**Y**our E-care

**Software Development Plan (Small Project)**

**Version 1.0**

**Revision History**

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
| 10/11/22 | 1.0 | Complete section 1 to 3 and a part of section 4 | Nguyen Minh Van, Duong Minh Tung, Ha Tuan Lam |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Table of Contents**

[**1.**](#_heading=h.147n2zr) **Introduction 4**

[*1.1*](#_heading=h.3o7alnk) *Purpose 4*

[*1.2*](#_heading=h.23ckvvd) *Scope 4*

[*1.3*](#_heading=h.ihv636) *Overview 4*

[**2.**](#_heading=h.32hioqz) **Project Overview 4**

[*2.1*](#_heading=h.1hmsyys) *Project Purpose, Scope, and Objectives 4*

[*2.2*](#_heading=h.41mghml) *Assumptions and Constraints 4*

[*2.3*](#_heading=h.2grqrue) *Project Deliverables 5*

[**3.**](#_heading=h.vx1227) **Project Organization 5**

[*3.1*](#_heading=h.3fwokq0) *Organizational Structure 5*

[*3.2*](#_heading=h.1v1yuxt) *Roles and Responsibilities 5*

[**4.**](#_heading=h.4f1mdlm) **Management Process 5**

[*4.1*](#_heading=h.2u6wntf) *Project Estimates 5*

[*4.2*](#_heading=h.19c6y18) *Project Plan 5*

[4.2.1](#_heading=h.3tbugp1) Phase Plan 5

[4.2.2](#_heading=h.28h4qwu) Iteration Objectives 6

[4.2.3](#_heading=h.nmf14n) Releases 6

[4.2.4](#_heading=h.37m2jsg) Project Schedule 6

[4.2.5](#_heading=h.1mrcu09) Project Resourcing 6

[*4.3*](#_heading=h.46r0co2) *Project Monitoring and Control 6*

[4.3.1](#_heading=h.2xcytpi) Requirements Management 6

[4.3.2](#_heading=h.2lwamvv) Reporting and Measurement 7

[4.3.3](#_heading=h.111kx3o) Risk Management 7

[4.3.4](#_heading=h.49x2ik5) Configuration Management 7

**Software Development Plan (Small Project)**

# **Introduction**

## **Purpose**

The main purpose of the Software Development Plan is to inform the team members and stakeholders about the approach to the development of the software. It describes how the Project Manager manages the resource, schedule, organization and they can keep track of the process of the software development. It shows the team members what they need to do, the schedule of the activities they are responsible for.

## **Scope**

This Software Development Plan describes the overall plan to be used by the Your E-Care project, including deployment of the product. The details of the individual iterations will be described in the Iteration Plans.

The plans as outlined in this document are based upon the product requirements as defined in the Vision Document.

## **Overview**

This Software Development Plan contains the following information:

* Project Overview - provides a description of the project's purpose, scope and objectives. It also defines the deliverables that the project is expected to deliver.
* Project Organization - describes the organizational structure of the project team.
* Management Process - explains the estimated cost and schedule, defines the major phases and milestones for the project, and describes how the project will be monitored.

# **Project Overview**

## **Project Purpose, Scope, and Objectives**

Your E-Care is an application that would allow users to exercise anywhere while also, and maybe more crucially, assisting them in improving their flexibility, stamina, and overall health in order to do their jobs effectively.

The project deliverables will be described clearly in 2.3 Project Deliverables.

## **Assumptions and Constraints**

The app Your E-Care is a project used to evaluate students ‘s work so that it must be fully available before the deadline

## **Project Deliverables**

The following artifacts will be produced during the project:

* The product including:
* Executable released Deployment Units
* Installation Artifacts
* Source Code
* Test case
* Software Architecture Document
* Use Cases
* Supplementary Specification
* Vision
* Glossary
* Presentation about the project

# **Project Organization**

## **Organizational Structure**



## **Roles and Responsibilities**

| **Person** | **Role** |
| --- | --- |
| Nguyễn Minh Văn, Project Manager, Full-stack Software Engineer | Manage the project and all its repositories. Deploy and create the environment for the application. Control and planning/scheduling activities of the team. |
| Dương Minh Tùng, Process Engineering, Front-end Developer | Responsible for building the user interface of the application. Notes all the problem and assisting the Project manager role in reporting and supporting all the team |
| Trần Quang An Quốc, Test Manager, Front-end Developer | Create the UX/UI and build the main function of the application |
| Hà Tuấn Lâm, Software Engineer, Back-end Developer | Build the server to handle all the requests from users using API and database. |
| Nguyễn Khôi Nguyên, Business Analyst, Back-end Developer | Build the server to handle all the requests from users using API and database. |

# **Management Process**

## **Project Estimates**

*[Provide the estimated cost and schedule for the project, as well as the basis for those estimates, and the points and circumstances in the project when re-estimation will occur.]*

Estimated cost: 6800 $USD

| **Name** | **Cost** | **Quantity** | **Duration** | **Total ($USD)** |
| --- | --- | --- | --- | --- |
| Developer | 500$USD/ month | 4 | 2.5 months | 5000 |
| Manager | 550$USD/ month | 1 | 2.5 months | 1375 |
| Testing Server | 100$USD/ month | 1 | 2.5 months | 250 |
| Others | 175$USD | 1 |  | 175 |
| **Total** |  |  |  | **6800** |

Schedule for the projects: In 2.5 months

## **Project Plan**

### *Phase Plan*

| **Task (Person)** | **29 Oct** (Sprint 1**)** | **12 Nov** (Sprint 2) | **26 Nov** (Sprint 3) | **10 Dec** (Sprint 4) | **24 Dec** (Sprint 5) | **7 Jan, 2023** |
| --- | --- | --- | --- | --- | --- | --- |
| **Inception** |  |  |  |  |  |  |
| Vision Document  (A. Quoc, K. Nguyen) | |——————— | —| |  |  |  |  |
| Project Plan  (M. Van, T. Lam, M. Tung) | |——————— | —| |  |  |  |  |
| Project Environment Setup  (M. Van) | |————— | ——| |  |  |  |  |
| **Elaboration** |  |  |  |  |  |  |
| Plan the project, specify features, and baseline the architecture  (M. Van, T. Lam, K. Nguyen) |  | |———————| |  |  |  |  |
| Create the product prototype  (A. Quoc, M. Tung)  **→ Prototype Demo** |  | |————— | —|  **25 Nov** |  |  |  |
| **Construction** |  |  |  |  |  |  |
| Build the application  (A. Quoc, M. Tung, M. Van) |  |  | |——————— | ——————— | —| |  |
| Build the server  (T. Lam, K. Nguyen, M. Van)  **→ Application Demo** |  |  | |——————— | ——————— | —|  **23 Dec** |  |
| Testing  (A. Quoc, K. Nguyen) |  |  |  | |————— | ——————| |  |
| Deploy  (M. Van, M. Tung, T. Lam)  **→ Application Release** |  |  |  |  | **|**——|  **6** | **Jan** |

### *Iteration Objectives*

Objectives for each sprints:

* Sprint 1: Planning all the aspects of the project and completing the main part of the vision document. The environment will be set up successfully. Have ideas for the prototype based on the main functions.
* Sprint 2: Specific the features of the product, plan the project in more detail and create the UI/UX prototype. Set up the baseline architecture for the project.
* Sprint 3: Construct the application with all the main functions that can be worked properly.
* Sprint 4: Build the testing profile and finish all the other functions. Have the testing for the application.
* Sprint 5: Deploy and release the application.

### *Releases*

*[A brief description of each software release and whether it’s demo, beta, and so on.]*

### *Project Schedule*

*[Diagrams or tables showing target dates for completion of iterations and phases, release points, demos, and other milestones.]*

### *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.]*

## **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](about:blank), 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 the 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** |
| --- | --- | --- |
| Unfamiliar with the process of software engineering and working as a team | Deadline delaying, poor staff morale | Each of members have to work harder, prepare and have better requirement specification |
| Ignorant of new technology | Inefficiency, no quality | Each of members have to actively study and do more research on this project |
| Missed deadlines | Affect the whole team’s efficiency | More overlap of work so members understand each other’s tasks |

### *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.