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School of Computing  
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**INITIAL SYSTEM PROPOSAL**

**<<Youth Ventures Student Portfolio Management System>>**

**(StuPort)**

**Group Name:** EXPLORER

**Members:**

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**Stakeholder: Youth Ventures Asia**

Representative Name	Date Interviewed
Mr. Hanif Marzuki Mohd Saupi	23/10/23
	8/11/23
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# PROPOSED SYSTEM BACKGROUND

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## 1.0 Introduction

As a year 2 data engineering student, we have a project for our courses this semester. This project is a collaboration of three Work Based Learning courses which are SECP2523, SECP2613 and SECP3723. In this project, we are required to develop a database application solution to enable the proposed system, “StuPort” will be implemented smoothly based on the client’s requirements. We have in-depth interviews with Mr. Hanif Marzuki Mohd Saupi, a client representative from Youth Ventures Asia, and collaboration with other groups to ensure a holistic understanding of the project's goals and system requirements during Industry Day 1.

Our proposed system, the Youth Ventures Student Portfolio Management System named “StuPort” embarks on a transformative journey from a manual and labor-intensive operation to a sophisticated, automated platform designed to enhance the management of student profiles and program data. The existing system was grappled with challenges such as manual data entry, decentralized databases, and operational inefficiencies. In response to these limitations, the proposed system envisions a comprehensive solution integrating a centralized database system, an achievement recognition mechanism, and a user-friendly data-sharing portal.

The mission of the to-be system is clear: to efficiently collect and manage student information, empower administrators, and create a collaborative environment for students, master administrators, and partners of Youth Ventures. By introducing modules like authentication, profile management, user registration, activity tracking, feedback systems, resume creation, reward systems, and an interactive dashboard, the system aims to provide a seamless experience for all stakeholders.

The proposed system's scope encompasses three key user types: students, master administrators, and partners or clients of Youth Ventures. Each user type has distinct roles and permissions, contributing to a dynamic ecosystem where individuals can actively participate, contribute, and be recognized.

Technologically, the system leverages a robust stack comprising PHP, MySQL, HTML, CSS, JavaScript, and Bootstrap. This combination ensures a secure, dynamic, and user-friendly platform, accessible across different devices. GitHub is employed for version control, facilitating collaboration among developers during the system's design and development phases.

In essence, the Youth Ventures Student Portfolio Management System is poised to revolutionize the management of student profiles, streamline data processes, and foster collaboration among stakeholders. Through its innovative features and technology stack, the system aims to empower students, administrators, and partners, creating a holistic and impactful environment for personal and professional development.

## **2.0 The Existing System**

### **What does the current system do**

The current system in place, referred to as the Youth Ventures As-Is System, is characterized by manual and labor-intensive processes for managing student profiles and program data. This system relies on several inefficient practices, leading to various challenges:

#### **1. Manual Data Entry:**

Student profiles are managed through manual data entry. Information for each student needs to be input individually across different program cycles.

#### **2. Multiple Databases:**

The system relies on multiple databases for storing student information. Cross-referencing student achievements and milestones across various program cycles is challenging due to the decentralized nature of data storage.

#### **3. Recognition of students achievements:**

Difficulties in recognizing and acknowledging student achievements arise from the decentralized nature of data storage and the manual management of profiles.

#### **4. Collaboration between parties:**

The absence of a streamlined data sharing mechanism hampers efficient collaboration among clients, partners, and stakeholders.

#### 5. Operation of student data:

The overall operational efficiency is compromised due to the manual nature of data management. The lack of a centralized platform for information further exacerbates inefficiencies.

### **Challenges Faced**

#### 1. Inefficiencies and Errors:

Manual data entry leads to errors, inefficiencies, and a time-consuming process.

#### 2. Difficulty in Tracking Accomplishments:

Challenges in tracking and recognizing student accomplishments due to the fragmented nature of data.

#### 3. Limited Collaboration:

Lack of a streamlined data sharing mechanism hinders effective collaboration among stakeholders.

#### 4. Operational Inefficiency:

Manual processes contribute to overall operational inefficiency.

The identified challenges prompted the organization to seek a transformative solution to streamline operations, enhance data management, and improve collaboration among stakeholders. The AI-IS system aims to address the manual and fragmented nature of the previous system, providing a more efficient, integrated, and collaborative solution for managing student profiles and program data.

### **3.0 The Proposed System**

#### **Mission Statement of The To-Be System**

Youth Ventures StuPort Management System primarily aims to efficiently collect and manage student information, including personal details, achievements, skills, interests, talents, academic or co-curriculum certificates, resume and level of satisfaction towards the programs and activities organized by Youth Ventures and their partners. By including the features such as managing profile, dashboard, resume, activities, registration, reward and feedback, this system can foster a more supportive academic management platform, help students to have systematic management and empower administrators and partners of Youth Ventures to create more effective programs and activities.

#### **Overview of What The To-Be System Will Do**

To overcome the operational challenges faced by the current system, we have decided to develop a Youth Ventures StuPort Management System, which emphasizes a holistic solution for improved efficiency.

Firstly, we recommend the implementation of a centralized database system that consolidates student profiles and program data. This will simplify data management and eliminate the need to access multiple databases, making it easier to track students' progress across different program cycles. The system should also have robust search and filter functions for easy data access.

Secondly, introducing a comprehensive achievement recognition system can help automatically track and acknowledge students' accomplishments, simplifying the process of recognizing their achievements across program cycles.

Lastly, to simplify data sharing, a secure and user-friendly portal can be established, allowing clients, partners, and relevant stakeholders to access and exchange data more efficiently, thus fostering better collaboration.

In summary, the proposed solutions include a centralized database system, an achievement recognition system and a user-friendly data sharing portal. These measures will streamline the Youth Ventures StuPort Management System, improve data management, enhance student achievement recognition, ultimately boosting overall efficiency for everyone involved.

## **Mission Objectives**

Our primary mission is to create a streamlined and user-friendly platform that enhances student engagement with Youth Ventures and extra activities such as training, programs, volunteering and part time. The system's mission further extends to facilitating effective program management for administrators. By providing robust tools for creating and analyzing feedback forms, tracking program effectiveness and recognizing student accomplishments, our objective is to empower administrators and master administrators to continuously improve program quality to ensure an impactful experience for all participants engaged. To achieve the mission of developing the Youth Ventures Student Portfolio Management System, there are several modules and tasks that need to be gone through.

### **1. Authentication**

- To login into the system
- To logout from the system
- To sign up in the system

### **2. Profile**

- To create detailed profile include personal information
- To view student's profile
- To edit personal information in profile
- To delete profile

### **3. User Registration**

- To create registration links for activities
- To view registration data of the activities
- To register the activities published

### **4. Activity**



- To add personal activity participated
- To view activities published
- To edit student's activity details
- To validate student's activity
- To publish activity that is going to be organized
- To edit Youth Ventures activity details

#### 5. Feedback

- To create the feedback form
- To fill in the feedback form
- To give review to the feedback provided by students
- To view the feedback given history
- To view the student's activity feedback list

#### 6. Resume

- To download the student resume
- To download the student's master transcript
- To edit the resume shown

#### 7. Reward

- To create reward in the system
- To give reward to the student
- To view reward achieved

#### 8. Dashboard

- To view dashboard

Through intuitive features like personalized profiles, seamless activity registration and a dynamic rewards system, we aim to empower students to actively participate in various activities and showcase their achievements thus fostering a collaborative system.

### **System Scope and Boundaries**

Youth Ventures StuPort Management System will focus on three types of users, which are students, administrators of Youth Ventures, also known as master administrators, and partners or

clients of Youth Ventures such as event organizers, government agencies, private companies and universities, acknowledged in the system as an administrator. With different identities and roles the users are when they access the system, different tasks and limitations can be performed and constrained to them. By defining these constraints, the scope and the limitations of the project are constructed in which they define what areas this system will cover and what will be included and what will not be respectively.

Standing at the point of view of the primary user of Youth Ventures StuPort Management System, students can input personal information, including name, contact details, academic records, skills, interests, talents, achievements and ambitions. The dashboard functions as a central hub, offering students an overview of their profile, activities, rewards and achievements within the system. The system enables students to create, update and download their digital resumes for showcasing their skills and experiences. Students can easily register for various programs and activities through the system. After actively participating and providing feedback on these activities, by indicating their satisfaction levels, students have the opportunity to earn rewards or badges as a recognition of their engagement. They have the autonomy to choose whether the rewards or badges and activities can be shown on their profiles and resumes.

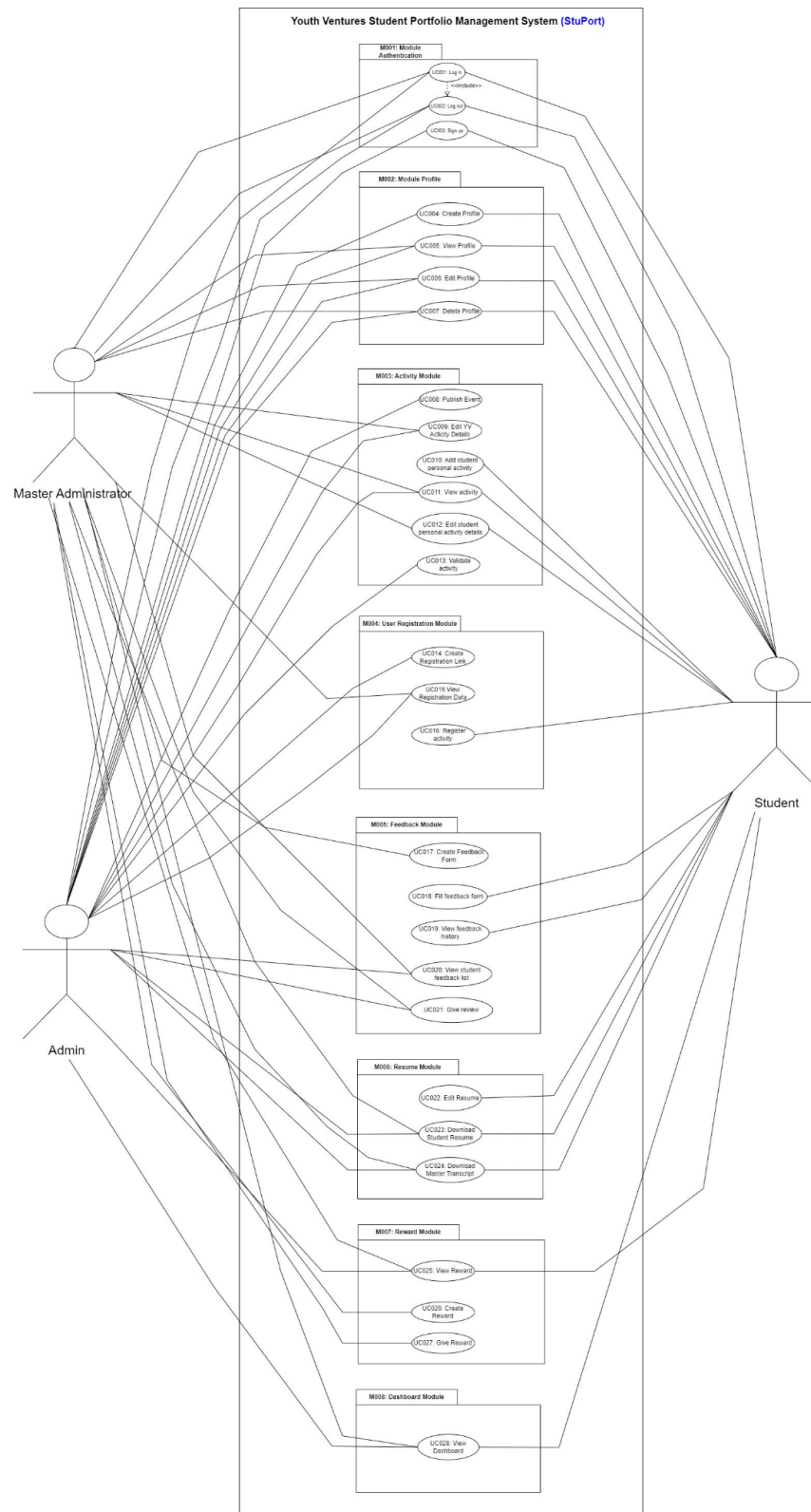
As master administrators of the system, the administrators of Youth Ventures hold the highest level of authority with access to manage all users' profiles. They play a vital role in creating feedback form and analyzing the feedback provided by students on programs and activities, using this information to assess program effectiveness and pinpoint areas for improvement. The administrators can also give the review to students based on the students' feedback. Additionally, the administrators are responsible for managing and tracking programs and activities within the system. They have the authority to give badges and rewards after students provide feedback on a particular program or activity.

As a role of partners of Youth Ventures, also known as administrators, they will make use of the system by having the access to publish their event seamlessly. Beyond event creation, partners engage in a crucial verification process post-event to ensure the active participation of students. As event organizers, they hold the authority to review and analyze feedback provided by participants, gaining valuable insights into the success and impact of their initiatives within

the Youth Ventures community.

In conclusion, the Youth Ventures StuPort Management System is designed to cater to the distinct needs and roles of three key user groups: students, master administrators, and partners or clients of Youth Ventures. For students, in brief, the system serves as a comprehensive platform for inputting and managing personal information, engaging in various activities and showcasing their achievements and experiences through resumes. Master administrators, holding the highest level of authority, overseeing user profiles, analyzing feedback and ensuring the overall effectiveness of programs. Partners of Youth Ventures as administrators seamlessly utilize the system to publish events, verify student participation and gain valuable insights through participant feedback. Together, these roles create a dynamic ecosystem where individuals can actively participate, contribute and be recognized in public, fostering a collaborative and impactful environment for personal and professional development.

# Use Case Diagram



## **Proposed Technology To Be Used In Designing And Developing The System**

In building the Youth Ventures StuPort Management System, we opt for a tech combo that balances power and ease of use. For the backend, we chose PHP for its versatility and MySQL to smoothly organize and retrieve data. This dynamic duo ensures that user profiles, activity details and feedback info are stored securely and efficiently.

On the user interface side, we craft the look and design with HTML, CSS, JavaScript and including Bootstrap for good measure. HTML sets the structure, CSS adds a touch of style and JavaScript brings in the interactive elements while Bootstrap serves as a responsive design framework, simplifying the development of adaptive interface like buttons. This blend guarantees a smooth and user-friendly experience for students, master administrators and administrators such as partners of Youth Ventures alike. Also, to make sure everyone can access the system and fulfill the client's requirement, we implement a responsive design which will adapt seamlessly to different screen sizes, whether the users are on a desktop, tablet or mobile device.

For smooth collaboration among developers, we will use GitHub for version control. This allows us to keep track of changes, work on different parts of the code simultaneously and maintain a well-organized development process when developing the system.

In a nutshell, our tech stack for the Youth Ventures StuPort Management System combines the strength of PHP, HTML, CSS, JavaScript, MySQL and Bootstrap to ensure a dynamic, secure and user-friendly platform for students, master administrators in Youth Ventures and administrators who are the partners of Youth Ventures.

## 4.0 Glossary

- **System Scope and Boundaries** - A scope statement is a detailed and formal document that defines and documents the scope and boundaries of your project and product. It outlines the project and product objectives, deliverables, requirements, exclusions, assumptions, constraints, and acceptance criteria.
- **Centralized Database System** - The system in which all the data is stored and managed in a single unit. Centralized databases are often used by organizations to store data that is shared by many users. These are used for storing customer information, inventory data, financial records, and more.
- **PHP** - PHP is a recursive acronym for Hypertext Preprocessor. It is an open-source server-side scripting language that many developers use for web development. It is also a general-purpose language that you can use to make lots of projects, including Graphical User Interfaces (GUIs).
- **MySQL** - MySQL is an open-source Relational Database Management System (RDBMS) that enables users to store, manage, and retrieve structured data efficiently. In relation to MySQL, a database is a structured collection of data organized and stored in tables.
- **HTML, CSS, JavaScript** - To become a web developer, the first thing you have to learn is HTML, which is the standard markup language for creating web pages. The next step is to learn CSS, to set the layout of your web page with beautiful colors, fonts, and much more. After studying HTML and CSS, you should learn JavaScript to create dynamic and interactive web pages for your users.
- **Bootstrap** - A free, open source front-end development framework for the creation of websites and web apps. It makes responsive web design a reality.
- **Github** - Github is an online platform where we can share our codes(or projects) online hassle-free. It might be considered as a social media which is made for the developers where they share their work.
- **Autonomy** - The ability to make your own decisions without being controlled by anyone else.
- **Ecosystem** - Describe a community that lives in and interacts with each other in a

specific environment.

## 5.0 Bibliography

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