Progress Report 4 :

The First Prototype

Team Number 37: Fizzyo Gaming Team 3

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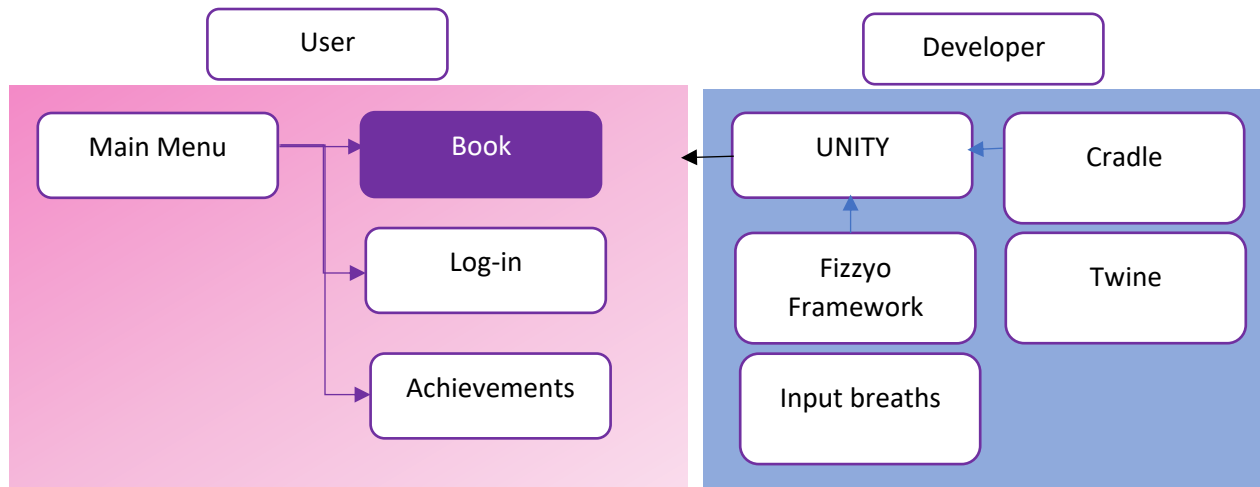**Yusi Zhou**   yusi.zhou.17@ucl.ac.uk

COMP103P Applied Software Development

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Department of Computer Science

University College London

System Architecture

Main Menu:	An easy to navigate way to reach the different parts of the game
Log-in:	A system to log-in to the Fizzyo Platform, to record progress
Achievements:	A way to view what achievements have been unlocked
Book:	The main playing scene of the game

Front-End Technologies

Unity
Our client, Microsoft Research UK requested that we use Unity: specifically, because they have developed a framework for the devices used in physiotherapy. The framework would make it significantly easier for us to allow the application to be controlled by the device. Moreover, Microsoft has a lot of experience with Unity, and so they would be better able to support us throughout the development cycle (See *Progress Report 3*).

Available at: https://unity3d.com/

Fizzyo Unity Framework
The Fizzyo Unity Framework, developed by the UCL Institute of Child Health in collaboration with Microsoft Research UK, is used to allow communication between the devices used in physiotherapy and the game. It also includes a measure of breath quality, and implementations of a menu and achievements board.

Available at: https://github.com/Fizzyo/FizzyoFramework-Unity

Twine

"Twine is an open-source tool for telling interactive stories. It allows for modification of styles and logic, with integration of JavaScript support for aesthetic purposes."

Twine also has a strong community following, allowing for many plugins and extensions to be developed for it. Its primary purpose is to create non-linear, interactive stories; but we will not be making use of this feature, given our story is linear.

Available at: http://twinery.org/

Cradle

"Cradle an open-source plugin for Unity that imports Twine stories, plays them and makes it easy to add custom interactivity via scripting."

Cradle allows for custom scripting in the story, allowing for the Fizzyo Framework integration, and enables the customization of the aesthetics as required. The freedom offered by the Cradle plugin is very beneficial to tailor the game to children in particular.

Available at: https://assetstore.unity.com/packages/tools/cradle-93606

Requirement Analysis

Must Have:

☐ Interface with the device used for treatment	Luming	
✓ Simplistic controls	Vikash	
☒ Intuitive features to retain interest	Team	
☒ Easy to use menus and guidance	Yusi	
✓ Promotion of interaction and getting involved	Team	
☐ A way to rate the quality of breath taken	Luming	
☒ A feedback system on the quality of breath taken	Vikash	
☒ A sign-in system for recording progress online	Yusi	

✓ Implemented
☐ Being implemented
☒ Not yet implemented

Should Have:

☒ Achievements and goals	Unallocated
☒ Random drops	Unallocated

Could Have:

☒ Social platform	Unallocated
☒ Leaderboards	Unallocated

Key Functionalities: 30%
Optional Functionalities: 10%