### **Document Information**

| Project name:  | Typing Trainer                                     |
|----------------|--|
| Date:          | 28/01/21   |
| Author:        | TeamSoftwareProject Group 8                        |
| Owner          | Jason Quinlan                                      |
| Document code: | Configuration item record number for this document |
| Version:       | 0.2  |

## **Approval**

| Date | Name and Signature |  |
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#### **Notes**

Our Typing Trainer will utilise Markov Chains to generate the sample text for users to practice on. This will allow them to practice their typing skills with word sets that are more likely to be experienced in practical use. Similar products use quotes and excerpts from text as their practice sets, which might not be representative of real life use. Our goal is to provide a complete user experience, with the ability to compare your stats against yourself, your friends, and the wider user base. Other competitors such as <u>Type Racer</u> or <u>Keybr</u> offer some of the functionality, but not all. Type Racer allows one to compete against their friends, but doesn't offer test sets that represent real life typing, while Keybr has the ability to generate representative practice sets, but lacks some of the competitive aspects we wish to include.

#### **Definition**

| Background:                  | Initially we were interested in creating a highly interactive mobile application that processed user data and allowed users to compare their stats with their friends. We identified typing as an activity that is part of our day to day life, especially with remote learning, and decided to base the application around this. We reviewed our initial model and decided that a web based platform is more appropriate than mobile but kept with the idea of making it highly interactive and competitive. |  |
|------------------------------|---|--|
| Main Goal:                   | To create a web-based Typing Trainer that fills the gaps in current offerings such as stat comparison and diverse yet practical word sets.  |  |
| Desired Outcomes:            | The aim is to launch a fully interactive typing application that is able to support multiple concurrent users.  |  |
| Constraints and Assumptions: | It will be run on Modern browsers (We lack the ability to test our code on legacy hardware and software).   |  |
|                              | 7 week deadline.  |  |
|                              | Developers have other responsibilities - college and work.  |  |
|                              | Developers are comfortable with mySQL and Python 3.   |  |
| Interfaces:                  | None  |  |
| Project Approach:            | The project will be developed in house using Python web-frameworks such as Flas with a SQL database. Testing will be done locally in hopes of launching it on an online web server.   |  |
| Project Product Description: | Typing Trainer using computer generated text to create naturalistic test sets.  |  |

#### **Outline Business Case**

The Typing Trainer aims to close the gap in the market offered by already established typing aids. It has been identified that other vendors lack a unified platform - some have realistic typing sets while others have an in-depth analysis/feedback system but there appears to be a scarcity of applications that offer a combination of all of the outlined functionality.

The benefits of this project would include an opportunity to centralise this functionality and allow users to improve their typing skills in a fun, responsive and interactive manner. A realistic and practical neuralistic text set will be generated meaning users have an opportunity to practice on text that is applicable in everyday life, from emails to college assignments.

Risks and dis-benefits include the highly competitive market. Typing aids are very common and take many forms from online educational standalone games, to full on dedicated platforms such as Keybr and Type Racer. Privacy is a paramount concern and great emphasis must be placed on the security of account information and user statistics. The costs would include hosting the application in the cloud and scaling performance to allow multiple concurrent users as the application gains popularity. Other risks include the tight 7 week time deadline with the possibility of delays in development.

#### **Key Stakeholders**

| Major Stakeholder | Notes                                 |  |
|-------------------|---------------------------------------|--|
| Product Owner     | Jason Quinlan                         |  |
| Developers        | Raffaele, Shane, Niamh, Cormac, Pavel |  |
|                   |                                       |  |

### **Project Objectives**

|       | Target  | Tolerance |
|-------|---|-----------|
| Scope | Markov chain to generate text,                |           |
|       | Responsive interface to show typing progress, |           |

|          | Stored user accounts and typing statistics,  |  |  |
|----------|--|--|--|
|          | Statistic processing, Visual prompts (highlighted words, graphs, progress charts etc), |  |  |
|          |  |  |  |
|          | Web based platform   |  |  |
| Time     | 7 weeks  |  |  |
| Cost     | Cloud Hosting  |  |  |
| Quality  |  |  |  |
| Risks    | Requirements change  |  |  |
|          | Size underestimate   |  |  |
|          | Application security   |  |  |
|          | Staff illness  |  |  |
| Benefits | Develop a working product  |  |  |
|          | Familiarise ourselves with new technologies  |  |  |

# **Project Management Team**

| Role                    | Reports to    | Appointee |
|-------------------------|---------------|-----------|
| Data Interpretation     | Product Owner | Shane     |
| Functionality           | Product Owner | Raffaele  |
| Database/Authentication | Product Owner | Pavel     |
| uı/ux                   | Product Owner | Niamh     |
| Developer               | Product Owner | Cormac    |