GRIFFITH COLLEGE LIMERICK

Bachelor Degree in Computing Science (Honours)

E-reader for the Mobility Impaired Android Mobile Application

Project Proposal Initial Specification Form

The form, fully completed, must be returned to:

Sonia Zheleva
Faculty of Engineering, IT & Computing
Griffith College Limerick
O'Connell Avenue
Limerick

PROJECT TITLE:	***E-reader for the Mobility Impaired Android Mobile Application***
STUDENT NAME & ID:	
NAME OF DEPARTMENT:	Engineering, IT & Computing
PROGRAMME	Bachelor Degree in Computing Science (Honours)
MOBILE No:	+353
EMAIL ADDRESS:	

Initial Specification:

Project Description:

The proposed mobile application will assist independent reading process of selected and downloaded e-book on Android mobile device by a mobility impaired individual, who could use voice commands to display books and navigate pages of content easily, at own pace of reading, without need of caregiver's assistance. The application will be integrated with *Google Home* IoT device for selecting books and turning pages.

A database will preserve information about what books the user has in their library and how quickly it took them to read through a book of specific volume. This information will be utilised to provide recommendations for other books of a similar style, according to when the user would like to start and finish the book reading process.

Key Features:

- Simple, uncluttered Interface Design
- Easy navigation
- Robust application
- Security of personal data

Functionalities:

Reader Interface:

- Identify downloaded books and supported formats on the smartphone/tablet device and present them on the screen
- Open a book and turn a page through designated command
- Add bookmarks
- Create notes about the book
- Provide dictionary support
- Display user's average reading time
- Display recommended books from Amazon database and provide links to these books in other e-book stores.

Google Home Assistant:

- Receive and interpret voice commands from the user to allow for easy user interface navigation.

Technical and Non-Technical Resources Required (Initial Specification)

Hardware:

- PC/Laptop
- Android Smartphone
- Android Tablet
- IoT *Google Home* device

Operating System:

- Android OS
- Windows 10

Software:

- Android Studio
- Google Firebase
- HTML5
- XML
- Java
- JavaScript
- Android Studio emulator
- Google Assistant API

Tools, equipment, and other sources:

Tools:

- MS Office
- Google Forms
- Creately.com (for Use Case, Sequence, and Object Class diagrams)
- Internet
- YouTube tutorials

People involved in the project:

- Project Supervisor – Sonia Zheleva