CAPSTONE PROJECT 2

PROPOSAL DOCUMENT

WHAT SHOULD I EAT TODAY?

VERSION: 1.2

Mentor : Nguyen Thi Bao Trang
Project Team : 101dogS Team
Team Members : Le Nguyen Hoang Van
Luong Minh Hieu
Tran Quang Khai
Nguyen Dinh Luu

03/22/2020

INTERNATIONAL SCHOOL OF DUYTAN UNIVERSITY

Project Information

Project Acronym	WIET		
Project Title	What should I eat today?		
Start Date	02/12/2020	**End Date**	05/15/2020
Lead Institution	International School, Duy Tan University		
Project Mentor	Nguyen Thi Bao Trang		
Product Owner & Contact Detail	Le Nguyen Hoang Van		
Partner Organization			
Scrum Master	Le Nguyen Hoang Van	lenguyenhoangvan18@gmail.com	0935604934
Team Members	Luong Minh Hieu	minhhieu98@gmail.com	0399870055
	Nguyen Dinh Luu	dinhluu098@gmail.com	0935883503
	Tran Quang Khai	tquangkhai98@gmail.com	0976308098

Document Details

Document Title	Proposal Document		
Author(s)	101dogS Team		
Role	Product Owner, Team Member, Scrum Master		
Date	04/23/2020	**File name:**	Proposal-Caps2-101dogS-ver1.2
URL			
Access	Project and CMU Program		

Revision History

Version	Person(s)	Date	Description
1.0	Le Nguyen Hoang Van	03/22/2020	Draft document
1.1	Le Nguyen Hoang Van	04/22/2020	Update document
1.2	Le Nguyen Hoang Van	04/23/2020	Update document

Document Approval

The following signatures are required for approval of this document

Mentor	Nguyen Thi Bao Trang	**Signature:**	
		Date:	
Product owner	Le Nguyen Hoang Van	**Signature:**	
		Date:	
Scrum master	Le Nguyen Hoang Van	**Signature:**	
		Date:	
Team member(s)	Nguyen Dinh Luu	**Signature:**	
		Date:	
	Tran Quang Khai	**Signature:**	
		Date:	
	Luong Minh Hieu	**Signature:**	
		Date:	

Contents

1 Introduction

1.1 Purpose

- The document provides an overview of the project includes the purpose and scope of the project.
- Besides, identify business needs, problems or situations related to the initialization and construction projects.
- Provide a solution for business needs and give an overview of the system architecture.
- Provide an overview of resources, schedule, risk, solution, and budget for the project.

1.2 Scope

- This document provides an overview of the project will be developed. It includes an overview of the product, an overview of the process and an overview of the project team.
- This document provides a plan for each stage of the software development process based on the Scrum process includes start time, end time and the number of working days. This is the general plan and will be updated with detail of the software development process in the next version of the document. The proposal includes the introduction of solutions; determine the best way to develop software that we make the total estimated costs, payback period, and break-even volume for the project.

1.3 References

No.	References	Document Information
1	**Scrum process**	https://www.tutorialspoint.com/scrum/index.htm
2	**Technical**	https://stackoverflow.com/
		https://developer.android.com/guide
		https://www.tutorialspoint.com
3	**Information**	https://foody.com/
		https://google.com/
		https://en.wikipedia.org

2 Project Overview

2.1 Project Definition

To build a system named "WIET" based requirements that include an android mobile application, which can help users decided what they want to eat today, then find the location of restaurants or food ingredients. Our algorithms and machine learning that personalize the user experience are based on each user. But with Foody, they have no personalized data for each user, no recommend base on each user.

2.2 Business needs and user needs

2.2.1 Issue description:

- The Customers do not know what they should eat for breakfast, lunch, also dinner.
- Customers want to make an app and get data from foody or other apps and generate dishes for breakfast, lunch, dinner.
- Customers want to implement machine learning for this, which type of food user want to use, base on that, we can recommend the correct one.

2.2.2 User needs:

Customers need an application that can handle the following issues:

- Helps user decide which dishes they want to use based on their interested.
- Helps user decide dishes for breakfast, lunch, also dinner.
- Helps user find the location of the restaurant.
- Helps user ignore allergy ingredient.
- Helps user find vegetarian dishes

2.3 Prior Art

Nowadays, there are many applications that help users find and booking food. But there are no applications that help users decided which they want the most, also personalized their interest.

Example:

- Foody at address website https://foody.com/
- Now application for mobile.
- Grab application for mobile.

2.4 Proposed Solution

- We decide to make an application helps the user control their personal preferences.
- With foody.vn, they have no personalized data for each user, and not recommend food based on the user interest.
- With WIET, we have algorithms and machine learning that personalize the user experience based on each user.

2.4.1 Project Goal

The goal of the project is to build the "WIET" android application with many functions that help users decide which dishes they want to eat. The system also helps users find the location of the restaurant immediately. Our system will pushes notification regularly to helps users decide the meal for today. And if you are a vegetarian, we also have dishes for you. Additionally, with a friendly user interface, we will make the user have a better experience when using it.

2.4.2 System Overview

2.4.2.1 System Context Overview

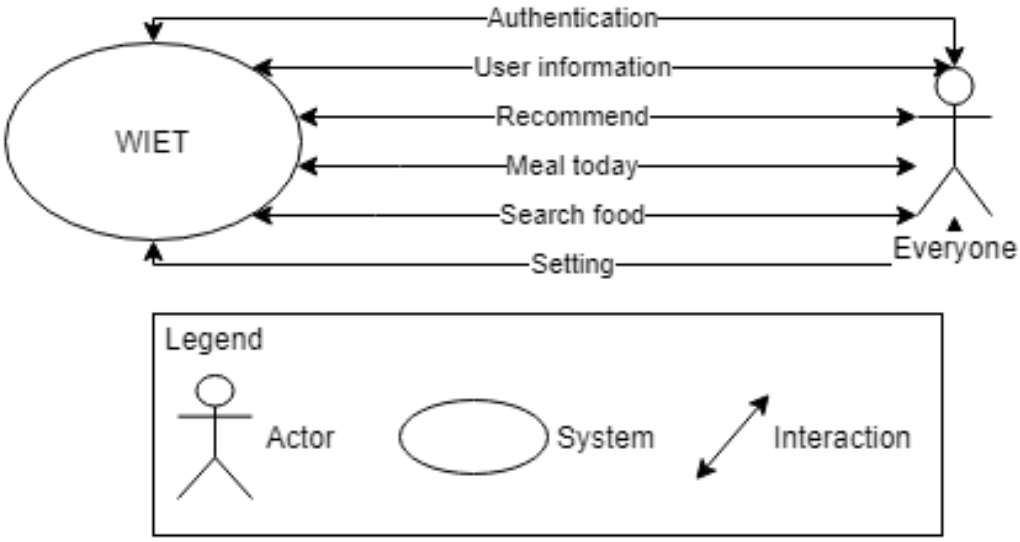


Figure 1: Context Diagram

2.4.2.2 System Context Description

- Users have the responsibilities to:
  - Find the dishes that users want to eat the most based on hobbies, allergy, and vegetarian.
  - Find the nearest restaurant that has users' favorite dishes.
  - Find location of restaurant of favorite dishes.
  - Authentication via Facebook or Google.
  - Remove allergy ingredients from the menu.
  - Bookmark their favorite dishes.

2.4.3 Constraints

2.4.3.1 Business Constraints

- *License & Copyright*

- Icon and texture picture will somehow violate the copyright.

- *Boundary*
  - For Vietnamese peoples.

2.4.3.2 Technical Constraints

- *Technologies:*
  - Languages: Java, Python.
  - Database: PostgreSQL.
- *Operating Environment:*
  - Mobile Android Operator.
- *Framework /Libraries:*
  - Flask

2.4.3.3 Project Constraints

- Schedule: Project will be finished by 05/15/2020.
- Team Composition:
  - Team formation is 4 and each person has each pros and cons.
  - Most of team member's con is technical.
  - Lack of experiences.
  - A total of 8 hours working a day.
  - 5 working days a week.

2.5 Purpose

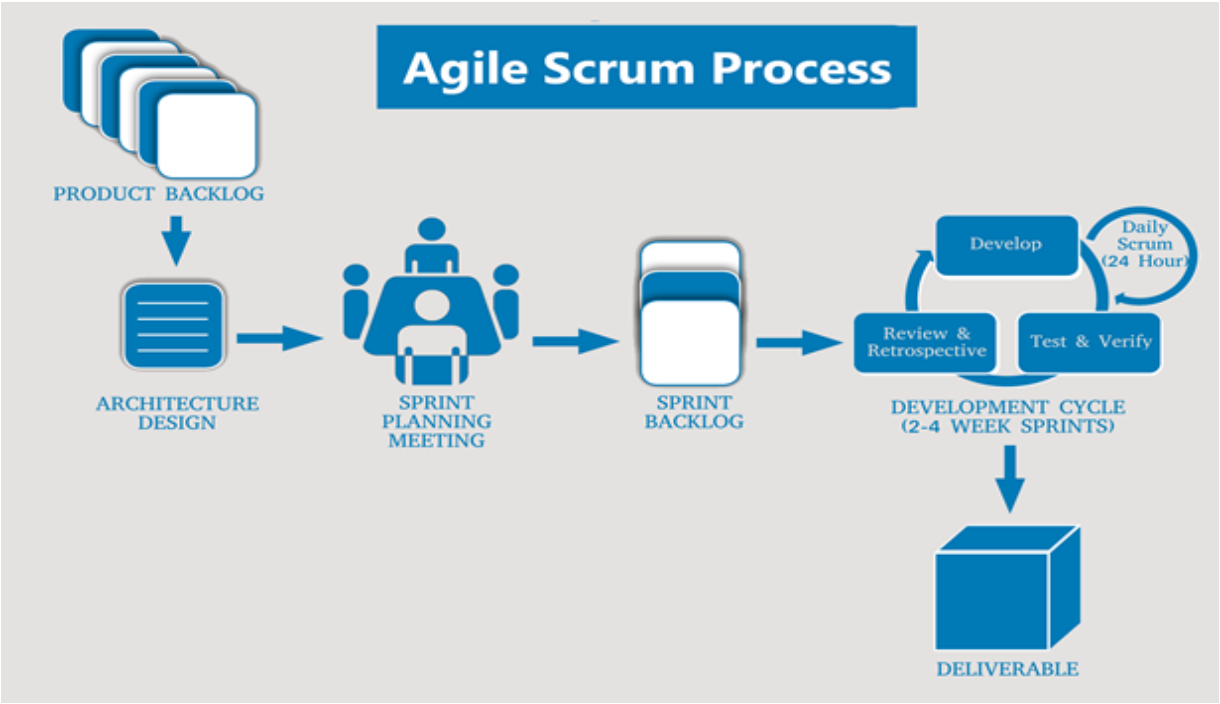
Create an application that helps users easier find what and where they want to eat. Also give them delivery options.

2.6 Process

2.6.1 Why chooses Scrum?

The traditional waterfall is being used a lot of time before Scrum will bring PORO a new way to implement software. Scrum allows the team to learn by doing, focus on practical not theory-oriented. Scrum is a flexible method to implement the software so that we can actually work as if there are some changes in the software. Scrum allows us to not focus too much on plan but planning and doing at the same time. Scrum helps to the minimum documentation process.

2.6.2 Scrum Process



- Scrum is an iterative and incremental agile software development framework for managing software projects and product or application development.
- Scrum focuses on project management institutions where it is difficult to plan ahead.
- Mechanisms of empirical process control, where feedback loops that constitute the core management technique are used as opposed to traditional command-and-control management.
- Its approach to planning and managing projects is by bringing decision-making authority to the level of operation properties and certainties.
- The benefit of the methodology:
  - The project can respond easily to change.
  - Problems are identified early.
  - The customer gets the most beneficial work first.
  - Work done will better meet the customer's needs.
  - Improved productivity.
  - Ability to maintain a predictable schedule for delivery.

3 Estimation and Milestones

3.1 Estimation Schedule

NO	Task Name	Duration	Start	Finish
1	**Initial**	**1 day**	**02/14/2020**	**02/14/2020**
1.1	Project kick-off meeting	1 day	02/14/2020	02/14/2020
2	**Development**	**60 days**	**02/18/2020**	**05/12/2020**
2.1	Sprint 1	10 days	02/18/2020	03/03/2020
2.2	Sprint 2	10 days	03/03/2020	03/17/2020
2.3	Sprint 3	10 days	03/17/2020	03/31/2020
2.4	Sprint 4	10 days	03/31/2020	04/14/2020
2.5	Sprint 5	10 days	04/14/2020	04/28/2020
2.6	Sprint 6	10 days	04/28/2020	05/12/2020
3	**Final submission**	**2 days**	**05/13/2020**	**05/15/2020**
4	**Final Release**	**1 day**	**05/15/2020**	**05/15/2020**

3.2 Cost estimate

3.2.1 Role

Full name	Role	Salary Rate (USD/hour)
Le Nguyen Hoang Van	Scrum Master	1
Luong Minh Hieu	Team member	1
Nguyen Dinh Luu	Team member	1
Tran Quang Khai	Team member	1

3.2.2 Cost Person/Hours

No	Criteria	Total (USD)
1	Working hour	$4864
2	Pc’	$420

- Description:

Description	Amount	Unit
Number of members	4	Person
Number of working hours per day	8	Hour
The cost per member per hour	$1	USD
The duration of the project	108	Days
The time to use of each computer	64	Days
The number of working days	64	Days

- Explain:
  - Pc's depreciation = 4 members * USD $1 for maintain/day* 64 days.
  - Amount of working hours = 4 members * 8 hours * 64 days * USD $1/person/hour.