



CAPSTONE PROJECT REPORT

Report 1 – Project Introduction

– Hanoi, Jan 2025 –

Table of Contents

I. Record of Changes	3
II. Definition and Acronyms	4
III. Project Introduction	4
1. Overview	4
1.1 Project Information	4
1.2 Project Purpose	4
1.3 Project Stakeholders	4
2. Product Background	4
3. Existing Solutions	5
3.1 Google classroom	5
3.2 Blackboard Learn	6
3.3 Moodle	7
3.4 Edufly	7
4. Solution & Opportunity	7
5. Project Scope & Limitations	8
5.1 Major Features	8
5.2 Limitations & Exclusions	9

I. Record of Changes

Date	A* M, D	In charge	Change Description
9/1/2025	A	Trần Trung Học	Create Report1_Project Introduction
20/1/2025	M	Ngô Minh Kiên	Modifying III. Project Introduction, 1.Overview
20/1/2025	M	Bùi Ngọc Dũng	Modifying III. Project Introduction, 2.Product Background
20/1/2025	M	Hoàng Hải Anh	Modifying III. Project Introduction, 4.Solution & Opportunity
20/1/2025	M	Nguyễn Tuấn Anh	Modifying III. Project Introduction, 3.Existing Solution
24/1/2025	M	Trần Trung Học, Bùi Ngọc Dũng	Modifying III. Project Introduction, 5.1.Product Scope
24/1/2025	M	Ngô Minh Kiên, Hoàng Hải Anh	Modifying III. Project Introduction, 5.2.Limitations
12/2/2025	M	Trần Trung Học	Modifying III.Project Introduction, 5.1 Major Features
12/2/2025	M	Bùi Ngọc Dũng	Modifying III.Project Introduction, Figure 1.4

*A - Added M - Modified D - Deleted

II. Definition and Acronyms

Acronym	Definition
SF	StudyFlow

III. Project Introduction

1. Overview

1.1 Project Information

- English name: ***Class management website for teachers and tutoring centers for K-12 students.***
- Vietnamese name: ***Website quản lý lớp học dành cho các giáo viên, trung tâm dạy học***
- Project code: ***SF***
- Group name: ***SEP490-G73***
- Software type: ***Web App***

1.2 Project Purpose

The goal of this project is to create the StudyFlow website, which assists teachers and learning centers in managing their classes and students. In addition, the website allows students to study independently and complete teacher-provided assignments. This document is intended to introduce the project as well as guideline and intended goals for the implementation of the various functions of the program

1.3 Project Stakeholders

Full Name	Role	Email	Mobile
Nguyen Manh Hung	Lecturer	hungnm93@fe.edu.vn	N/A
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Ngo Minh Kien	Member	kiennmhe171466@fpt.edu.vn	0984381766
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Bui Ngoc Dung	Member	dungbnhe171450@fpt.edu.vn	0949175662

Table 1.1 Team Members

2. Product Background

Currently, manual classroom management is prone to errors and confusion as well as time-consuming. Many teachers find it difficult to track student progress and participation. StudyFlow is a classroom management software that aims to solve problems related to classroom management such as attendance, student lists, score tracking, learning progress, and class schedules. The main target of the system is teachers, students, parents, and educational centers. This software will provide a comprehensive solution with a friendly interface and integrated functions such as student list management, attendance, score storage, assignment, and notification. In addition, the system also supports quick reporting and statistics and is a platform for direct connection with teachers, students, and parents via the website.

3. Existing Solutions

To gain a comprehensive understanding of StudyFlow's role in managing classes and students, it is essential to analyze leading platforms within this domain. These established systems highlight the capabilities of management applications and provide valuable insights into the core functionalities most valued by users.

3.1 Google classroom

Description: Google Classroom is a free web-based platform developed by Google for schools. It facilitates the creation, distribution, and grading of assignments while streamlining communication between teachers and students.

Link: [Google Classroom](https://classroom.google.com/)

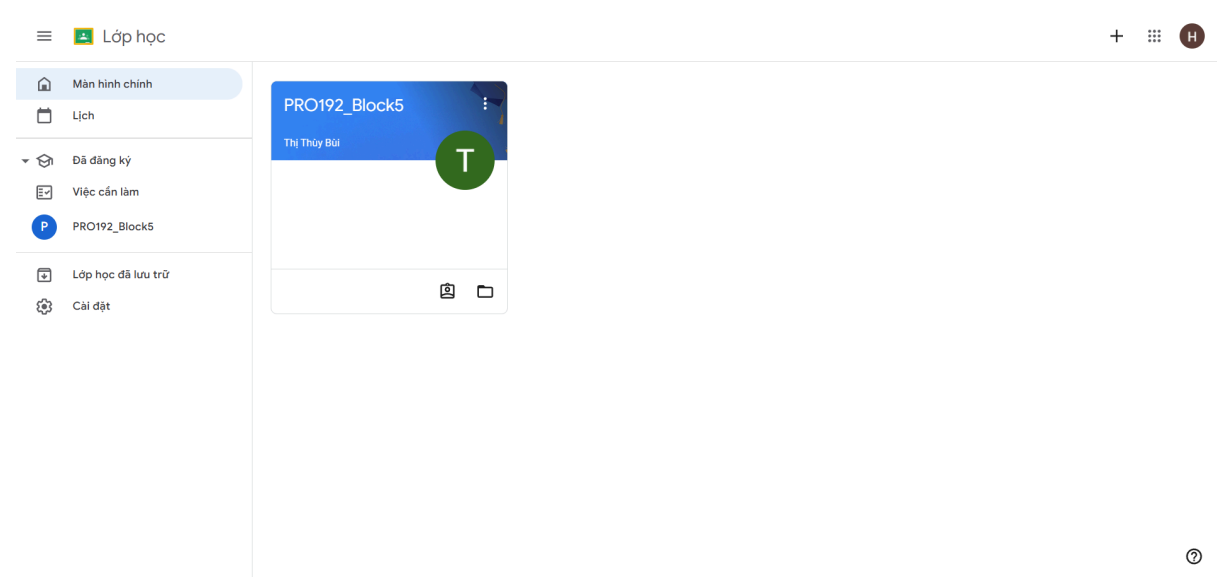


Figure 1.1: Google Classroom Homepage

Actors: Teachers, students, administrators, and parents (via Guardian Summaries).

Features:

- Easy assignment creation and distribution.
- Integration with other Google Workspace tools (Docs, Sheets, Meet, etc.).
- Automatic grading and feedback tools.
- Centralized communication channels.
- Mobile app for on-the-go access.

Pros:

- Free and easy to use.
- Seamless integration with Google Workspace.
- Scalable for institutions of various sizes.

Cons:

- Limited customization for non-Google users.
- Basic analytics and reporting features compared to advanced platforms.

3.2 Blackboard Learn

Description: Blackboard Learn is a learning management system (LMS) widely used by educational institutions for online teaching and learning. It offers a robust set of tools for educators and learners.

Link: [Blackboard Learn](#)

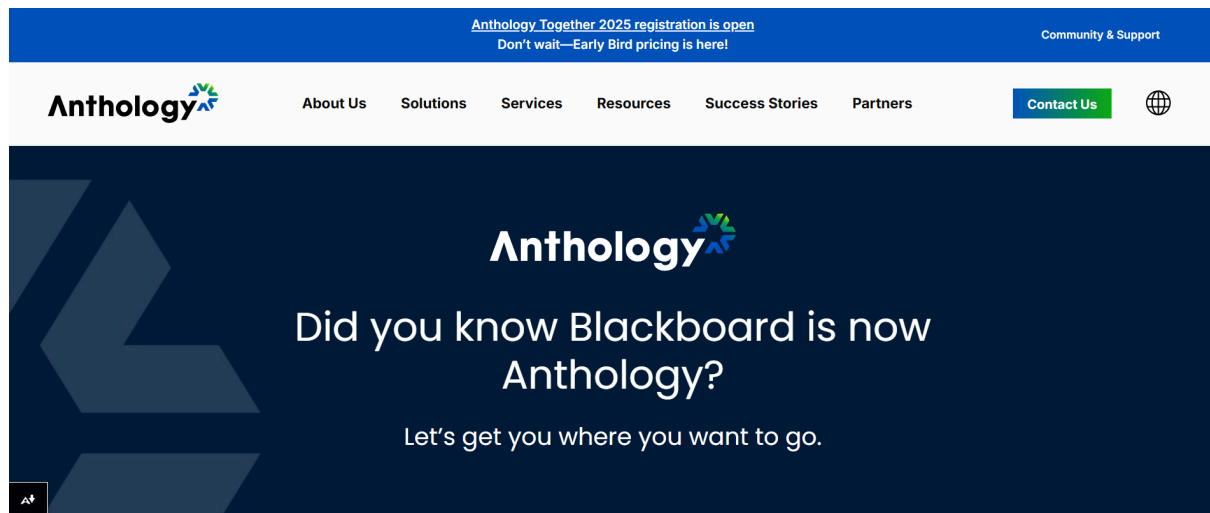


Figure 1.2: Anthology Homepage

Actors: Educators, students, administrators, and IT support staff.

Features:

- Advanced grading and analytics tools.
- Multimedia content support.
- Customizable course structures.
- Integration with third-party tools and apps.
- Mobile-friendly design with a dedicated app.

Pros:

- Highly customizable.
- Comprehensive reporting and analytics.
- Wide range of integrations and add-ons.

Cons:

- Steeper learning curve for new users.
- Higher cost compared to some competitors.

3.3 Moodle

Description: Moodle is an open-source learning management system offering flexible, scalable, and customizable features for educators and institutions.

Link: [Moodle](https://moodle.org)

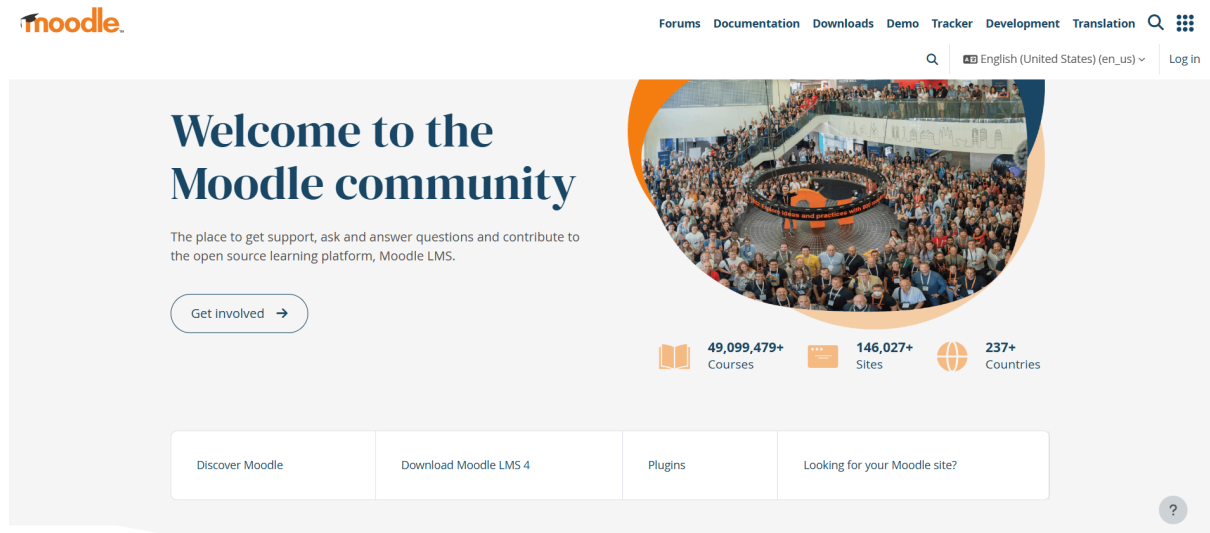


Figure 1.3: Moodle Homepage

Actors: Educators, students, developers, administrators.

Features:

- Modular architecture for customization.
- Wide range of plugins for additional functionality.
- Mobile app with offline support.
- Gradebook and analytics tools.
- Peer and self-assessment options.

Pros:

- Open-source and highly flexible.
- Active global community for support.
- Cost-effective for small-scale implementations.

Cons:

- Requires technical expertise for setup and maintenance.
- User interfaces can feel outdated compared to modern systems.

3.4 EduFly

Description:

EduFly is an innovative e-learning platform designed to enhance digital education by providing interactive tools for teachers, students, and institutions. It supports online learning, assignment

management, and real-time collaboration while ensuring an engaging and efficient educational experience.

Link: [EduFly](#)

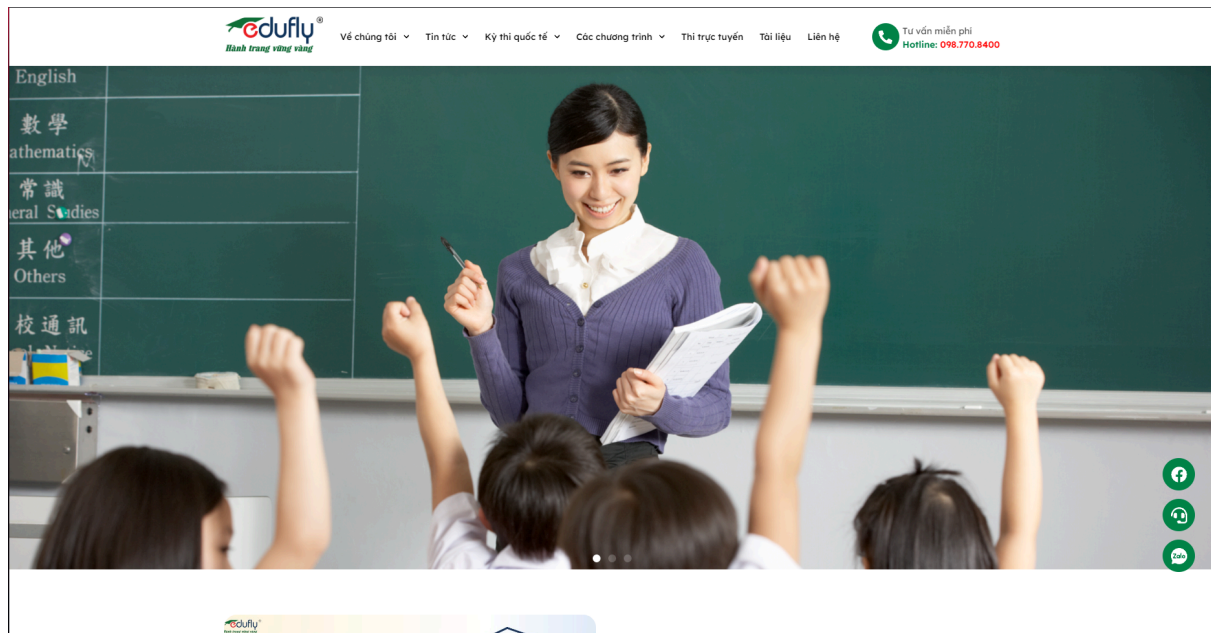


Figure 1.4: EduFly Homepage

Actors: Teachers, students, administrators, and parents (for progress tracking).

Features:

- Intuitive dashboard for managing courses and assignments.
- Live virtual classrooms with interactive whiteboard functionality.
- AI-driven personalized learning recommendations.
- Seamless integration with third-party tools and LMS platforms.
- Detailed analytics and reporting for student performance tracking.
- Mobile-friendly design for flexible learning on the go.

Pros:

- User-friendly interface with interactive learning features.
- Advanced analytics for in-depth student performance insights.
- Strong security and data privacy features.

Cons:

- Some advanced features require a premium subscription.
- Limited offline access compared to other platforms.

4. Solution & Opportunity

The demand for digital tools in education is growing, yet teachers and learning centers face challenges in managing classes, tracking student progress, and assigning tasks effectively. Existing solutions like Google Classroom and Microsoft Teams are not fully optimized for diverse teaching environments, especially for specialized learning centers.

StudyFlow addresses these gaps by offering a customizable, user-friendly platform focused on class and student management. With features like automated progress tracking, task assignments, and flexible schedule management, it provides a tailored solution that aligns with the digital transformation trends in education and supports the strategic goals of learning institutions.

5. Project Scope & Limitations

5.1 Major Features

There are 5 roles in **StudyFlow**:

Role	Description
Admin	Manages manager accounts , view classes, tuition and policy across all campuses.
Teacher	Takes attendance, assigns exercises, grades, and provides feedback.
Student	Views attendance and feedback, completes exercises, and checks learning results.
Campus Manager	Manages accounts and classes for each campus.
Learning Program Manager	Manage learning programs and tests.

Table 1.2 System Actors

Functions in this web:

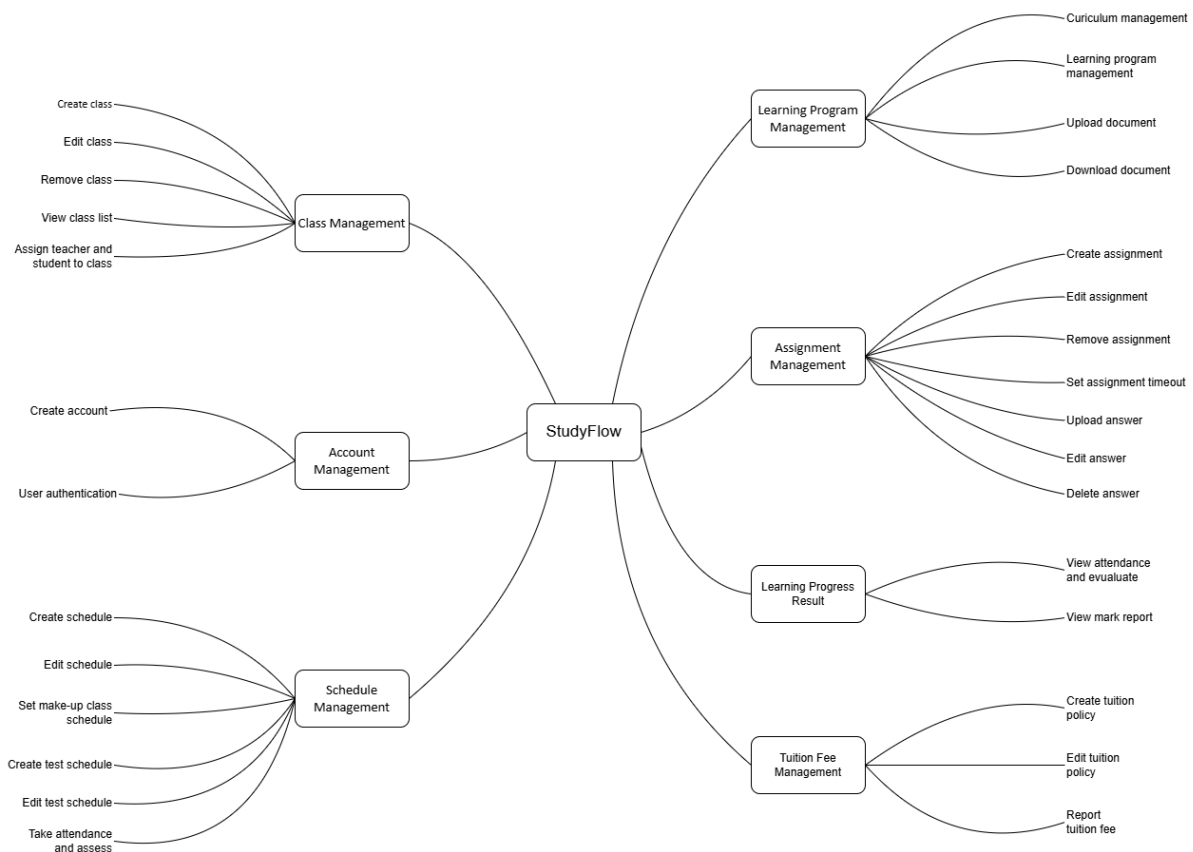


Figure 1.4: Major Features

ID	Feature	Description
FE-01	Class Management	The feature includes creating new classes with detailed information. Existing classes can be edited or deleted to keep information up-to-date or remove unnecessary entries. It also includes tools to join class, adjust class schedules, and view class list
FE-02	Account Management	The feature allows users to log in, log out, change passwords, and reset forgotten passwords, ensuring secure and seamless account access.
FE-03	Learning Progress Result	This feature allows user to view attendance and evaluate. Also, they can view the mark report
FE-04	Learning Program Management	The feature allows users to create, edit, and delete curriculum and learning program. It also supports uploading and downloading documents, providing an efficient way to manage and share educational resources.
FE-05	Assignment Management	The feature enables users to create, edit, and delete

		assignments, set deadlines for submissions, and manage responses. Users can upload, edit, or delete their answers, ensuring a streamlined and flexible workflow for managing assignments and submissions.
FE-06	Schedule Management	The feature allows users to create,edit,and delete schedule.They also can set make-up classes, create,edit,and delete test schedules,take attendance and assess.
FE-07	Tuition Fee Management	The feature allows admin to create a tuition policy view report of tuition fee.

Table 1.3 System Features

5.2 Limitations & Exclusions

ID	Description
LI-01	The system will require an active internet connection to access classes, materials, and assignments. There will be no offline access to content or features.
LI-02	The platform will not provide a dedicated role or account for parents to monitor student activities or progress.
LI-03	The system will not support multilingualism, operating only in the default language of Vietnamese

Table 1.4 System Limitations