|  |
| --- |
| department of computer science |
| RFA: Final Report |
| Capstone Project |
| prepared by |
| **Lauren Antrobus**  *antlau001@myuct.ac.za*  **Merada Richter**  *rchmer002@myuct.ac.za*  for  **Sonia Berman**  **(p.p. help2read)**  on |
| **18 September 2013** |

|  |
| --- |
|  |

Table of Contents

[2. Executive Summary 2](#_Toc367267033)

[3. Introduction 2](#_Toc367267034)

[4. Requirements Captured 2](#_Toc367267035)

[5. Design Overview 2](#_Toc367267036)

[6. Implementation 2](#_Toc367267037)

[7. Program Validation and Verification 2](#_Toc367267038)

[8. Conclusion 2](#_Toc367267039)

[9. User Manual 2](#_Toc367267040)

# Executive Summary

Tool to help young children who struggle with reading improve their reading fluency via a gamified environment. Paired reading with a volunteer. Two games available. Done via creative interfacing.

# Introduction

Include:

* Context for project: help to read, little kids, what it is intended for
* Scope: adapt from first doc
* Approach to solving the problem: To keep interest – make it like a game, Bright colours – focus on UI/UX. Known to make kids more creative. Caters for kids who have little experience in using computers. Focusses on the kid – volunteer is there as a supervisor and assists with playing the game (does the final check as well).
* Overview of SE methods used: agile, iterative process

# Requirements Captured

Analysis of system: functional, non-functional and usability requirements.

Functional:

Non-functional: maintaining interest, etc.

Usability: kids without much experience, easy to pick up

Use cases

Overall description of classes

# Design Overview

Design class diagram

Overall architecture of the system, including architecture diagram

Subsections: algorithms & data organisation used, why they are best

# Implementation

* Describe data structures & illustrate with diagram
* Describe how UI was implemented
* Discuss function of most significant methods in each class (flowcharts, sequence diagrams)
* Special programming techniques or libs used (MySQL for dictionary)

# Program Validation and Verification

Tell us how you tested the system and why you believe it works. Describe all the steps taken to validate the correctness of the program.

If you had user tests then say what you did and what the results were. Describe why these test data were chosen (what test conditions the data was testing). Table 1 provides an example of the sorts of results we are looking for. The full detail of the test runs should be appended to the report.

*Table 1: Tests performed to validate FLUA*

|  |  |  |  |
| --- | --- | --- | --- |
| Data Set and reason for its choice | Test Cases | | |
| Normal Functioning | Extreme boundary cases | Invalid Data (program should not crash) |
| Preliminary test (see Appendix 3) | Passed | n/a | Fell over |
|  |  |  |  |
|  |  |  |  |

# Conclusion

What worked, what didn’t work

Recommendations for future use

# User Manual

How to use the system