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| TEAM INFORMATION | | |
| Team name | 52S | Team ID: 5 |
| Supervisor | Trương Phước Lộc | Email:tploc@fit.hcmus.edu.vn |
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| Project sponsor | Mrs. Nguyễn Thị Thanh Phượng | |

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| TEAM MEMBERS | | | |
| No. | Name | Email | Phone |
| 1 | Nguyen Ngoc Thanh | nnthanh@apcs.vn | 0169 678 5577 |
| 2 | Huynh Tran Anh Phuong | htaphuong@apcs.vn | 0902 380 945 |
| 3 | Le Thanh Duy | ltduy@apcs.vn | 0888 810 585 |
| 4 | Nguyen Thanh Hoang | nthoang@apcs.vn | 0919 850 206 |
| 5 | Huynh Minh Tu | hmtu@apcs.vn | 0939 634 344 |

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| PROJECT | |
| Name | IER Management System |
| Duration | 6 months |
| Project sponsor | Mrs. Nguyen Thi Thanh Phuong |

# Skill and Knowledge

After finishing the project, each individual should gain improvement in their knowledge as well as specific skills, namely:

## **Personal Skill**

* Time Management: individual should be able to control his timetable in order to meet the requirements of the project. Since each week there will be meetings between members of the group. As regard to clients, the meeting are holding in a 2-week period to report project process and receive feedbacks along with new tasks. Therefore, time control is a must since there will be penalty for being absent in such cases.
* Teamwork: With the involvement of 5 individuals, it is indisputable fact that there will be vast disagreements and arguments between team members. However, this will be a crucially contributing factor to help build the ability in group working for each one so as to achieve the goals of clients.
* Communication Skill: In order to work efficiently, it is certainly that each team member is able to express and defense their opinion as well as receive feedbacks from others. Other factors are: consistency, patience, negotiation, persuasion are

## **Professional Skill**

* Document Writing
* Requirement Analysis
* Task Management
* Project planning

## **Technical Skill**

* Web programming: ASP.Net
* Back-end Development: ASP.Net
* Front-end Development: Javascript
* Database Management: MySQL
* UI/UX Design: HTML, CSS, BOOTSTRAP
* Testing skill: unit test, integration test…
* Deployment and Maintenance

# Proposal Detail

## **Brief**

The staffs at Institute of Environment and Resources are in devastating need of a system that can help them to manage their database, equipment as well as one that can help them to improve the efficiency of the crews working there and simplify the traditional processes. It is due to the fact that traditional processes that are used there are extremely repetitive and time-consuming to handle since their only approach are storing them in hand-written books and documents.

To be detailed, because the involvement of one process to another is crucial in business processing, these information, therefore, is repeated over and over in each document which leads to constraints for the employees just to type in these information.

In addition to this, the management of a group called “working-site group” is currently uncontrollable since they have no convenient way to store the data collected and the equipment that is given to them.

Another problem is that the selling employees there have to take a lot of time to give the price to the customers since they have to look for the price for that item manually in documented books, which is really time-consuming and inconvenient.

By way of conclusion, the staffs of Institute of Environment and Resources are in desperate need of a system that can help them handle the aforementioned situation, therefore, the 52S team is here for them.

### **Role & Responsibility**

* Developing Team: students as the information supplied are responsible for the whole development process including requirement analysis, implementation, testing and improvement. The specific roles are: (note that these roles are interchangeable during the process during certain circumstances and in the developing process, participation of all is a must)

1. Team lead: Huynh Tran Anh Phuong
2. Business Analyst: Nguyen Ngoc Thanh, Nguyen Thanh Hoang
3. Developer: Le Thanh Duy, Huynh Minh Tu

* Design Team: two other students enrolling in the software engineering capstone course responsible for design of the graphical user interface.
* Supervisor: Mr. Truong Phuoc Loc - technical consultant and development process advisor.
* Client:

1. Mrs. Nguyen Thi Thanh Phuong
2. The staffs at Institute of Environment and Resources

## **Vision/Objective**

1. Simplify the traditional documenting process by replacing them with a web application. All employees now only need to type information of a form by computer and they will be parsed directly to other forms that have similar information. Hence, they will have more time to complete other tasks and work more efficiently.
2. Create an interface for selling employees to work on pricing and give their customers fastest reply.
3. Manage the activity of “working-site group” and the data that are collected by them.
4. Manage the activity of equipment that are given to the employees at IER.

## **Scope**

The system is a website that has parts as mentioned above and a homepage which displays information about the Institute to help the clients contact them easier. The server is placed on the main center of IER and the domain is on negotiation since we are considering on get a proper domain (paid) or an unpaid one. All data and relevant documents are provided by IER with the help of Ms. Nguyen Thi Thanh Phuong.

## Proposed Solution

**Website**

Our priority will be placed in order as written in **Vision/Objective**.

**Frontend [ Description of the technology used for Frontend side]**

**Backend [Description of the technology used for Frontend side]**

## Proposed Action

## **Proposed approach**

In this project, our team focuses on tasks completing according to the need of our clients. Obviously we will complete other stuffs such as the database, the process needed for further implementation without the involvement but we will let the clients involve as much as possible to help them have the best product. Other priorities are not guaranteed to be completed in time due to its complexity and limited time resource. However, each team member is and will do their best to complete the project.

### **Chosen lifecycle model**

### **Applied methodology**

In order to manage the project, our team use a lot of application to communicate, store document and talk to the clients. These applications are:

* Github, google drive: for storing document
* Tortoise SVN: for synchronous code
* Gmail: a team domain mail is created to help communicate with clients
* Slack: communicate between team members

There is also a detailed file named Project plan which is managed by Nguyen Ngoc Thanh. This file include very specific tasks for each member as well as evaluating efforts for each of them and the deadline, description and future goal for the project. This file is updated weekly and each action will be reported to the Slack channel automatically.

Currently we are divided into smaller groups, namely: BA group and Dev group.

The main mission for BA group is collecting information from the client, analyze them and provide best solutions for the client as well as make sure that it is in our possible skill to handle the requirements.

As regard to the Dev group, the main mission for this group is everything that is relevant to programming. However, when the requirements that are needed are ready, all team members will have to involve to this group.

### **Resources required**

## Server and host for the website

* Personal laptops
* Software for Code Management and Task Management.
* Place for Team Meeting and Co-working.

## Action Justification

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## **Necessary activities**

Technology research, Technical Training, Team meeting, Project Management, Brainstorming, Task Assignment, Idea Generation, Coding, Testing, Seminar.

# Additional Information

## WBS **[Tuấn]**

## Detailed Plan from WBS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Goal | Action Steps | Responsibilities | Timeline | Resources |
| Requirement Engineering | - Kick-off Meeting  - Client-Meeting  - Propose requirement list | - Product Owner  - BA | 30 days | - Human skills |
| Architecture Design | - Database Design  - Use case  - Class Diagram  - Business Flow Diagram  - Data Accessibility | Development Team | 10 days | - Human skills |
| UI | Continue:  - Wireframe  - Mockup  Until client accept  - UI Design  - UI Prototype | - Design Team  - Development Team | 40 days | - Human skills |
| Environment | - Set up Github [Source Code Management]  - Setup Zenhub [Agile Task Management]  - Setup Drive [Document Management]  - Setup Server  - Setup Test Host | - Development Team | 2 days | - Server from HCMUS  - Human skills |
| First Version | **Back-End [ list the API here]**  **Front-End [ list the work here]**  **Testing/Debugging** | - Development Team | 31 days | - Human skills |
| Second Version | **BackEnd [ list the API here]**  **FrontEnd [ list the work here]**  **Testing/Debugging** | - Development Team | 34 days | - Human skills |

## Gantt Chart **[Tuấn]**

## Development Life Cycle [Tuấn]

## Development Environment

**Website [Ban+...]:**

Package manager: npm

Build Tool: gulp

Libraries for building the interface (View in MVM): ReactJS, Bootstrap 4, and Redux

Revision Control: Git and Github

**Mobile:**

**Backend [Hoàn +...]:**