Schoodle

Software Development Plan (Small Project)

Version 0.1

Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 21/10/2019 | 0.1 | Initialize project base | nhgia-apcs1 |
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# 

# Introduction

This documentation is provided full-detailed about the new, fresh and convenient way of student management system called Schoodle.

Our targeted customer is a small-unit of school (e.g. academy, institute, …). Which can be used by Admin, Academic sections (Staff), Teachers, Students, Parents.

Schoodle means the Moodle for school.

## Purpose

**The Software Development Plan aims to keep a good connection between students, staffs, and teachers/lecturer by using Schoodle – A Student Management Software. This plan contains all detail and information to create and deploy this Student Management Software.**

**The plan describes in a particular way approaching the development of Schoodle. All the research are collected and carefully selected for making this plan.**

The following people use the *Software Development Plan*:

* The **project manager**: The PJ must take responsibility of the project
  + Assign tasks to the team member
  + Push the growth of the project to the next level.
  + Control resources
  + Tracking and backtracking tasks.
* **Project team members:** 
  + Follow the schedule
  + Understand things which other members are doing it.

## Scope

This Software Development Plan establishes the schedule for software implementation, qualification, and deployment of Schoodle. The Schoodle is being developed under direction of the Course TA.

## Overview

This *Software Development Plan* contains the following information:

Project Overview — The Schoodle Project involves the development and deployment for the Student Management Software, written for mobile devices.

Project Organization — Agile Model

# Project Overview

## Project Purpose, Scope, and Objectives

The Schoodle Project wants to produce an easy way for students, staffs, and lecturers to receive and process the information from the school effectively. From that, time saved, life standard increases, good results are made.

Our team create an mobile application to serve our purpose. A complete Student Management System including:

* Courses Enrollment
* Schedule Management
* Post/View/Update/Delete GPA
* Materials Sharing
* Making Notifications
* Financial Report

## Assumptions and Constraints

The schedules, estimation and costs are made base on the assumptions list below. Team member and Lecturer/TAs of CS300 have the right to re-estimate the schedule and the cost if there are mistakes in the assumptions

* Baselined Inputs
  + Schedule A
  + Related Work B
* Methodology
  + The project will be done by using tools and frameworks prescribed by the team leader.
  + Deliverables prescribed by the methodology are defined in section (?).
* Performance
  + Traditional style of measuring performance, where users take an action and wait for a response. Measuring the time it take to complete the action
  + The performance measurement will be mentioned in section (?)
* Dataset
  + All the data is produced manually by team members
  + High practicality
* Budget
  + 2 months time
  + 3,600,000 VND/each person
* Staff and Equipment
  + Research to adapt project requirement (learning new framework, tools)
  + Have all machine with 3 OS: Windows, Linux, Macintosh

## Project Deliverables

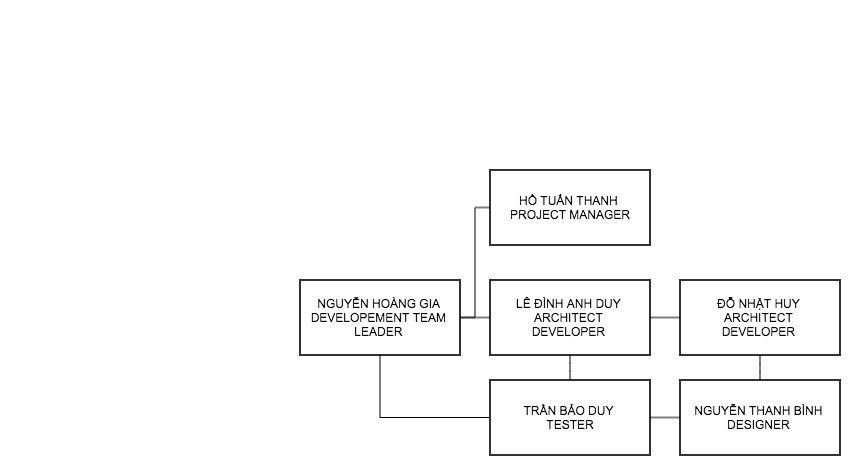
[A list of the artifacts to be created during the project, including target delivery dates. The text below is provided as an example.]

The following deliverables will be produced during the project:

* Student Management System
* Student Management Mobile Application
* Data model
* Design model
* Database Design
* Project Vision Documentation
* Test Package

# Project Organization

## Organizational Structure



## Roles and Responsibilities

[Identify the project organizational units that will be responsible for each of the disciplines, workflow details, and supporting processes. The text below is provided as an example.]

The following table shows the roles represented in the project diagram above and each of their main

responsibilities:

|  |  |
| --- | --- |
| Project Manager | The Project Manager keep the project team focused on the main goal, also ensure the artifacts meet the course requirement. The Project manager has the right to evaluate and decide if the project fail or success, and rate each member of the team base on their performance. |
| Team Leader | The Team Leader specify the following target, analyze it, and break it down into smaller tasks and assign to team member. The Team Leader motivate other members, provide specific guidance, instruction, direction for members to work well. The Team Leader takes responsibility in every situations. |
| Business Analysis & Architect | The Architect give us a specific view about what we should do with the project. The Architect responsibles for technical activities and artifacts throughout the project. The Architect constructs the project structure, include which programming language of the software, useful tools and frameworks, the relation of elements, and the interaction between all componennts. |
| Tester | The Tester take a view in the project, find out bug/mistake by using test cases. The Tester provide suggestion to solving the problem. The tester ensure that there is no critical mistake in released product. |
| Designer | The designer together with Business Analysis research the market, find the best way to perform UI/UX for the project software. The designer responsibles for all all the designs if they go wrong. |
| Developer | The developer synthesize all the information from Team Leader, BA&Architect, and Designer to build up the source code. The developer makes daily report to the Team Leader about their situation. |

# Management Process

## Project Estimates

This project will take 6 weeks. Initial estimates of each sprints will be listed in section 4.2 below.

## Project Plan

[This section contains the schedule and resources for the project.]

### Phase Plan

[Include the following:

 Work Breakdown Structure (WBS) — optional for small projects

 a timeline or Gantt chart showing the allocation of time to the project phases or iterations

 identify major milestones with their achievement criteria

Define any important release points and demos.]

|  |  |  |  |
| --- | --- | --- | --- |
| **Sprint** | **No. of Iterations** | **Start** | **End** |
| First | 1 | 14/10/2019 | 28/10/2019 |
| Second | 1 | 28/10/2019 | 11/11/2019 |
| Third | 1 | 11/11/2019 | 25/11/2019 |
| Fourth | 1 | 25/11/2019 | 9/12/2019 |

The milestones that mark the end of each sprint will be listed below

|  |  |
| --- | --- |
| **Description** | **Milestone** |
| First | The First Sprint will focus on the product requirements and establish the user case for the Schoodle. All the documentation like Software Development Plan,Vision will be developed. The First Sprint is the time for team to determined what to do and proceed with the project based upon the user case. The milestone of First Sprint ensure that at the end of the sprint, all the team members complete the training and specify roles on the team for future works. |
| Second | The Second Sprint will go deeper into the requirements and start to develop the architectural software system for the project. The comeout result at the end of this sprint includes completed analysis and designs. The Architectural Software System marks the end of the Second Sprint. |
| Third | During the Third Sprint, the team starts to building code to create software base on Software Development Plan. The Trial version of the project will be developed and distributed for evaluation. Testing also include in this sprint to ensure The Trial version is ready for packaging. |
| Fourth | The Fourth Sprint is the time team member prepare for completion of the project. The final product must meet user requirements. Team members also provides the required support to ensure user understand the mechanic and value of the project. Schoodle 1.0 release marks the end of The Fourth Sprint |

### Iteration Objectives

[List the objectives to be accomplished for each of the iterations.]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phase** | **Iteration** | **Description** | **Associated Milestones** | **Risks Addressed** |
| First | Planning Iteration | Defines organization model, project requirements, project plan, and user case. | Software Development Plan  Vision Plan | Wrong estimation in planning  Set unappropriate object and requirements |
| Second | Develop Architectural Software System | Completes analysis & design for all user cases.  Build a architectural softwar system | Design of architectural system  User case diagram | System has some mistakes |
| Third | The Trial Version of the project | Building code to create software for the project | The Trial version | All key features determined at SDP implemented in the Trial. |
|  | Test cases | Building test cases to find and solve if the trial has problems | User test cases | Test cases can not find the problem |
| Fourth | Software Release | Package, distribute, and install Release. | Software Released |  |

### Releases

There are only two releases, there are The Trial and The Schoodle 1.0. The first must be complete on The Third Sprint and the second is on The Fourth Sprint. The evaluation of both releases made by Project Manager and Lecturer at the end of The Fourth Sprint.

### Project Schedule

The schedule can be seen in section 4.2.1. Plan will be updated to adapt the situation on the dates specified in that section.

### Project Resourcing

 [Identify the numbers and type of staff required here, including any special skills or experience, scheduled by project phase or iteration.

 Describe how you will approach finding and acquiring the staff needed for the project.

 List any special training project team members will require, with target dates for when this training should be completed.]

* Staff
  + The member of the team on this project are listed in section 3.1
  + The member of the team are trained and reach to intermediate level of coding
* Training plan
  + The leader of team provide appropriate knownledge for team members due to the assigned tasks
  + The team leader ensure team members accquire the necessary knownledge to complete following tasks and support the project
* Budget
  + 2 months time
  + 18,000,000 VND

## Project Monitoring and Control

 [The following is a checklist of items to consider:

* Requirements Management : Specify the information and control mechanisms which will be collected and used for measuring, reporting, and controlling changes to the product requirements.
* Reporting and Measurement: Describe internal and external reports to be generated, and the frequency and distribution of publication. Specify which metrics should be collected and why.
* Risk Management: Describe the approach that will be used to identify, analyze, prioritize, monitor and mitigate risks. Include a list of risks and their current status.
* Project Close-out: Describe the activities for the orderly completion of the project, including staff reassignment, archiving of project materials, post-mortem debriefings and reports, and so forth.
* Configuration Management: Describe the process by which problems and changes are submitted, reviewed, and dispositioned. Describe how project or product artifacts are to be named, marked, and numbered, including hardware, system software, Commercial-Off-The-Shelf (COTS), plans, models, components, test software, results and data, executables, and so on. Describe retention policies, and the back-up, disaster, and recovery plans. Also describe how the media is to be retained—online, offline, media type, and format.

The text that follows is provided as an example.]

### Requirements Management

The requirements for this system are captured in the Vision document. Requested changes to requirements are captured in Change Requests, and are approved as part of the Configuration Management process.

### Reporting and Measurement

Updated cost and schedule estimates, and metrics summary reports, will be generated at the end of each iteration.

The Minimal Set of Metrics, as described in the RUP [Guidelines: Metrics](..\..\..\process\modguide\md_metri.htm), will be gathered on a weekly basis. These include:

Earned value for completed tasks. This is used to re-estimate the schedule and budget for the remainder of the project, and/or to identify need for scope changes.

Total defects open and closed – shown as a trend graph. This is used to help estimate the effort remaining to correct defects.

Acceptance test cases passing – shown as a trend graph. This is used to demonstrate progress to stakeholders.

In addition, overall costs will be monitored against the project budget.

### Risk Management

Risks will be identified in Inception Phase using the steps identified in the RUP for Small Projects activity “Identify and Assess Risks”. Project risk is evaluated at least once per iteration and documented in this table. The risks of the greatest magnitude are listed first in the table.

|  |  |  |
| --- | --- | --- |
| **Risk Ranking (High, Medium, Low)** | **Risk Description and Impact** | **Mitigation Strategy and/or Contingency Plan** |
|  |  |  |

### Configuration Management

Appropriate tools will be selected which provide a database of Change Requests and a controlled versioned repository of project artifacts.

All source code, test scripts, and data files are included in baselines. Documentation related to the source code is also included in the baseline, such as design documentation. All customer deliverable artifacts are included in the final baseline of the iteration, including executables.