**

* Although the task of building very high quality, unlimited vocabulary text-to-speech (TTS) system is still a difficult one, with many open research questions, we will build an application with two to three language support.
* Our main objective for converting text to speech is to reduce the delay time. Delay time is the time difference between input text and the output speech. Lesser the delay time better will be the program and will not create confusion between the texts.
* We are looking forward to use as many as languages as we can which can serve people with different languages. Specially as there are very limited programs which uses HINDI as its output speech language, so our objective is to try include this language in our program.

Ishan Krishna will work on the first two points while Shobhit Gupta will work on the third point.

**Feasibility and Uses:**

* Speech can serve as an excellent interface for sightless people, or people with motor neuron disorders. For some people who have some physical disability like blind people can use this program to listen to any text.
* Text to Speech is most helpful when it highlights the words as they are spoken. Dyslexic people say this focuses their attention and helps their understanding of the content. Some studies have shown that a combination of text-to-speech and highlighting improve reading skills.
* Text to Speech is most helpful when it highlights the words as they are spoken. Dyslexic people say this focuses their attention and helps their understanding of the content. Some studies have shown that a combination of TTS and highlighting improve reading skills.
* Text to Speech is also finding new applications outside the disability market. For example, speech synthesis, combined with speech recognition, allows for interaction with mobile devices via natural language processing interfaces.

**Deliverables:**

In the end, we will be able to use an application which can convert a normal text into voice. This application will be of great help with reading or writing, particularly if you: read slowly or with difficulty, find it difficult to concentrate when reading, want feedback when writing; want help with spotting errors when proof-reading , have visual stress when reading paper or a screen, benefit from the multisensory experience of seeing and hearing.

The various technologies and software that we will use are:

1.Java

2.Android SDK

3.Eclipse IDE

**Process Model:**

The process model that we will follow is The Waterfall Model. We will follow this model because we will be building our project in phases as specified in this model. The project phases will be:

1. [Requirements specification](http://en.wikipedia.org/wiki/Software_Requirements_Specification) resulting in the [product requirements document](http://en.wikipedia.org/wiki/Product_requirements_document).
2. [Design](http://en.wikipedia.org/wiki/Software_design) resulting in the [software architecture](http://en.wikipedia.org/wiki/Software_architecture).
3. Construction ([implementation](http://en.wikipedia.org/wiki/Implementation) or coding) resulting in the actual application.
4. Integration
5. Testing and [debugging](http://en.wikipedia.org/wiki/Debugging)
6. [Installation](http://en.wikipedia.org/wiki/Installation_%28computer_programs%29)
7. [Maintenance](http://en.wikipedia.org/wiki/Software_maintenance)