SMART PRESCRIPTION APPLICATION

Project Plan

By

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Document History

Document Name	Version	Status	Date	Viewable	Editable	Responsible
Documents						
Smart Prescription Application _Project Plan	Project Plan _V1.0	Reviewed	July 10th 2016	NAT,PHI, PROM	NAT,PHI	NAT,PHI
Smart Prescription Application _Project Plan	Project Plan _V2.0	Released	July 30th 2016	NAT,PHI, PROM	NAT,PHI	NAT,PHI

Acronym

NAT = Natthakan Kaeokanpai PHI = Phithiwat Sitthitun

PROM = Prompong Sugunnasil

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	2
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30 th , 2016

Table of contents

Chapter One Introduction	4
1.1 Identification	4
1.2 Project Scope	4
Chapter Two Overall Description	5
2.1 Product Perspective	5
2.2 Product Features	5
2.3 User Classes and Characteristics	5
2.4 Operation Environment	5
Chapter Three Management Procedures	6
3.1 Project Team Structure	6
3.2 Monitoring and Controlling Mechanisms	6
3.2.1 Project Meeting	6
Chapter Three Quality Planning	7
4.1 ISO 29110 for Very Small Entity (VSE)	7
4.2 Review/Responsibility	7
4.3 Testing	8
4.4 Quality Factors	8
Chapter Five Schedule	11
5.1 Project Schedule	11
5.2 Project Milestone	13
Chapter Six Software Configuration Management	14
6.1 Software Configuration Management	14
6.2 Software configuration Item Table	14
Chapter Seven Estimate Effort and Cost	15
Chapter Eight Reference	15

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	3
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30th, 2016

Chapter One | Introduction

1.1 Identification

This project plan is the document for planning, scheduling activities and evaluating overall of the project so that the project will complete as successfully as possible in spite of all risks. The project plan documents the plan before starting the project. When the project starts, the project plan is used to track the progress and monitor whether the project follows the plan.

1.2 Project Scope

Smart prescription application consists of a web application and a mobile application. Smart prescription application requires a web application for creating a patient's profile and allergy report by a doctor and the Smart prescription application require a mobile application to generate and scan the QR code on a mobile phone by a pharmacist.

The features of the web application consist of:

Feature#1: Prescription system

Feature#2: Account management system

Feature#3: Authentication system Feature#5: Report allergy system

Feature#6: Allergy drug summary report system

The features of the mobile application consist of:

Feature#4: Prescription verification system

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	4
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30 th , 2016

Chapter Two | Overall Description

2.1 Product Perspective

"Smart prescription application" is an android application and web application that uses the electronic prescription in type of QR code that use for doctor, patient, pharmacist, and FDA. Smart prescription application require web application create the prescription of patient by doctor. Android application creates QR code from prescription of patient and scan QR code by pharmacist. Pharmacist can get the prescription with name and detail of drug that doctor give to patient on android application.

"Smart prescription application" can also can collect and report information of all allergy of patient to the Food and Drug Administration, Ministry of Public Health organization or (FDA) for observing unusually dispensation that have been found in Thailand.

2.2 Product Features

From the architecture of our project with schedule we separated the whole project of develops application according to this. The description is shown below:

Feature#1: Prescription system

Feature#2: Account management system

Feature#3: Authentication system

Feature#4: Verify prescription system

Feature#5: Report allergy system

Feature#6: Allergy drug summary report

2.3 User Classes and Characteristics

The intended users for this application. They have to know basic of how to use android application to scan QR code.

2.4 Operation Environment

- Internet
- Laptops
- 1. Asus X550DP-DS101

AMD A-Series A10-5750M (2.50GHz) 8GB

Memory 1TB

HDD AMD Radeon

Windows 8 64-Bit

- Mobile phone: Android Operating System with camera

1. Asus zenfone 4.5

Android 4.4.2 (KitKat)

Processor: Intel Atom Z2520DualCore

CPU Speed: 1.2 GHz Memory 8GB (Internal)

RAM 1GB

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	5
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30th, 2016

Chapter Three | Management Procedures

3.1 Project Team Structure

Team	Activity
Mr. Natthakan Kaeokanpai	Project Proposal
Mr. Phithiwat Sitthitun	Project Requirements
	Project Plan
	Software Architectural Design
	Software Detailed Design
	Implementation
	Testing

3.2 Monitoring and Controlling Mechanisms 3.2.1 Project Meeting

Participants	Roles
Dr. Prompong Sugunnasil	Project Advisor
Mr. Natthakan Kaeokanpai	Development team member
Mr. Phithiwat Sitthitun	Development team member

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	6
Document Type	Project plan	Release Date	July 30 th , 2016	Print Date	July 30 th , 2016

Chapter Three | Quality Planning

4.1 ISO 29110 for Very Small Entity (VSE)

ISO 29110 is a guide applies to a very small entity, enterprise, organization, department or project up to 25 people dedicated to software development. The guide provides project management and software implementation process which integrate practice based on the selection of ISO/IEC 12207 systems and software engineering-software life cycle process and ISO/IEC 15289 software engineering-software life cycle process guideline for the content of software life cycle process information product (documentation) standards elements.

4.1.1 Project management process

The purpose of the software management process is to establish and carry out in a systematic way the task of the software implementation project which allows complying with the project's objectives in the expected quality.

Selected process

- 3.1.1.1 Project planning process
- 3.1.1.2 Project plan execution process
- 3.1.1.3 Project assessment and control process
- 3.1.1.4 Project closer process

4.1.2 Software implementation process

The purpose of the software implementation process is the systematic performance of the analysis, design, construction, integration and test actives for new or modified software products according to the specified requirements.

Selected process

- 3.1.2.1 Software implementation process
- 3.1.2.2 Software requirement analysis process
- 3.1.2.3 Software architectural design process
- 3.1.2.4 Software construction process
- 3.1.2.5 Software integration process and test process
- 3.1.2.6 Software delivery process

4.2 Review/Responsibility

No	Step	Review	Responsibility
1	Requirement gathering	Project Proposal	NAT,PHI
2	Project Planning	Project Plan	NAT,PHI
2	Requirement Analysis and	Software Requirement	NAT,PHI
3	Specification	Specification	
4	Architecture and Detailed Design	Software Design	NAT,PHI
4		Document	
5	Software Implementation	Coding	NAT,PHI
6	Unit Testing and Software Testing	Test Plan, Test Record	NAT,PHI
7	Project Monitoring and Control	Traceability Record	NAT,PHI

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	7
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30 th , 2016

4.3 Testing

Ī	No	Test	Responsibility
Γ	1	Unit Testing	NAT,PHI
	2	System Testing	NAT,PHI

4.4 Quality Factors

No		User Requirem	ent Specifica	ntion Name		Quality	y Factor
URS-1:	Do	ctors can view a doc	tor home pag	e on the web	(Correctness	
	app	olication.			F	Reliability	
					Γ	estability	
URS-2:	Do	ctors can create a pa	tient's profile	on the web	(Correctness	
	app	olication by inputting	g personal id,	name, surname,	F	Reliability	
	pre	scription and userna	me.		Τ	estability	
URS-3:	Do	ctors can update a pa	tient's profil	e on the web	(Correctness	
	app	olication by applicati	on by input p	ersonal id, name,	F	Reliability	
	sur	name, prescription a	nd username.		Τ	estability	
URS-4:	Do	ctors can delete a pa	tient's profile	es on the web	(Correctness	
	app	olication.	•		F	Reliability	
					Γ	estability	
URS-5:	Do	ctors can search pati	ent's profiles	on the web	(Correctness	
	app	application by using personal id, name, or surname.			F	Reliability	
					Ί	estability	
URS-6:	Do	ctors can view a pati	ent's profiles	on the web	(Correctness	
		application.				Reliability	
		•				Testability	
URS-7:	Do	Doctors can view a list of patient's profiles on the web			(Correctness	
	app	olication			F	Reliability	
						estability	
USR-8:	Ad	ministrators can viev	v an admin h	ome nage on the	(Correctness	
OBK 0.		b application.	v an admin n	one page on the		Reliability	
		o application.				estability	
*****	. 1	• •		<i>α</i> 1 1 1	<u> </u>		
URS-9:		ministrators can crea				Correctness	
		olication by inputting				Reliability	
IID C 10		sword, confirm-pass				estability	
URS-10:		ministrators can upd				Correctness	
		olication by inputting				Reliability	
		sword, confirm-pass				estability	
URS-11:		ministrators can dele	ete a user's pr	ofiles on the web		Correctness	
		olication.			_	Reliability	
URS-12:		ministrators can sear				Correctness	
	app	plication by using na				Reliability	
Document		Smart Prescription	Owner	Natthakan Kaeokanpai	i,	Page	8
Name		Application		Phithiwat Sitthitun			
Document T	ype	Project plan	Release	July 30th, 2016	1	Print Date	July 30th, 2016
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					Testability		
URS-13:	Ad	ministrators can view	w a user's pro	ofiles on the web	Correctness		
		olication.	p		Reliability		
	"PI				Testability		
URS-14:	Ad	ministrators can viev	w a list of use	ers on the web	Correctness		
		olication	v a fist of asc	as on the wee	Reliability		
	upr	neution			Testability		
URS-15:	Do	ctors, Administration	ns and FDAs	can login to the	Correctness		
ORB-13.		b application by usir		•	Reliability		
	***	o application by usin	ig ascinaine t	ina pusswora.	Testability		
URS-16:	Do	ctors, Administrator	s and FDAs	can logout from	Correctness		
CRS-10.		web application.	s, and 1 D71s	can logout from	Reliability		
	tiic	web application.			Testability		
URS-17:	Pat	ients can login to the	e mobile anni	ication by using	Correctness		
OK5-17.		ername and password		ication by using	Reliability		
	usc	manic and password	1.		Testability		
URS-18:	Dot	ients can logout fror	n the mobile	application	Correctness		
UKS-10.	ral	ionis can logout 1101	n the modife	appiication.	Reliability		
					-		
URS-19:	Dot	ients can view the Q	D anda on th	a mahila	Testability Correctness		
UKS-19.		olication.	ik code on in	e moone			
	app	meation.	Reliability Testability				
URS-20:	Dhe	armacists can scan th	o OP code o	n the mobile	Correctness		
UKS-20.			Reliability				
	app	olication.	Testability				
URS-21:	DI.		Correctness				
UKS-21.		armacists can add th	-	Reliability			
	pai	tient's profile on th	e mobile ap	plication.	Testability		
LIDG 22	Б		11 .	41 1	•		
URS-22:		ctors can create an a			Correctness		
		olication by inputting	g personal id,	name, surname,	Reliability		
TIDG 00	_	d allergy drug.	11	.1 1	Testability		
URS-23:		ctors can update an			Correctness		
		olication by inputting	g personal id,	name, surname,	Reliability		
TIDG 04		d allergy drug.	11	.1 1	Testability		
URS-24:		ctors can delete an a	nergy reports	s on the web	Correctness		
	app	olication.			Reliability		
IIDC 25		, 1	11 .	.1 1	Testability		
URS-25:		ctors can search an a			Correctness		
	app	olication by using pe	rsonal id, nar	ne, or surname.	Reliability		
LIDG CC	<u>r</u>	-1 11	l 1		Testability		
URS-26:		ctors can view an all	iergy arug rep	ports on the web	Correctness		
	app	olication.			Reliability		
IIDC CZ	-		C 11 *	, .1	Testability		
URS-27:		ctors can view a list	of allergy dru	ig reports on the	Correctness		
	we	b application.			Reliability		
					Testability		
Document		Smart Prescription	Owner	Natthakan Kaeokanpai,	Page	9	
Name		Application	Owner	Phithiwat Sitthitun	1 age		
Document T	ype	Project plan	Release	July 30th, 2016	Print Date	July 30th, 2016	
			Date				
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URS-28:	FDAs can view a FDA home page on the web	Correctness
	application.	Reliability
		Testability
URS-29:	FDAs can view an allergy reports on the web	Correctness
	application.	Reliability
		Testability
URS-30:	FDAs can view a list of allergy reports on the web	Correctness
	application.	Reliability
		Testability

Document	Smart Prescription	Owner	Natthakan Kaeokanpai,	Page	10
Name	Application		Phithiwat Sitthitun	Ü	
	11				
Document Type	Project plan	Release	July 30th, 2016	Print Date	July 30th, 201
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Chapter Five | Schedule

5.1 Project Schedule

Process 1: Proposal and Project plan

Process 2:

Feature#1: Prescription system

Description: This feature supports the doctor to manage patient's profile. The doctor can create, delete, search, update and view patient's profile on the web application.

User: Doctor

Detail:

- 1: Doctors can view a doctor home page on the web application.
- 2: Doctors can create a patient's profile on the web application by inputting personal id, name, surname, prescription and username.
- 3: Doctors can update a patient's profile on the web application by application by input personal id, name, surname, prescription and username.
- 4: Doctors can delete patient's profiles on the web application.
- 5: Doctors can search patient's profiles on the web application by using personal id, name, or surname.
- 6: Doctors can view patient's profiles on the web application.
- 7: Doctors can view a list of patient's profiles on the web application.

Feature#2: Account management system

Description: This feature supports the administrator to manage user's profile.

The administrators can create, delete, search, update, and view user's profile on the web application.

User: Administrator

Detail:

- 1: Administrators can view an admin home page on the web application.
- 2: Administrators can create a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- 3: Administrators can update a user's profile on the web application by inputting name, surname, username, password, confirm-password and position.
- 4: Administrators can delete user's profiles on the web application.
- 5: Administrators can search a user's profile on the web application by using name, surname, or username.
- 6: Administrators can view user's profiles on the web application.
- 7: Administrators can view a list of users on the web application.

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	11
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30th, 2016

Feature#3: Authentication system

Description: This feature supports accessing to the system and exiting from the system Doctor, FDA, patients, pharmacists and administrator can login to the system and log-out from the system.

User: Doctor, FDA, patients, pharmacists and administrators

Detail:

- 1: Doctors, Administrations, and FDAs can login to the web application by using username and password.
- 2: Doctors, Administrators, and FDAs can logout from the web application.
- 3: Patients can login to the mobile application by using username and password.
- 4: Patients can logout from the mobile application.

Feature#4: Verify prescription system

Description: This feature supports the patient to view QR code on the mobile application and pharmacist can verify QR code by scan QR code function and can notify the time of dispensation to patient's prescription on the mobile application.

User: Patient and pharmacist

Detail:

- 1: Patients can view the QR code on the mobile application.
- 2: Pharmacists can scan the QR code on the mobile application.
- 3: Pharmacists can notify the time of dispensation to patient's profile on the mobile application.

Feature#5: Report allergy system

Description: This feature supports doctor to report a drug allergy to FDA.

User: Doctor **Detail:**

- 1: Doctors can view a doctor home page on the web application.
- 2: Doctors can create an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- 3: Doctors can update an allergy report on the web application by inputting personal id, name, surname, and allergy drug.
- 4: Doctors can delete allergy reports on the web application.
- 5: Doctors can search an allergy report on the web application by using personal id, name, or surname.
- 6: Doctors can view allergy drug reports on the web application.
- 7: Doctors can view a list of allergy drug reports on the web application.

Feature#6: Allergy drug summary report

Description: This feature support the FDA can view the allergy report.

User: FDA
Detail:

- 1: FDAs can view a FDA home page on the web application.
- 2: FDAs can view allergy reports on the web application.
- 3: FDAs can view a list of allergy reports on the web application.

FDA*= Food and Drug Administration, Ministry of Public Health organization

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	12
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30 th , 2016

5.2 Project Milestone

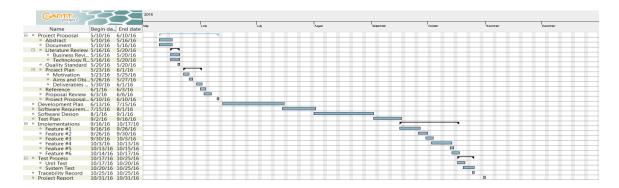


Figure 1: Project Milestone

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	13
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30 th , 2016

Chapter Six | Software Configuration Management

6.1 Software Configuration Management

Software Configuration Management or Software Control Managements the task of tracking and controlling changes in the software, part of the larger cross-disciplinary field of configuration management. SCM practices include revision control and the establishment of baselines. If something goes wrong, SCM can determine what was changed and who changed it. If a configuration is working well, SCM can determine how to replicate it across many hosts.[1]

6.2 Software configuration Item Table

No.	Item	Filename	File	Owner	Path	Baseline
			Type			Version
1	Project Plan	Smart Prescription Application _Project Plan_V2.0	.doc	NAT,PHI	Smart Prescription Application /Project Plan	2.0
2	Software Requirement Specification	Smart prescription application _Software Requirement Specification _V2.0	.doc	NAT,PHI	Smart Prescription Application /Software Requirement Specification	2.0
3	Software Design	Smart prescription application _Software Design _V2.0	.doc	NAT,PHI	Smart Prescription Application /Software Design	2.0
4	Test Plan	Smart prescription application _Test Plan_V2.0	.doc	NAT,PHI	Smart Prescription Application /Test Plan	2.0
5	Test Record	Smart prescription application _Test Record _V2.0	.doc	NAT,PHI	Smart Prescription Application /Test Record	2.0
6	Traceability Record	Smart prescription application _Traceability Record _V2.0	.doc	NAT,PHI	Smart Prescription Application /Traceability Record	2.0

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	14
Document Type	Project plan	Release Date	July 30th, 2016	Print Date	July 30 th , 2016

Chapter Seven | Estimate Effort and Cost

We develop this application with open source tools, so the cost of this project quite a few. Use only textbook and document.

Chapter Eight | Reference

- [1] Definition of Software_configuration_management https://en.wikipedia.org/wiki/Software_configuration_management
- [2] Definition of Use Case http://searchsoftwarequality.techtarget.com/definition/use-case
 - [3] Definition of Activity Diagram https://en.wikipedia.org/wiki/Activity_diagram
- [4] Definition of Use Case Diagram http://www.uml-diagrams.org/use-case-diagrams.html

Document Name	Smart Prescription Application	Owner	Natthakan Kaeokanpai, Phithiwat Sitthitun	Page	15
Document Type	Project plan	Release Date	July 30 th , 2016	Print Date	July 30 th , 2016