Product Scanner

Version <1.0>

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 27/10/2017 | 1.0 | The initial plan | All members |
| 3/11/2017 | 1.0 | Edit project organization | Nguyễn Thái Hưng |
| 3/11/2017 | 1.0 | Edit process estimate | Huỳnh Vĩnh Lộc |
| 5/11/2017 | 1.0 | Edit project plan | Nguyễn Thái Hưng |
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# Introduction

This Software Development Plan has been implemented in order to set the axes for an optimized development of "Barcode Scanner". This plan aims to guide the team about the overall information and to manage the process of the project.

# Project Overview

## Project Purpose, Scope, and Objectives

**Project purpose:** Product Scanner is created to help people finding the price and other information of products that are familiar and useful for people’s daily life by scanning the barcode.

**Scope:** Product Scanner applies to the medium scale project. It can be used by everybody and especially useful for those who are foreigners.

**Objectives:** This application allows users to:

* Find the prices and information of over 100 products which are food, drink and stationery products.
* Share and comment about the products.
* Calculate the total prices of scanned products.
* Change interface among French and English as well as others such as Vietnamese and Turkish.
* Use as scanning device for supermarket or household businesses.

## Assumptions and Constraints

* Project has a fixed schedule of 10 weeks
* Zero-budget project
* Project has 5 people, there will be no more people added during the project
* The data focus on food, drink and stationery products

## Project Deliverables

Schedule and Plan: week 1

Overall UI design: week 2

Basic function structure: week 3,4,5

Database: week 5, 6, 7

Integrate the database: week 6,7

Adding features: week 6, 7, 8

Testing: week 8 and 9

Release: week 10

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Schedule and plan |  |  |  |  |  |  |  |  |  |  |
| Overall UI design |  |  |  |  |  |  |  |  |  |  |
| Basic function structure |  |  |  |  |  |  |  |  |  |  |
| Database |  |  |  |  |  |  |  |  |  |  |
| Integrate the database |  |  |  |  |  |  |  |  |  |  |
| Adding features |  |  |  |  |  |  |  |  |  |  |
| Testing |  |  |  |  |  |  |  |  |  |  |
| Release |  |  |  |  |  |  |  |  |  |  |
| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

# Project Organization

## Organizational Structure

## Roles and Responsibilities

|  |  |  |  |
| --- | --- | --- | --- |
| Person | Role | Responsibilities | |
| Primary | Secondary |
| Huỳnh Vĩnh Lộc | Team leader, Developer | Work with camera for scanning.  Take care of the progress of the work.  Deliver requirement and feedbacks. | Support in implement basic functions.  Integrating units into system |
| Nguyễn Thái Hưng | Designer,Tester | Design and create UI, decorate the reports. | Test and find errors of the UI. |
| Huseyin KIZIL | Developer, Tester | Implement the code for scanning the barcode.  Implement languages. | Test the application.  Test the implementation of languages.  Develop animations during scanning. |
| Nguyễn Khương | Developer | Implement methods for getting data.  Implement Firebase functions. | Implement basic functions.  Integrating units into system |
| Trần Nguyễn Hoàng Ân | Database designer, Developer | Design database.  Implement and integrate Firebase to Android. | Work with search and suggest feature. |

# Management Process

## Project Estimates

|  |  |  |
| --- | --- | --- |
| Work | Amount of time | Schedule |
| Authentication | 2 days | 30/10/2017 - 03/11/2017 |
| Barcode Scanner | 5 days | 30/10/2017 - 03/11/2017 |
| Optimizing Camera | 10 days | 30/10/2017 - 08/11/2017 |
| Database | 21 days | 5/11/2017 - 25/11/2017 |
| Unit test | 2 days | 25/11/2017 – 26/11/2017 |
| Integrate database | 7 days | 27/11/2017 - 2/12/2017 |
| Integrate other units to systems | 7 days | 2/12/2017 – 8/12/2017 |
| Test system | 2 days | 8/12/2017 – 10/12/2017 |
| Collect data | 2 days | 10/12/2017 – 12/12/2017 |

## Project Plan

### Phase and Iteration Plan

**Work Breakdown Structure (WBS)**

### Releases

### Project Schedule

**Gantt chart**



## Project Monitoring and Control

### Reporting

* Weekly meeting
* Weekly report
* Informal chats (on Slack)
* Project plans
* Working process (on Trello)

### Risk Management

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Risk ID | Risk Description | Probability | Impact | Priority | Mitigation Strategy or Contingency Plan |
| 1 | Lacking of data | 90% | 90% | 1 | Finding an online API for accessing the database of some supermarkets  Focusing on some particular product (food, drink, stationary..) to collect data |
| 2 | Member misses deadline | 30% | 100% | 2 | Leader has to manage the process of every members; members should be ready to help each other |
| 3 | Can not create personal interface for users or lack of features for that interface | 60% | 60% | 3 | Not creating accounts for users (just getting user’s input) |
| 4 | How to get the price | 10% | 70% | 4 | Focusing on some particular products and some popular brands (Family mark, CircleK, Bismark, Ministop,...)  to collect price |

### Configuration Management

* Google drive and Dropbox for storing and sharing documents and files.
* Github. for managing source code and related files