D&J

Vision Document

Version <1.4>

Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 3 Nov 2017 | <1.0> | Added Stakeholder and User description | Lê Duy Bách |
| 3 Nov 2017 | <1.1> | Product Features and Non-Functional Requirements  Adding more details in Competition and  Alternatives. | Liêng Thế Phy |
| 3 Nov 2017 | <1.2> | Add Positioning | Trần Thoại Thông |
| 4 Nov 2017 | <1.3> | Add Introduction | Hồ Sỹ Nguyên |
| 4 Nov 2017 | <1.4> | Rewriting some part of Product Position, added more details to Alternatives and Competitors. | Lê Duy Bách |
| 14 Nov 2017 | <1.5> | Move part of non-functional requirement to user environment. Rewrite User needs. | Lê Duy Bách |

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# Introduction

The purpose of this document is to give an overview of the high-level needs and features of our project, D&J. The main focus is what does the app offer to the users, how does it solve their problem, and why does these problems exist. These topics will be explained in detail in the later sections.

# Positioning

## Problem Statement

|  |  |
| --- | --- |
| The problem of | Insufficient motivation for exercising among the youth |
| Affects | The life quality of the next generation |
| the impact of which is | Degrading the country’s economics |
| a successful solution would be | To create a mind-blowing combination of fun and productivity to stimulate teenagers’ interest in physical conditioning. |

## Product Position Statement

|  |  |
| --- | --- |
| For | Anyone aged between 5 and 25 |
| Who | Loves to have fun while shredding down pounds of fat  On your own, with friends and families, or even strangers |
| The D&J | is a Health & Fitness application, blended with entertainment |
| That | Features adorable companion to help you along the way to improve your physical condition |
| Unlike | Any Fitbit product or Samsung Health, Runtastic application, even petting game like Talking Tom Cat, Pet Society, etc. |
| Our product | Encourages slight changes to make big different, providing nudges in form of missions, adoration as well as unique experience for family bonding, friends reunion, and city discoveries. |

# Stakeholder and User Descriptions

## Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Team lead | Leader of development team | Monitor progress, ensure product quality |
| Designer | Part of development team | Ensure the product is organized neatly |
| Assets creator | Story, quests, mesh creator | Ensure interesting and good-looking contents |
| Developer | Large part of development team | Turn design and requirement documents into solution in the form of working product |
| Tester | Test the product | Ensure reliability and stability of product |
| Professor and TA | Educational purposes | Ensure product quality, process and progress |

## User Summary

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Description** | **Responsibilities** | **Stakeholder** |
| Teenager | Part of main user group | Enjoy health benefit and entertainment value from the product. Evaluate on features, contents, usability and quality. | Professor and TA  The development team |
| Parents | Secondary user group | Enjoy family time with their children who also use the product. Enjoy health benefit. | Professor and TA  The development team |
| People from all age group | Young adults | Enjoy health benefit and connectivity feature. | The development team |

## User Environment

The number of people involved is flexible ranging from 1 to infinitely many.

There are 2 main activities in the product:

1. Taking care of companion and / or receive request from such companion: expected under 5 minutes
2. Taking part in physical activity (specifically running for distance): expected ranging from 30 to 60 minutes

The time spent on any of the activity is based on the interest and condition of the user.

There is only 1 environmental constraint: mobility in the device, because the product needs to access the motion sensor of the device.

As of today, the main focus is on Android phones because of its popularity. In the future, iOS devices are also retaining potential.

Facebook and Google+ are potential playground for sharing achievement and inviting friends, families, etc. to join the community.

The product targets Android devices running Android Marshmallow (6.0.0) or above with Gyroscope hardware embedded.

Google map API is supplemented from API 11.0.0 or above.

## Summary of Key Stakeholder or User Needs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Need** | **Priority** | **Concerns** | **Current Solution** | **Proposed Solutions** | |
| Motivation and fun | Very high | Lack of physical activity | Games, Social media | | Combining game / social media to encourage physical activity |
| Keeping track of fitness progress | Very high | Lack of motivation for newbies | Applications tracking the route / kilometers taken | | Adaptive milestones in form of missions / achievements |
| Use as little battery as possible | High | GPS cost lot of resources | Use GPS to track progress | | Use gyroscope to estimate steps taken |
| Sharing achievement, invite friend and create a community | Medium | Not engaging enough | Share physical condition progress. | | Share both progress in physical condition and in game progression. |

## Alternatives and Competition

It is observable that there exist many products for monitoring and revising the running activity. Some popular applications include Runtastic, Samsung Health and a series of Fitbit product.

Runtastic features GPS and keeping track of routing, as well as revising and seeing the progress of runner, which are incredible features. However, the usage of GPS is bottlenecking the smartphone’s battery wait time and many features are quite overkill. One more thing is that this application seems not to interest children or people at the lazier side of society.

On the other end of the spectrum, games like Talking Tom Cat, or old-time super start Pet Society gain a lot of attention from young people. However, the in-game activity did not promote real life physical activity, which in turns make children or people stouter over time.

To our perception, the above competitors have not delivered the complete solution.

# Product Features

|  |  |  |  |
| --- | --- | --- | --- |
| *No.* | *Feature* | *Description* | *Priority* |
| *1* | *Pet illustration* | *Users have a cute 3D model pet design to look after by feeding them bones or milk.*  *A pet can stick out tongue and wag tail.* | *High* |
| *2* | *Motion Sensor* | *In this game, users need to complete 3 missions daily by walking or moving in a certain distance which can be detected by our system.* | *High* |
| *3* | *Sharing on Facebook* | *When users complete an achievement or level up, a screen will be popped out for them to share on Facebook.* | *Medium* |
| *4* | *BGM/Sound* | *A sweet song is given on the background which users can reduce or increase the volume.* | *Medium* |
| *5* | *Achievement unlocked* | *A specific special achievement will be unlocked for the users to follow up their process.* | *High* |
| *6* | *Special quest/ pet wishes which contain google map API* | *Besides daily missions, special quest will be randomly appeared. For example, a pet wants to be taken to a certain position on map where the users will move to this place to get rewards. Some missions require users to walk with their friends via inviting them on Facebook.* | *Medium* |

# Non-Functional Requirements

**Applicable Standards**

**Performance Requirements**

The game must smoothly illustrate the animation of pet at 30fps or more.

The system must be able to load all the data from below 20 seconds.

The delaying time when measuring distance or counting steps must below 10 seconds.

**Environmental Requirements**

The system shall be used out-door since some missions need to use GPS.