EverRun

Software Development Plan

Version <1.0>

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| <27/10/2017> | <1.0> | 1. Introduction + 2. Project Overview | Phy Lieng |
| <27/10/2017> | <1.1> | 3. Project Organization | Bach Le |
| <27/10/2017> | <1.2> | 4.3 Project Monitoring and Control | Nguyen Ho |
| <27/10/2017> | <1.3> | 4.2 Project Plan | Thong Tran + Duc Toan |

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Software Development Plan

# Introduction

* This software develop plan is used to illustrate a series of development activities of Team 4 in term of phases and iterations to implement an application called EverRun.
* The detail information of each iterations is given in the Iteration Plans.

# Project Overview

## Project Purpose, Scope, and Objectives

* The purpose of this project is to create a friendly, easy-to-approach environment to encourage people to get outside and walk more.
* Users can have a cute pet to raise by earning rewards from walking and they can share their achievement records on facebook as well.
* An android application which contains Unity3d and Java code implementation will be supply at the end of the semester.

## Assumptions and Constraints

* Project has a fixed schedule of 7 weeks to release.
* The integration of unity and android studio must be finished in the 4th week.
* All the members have an ability to implement java programming language on Android Studio.
* No budget supplied.
* Project has 5 people, and no more people will be added during the project.

## Project Deliverables

A list of the artifacts will be created during the project:

* UML use case diagram for game design
* Class diagrams
* Design Story
* Project Plan
* User Interface Prototype
* Database Design
* Test Cases
* Software Architecture Document
* Implementation release
* Vision Document
* The target delivery dates for the end of each phases:

|  |  |
| --- | --- |
| **Phase** | **Target Date** |
| Inception | October 29, 2017 |
| Elaboration | November 4, 2017 |
| Construction Iteration 1 | November 11, 2017 |
| Construction Iteration 2 | November 25, 2017 |
| Construction Iteration 3 | December 11, 2017 |
| Transition | December 18, 2017 |

# Project Organization

## Organizational Structure

## Roles and Responsibilities

|  |  |
| --- | --- |
| **Person, Role** | **Responsibility** |
| Tran Thoai Thong, Designer, Implementer  Ho Sy Nguyen, Designer, Implementer  Le Duy Bach, Implementer, Tester  Bui Nguyen Duc Toan, Implementer, Business Analyst  Lieng The Phy, Tester, Business Analyst | Class diagram designer and Unity code developing  UI designer and Unity code developing  Android and its integration with Unity developing and testing  Android code developing, helping in content and features creating  Testing Unity code function, content and features creating |

# Management Process

## Project Estimates

## Project Plan

### Phase and Iteration Plan

This project is going to be conducted using the The Rational Unified Process Model. In this model, multiple iterations occur in the same time. The table below shows the estimated timeline for this project.

|  |  |  |  |
| --- | --- | --- | --- |
| Phase | No of Iterations | Begin | End |
| Inception Phase | 2 | Week 1 | Week 2 |
| Elaboration Phase | 3 | Week 3 | Week 4 |
| Construction Phase | 3 | Week 5 | Week 9 |
| Transition Phase | 2 | Week 10 | Week 10 |

Table 4.2.1a Timeline for each phase of the process

|  |  |  |
| --- | --- | --- |
| Phase | Description | Milestone |
| Inception Phase | Decide the Goal of this Project. Evaluate resources and risks. Researches on free technologies. | -Decide to keep the goal or not. The Go/No Go Decision for this project. |
| Elaboration Phase | Build the architecture of the project.  Research and build test on some feature  Design the UI and learn how to build it.  Testing before deciding which tool to use.  Risk and human resources management | -Have a clear vision how to do each task in the Construction Phase.  - Decide a suitable tool to do different section.  - Clear vision on how the final software works and looks like. |
| Construction Phase | Create Assets and UI  Code features.  Testing | -Full features achieved planned in previous phase  -No bug in the software  -Avoid risks. |
| Transition Phase | Widely Test  Fixing Issues  Finish all features  Wrap up the project, reviewing the work and learning from mistakes | -Testing and have good feedbacks  -Response all feedbacks before deadline.  -Each review each other work, learn from their mistakes for future works. |

Table 4.2.1b Detailed description and goal for each phase

### Releases

A demo is going to be released at the end of week 9. This demo is released for testing, and the testers are the students of class CS300.

The final version is going to be released at the end of week 10. It will be the final submission of this project.

### Project Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| Phase | Description | Participants | Time |
| Inception Phase | Discuss what topic to do  Joining Github, Slack, Trello | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 14 Oct 2017 (7:30 – 9:00) |
| Discuss what topic to do on Slack | Hồ Sỹ Nguyên, Liêng Thế Phy, Bùi Nguyễn Đức Toàn | 15 Oct 2017 (11:30 – 13:00) |
| Adding Extra Features to the basic project concept | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 16 Oct 2017 – 19 Oct 2017 |
| Meeting and Review All Feature Suggested. | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 20 Oct 2017 (11:30 – 12:30) |
| Topic Presentation | Lê Duy Bách, Liêng Thế Phy | 21 Oct 2017 (7:50 – 8:00) |
| Topic Adjust (After the feedback) | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 21 Oct 2017 (8:00 – 9:00)  22 Oct 2017 (8:00 – 10:00) |
| Decide Tool To Code (Unity, Android Studio) | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông | 22 Oct 2017 (13:00 – 15:00) |
| Research Which API To Use | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông | 22 Oct – 24 Oct |
| Learning 3D Model With Blender | Hồ Sỹ Nguyên | 24 Oct – 30 Oct 2017 |
| Write Report | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 24 Oct 2017 – 25 Oct 2017 |
| Weekly Report PA1 Review | Bùi Nguyễn Đức Toàn | 26 Oct 2017 – 27 Oct 2017 |
|  | Design Architecture | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 28 Oct 2017 – 30 Oct 2017 |
| Elaboration Phase | Design UI For Android Studio Part | Liêng Thế Phy, Bùi Nguyễn Đức Toàn | 31 Oct, 1 Nov |
| Design UI For Unity | Lê Duy Bách, Hồ Sỹ Nguyên, Trần Thoại Thông | 31 Oct, 1 Nov |
| Learning Animation In Unity/Blender | Hồ Sỹ Nguyên | 31 Oct, 2 Nov |
| Implement UI For Android Studio | Liêng Thế Phy, Bùi Nguyễn Đức Toàn | 2 Nov, 3 Nov |
| Implement UI For Unity | Lê Duy Bách, Trần Thoại Thông | 2 Nov, 3 Nov |
| Building Dogs Model or Keep Learning 3D Model | Hồ Sỹ Nguyên | 3 Nov, 4 Nov |
| Build Basic Architecture For Unity | Lê Duy Bách, Trần Thoại Thông | 3 Nov, 4 Nov |
| Build Basic Architecture For Android Studio | Liêng Thế Phy, Bùi Nguyễn Đức Toàn | 3 Nov, 4 Nov |
| Build Player Server (Using Google Play Service) | Lê Duy Bách | 4 Nov |
| Testing | Lê Duy Bách, Hồ Sỹ Nguyên, Liêng Thế Phy, Trần Thoại Thông, Bùi Nguyễn Đức Toàn | 4 Nov, 5 Nov |

## Project Monitoring and Control

### Reporting

* Weekly meeting: We will try to have at least one offline meeting per week, and some discussion on Slack and our facebook group. The weekend is more preferable for our meeting than week days. However, we may have to change our plan and hold a meeting on week days.
* Weekly status report: We will make report on everyone progress, project progress, current condition of the app and accidents.

### Risk Management

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Risk ID | Risk Description | Probability | Impact | Priority | Mitigation Strategy or Contingency Plan |
| 1 | Miscommunication | High | High | High | When two team members are discussing, another member will act as a mediator to make sure that everything is clear. |
| 2 | Hardware Malfunction | Low | High | High | For each part of the project, there must be at least two members working on the same task. |
| 3 | Tools Malfunction | Low | High | High | For every tool, there must be at least two member has access to that tool. |
| 4 | Miscellaneous accident | Low | Medium | Medium | These things are hard to counter. We will have to improvise. |

### Configuration Management

* Unity and Android Studio for app development.
* Trello for scheduling.
* Slack for discussion and communication.
* Github for managing source code and related files.