



GROUP ASSIGNMENT

TECHNOLOGY PARK MALAYSIA

AAPP006-4-2-SDP

SOFTWARE DEVELOPMENT PROJECT

UCDF1905ICT(SE)

HAND OUT DATE: 8 DECEMBER 2020

HAND IN DATE: 22 MARCH 2021

WEIGHTAGE: 100%

INSTRUCTIONS TO CANDIDATES:

- 1 Students are advised to underpin their answers with the use of references (cited using the Harvard Name System of Referencing).**
- 2 Late submission will be awarded zero (0) unless Extenuating Circumstances (EC) are upheld.**
- 3 Cases of plagiarism will be penalized.**
- 4 The assignment should be bound in an appropriate style (comb bound or stapled).**
- 5 Where the assignment should be submitted in both hardcopy and softcopy, the softcopy of the written assignment and source code (where appropriate) should be on a CD in an envelope / CD cover and attached to the hardcopy.**
- 6 You must obtain 50% overall to pass this module.**



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Group Member Names

Chong Win Yip	TP056517
Ricky Wong Tiong Song	TP054622
Chai Ming En	TP055741

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1.0 Acknowledgement

First of all, I wish to thank various of people for their contribution to this project; Ricky Wong Tiong Song and Chai Ming En. A very grateful and appreciation for their valuable technical support on this project. Especially, they able to complete the task given on the system or on the documentation as soon as possible. Besides that, a special thanks should be given to Nik Sakinah Nik Ab Aziz, our SDP Lecturer who handled and give us constructive suggestions during planning, development, progress and so forth in this project. We get a lot of ideas from our Lecturer and seek advice from her. Her willingness to give her times on checking and responsibility on reply to our messages has been very much appreciated.

2.0 Abstract

The abstract of this paper is discussing about creating an e-Learning system for educational purposes because of the epidemic. Due to the Corona Virus happened from 2019 until the current year, even the new cases of covid's patient have been constantly decrease but the diseases haven been totally solved. According to the research on the article, there are a lot of different sector have been destroyed because of the epidemic (*NST Business, 2020*). The epidemic has seriously slammed Malaysian higher education sector as well. In concert with the government initiatives, universities and colleges are quick to deploy crisis strategy to safeguard their biggest stakeholders— students. To continue the academic sessions running smooth and ensure students are safe from the epidemic, **PRIME Minister Tan Sri Muhyiddin Yassin** had announced a Movement Control Order (MCO) on March 16, 2020 to encourage Malaysian stay in their place, not only just students. All of the university were affected and students from different states or even from the others country, they are forced to continue their study via online. So, to develop an e-Learning system can solve the current issues. It is a method that study or training of various types of courses through electronic devices such as phone, computer and tablets. E-learning provides the rapid access to specific knowledge and information and offers online content that can be delivered for the students at anywhere and anytime with compared to traditional learning system. Students are also able to gain new knowledges while spending their spare times learning different course that they like through e-Learning system.

3.0 Workload Matrix

Intake UCDF1905ICT(SE)	Chai Ming En	Chong Win Yip	Ricky Wong Tiong Song
System Name : Learneasy E-Learning System	TP055741	TP056517	TP054622

Group Component

N0	ASSIGNMENT COMPONENT	Marks	CONTRIBUTION PERCENTAGE	CONTRIBUTION PERCENTAGE	CONTRIBUTION PERCENTAGE	TOTAL
1	Planning	10	33.33%	33.33%	33.33%	100%
2	Diagram (Group)	20	33.33%	33.33%	33.33%	100%
3	Screen & User Manual	15	33.33%	33.33%	33.33%	100%
	Significant Code	5	0%	0%	100%	100%
	Conclusion	5	0%	100%	0%	100%
	Format & Cite	5	33.33%	33.33%	33.33%	100%
4	Progress Report	10	33.33%	33.33%	33.33%	100%
Total		70	56%	89%	89%	

Signature :

MINGEN	WINYIP	RICKY
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4.0 Introduction

4.1 Project Background

- Learneasy is an educational company which provides a variety of education for people. Due to the epidemic, schools are forced to be closed and students are required to continue their study online. After seeing this situation, Learneasy wants to create an education platform where students can spend their spare time to learn more skills whether it is for future career or their interest. Based on their own research on traditional teaching and e-learning, they found out that most of the teachers can't really know the learning progress of their student. Students also face problems while catching up the course with their own learning pattern. Apart from that, teachers should interact with students regularly to understand them better, but the result of the research found out that there is less interaction between teachers and students. Lastly, they also found out that student's time had been fixed. In this case, students should be able to arrange their personal schedules so that to improve efficiency and practices to get a better time management on themselves.

4.2 Problem Context

1. Teachers are not clear about the student's learning progress.
 - Ricky Wong Tiong Song (TP054622)
 - In classroom teaching, teachers find it hard to know the learning progress of the students. Everyone has their own learning pattern; the speed of absorbing knowledge might be different too. So, each student will have different learning progress on the courses.
2. Less Interaction between teachers and students.
 - Chai Ming En (TP055741)
 - In traditional education, the interaction between teachers and students is less because they need starlight to point in the limited time. Due to the less interactive teachers cannot ensure that all the questions asked by students are answered within the limited time that has been fixed. For example, the questions would not be answered if there were a large number of questions. Not only that, but some of the students are also embarrassed to ask questions face to face.

3. No flexibility.

- Chong Win Yip (TP056517)

- Students must follow the class schedule that is predetermined and not subject to change. In this case, students should be able to arrange/ manage their personal schedules to reduce any waste of time. For example, the course duration is set to 2 hours but some of the students can absorb things faster. It means that they need to sit through the course even if they already know the lesson or materials. Instead of wasting the time, they enter other course's materials or start a new chapter to continue studying.

4.3 Proposed Solution

1. Teachers will be able to view their created courses. In their own course, they will be able to view and search the enrolled student to view their learning progress. The learning progress of their student will be in a list and indicate the student's name, starting date, end date and course completion percentage.
2. Having a Q&A section for every course to let students have more opportunity to engage with the teachers. Students can leave their questions in the Q&A section below and will be answered by teacher.
3. The courses on the platform will be chapter based and each chapter will be accessible after the student enrolls the course. Students can view their own progress and manage the time they study the courses. Besides that, student able to unenroll the courses as well if they have interest in another course.

4.4 Project Objectives

1. To let teachers, know the learning progress of their students at a glance.
2. To let students be more attentive in learning and have more opportunity to ask questions.
3. To let students be able to learn the courses at their own pace so that more flexible in arranging their time.

4.5 Project Scope

Components	Details
Project Objectives	Discussed in section 4.0 (Introduction), Subtopic 4.4 (Project Objectives)
Deliverables	<p>1. E-learning platform (Learneeasy) :</p> <p><u>Student</u></p> <ul style="list-style-type: none"> • Register Account • Login to Account • Able to edit their profile • Able to enroll and unenroll courses • Post Q&A • Able to access course materials • Access to quizzes • Give rating to teacher and the course • View own progress <p><u>Teacher</u></p> <ul style="list-style-type: none"> • Must be able to upload proof of education while register themselves as a teacher • Login into teacher account • Edit profile • Able to manage course • Able to manage course material • Access Q&A • Able to create, update, delete quizzes for the course. • Able to monitor students' progress • Able to view their course and personal rating • Report: Able to view statistics on enrolment of each course <p><u>Admin</u></p> <ul style="list-style-type: none"> • Login into admin account • Manage students, teachers (approve teacher's account) and add admin account • Able to monitor courses / Able to search and delete courses • Report: Able to view statistics on enrolment of each Teacher, view teacher's rating • Report: Able to view statistics on student's duration complete courses <p>2. User Manual</p> <p>3. Teacher Guide</p> <p>4. Installation Guide</p>

Milestones	Refer to section 3.2 (Project Gantt Chart)
Technical Requirements	Local Server (WAMP Server), Database(MySQL), Input device(Keyboard, Mouse), Sound Card(Included headphone as a minimum), Screen resolution(1024 x 768)
Limits / Constraints	Refer to (Conclusion) -Part 18.0

5.0 Project Plan

5.1 System Development Methodology

As we know there are a lot of System Development Methodology such as waterfall model, incremental development, reuse-oriented software engineering and so on. The system development model that our team decide to use is Waterfall Model. The reason why we select this model is because we have to completed in a limited time frame, there are separate identified phases in the waterfall model, hence waterfall model is the most suitable methodology.

The first phase for the waterfall model is requirements analysis and definition. In this phase involves understanding what needs to design and what is its function, purpose, etc. Here, the specifications of the input and output are studied. To know analysis and define our group topic which is e-learning, our group have done a lot of research about e-learning. Not only that, but we have also completed a proposal for a clearer understanding on what is the purpose and function on our topic.

The second phase is system and software design. In this phase system design is prepared with according to the requirement of phase 1. System design help defining overall system architecture and the software code to be written in the next phase will be created in this phase. To design our system architecture, we have done some research about e-learning platform. For example, we have referred to other e-learning system in order to have a structure and idea. After that, to improve our system we added more functions that needed by our system which other system don't have .

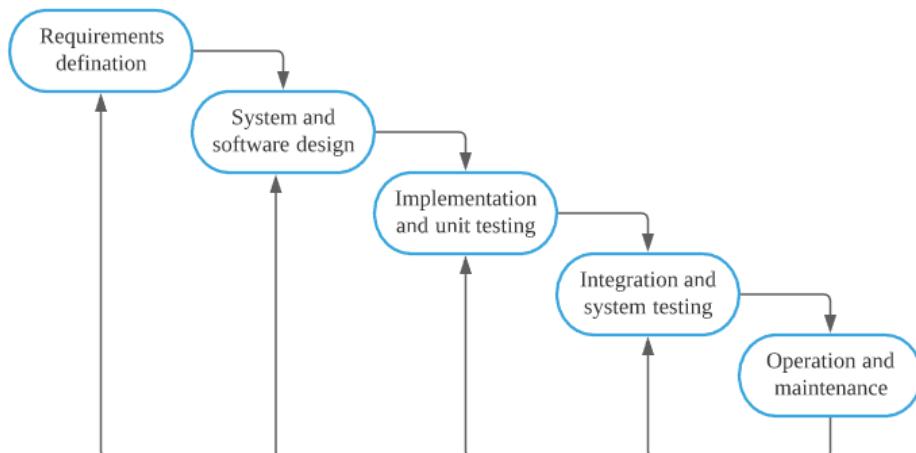
Next, the third phase is implementation and unit testing. With inputs from system design, the system is first developed in small programs called units and these units will be integrated into next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing. For example, once our system and software design are completed, each team member will be assigned the page they want to take and start coding. Each member will implement a unit testing when they have completed their coding to ensure that all of the unit can be implemented without error. If there have any error, we will continue to debug the error.

The fourth phase for waterfall model is integration and system testing. In this phase all of the software designed need to go through constant software testing to figure out the flaws or error that existing in the system. For example, each member will deliver the completed unit codes and the programmer of our group will integrate the unit codes as a system. After integrated, our programmer will do the system testing to find the error that existing in our system and figure out.

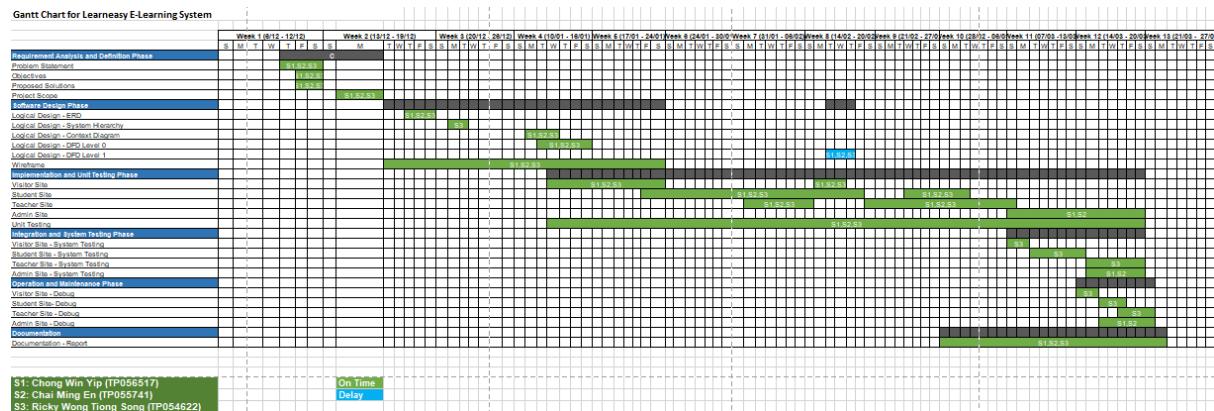
The last phase of the waterfall model is operation and maintenance. This phase occurs after installation and in this phase will making modifications to the system or improve performance for the system. These modifications arise is because the requirement initiated by customer are change or there are defect existing during live use of the system. For example, lecturer will suggest some practical features to add to our system after we have demonstrated. Our team will analyst and planning to add the features which we can achieve for our system.

Each phase of waterfall model needs to be complete before the next phase begin. At the end of each phase a review will take place. Every phase will need an approval from the reviewer. In this model, software testing will take place after the development of the software is complete.

Apart from that, there are few advantages of waterfall mode. One of the advantages is waterfall model is simple and easy to use and it is easy to manage due to its rigidity of the model. Each phase has a specific deliverable and review process. Certainly, there are also disadvantages of waterfall model. One of the disadvantages is once the testing stage is done, it is very difficult to go back and change something that was not thought in the early stage. Not only that, waterfall model also high amount of uncertainty and risk.



5.2 Project Gantt Chart

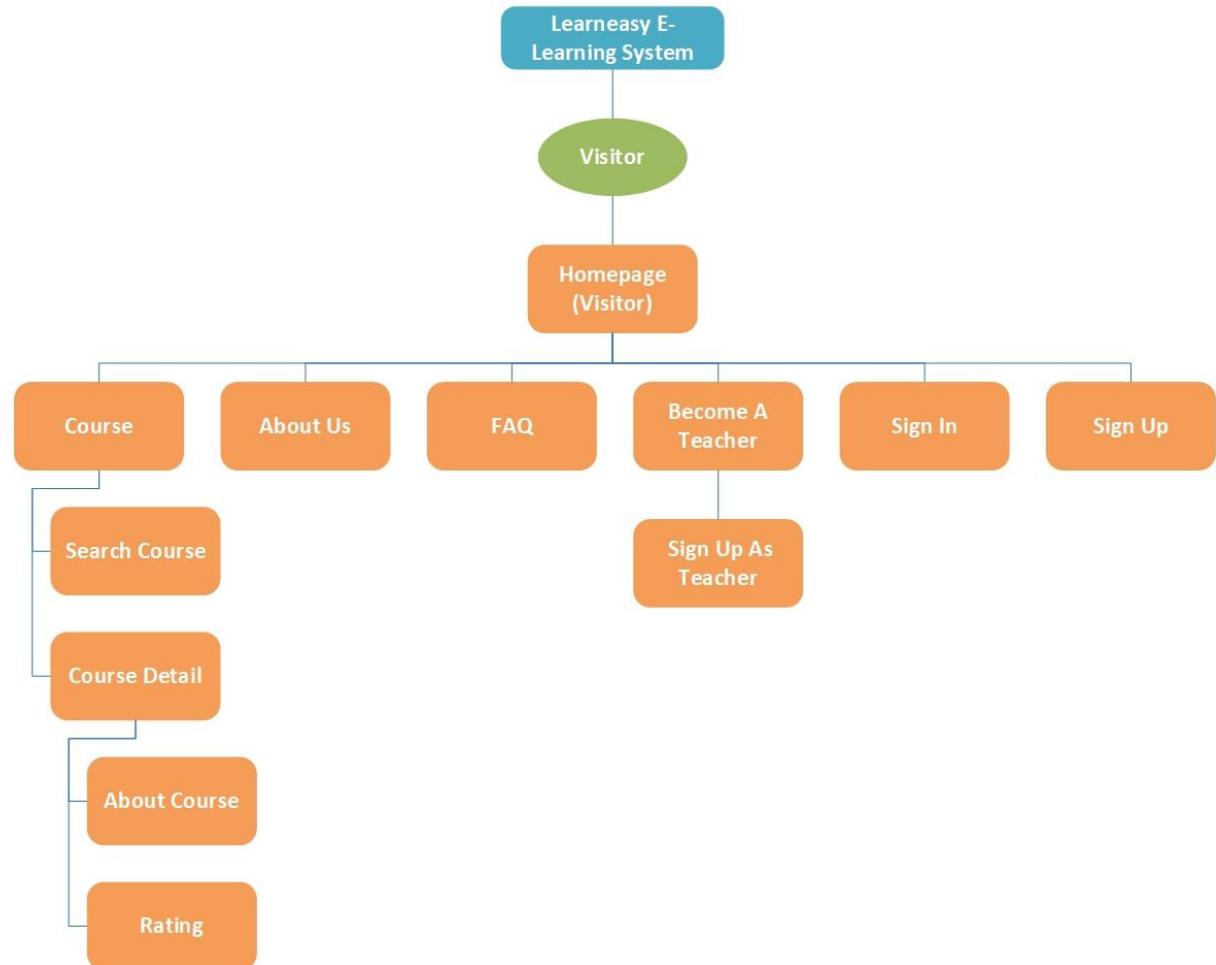


Click on the link below to access the file:

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6.0 System Hierarchy Chart

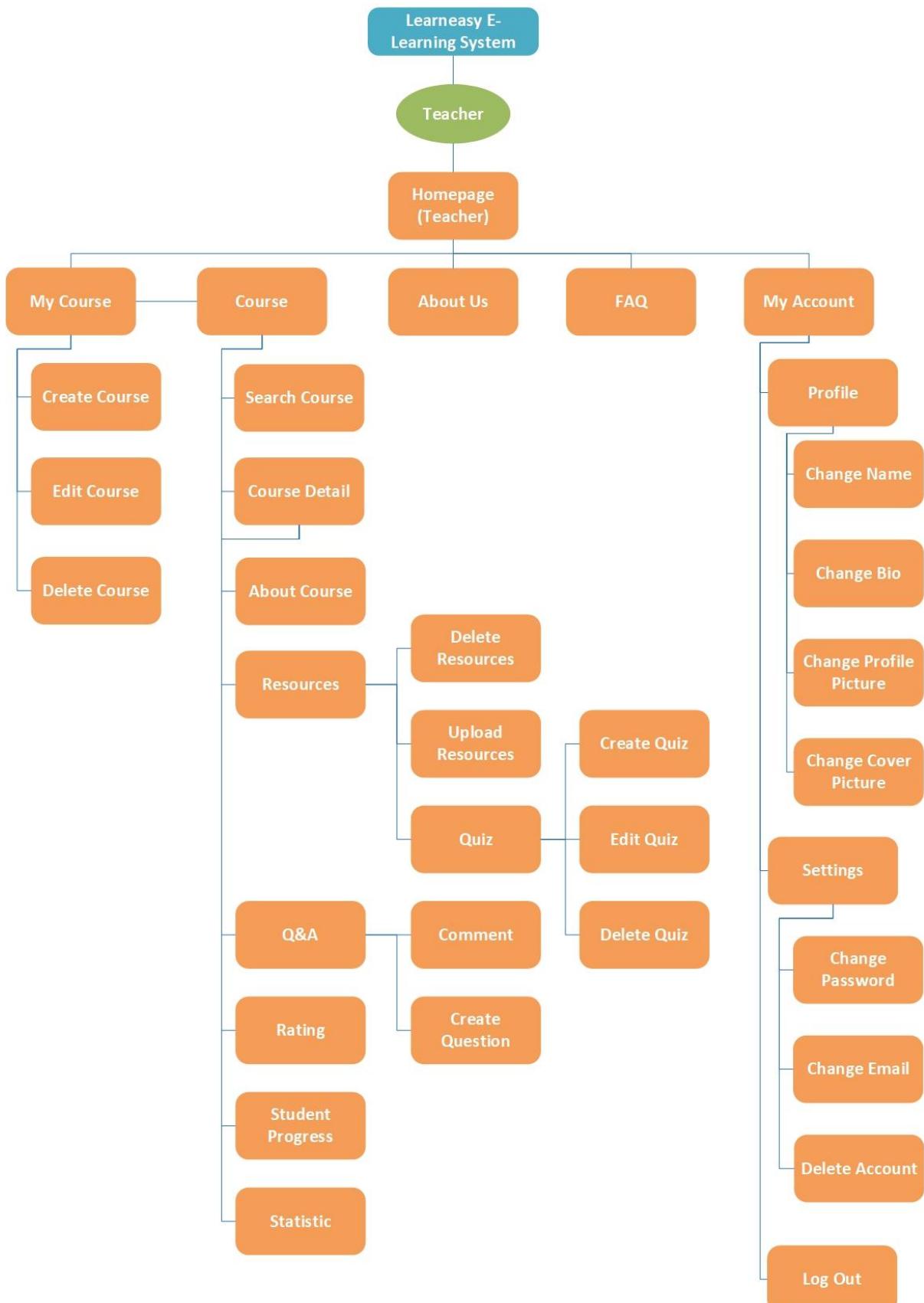
- *Visitor*



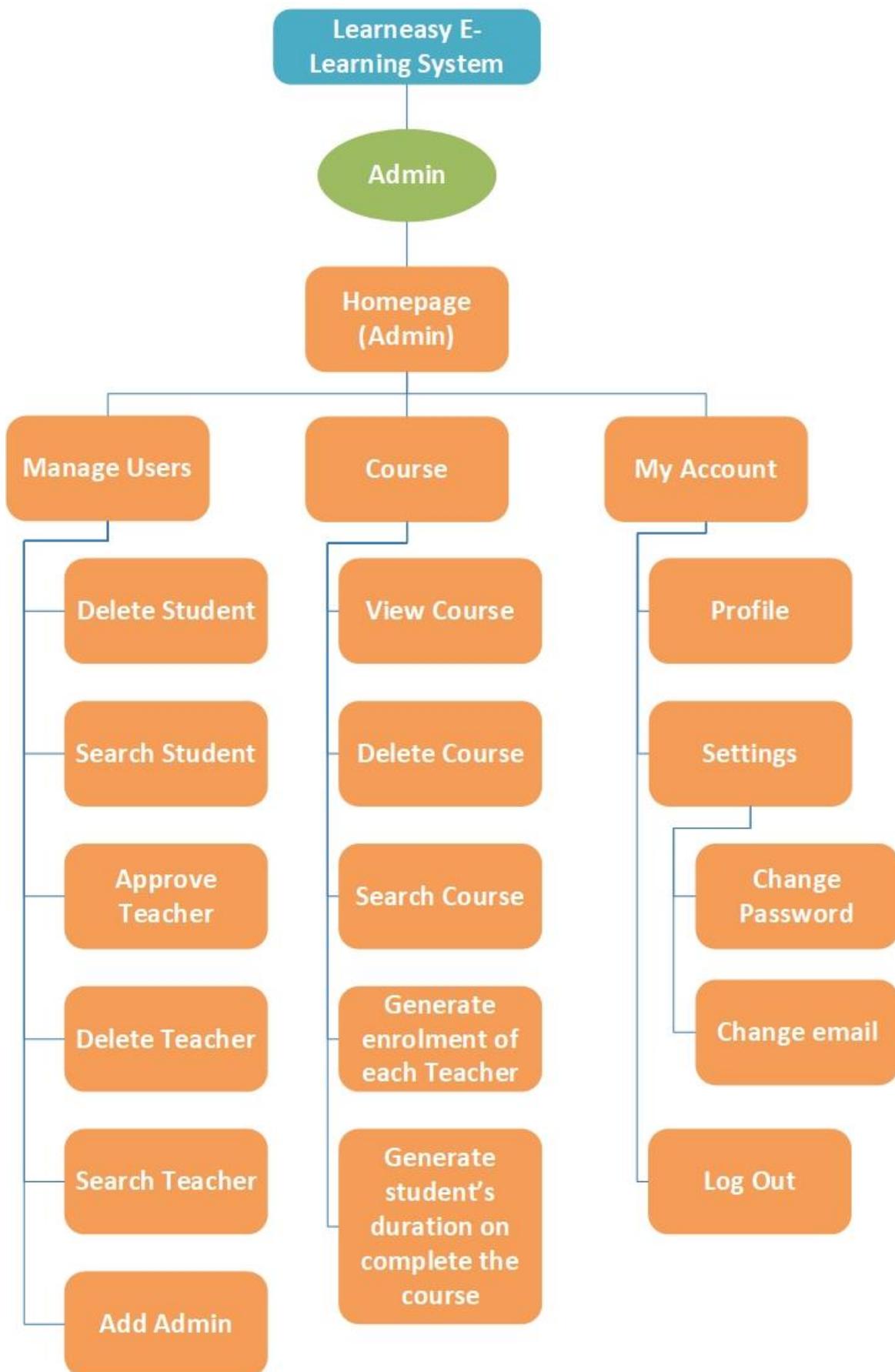
-Student



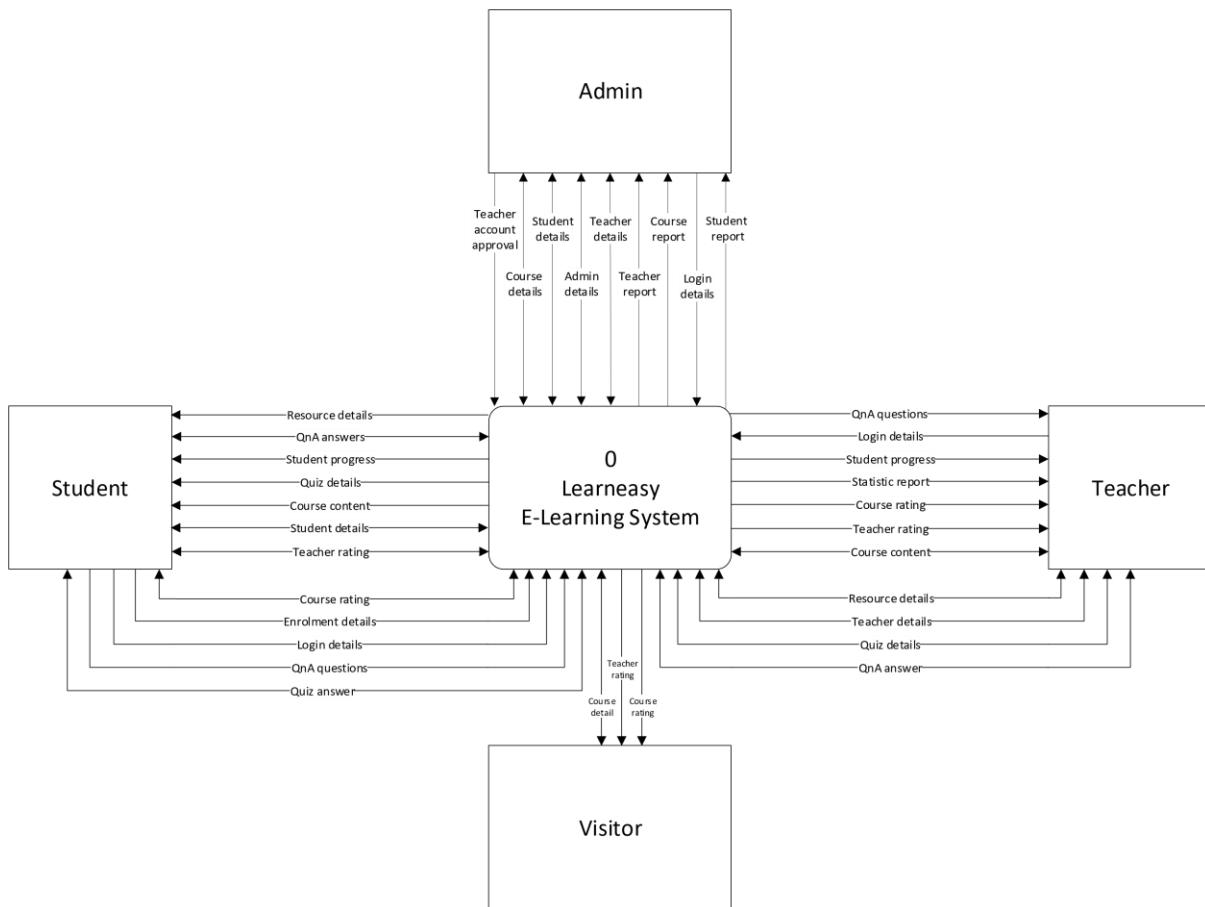
- Teacher



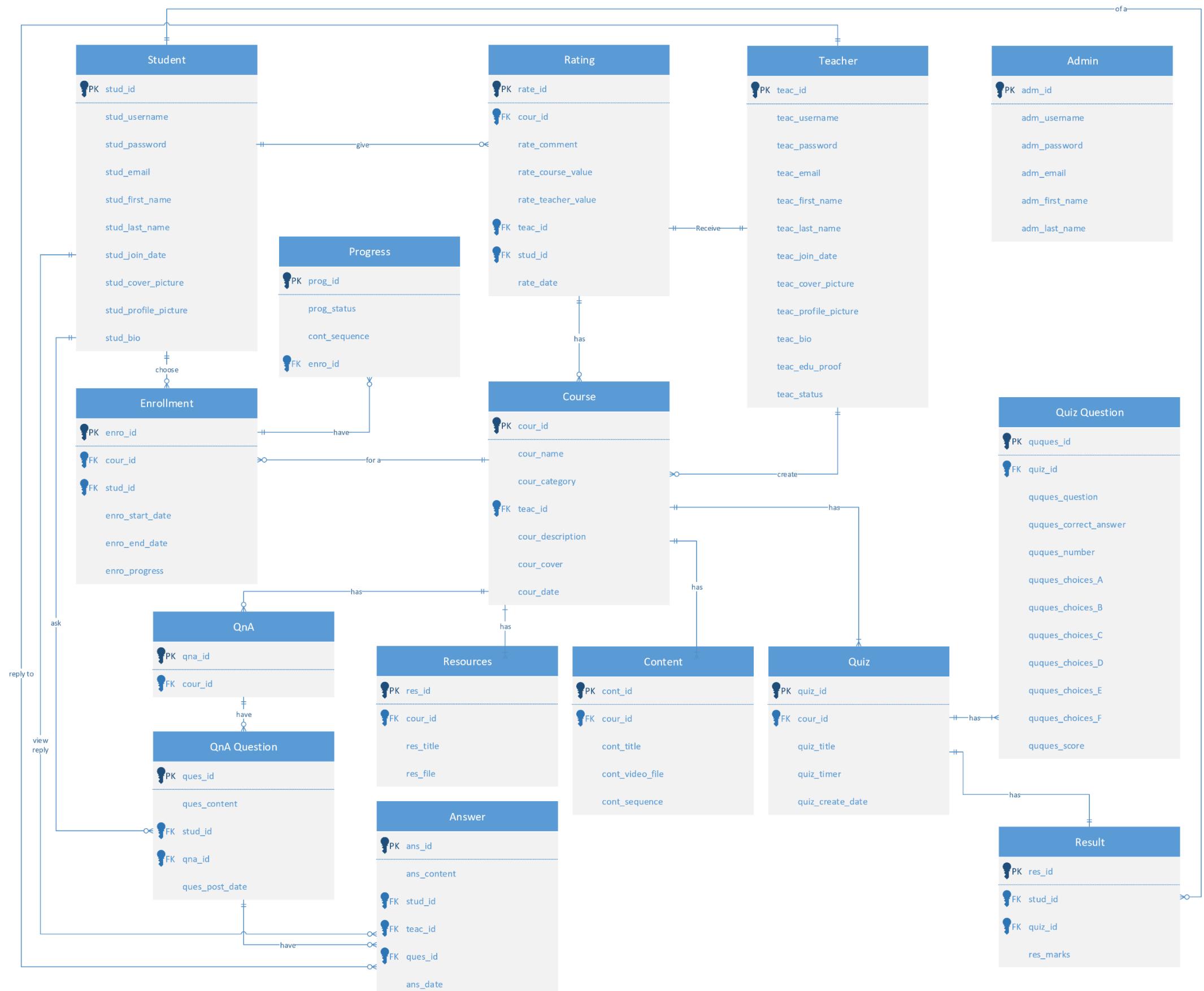
- Admin



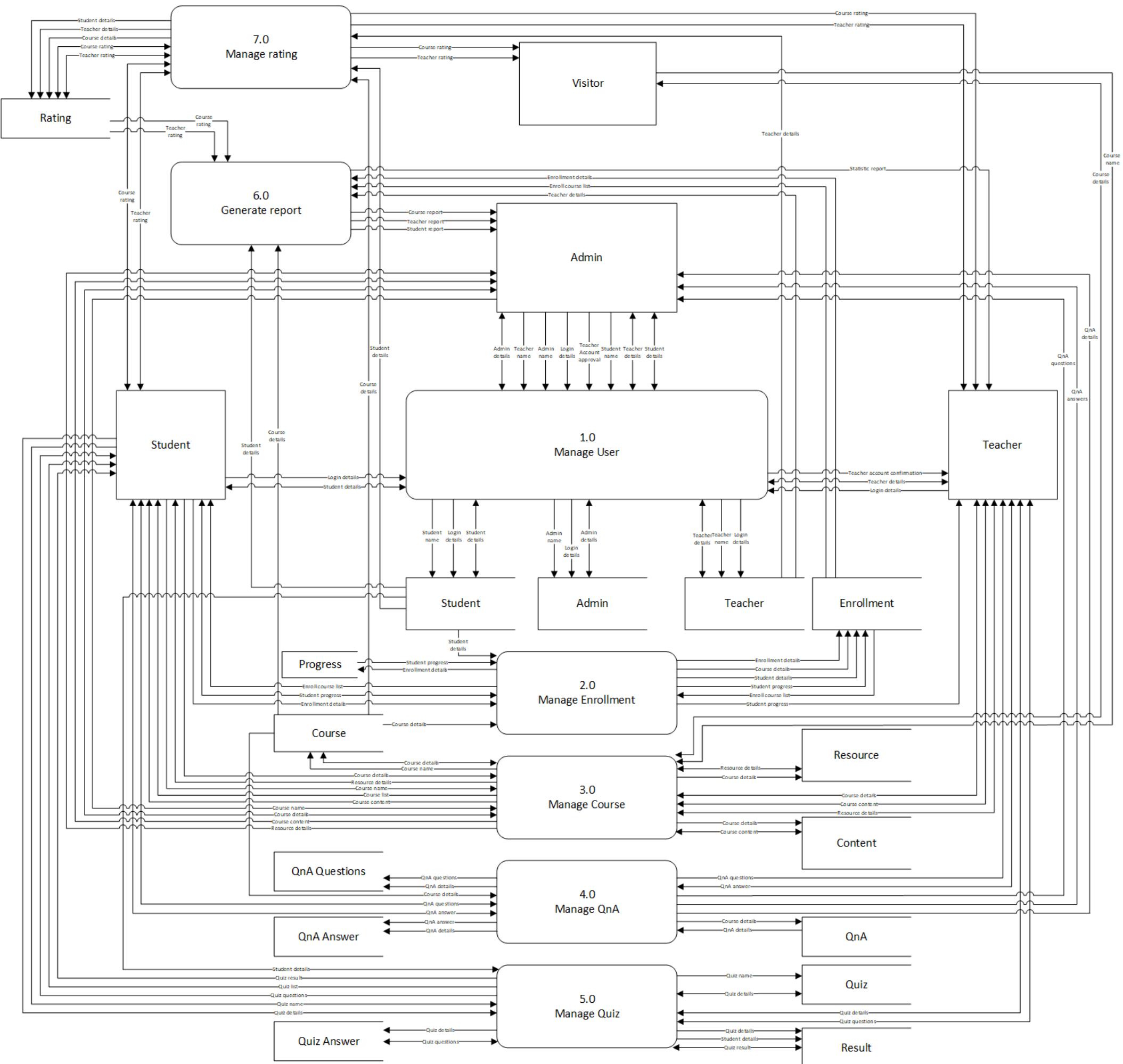
7.0 Context Diagram



8.0 Entity Relationship Diagram



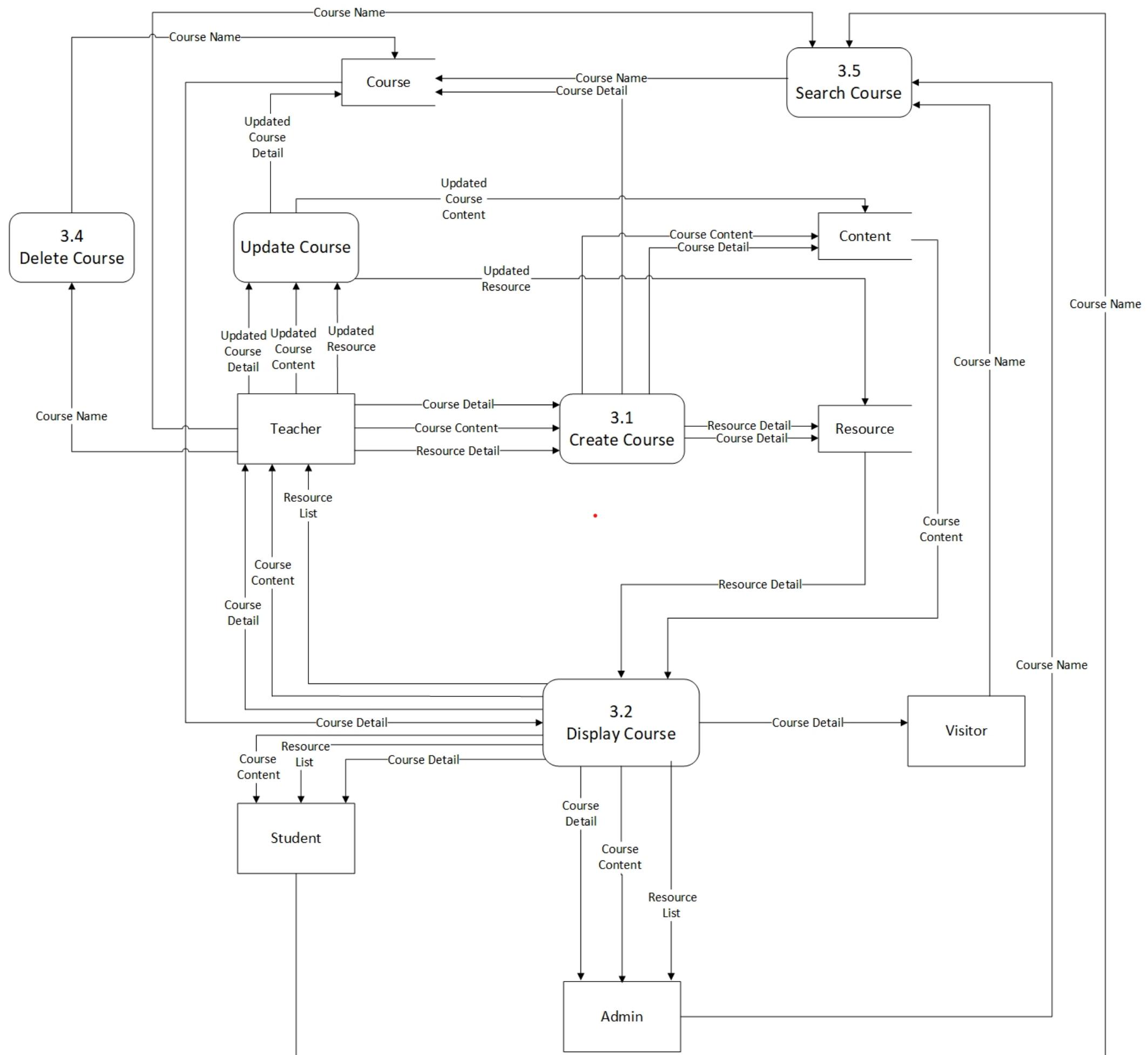
9.0 Data Flow Diagrams Level 0



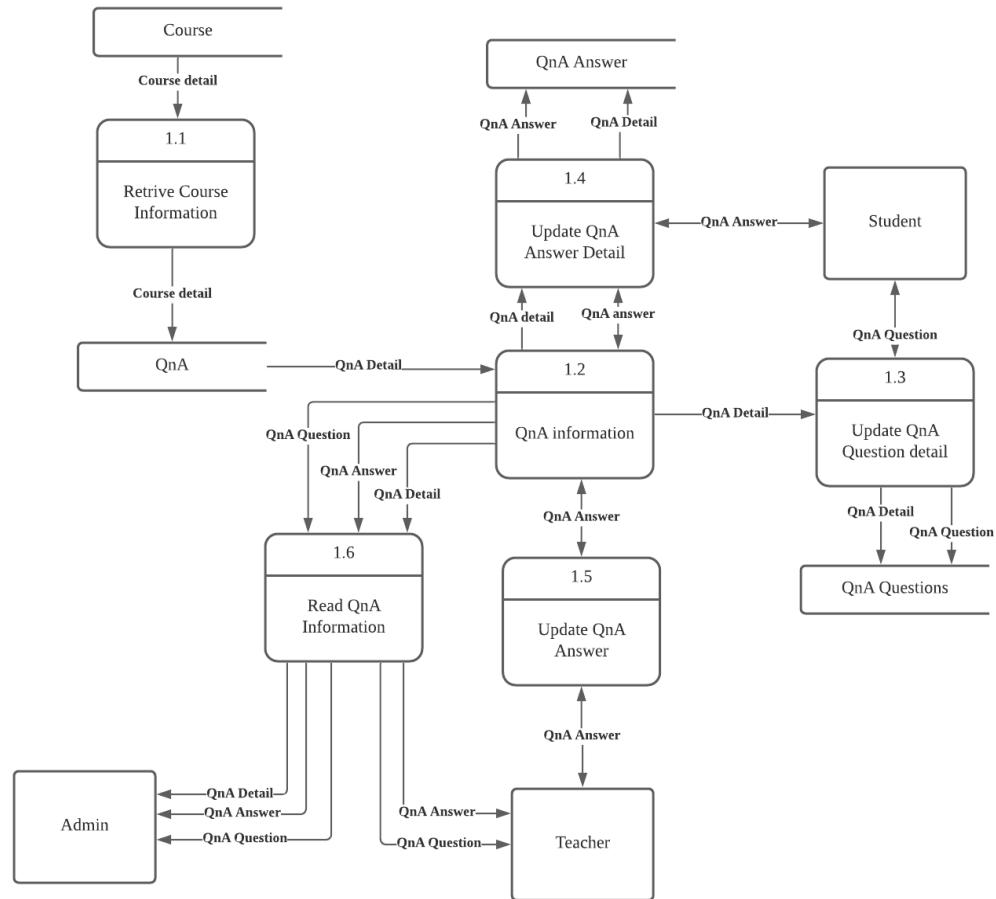
10.0 Data Flow Diagrams Level 1 (Individual)

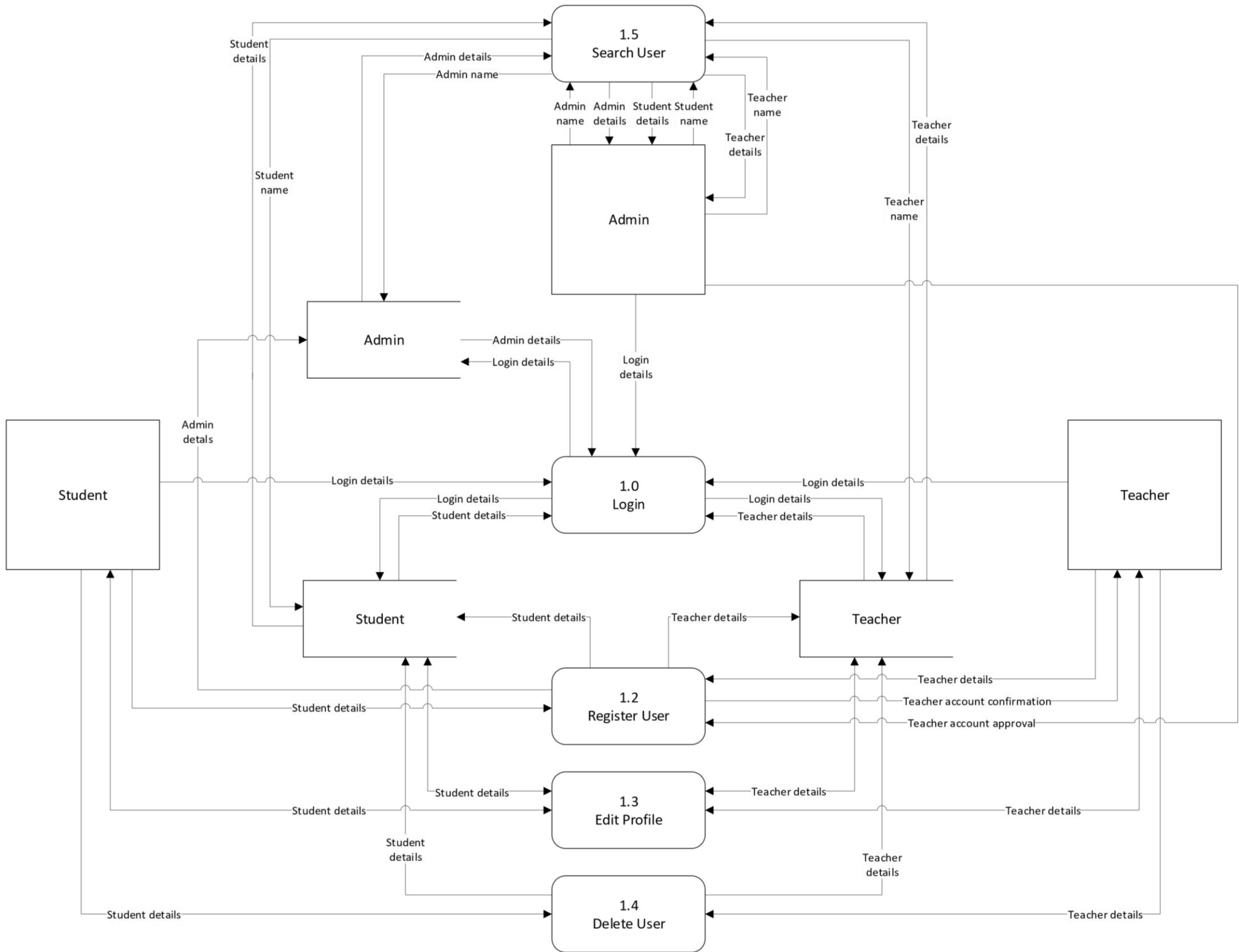
10.1 Ricky Wong Tiong Song (TP054622)

- Manage Course



-Manage QnA





11.0 Data Dictionary (Individual)

11.1 Ricky Wong Tiong Song (TP054622) -Manage Course

External Entity

Name	Student
Description	A user who can view and search course
Input Data Flows	Course Detail, Course Content, Resource Detail
Output Data Flows	Course Name, Course Detail

Name	Admin
Description	A user who can view, search course
Input Data Flows	Course Detail, Course Content, Resource Detail
Output Data Flows	Course Name, Course Detail

Name	Teacher
Description	A user who can create, view, update, delete, search course
Input Data Flows	Course Detail, Course Content, Resource Detail
Output Data Flows	Course Name, Course Detail, Course Content, Resource Detail, Updated Course Detail, Updated Course Content, Updated Resource

Name	Visitor
Description	A user who can view and search course
Input Data Flows	Course Detail
Output Data Flows	Course Name, Course Detail

Process

Name	Manage Course
Description	<p>This process will help teacher to create a new course, view course, update course, delete course, search course, upload content, view content, delete content, update content, view resource, upload resource and delete resource.</p> <p>Through this process, admin and student can view course, content, resource, and search course.</p> <p>For visitor, they only can view basic information of the course and search course.</p>
Input Data Flows	Course name, course details, resource detail, course content,
Output Data Flows	Course name, course details, course list, resource detail, course content
Process	<i>Refer to 12.1 Ricky Wong Tiong Song (TP054622) -Manage Course (Flowchart)</i>

Data Flow

Name	Course Details
Description	Basic information of a course
Origin/Source	Teacher
Destination/Sink	3.0 Manage Course
Data Element	Including course id, name, description, category, teacher id, teacher name

Name	Resource Details
Description	Information of the course resources

Origin/Source	Teacher
Destination/Sink	3.0 Manage Course
Data Element	Including resource id, resource name and the file

Name	Course Content
Description	The content of the course(video).
Origin/Source	Teacher
Destination/Sink	3.0 Manage Course
Data Element	Including content id, name, sequence, and content video

Name	Course Name
Description	The name of the course, use to perform the search function
Origin/Source	Student, Teacher, Admin, Visitor
Destination/Sink	3.0 Manage Course
Data Element	Couse Name

Name	Course List
Description	List of course, each course will be displayed in a card form
Origin/Source	3.0 Manage Course
Destination/Sink	Student, Teacher, Admin, Visitor
Data Element	Course detail

Data Store

Name	Course
Description	To store the basic information of the course
Origin/Source	Data Flow: Course Detail
Destination/Sink	
Data Structure	Course id, course name, course category, course description, course cover picture, teacher id

Name	Content
Description	To store the content of the course
Origin/Source	Data Flow: Content Detail
Destination/Sink	
Data Structure	Content id, content title, content video file, content sequence, course id

Name	Resource
Description	To store the resources of the course
Origin/Source	Data Flow: Resource Detail
Destination/Sink	Resource Detail
Data Structure	Resource id, resource title, resource file, course id

11.2 Chai Ming En (TP055741) -Manage QnA

External entity

Name	Student
Description	A person who can post QnA question and receive or post the QnA answer.
Input data flows	QnA question, QnA answer
Output data flows	QnA question and QnA answer

Name	Teacher
Description	A person who can view QnA question and reply the question
Input data flows	QnA detail, QnA question
Output data flows	QnA answer.

Name	Admin
Description	A person who only can view QnA question and question.
Input data flows	QnA detail, QnA question, QnA answer
Output data flows	

Process

Name	Managed QnA
Description	This process help student to display the question they ask in QnA section. Also allow teacher to reply the question that ask by student in QnA section.
Input data flows	Course Detail, QnA question, QnA Answer, QnA detail
Output data flows	Course Detail, QnA question, QnA Answer, QnA detail
Process	<i>Refer to 12.2 Chai Ming En (TP055741) -Manage QnA (Flowchart)</i>

Data Flow

Name	Course detail
Description	The course details consist by course name, course resources and so on.
Origin/ Source	Course
Destination / Sink	Retrieve Course Information
Data structure	Detail description for course.

Name	QnA detail
Description	Combine course detail and the information of people who ask and answer the question
Origin/ Source	QnA
Destination / Sink	Managed QnA
Data structure	Course detail, information of who post the question and the people who answer the question

Name	QnA question
Description	The question asks by student in QnA section
Origin/ Source	Student
Destination / Sink	4.0 Managed QnA
Data structure	Course detail, the question of the student

Name	QnA answer
Description	The answer replies by teacher or student in QnA section
Origin/ Source	4.0 Managed QnA
Destination / Sink	QnA answer, QnA Details
Data structure	Answer of teacher, answer of student, question ask by student

Data Store

Name	Course
Description	To store all courses detail.
Origin/Source	Course Detail, Course Name
Destination/Sink	4.0 Manage QnA
Data structure	Course Detail, Course Name

Name	QnA Answer
Description	To store all QnA answer detail.
Origin/Source	QnA answer, QnA details.
Destination/Sink	
Data structure	QnA answer, QnA details.

Name	QnA Question
Description	To store all QnA question detail.
Origin/Source	QnA question, QnA details.
Destination/Sink	
Data structure	QnA question, QnA details.

Name	QnA
Description	To store all QnA detail.
Origin/Source	Course Details.
Destination/Sink	4.0 Manage QnA
Data structure	Course Details, QnA Details.

11.3 Chong Win Yip (TP056517) -Manage User

External Entity

Name	Student
Description	A person who able to login, register, edit and delete their account.
Input data flows	Student details
Output data flows	Login details, Student details

Name	Teacher
Description	A person who able to login, register, edit and delete their account.
Input data flows	Teacher details, Teacher account confirmation
Output data flows	Login details, Teacher details

Name	Admin
Description	A person who able to login, register and search user's account.
Input data flows	Admin details, Student details, Teacher details
Output data flows	Login details, Admin details, Teacher name, Admin name, Teacher account approval, Student name, Teacher details, Student details

Process

Name	Manage User
Description	This process help user to manage their account, student and teacher able to login, register, edit and delete their account, while admin able to login, register and search user's account.
Input data flows	Login details, Student details, Admin details, Teacher details, Teacher name, Admin name, Student name, Teacher account aproval
Output data flows	Student details, Student name, Login details, Admin name, Admin details, Teacher name, Teacher details, Teacher account confirmation
Process	<i>Refer to 12.3 Chong Win Yip (TP056517) -Manage User (Flowchart)</i>

Date Flow

Name	Login details
Description	Information of users
Origin/Source	Student, Teacher, Admin
Destination/Sink	1.0 Manage User
Data Element	Username and Password

Name	Student details
Description	Information of students
Origin/Source	Student
Destination/Sink	1.0 Manage User

Data Element	Including Student ID, username, password, email, first name, last name, join date, cover picture, profile picture and student bio
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Name	Admin details
Description	Information of admin
Origin/Source	Admin
Destination/Sink	1.0 Manage User
Data Element	Including Admin ID, username, password, email, first name, last name

Name	Teacher name
Description	Information of teachers
Origin/Source	Teacher
Destination/Sink	1.0 Manage User
Data Element	Including Teacher ID, username, password, email, first name, last name, join date, cover picture, profile picture, bio, education proof and status of approval

Name	Student name
Description	Name of student
Origin/Source	Admin
Destination/Sink	1.0 Manage User
Data Element	Student name

Name	Teacher name
-------------	--------------

Description	Name of teacher
Origin/Source	Admin
Destination/Sink	1.0 Manage User
Data Element	Teacher name

Name	Admin name
Description	Name of admin
Origin/Source	Admin
Destination/Sink	1.0 Manage User
Data Element	Admin name

Name	Teacher account approval
Description	Teachers require to register with their education proof and will view by Admin. Teacher account will be approve after Admin check the document
Origin/Source	Admin
Destination/Sink	1.0 Manage User
Data Element	Teacher education proof (file/document)

Name	Teacher account confirmation
Description	Admin approved teacher account and will notify teacher
Origin/Source	1.0 Manage User
Destination/Sink	Teacher
Data Element	Confirmation status

Date Store

Name	Student
Description	To store the information of students
Origin/ Source	Data Flow: Student Detail
Destination / Sink	
Data structure	Including Student ID, username, password, email, first name, last name, join date, cover picture, profile picture and student bio

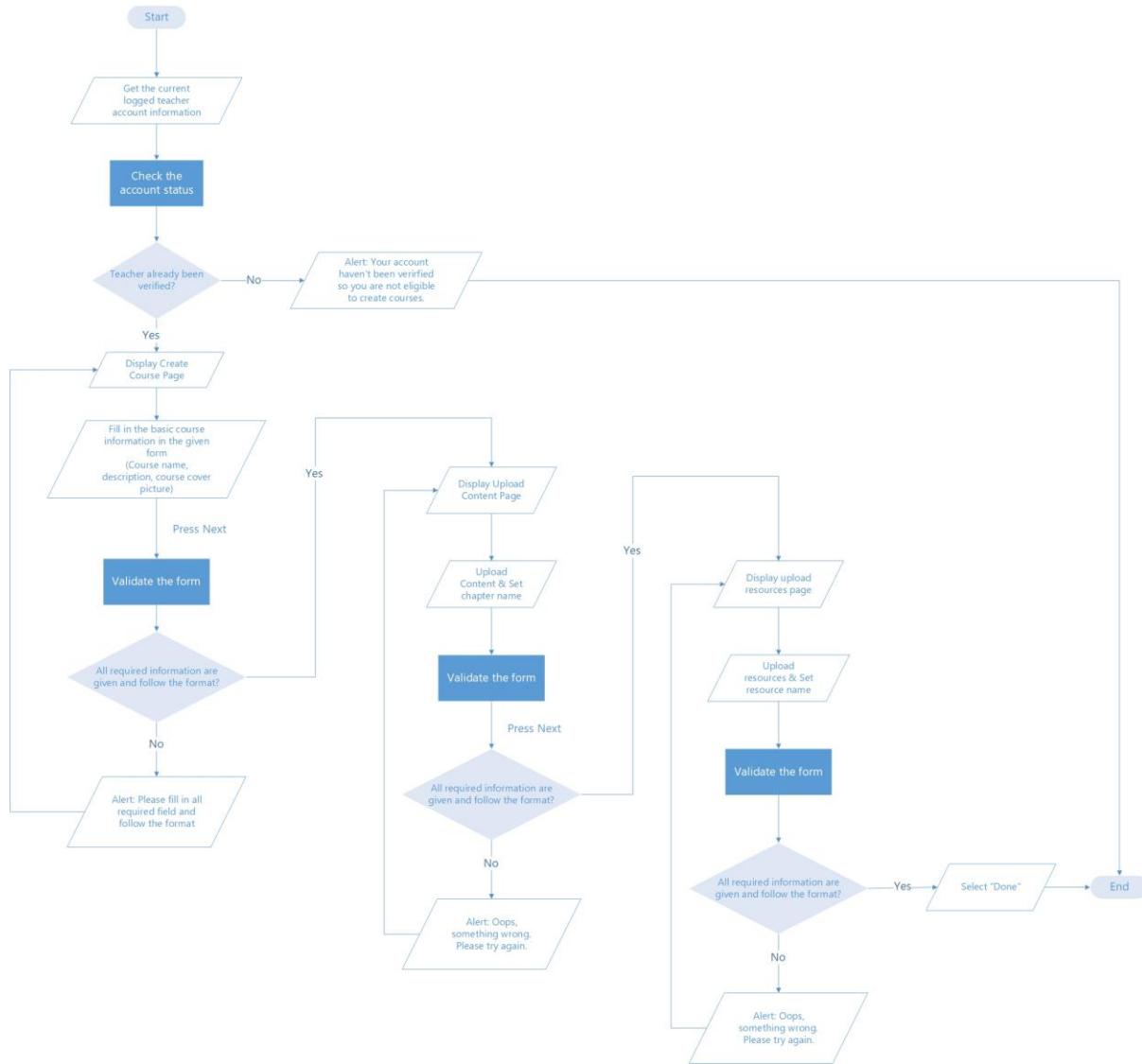
Name	Admin
Description	To store the information of admin
Origin/Source	Data Flow: Admin Detail
Destination/Sink	
Data Structure	Admin ID, username, password, email, first name, last name

Name	Teacher
Description	To store the information of admin
Origin/Source	Data Flow: Teacher Detail
Destination/Sink	
Data Structure	Teacher ID, username, password, email, first name, last name, join date, cover picture, profile picture, bio, education proof and status of approval

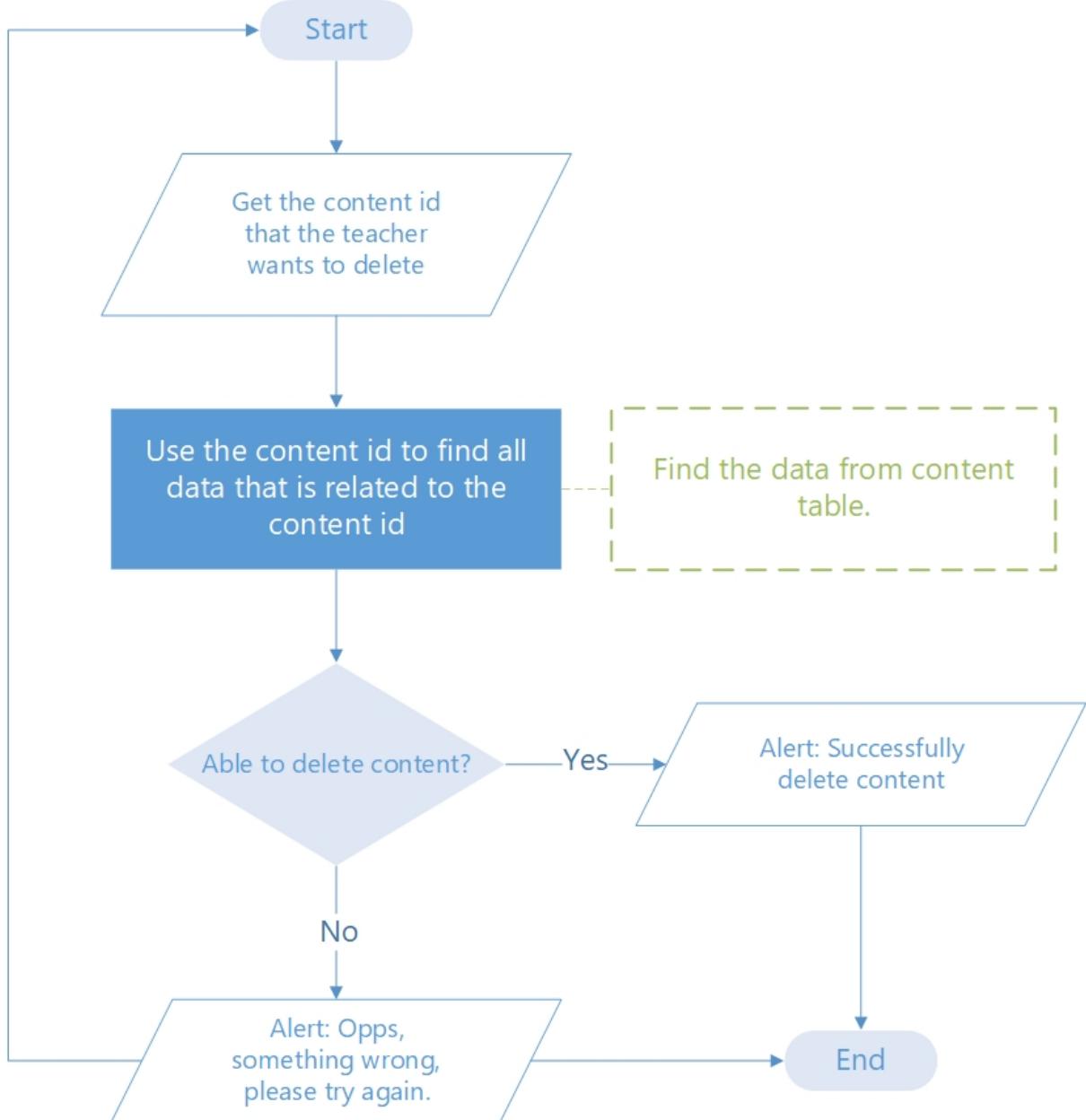
12.0 Pseudocode or Flowcharts (Individual)

12.1 Ricky Wong Tiong Song (TP054622) -Manage Course

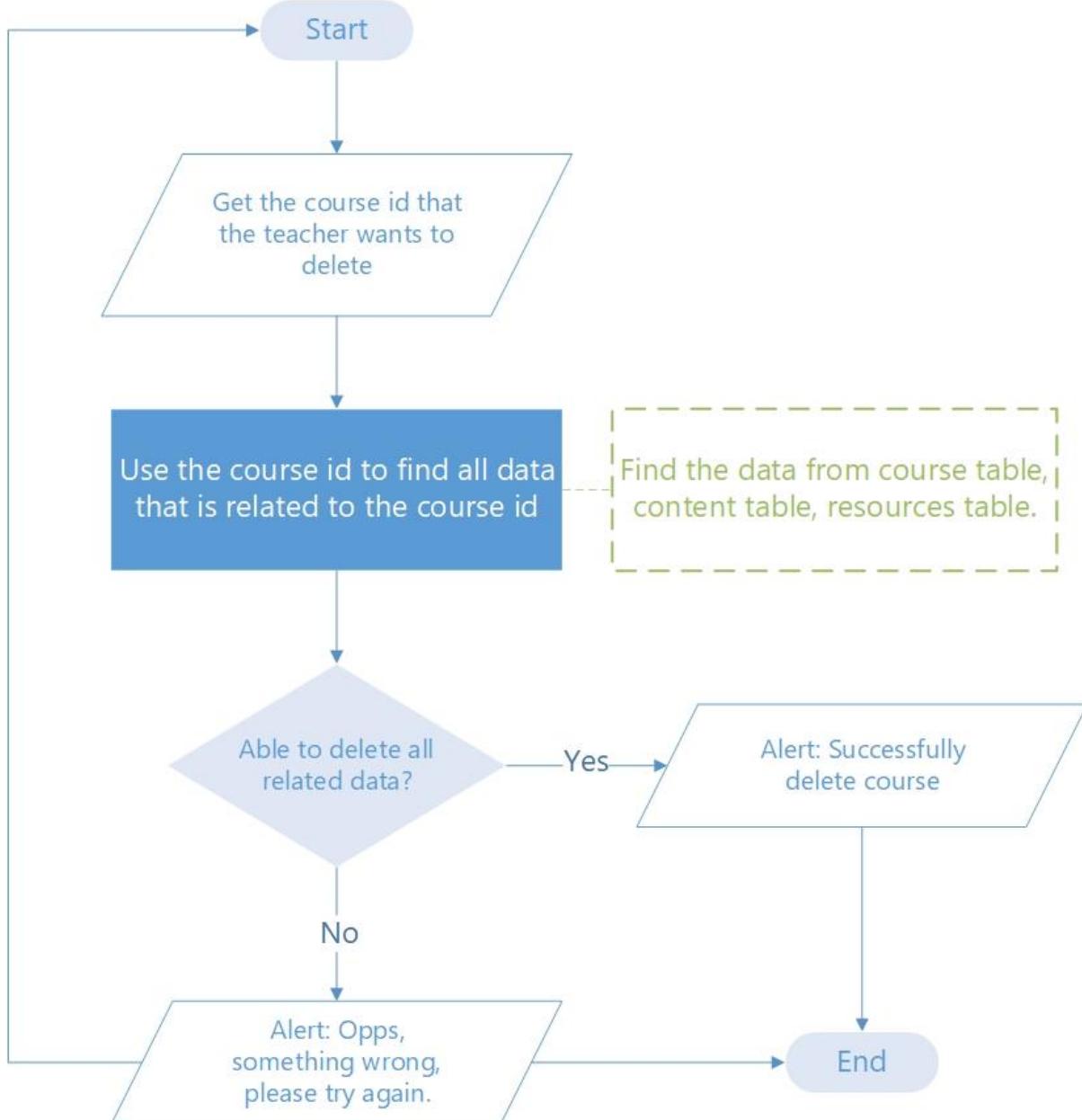
- *Create Course*



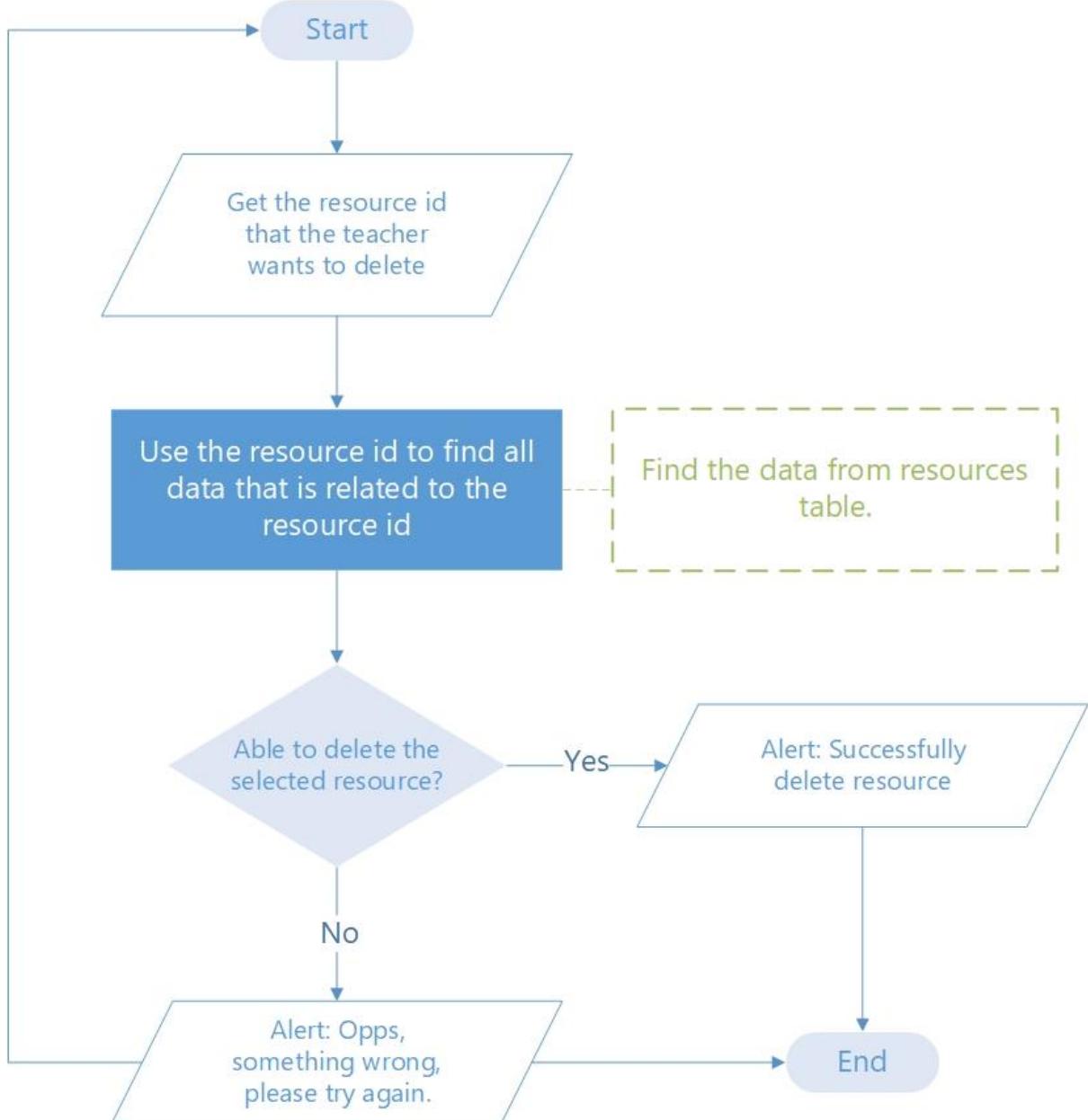
- *Delete Content*



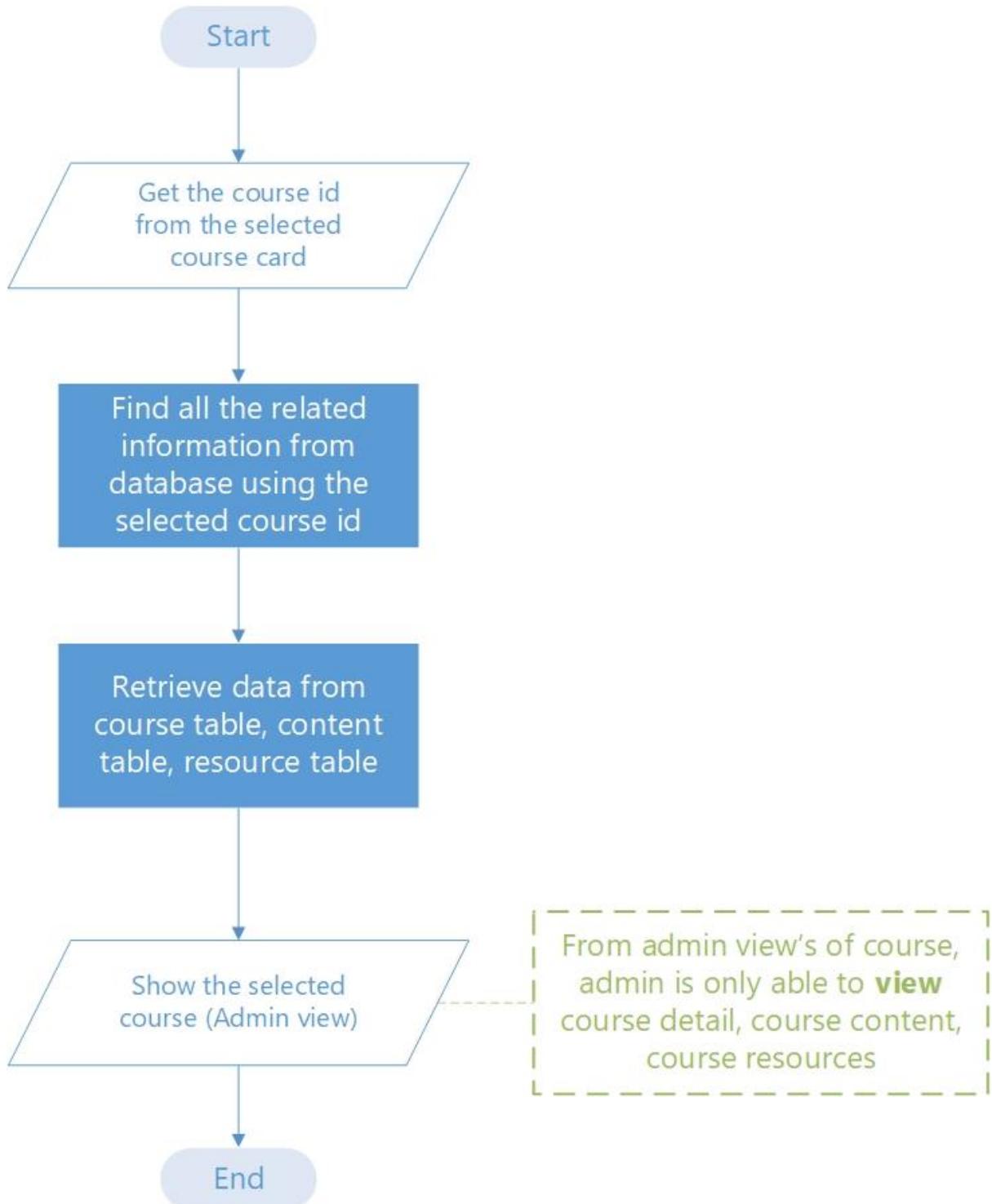
- *Delete Course*



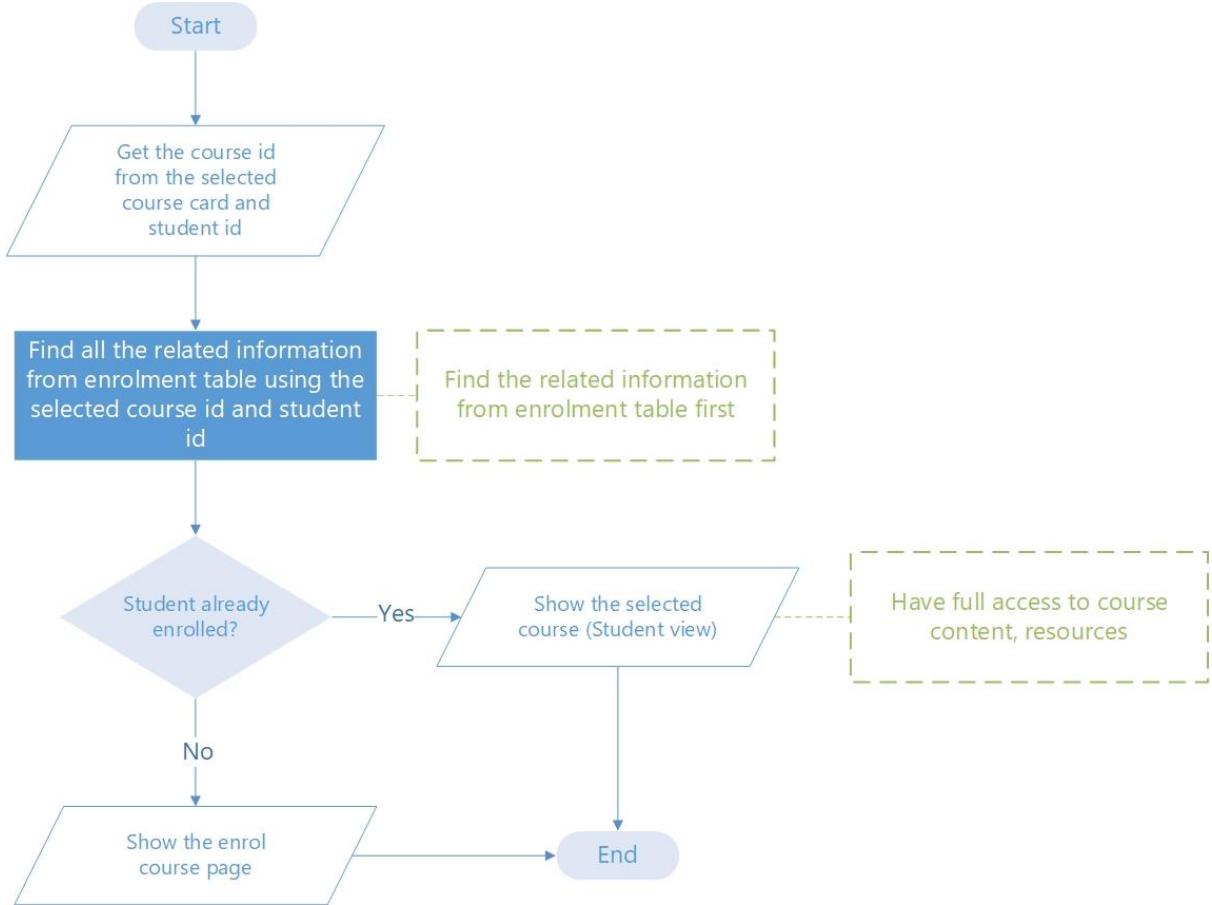
- *Delete Resource*



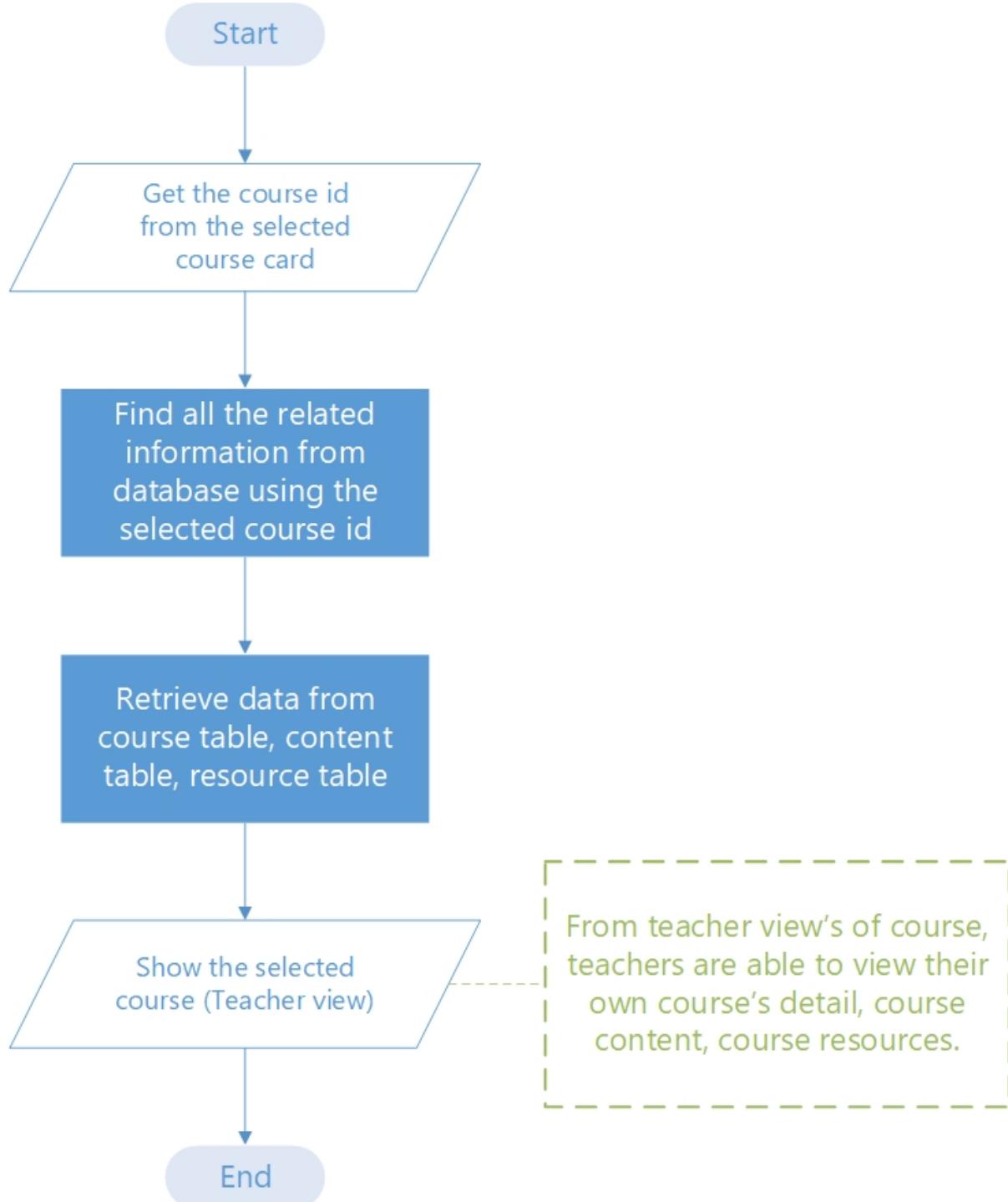
- *Display Course (Admin)*



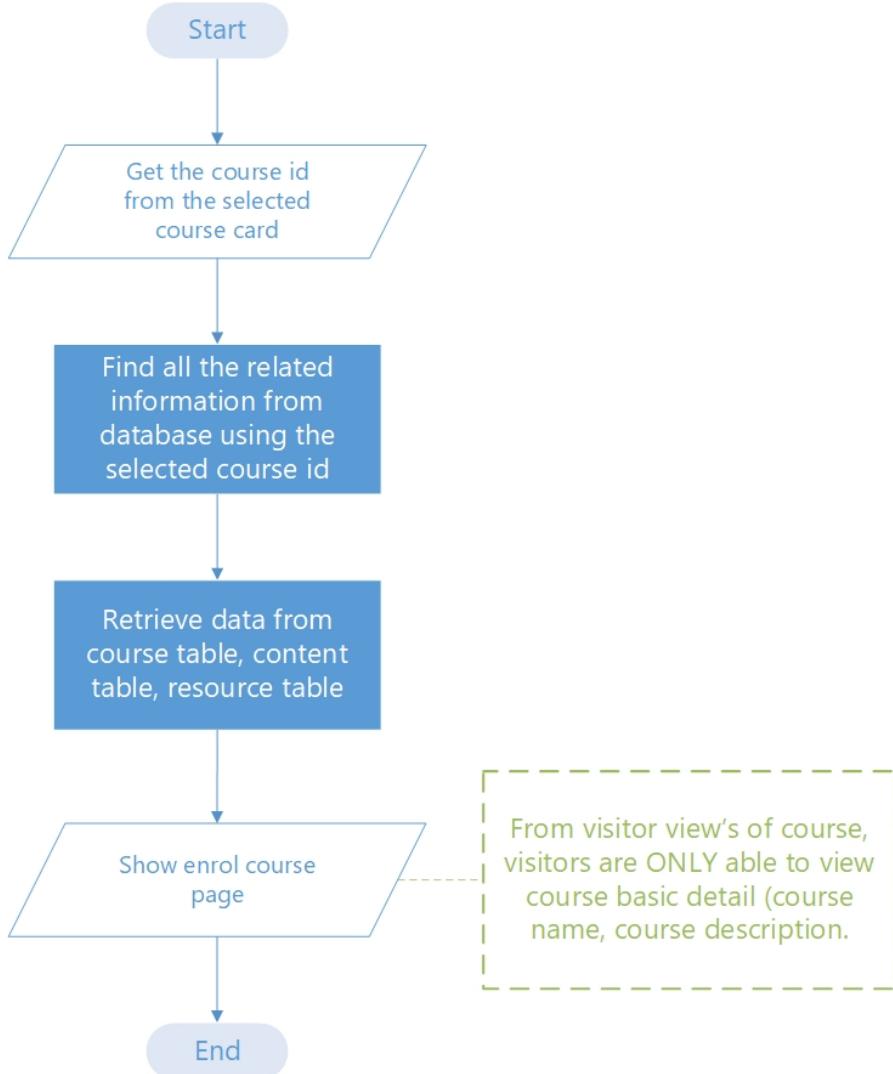
- *Display Course (Student)*



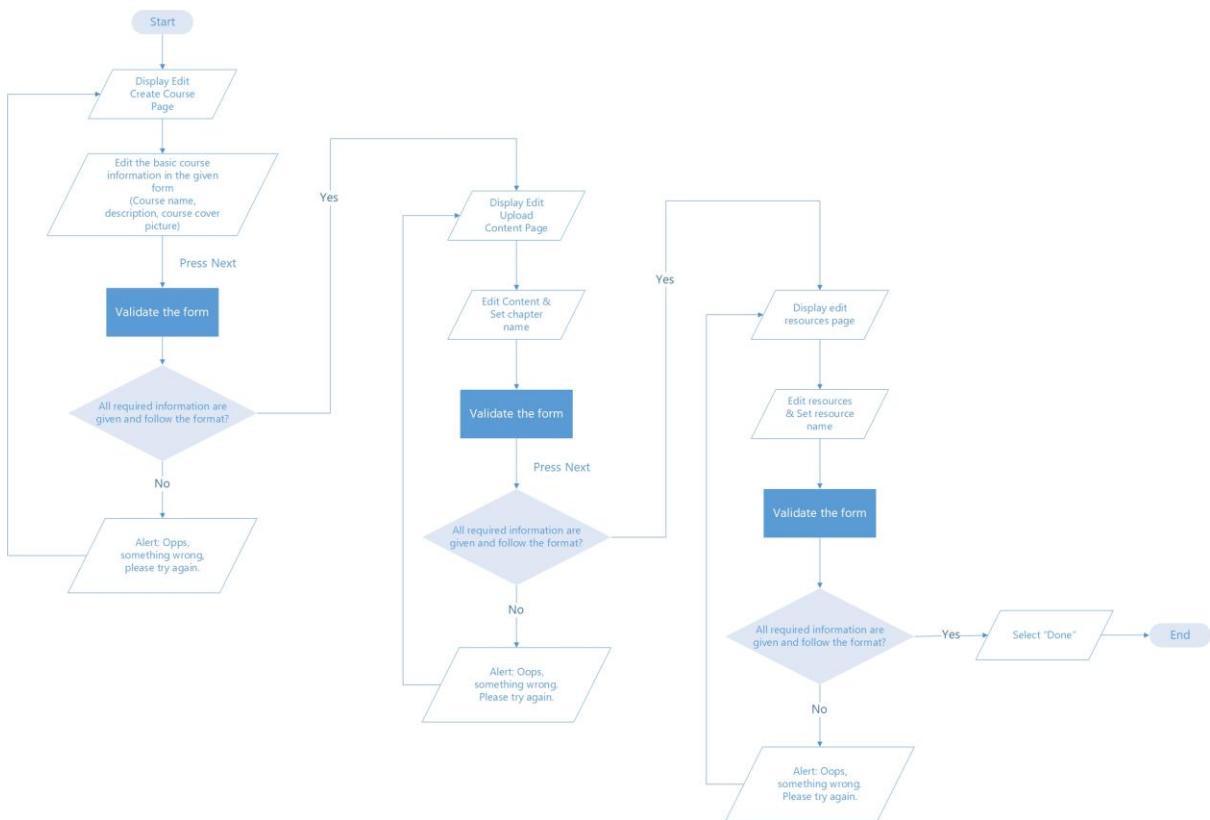
- *Display Course (Teacher)*



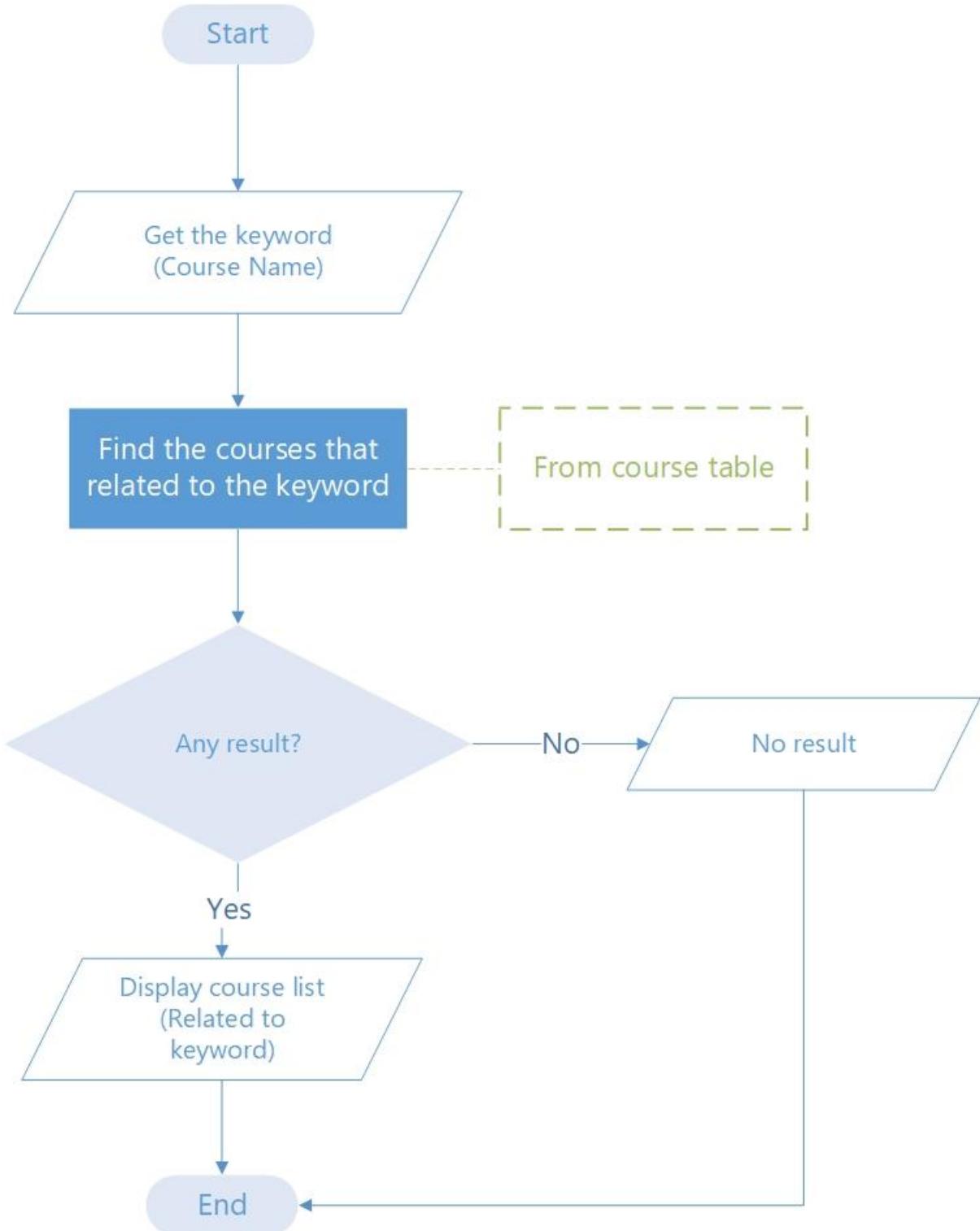
- *Display Course (Visitor)*



- *Edit Course*

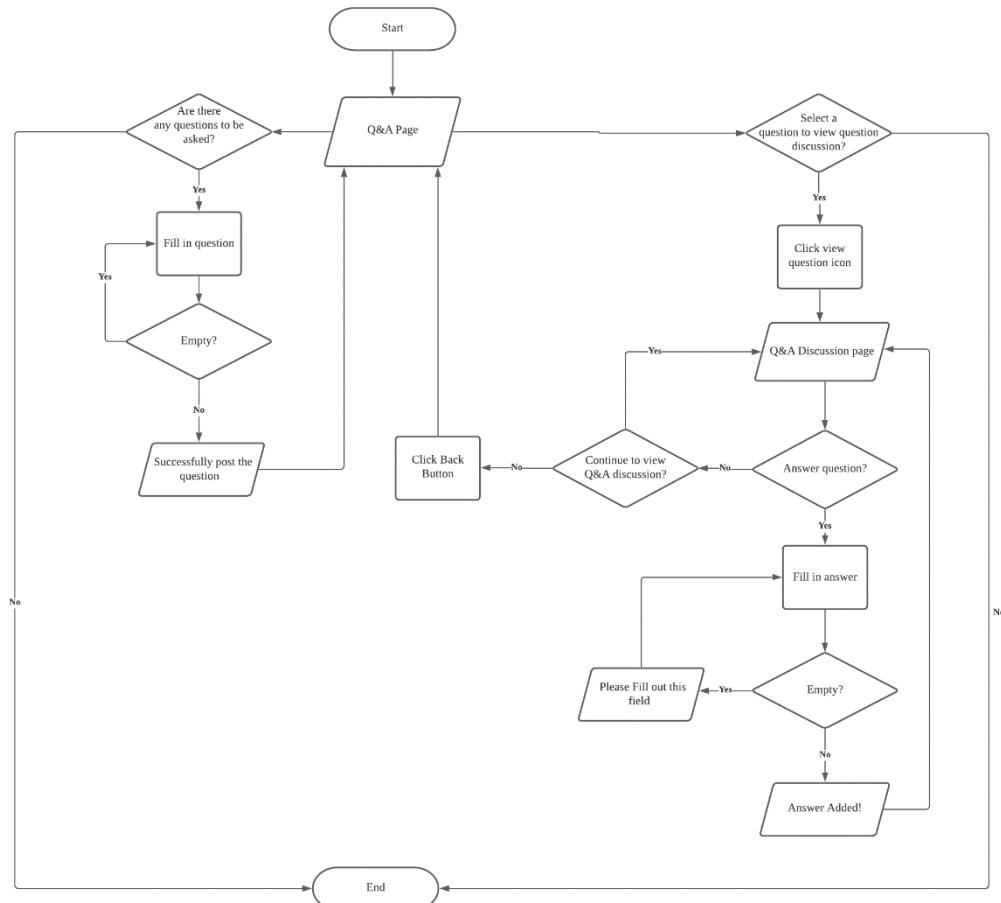


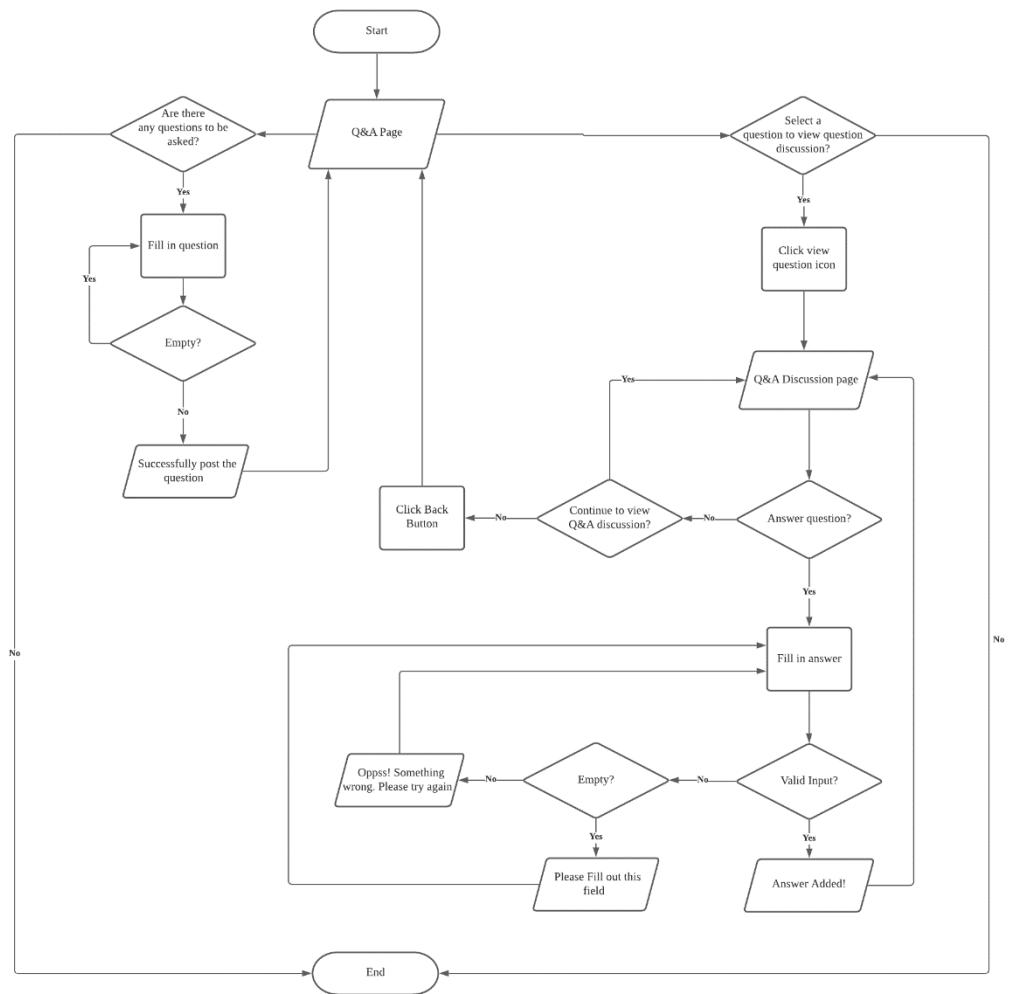
- *Search Course*



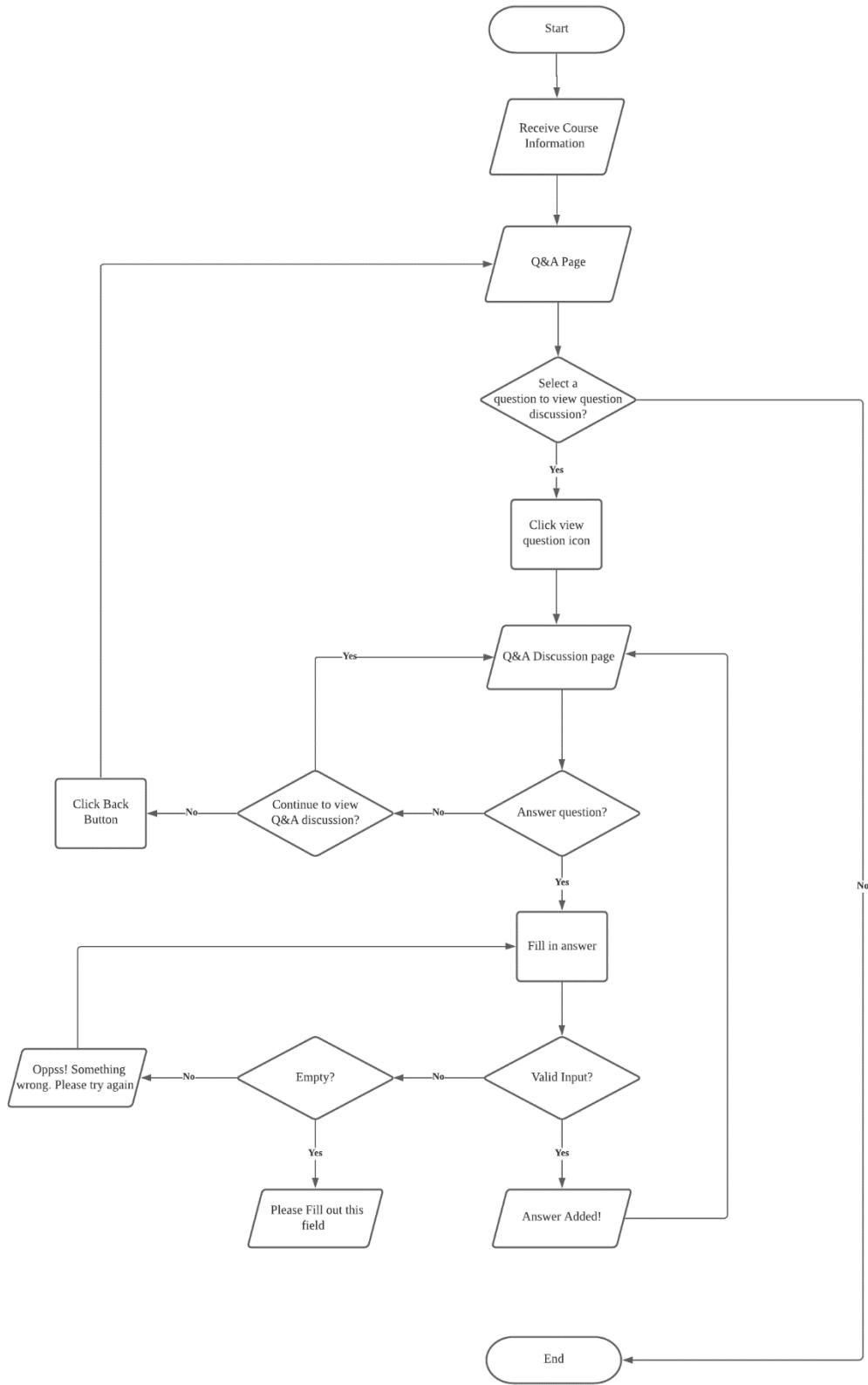
12.2 Chai Ming En (TP055741) -Manage QnA

- Student mange QnA

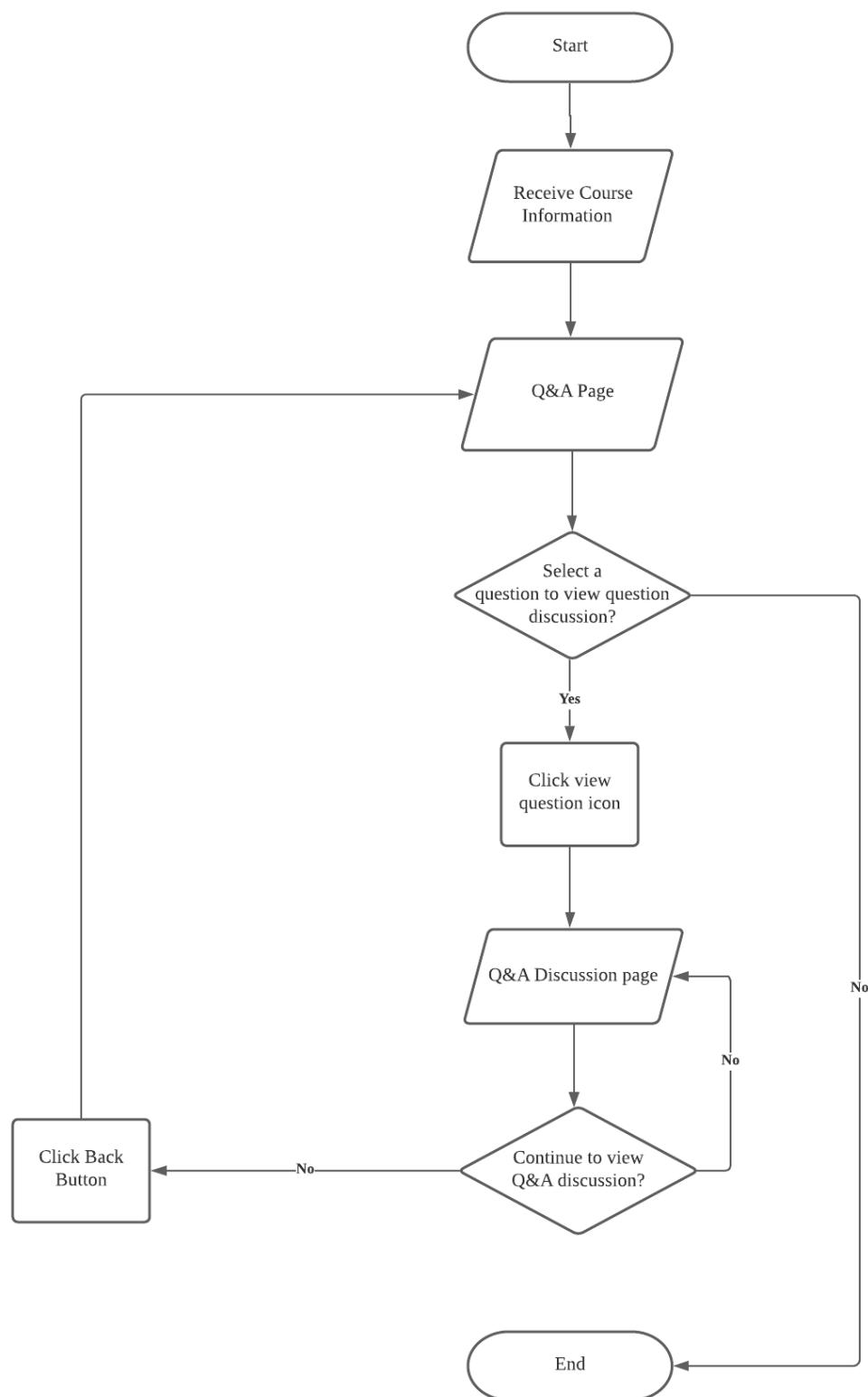




- Teacher manage QnA



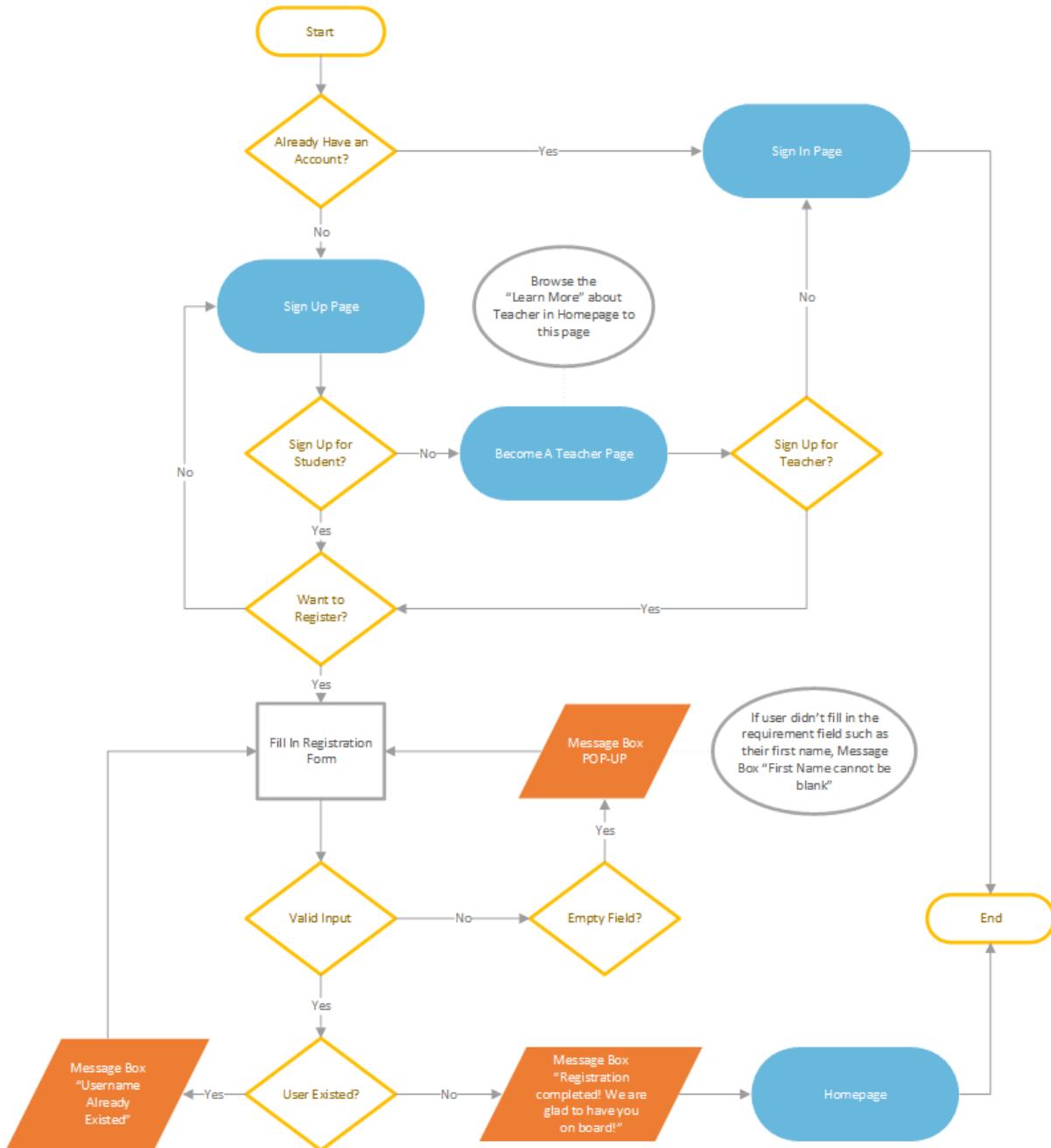
- Admin manage QnA



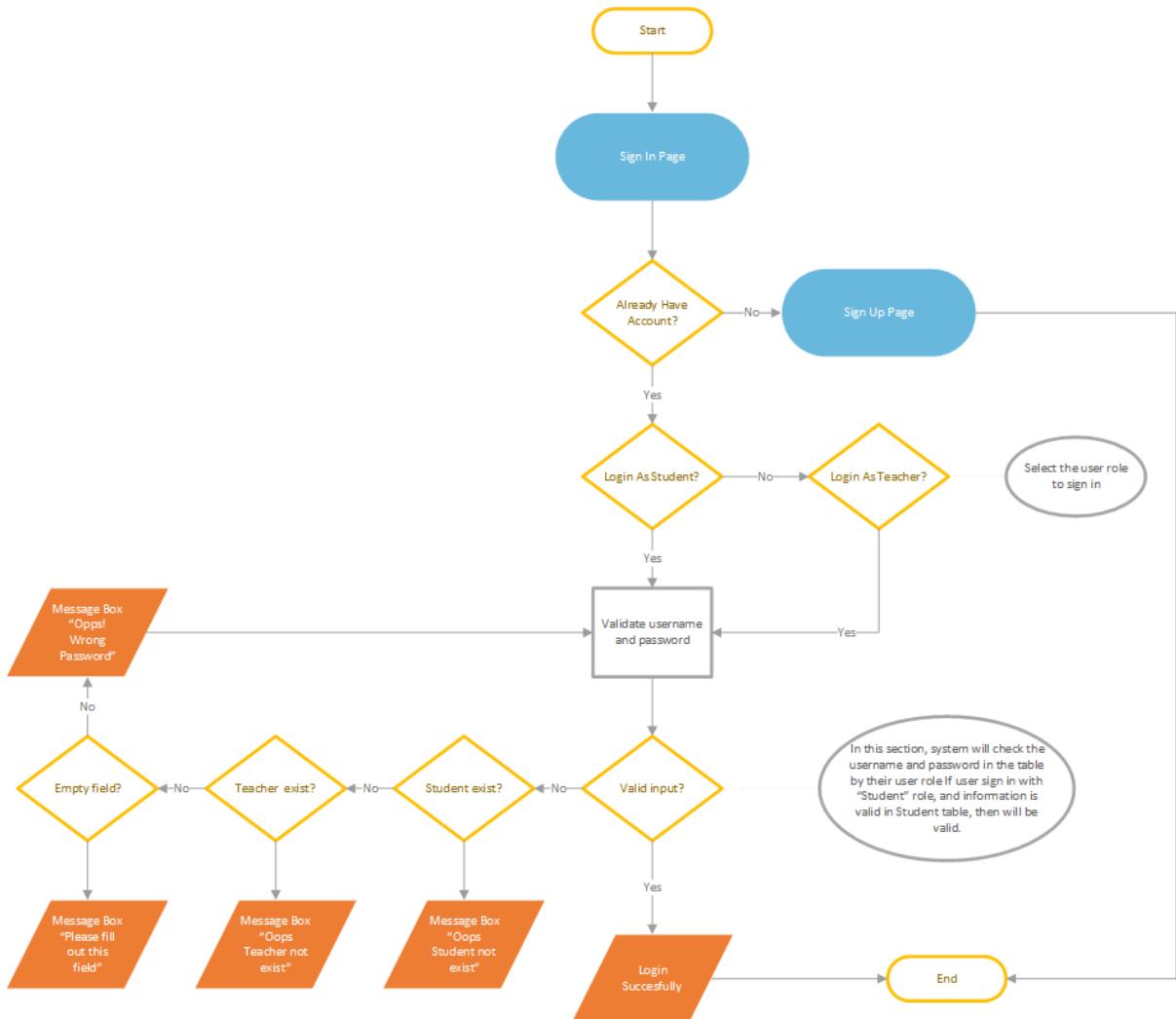
12.3 Chong Win Yip (TP056517) -Manage User



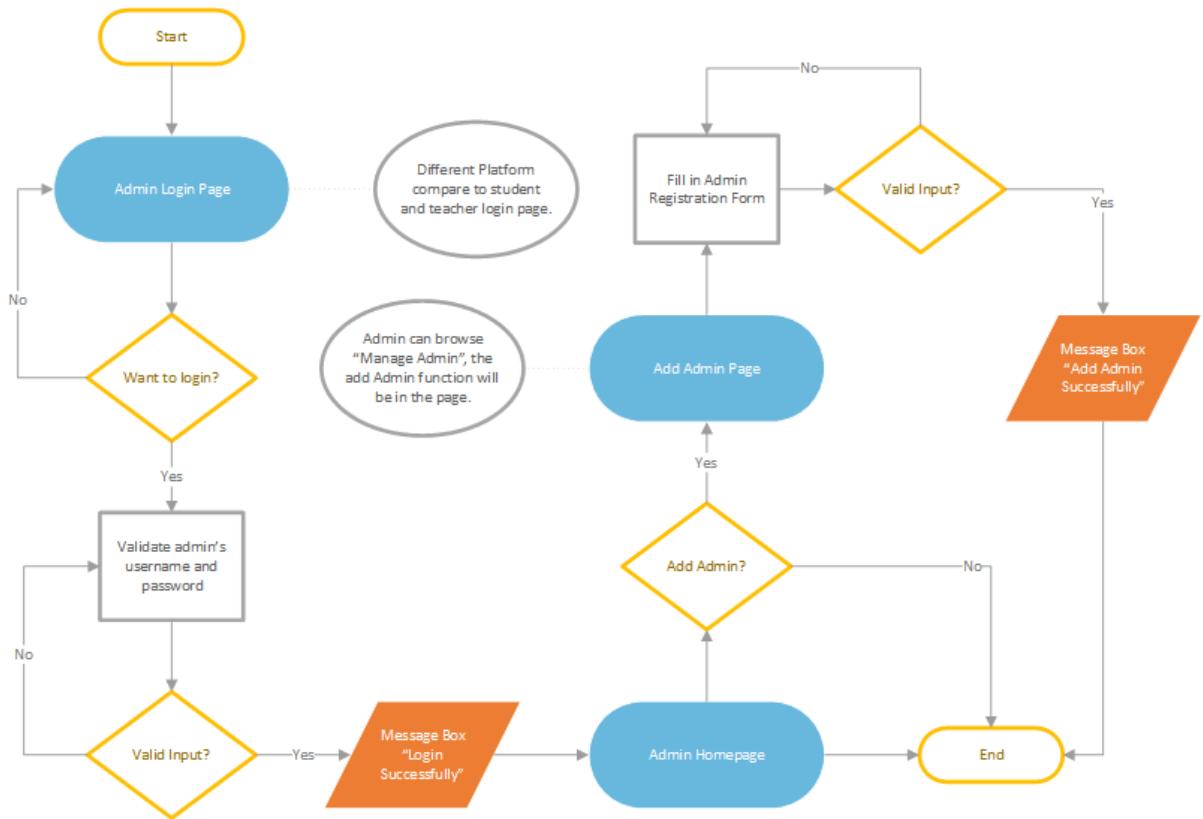
- *Student and Teacher Sign Up Flowchart*



- Student and Teacher Sign In Flowchart



- Admin Sign In and Add Admin Flowchart



13.0 Screens Design and User Manual

13.1 Visitor User Manual

Visitor is a unique user role, which an individual that visits or view our website. They have limited access to the platform compare to other user roles. For Learneeasy, visitor is only able to view and search for courses. Below is the figure of visitor homepage.

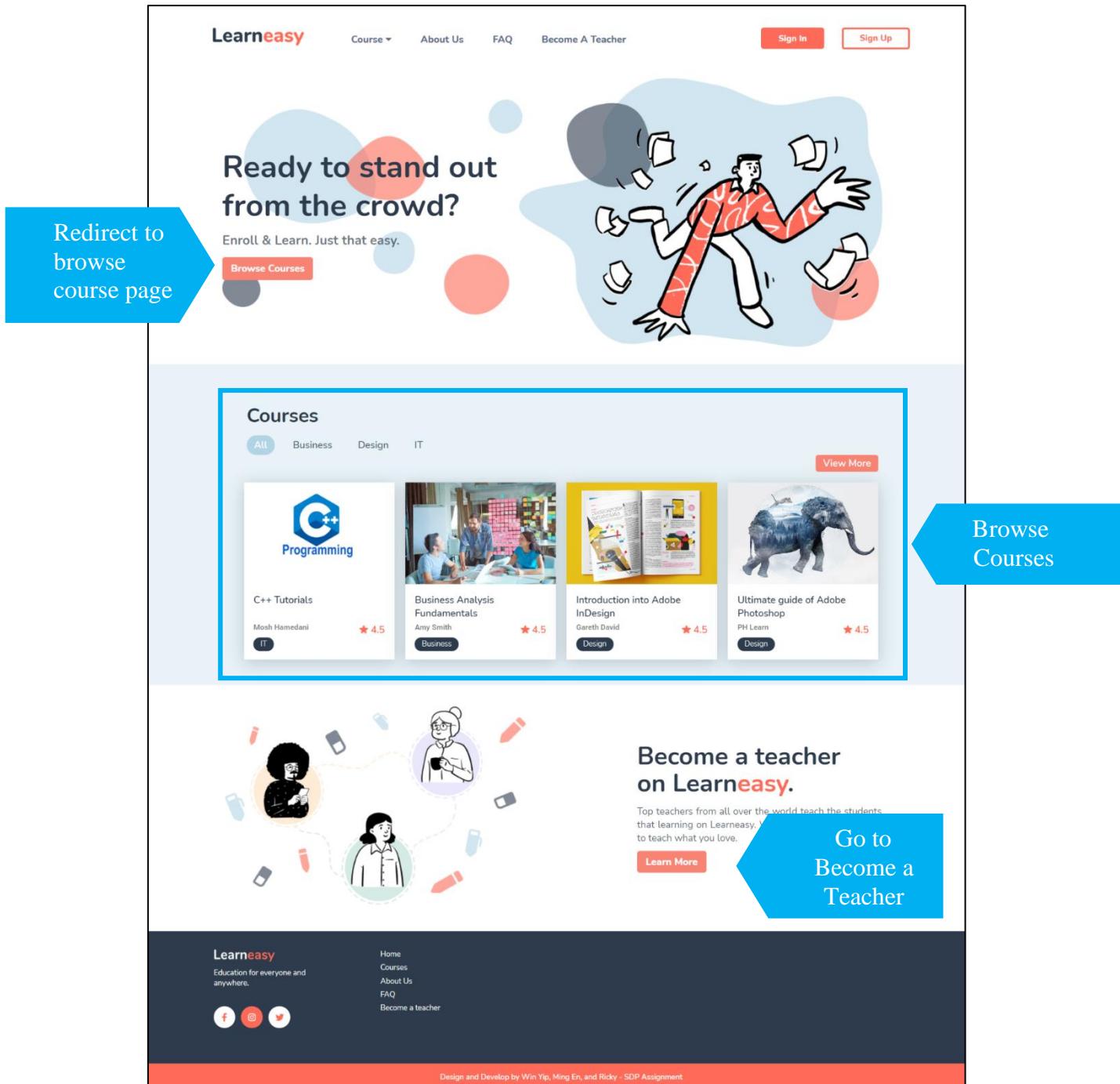


Figure 1:Visitor Homepage

Navigation Bar

Visitor can use the navigation bar to navigate to different section of the website. The left most of the navigation bar is the logo of Learneeasy. By clicking on the logo, the visitor can navigate back to the visitor homepage. To browse all the courses that is available on Learneeasy, visitor can click on the “Course” on the navigation bar. If they would like to browse a specific category of the course, hover the “Course” to see the available categories of the course. If the visitor wishes to learn more about Learneeasy before they are signing up for an account, they can read the story and mission on our website by clicking on “About Us”. FAQ is used to redirect visitor to FAQ page if they have any questions or enquiries. To learn more about what's liked to be a teacher on Learneeasy, they can click into “Become A Teacher” to explore more. Lastly, on the right most of the navigation bar, there are two button that is used to sign in and register as student.



Figure 2: Visitor Navigation Bar

Browse Course Page

This is where the visitor can explore all the courses that is available on Learneeasy. As mentioned above, the visitor also can explore different category of course by select the category name. Learneeasy can be considered as a large site if the teachers continue to create courses on the platform. So, the search function is required to add into our website. These pages will have a search bar to let the users to find things faster. Other than that, the search bar also has autocompleted function, so as they type the courses that related to the search keyword will also appear.

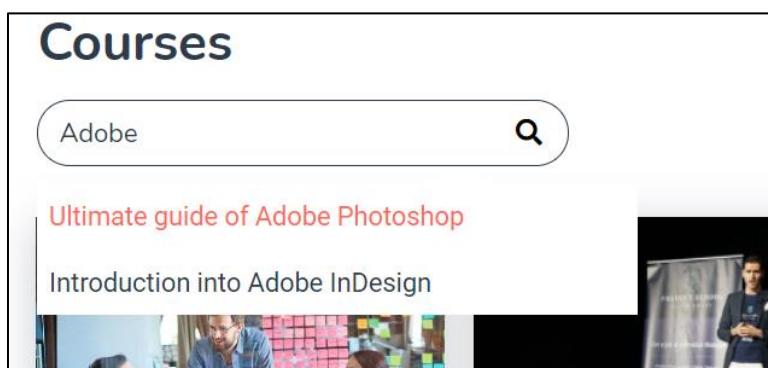


Figure 3: Search Bar and Autocomplete Function

The screenshot shows the 'Courses' section of the Learneasy website. At the top, there is a search bar with placeholder text 'Search courses here...' and a magnifying glass icon. Below the search bar, there are four rows of course cards. Each card includes a thumbnail image, the course title, the author's name, a rating (4.5 stars), and a category tag (e.g., Business, Design). The courses listed are:

- Communication Skills by Amy Smith (Business)
- Fundamentals of Graphic Design by Learn Free (Design)
- Ultimate guide of Adobe Photoshop by PH Learn (Design)
- Enterprising & Entrepreneurial by Ruth Carman (Business)
- Complete Beginners Guide for Illustrator by Gareth David (Design)
- JavaScript Tutorials by Dani Krossing (IT)
- PHP Tutorials by Dani Krossing (IT)
- HTML and CSS Tutorials by Dani Krossing (IT)
- Introduction into Adobe InDesign by Gareth David (Design)
- Business Analysis Fundamentals by Amy Smith (Business)
- Digital Marketing Guide by Ruth Carman (Business)
- C++ Tutorials by Mosh Hamedani (IT)

At the bottom of the page, there is a footer with the Learneasy logo, navigation links (Home, Courses, About Us, FAQ, Become a Teacher), social media icons (Facebook, Instagram, Twitter), and a copyright notice: 'Design and Develop by Win Yip, Ming En, and Ricky - SDP Assignment'.

Figure 4: Browse All Course

The screenshot shows the 'Design Courses' section of the Learneasy website. The layout is identical to the 'Courses' page, featuring a search bar at the top and a grid of four columns of course cards below. The courses listed are:

- Introduction into Adobe InDesign by Gareth David (Design)
- Ultimate guide of Adobe Photoshop by PH Learn (Design)
- Fundamentals of Graphic Design by Learn Free (Design)
- Complete Beginners Guide for Illustrator by Gareth David (Design)

The footer of the page includes the Learneasy logo, navigation links, social media icons, and the same copyright notice as Figure 4.

Figure 5: Browse Design Course

Enroll Course Page

The screenshot shows the 'Fundamentals of Graphic Design' course page on the Learneasy platform. The page is divided into three main sections: Teacher Details, Course Details, and Ratings.

- Teacher Details:** Shows a teacher profile for 'Learn Free'.
- Course Details:** Provides an overview of the class, stating that the fundamentals of graphic design are about seeing and understanding visual qualities. It also includes a section titled 'About the Class'.
- Ratings:** Displays a rating of 4 stars based on 2 reviews. The reviews are from 'Sponge Bob' and 'Patrick Star'.

On the right side, there is a sidebar titled 'Course Suggestion' featuring related courses like 'Ultimate guide of Adobe Photoshop' and 'Introduction into Adobe InDesign'.

Figure 6: Enroll Course Page

For visitor, when they click on the course cards, they will only be redirected to the “Enroll course” page. In this page, the visitor will be able to view the basic detail of the selected course, the teacher of the course, and the rating of the course. Visitor can click on the “Enroll Course” button if they want to enroll the course, but they can't because it requires a student account in order to enroll courses. An alert box will appear to show they need to login to enroll course.

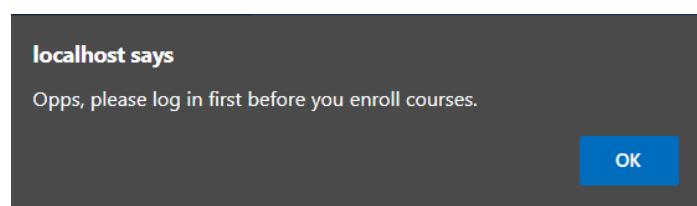


Figure 7: Error Message

About Us

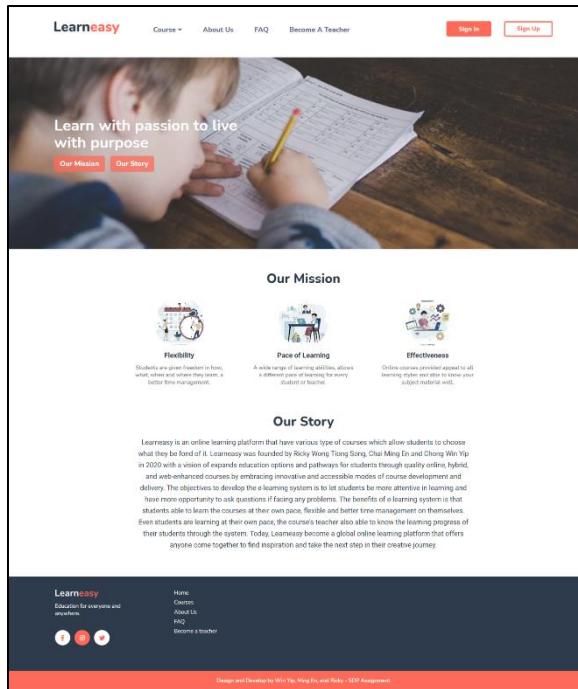


Figure 8: About Us

About Us page is used to acknowledge or inform the visitor about Learneeasy through our story and mission.

FAQ

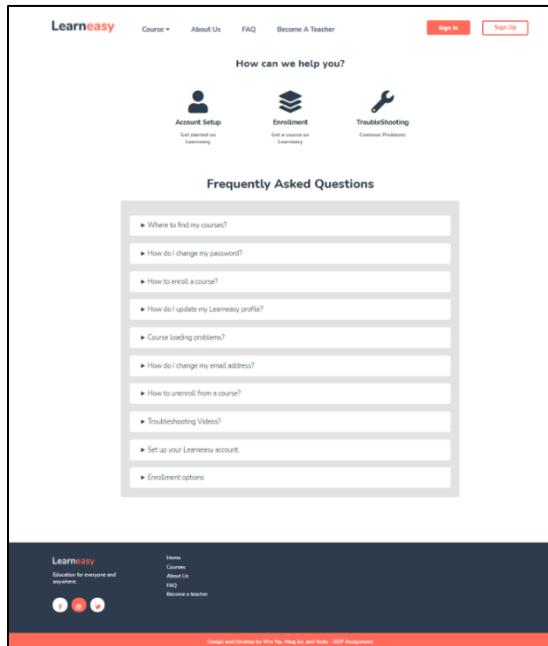


Figure 9: FAQ

A series of frequently asked questions with answer.

Become A Teacher

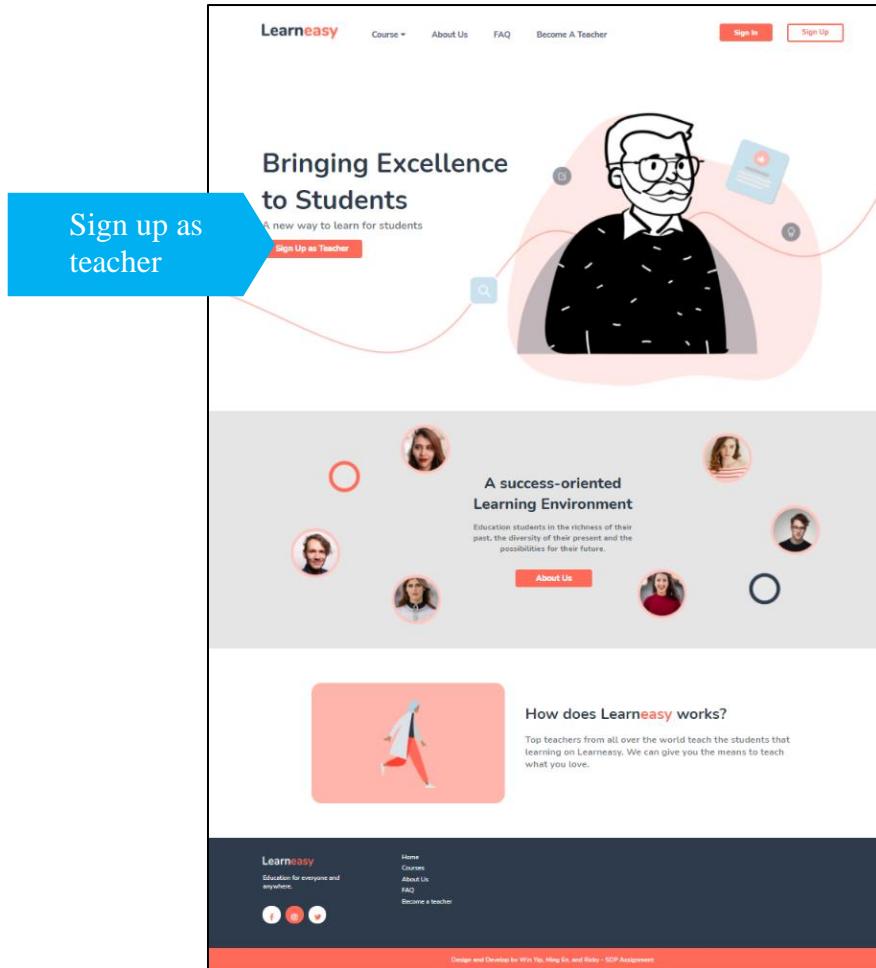


Figure 10: Become A Teacher

This page is where visitor can learn more about being a teacher on Learneeasy. If they wish, they also can register as a teacher by clicking on “Sign Up As teacher”. It will redirect the visitor to teacher registration page.

13.2 Student Manual

Student Registration

The screenshot shows the 'Sign Up and Start Learning!' form. It includes fields for First Name, Last Name, Username, Email, Password, and Confirm Password. There is a checkbox for agreeing to the Terms & Conditions and a 'SIGN UP' button. A small note at the bottom says 'Already have an account? [Log In](#)'. The page features a cartoon illustration of a person sitting cross-legged, reading a book under a desk lamp. The footer contains the Learneasy logo, social media links, and navigation links for Home, Courses, About Us, FAQ, and Become a teacher. It also credits the design and development team.

Figure 11: Student Registration

In the visitor navigation bar, click on “Sign Up” to redirect to the student registration page. To register as a student, the following information are needed: First name, Last name, Username, Email and Password. The user must make sure they fill in all the required information otherwise the registration will not be successful. Other than that, if the student is trying to register an account with an existing username or email, the process will not be successful and alert box will appear to indicate the error. After every information given is right and no repeated username or email found in the database, the registration will be successful.

If the username already existed:

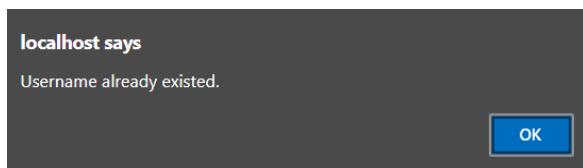


Figure 12: Username existed



Figure 13: Email existed

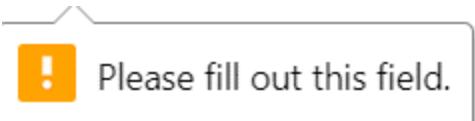


Figure 14: Empty field

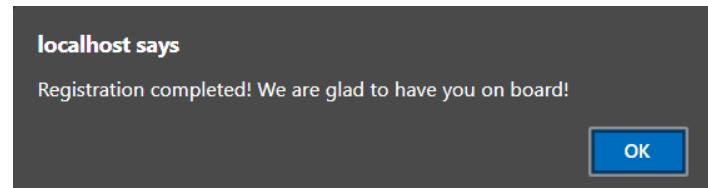


Figure 15: Registration successful

Login

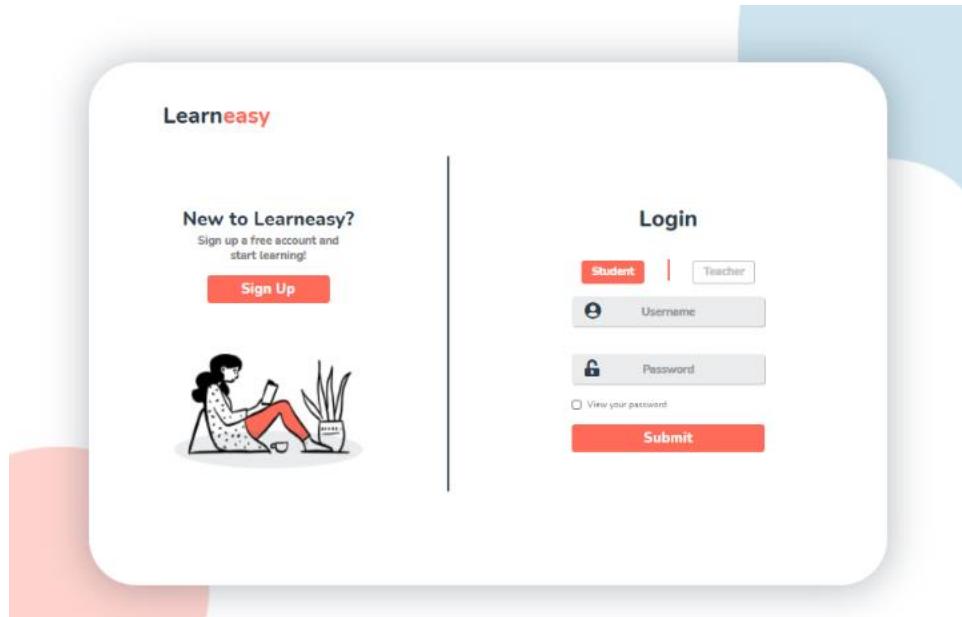


Figure 16: Login page

Once the user has a registered student account, they can login into the platform through this login page. They must make sure that the user role is selected correctly otherwise they won't be able to login into their account. For login into student account, choose "Student" and enter the login credentials. The user can always check their password by ticking the checkbox below password field. After that, click on submit to login into the account. The student will redirect to the student home if the login is successful.

If the student does not exist:



Figure 17: Student does not exist.

If the password is wrong:

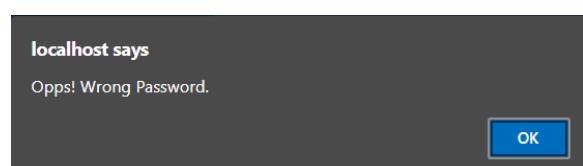


Figure 18: Wrong Password

If the login is successful:



Figure 19: Login Successful

Student Navigation Bar

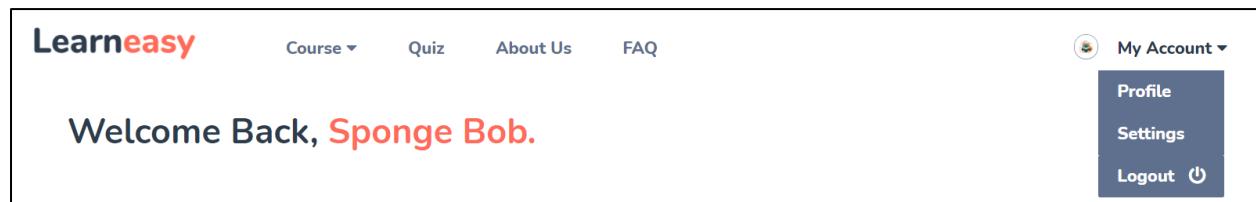


Figure 20: Student Navigation Bar

Student navigation bar is quite similar to visitor's navigation bar. The differences are student navigation bar will have link to access to quiz page and link to manage their account including view profile, account settings and logout while visitor navigation doesn't have. Same as visitor navigation bar, the logo will redirect them to student homepage, the course and the different course category will redirect them to browse course page. Not to mention, the about page and the FAQ page.

Student Homepage (Home)

The screenshot shows the Learneasy student homepage. At the top, there is a navigation bar with links for 'Course', 'Quiz', 'About Us', 'FAQ', and 'My Account'. Below the navigation bar, a welcome message 'Welcome Back, Sponge Bob.' is displayed. A dark navigation bar below it contains three tabs: 'Home' (which is underlined), 'In Progress', and 'Completed'. The main content area is titled 'Courses' and features three categories: 'Business', 'Design', and 'IT'. Each category has four course cards displayed. A 'View More' button is located at the bottom right of each category section.

Business

- Communication Skills by Amy Smith (Business) - ★ 0
- Digital Marketing Guide by Ruth Carman (Business) - ★ 0
- Business Analysis Fundamentals by Amy Smith (Business) - ★ 0
- Enterprising & Entrepreneurial by Ruth Carman (Business) - ★ 0

Design

- Complete Beginners Guide for Illustrator by Gareth David (Design) - ★ 0
- Fundamentals of Graphic Design by Learn Free (Design) - ★ 4
- Introduction into Adobe InDesign by Gareth David (Design) - ★ 0
- Ultimate guide of Adobe Photoshop by PH Learn (Design) - ★ 0

IT

- HTML and CSS Tutorials by Dani Krossing (IT) - ★ 0
- C++ Tutorials by Mosh Hamedani (IT) - ★ 0
- PHP Tutorials by Dani Krossing (IT) - ★ 0
- JavaScript Tutorials by Dani Krossing (IT) - ★ 0

Learneasy
Education for everyone and anywhere.

Home
Courses
About Us
FAQ
Become a teacher

Design and Develop by Win Yip, Ming En, and Ricky - SDP Assignment

Figure 21: Student Home (Home)

In student home (Home tab), the student can browse courses and if they are interested in those courses, they can click into it to enroll the course.

Student home (In-progress tab)

The screenshot shows the Learneasy student home page with the "In Progress" tab selected. The top navigation bar includes "Learneasy", "Course", "Quiz", "About Us", "FAQ", and "My Account". A welcome message "Welcome Back, Sponge Bob." is displayed. Below the navigation is a dark header bar with "Home", "In Progress" (which is red and underlined), and "Completed". The main content area displays two course cards: "Enterprising & Entrepreneurial" by Ruth Carman (Enrolled Date: 2021/03/17) and "Fundamentals of Graphic Design" (Learn Free, Enrolled Date: 2021/03/17). Each card has an "In Progress" button and a "Unenroll" button. The footer contains the Learneasy logo, social media links, and a copyright notice: "Design and Develop by Win Yip, Ming En, and Ricky - SDP Assignment".

Figure 22: List of in-progress courses

The screenshot shows the Learneasy student home page with the "In Progress" tab selected. The top navigation bar and welcome message are identical to Figure 22. The main content area is empty, featuring a large placeholder image of a person carrying boxes. Below the image is the text "So empty in here" and "I wonder what this button does...". A search bar with a magnifying glass icon is positioned below the text. The footer is identical to Figure 22.

Figure 23: Empty state for in-progress tab

The students are able to view all their enrolled courses in this tab. If they wish to stop learning from a course, they also can unenroll the courses here. By clicking on the “Unenroll” button, a confirmation message will appear to ask for confirmation again. Press “Yes” again to unenroll the course.

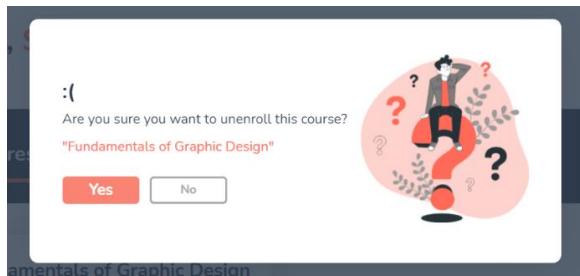


Figure 24: Unenroll confirmation

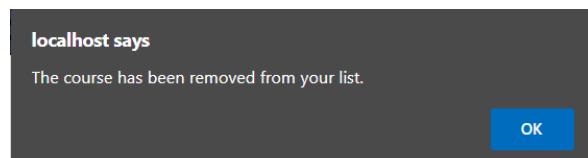


Figure 25: Unenroll alert box

Student Home (Completed tab)

A screenshot of the Student Home page showing the completed tab. The top navigation bar includes "Learneasy", "Course", "Quiz", "About Us", "FAQ", and "My Account". Below the navigation is a welcome message "Welcome Back, Sponge Bob.". The main content area has three tabs: "Home", "In Progress", and "Completed", with "Completed" being the active tab. A course card for "Fundamentals of Graphic Design" is displayed, showing it is "Learn Free" and was "Enrolled Date: 2021-03-20". It also shows "Completed Date:" and two buttons: "Completed" (red) and "Get Certificate". The footer contains the "Learneasy" logo, social media links (Facebook, Instagram, Twitter), and copyright information: "Design and Develop by Win Yip, Ming En, and Ricky - SDP Assignment".

Figure 26: Student Home completed tab.

When a course is completed by the student, the course card will be appeared in this tab. On each completed course card, there will be a button which can generate a certificate for their completed course.

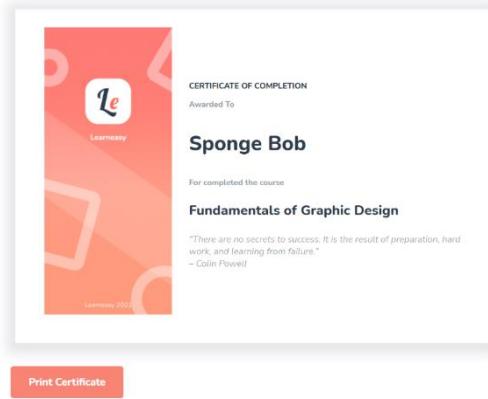


Figure 27: Certificate

Enroll Course Page

After the user has a student account, they can start enrolling courses on Learneeasy. By clicking on the course, the interested in, they will be redirected to the enroll course page (*Refer to Visitor manual – Enroll course page*) if they have not enrolled the course yet otherwise, they will be redirected to the course content page. By clicking on the “Enroll” button on the page, a confirmation message will appear to confirm with the student again. After they agree on the learning guidelines and click on “OK”, an alert box will appear to indicate that their enrolment is successful.

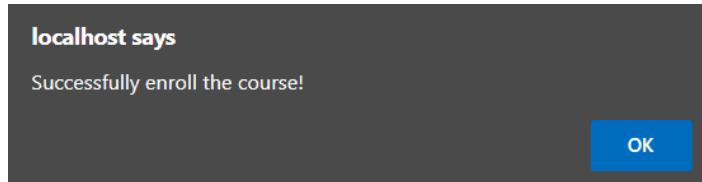


Figure 28: Enrolment successful

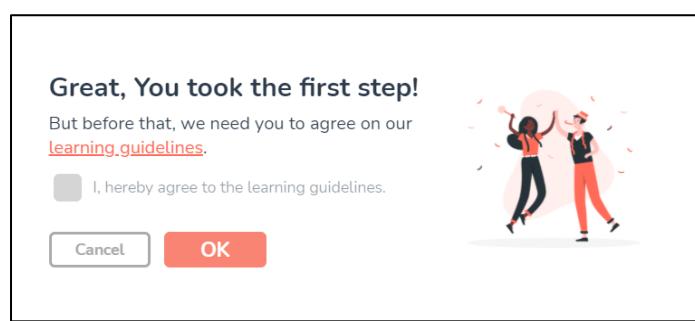


Figure 29: Enrolment confirmation

Course

The screenshot displays a course page from the Learneasy platform. At the top, there's a navigation bar with links for 'Learneasy', 'Course', 'Quiz', 'About Us', 'FAQ', and 'My Account'. A large blue arrow on the left points to the 'Content' section, which features a video thumbnail for 'The Complete Beginners Guide To Adobe Illustrator | FREE COURSE'. To the right of the video is a sidebar titled 'Chapters' containing a list of course modules: 'Introduction to the course', 'Interface Introduction to Adobe Il...', 'Panels & Workspaces', 'Artboards in Adobe Illustrator', 'Basic vectors', and 'Fill and Stroke'. Another blue arrow on the left points to the 'Course Tabs' section, which includes tabs for 'About', 'Ratings', 'Q&A', and 'Resources & Quiz'. The 'About' tab is currently selected. Below the tabs, there's an 'About the class' section with text and a bio for 'Gareth David'. The bottom of the page includes a footer with social media links and a note about design and development.

Content

About the class

Gareth David

Reminder

1. Make use of the resources given by the teachers

2. Be friendly, be helpful

3. Do not spread hate comments in Q&A sections.

Learneasy

Education for everyone and anywhere.

Home Courses About Us FAQ Become a teacher

Design and Develop by Win Yip, Ming En, and Ricky - SDP Assignment

Figure 30: Course

After they enroll a course, they will gain the full access to the course. In every course page, there are two main section which are the contents and the course tabs (About, Ratings, Q&A and Resources & Quiz).

Content

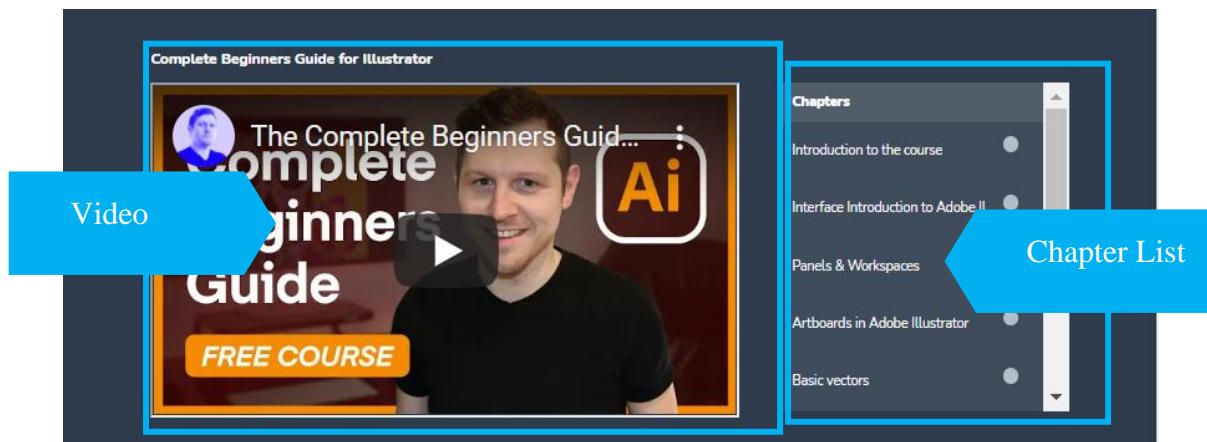


Figure 31: Course content with chapter list

Students can watch or change the lesson by clicking on the chapters in the chapter list. To update their learning progress of the course, they can click on the gray circle button beside the chapter title. After they click on that, the circle will become orange, that means their learning progress has been updated. To “uncomplete” the chapter, click on that circle again.

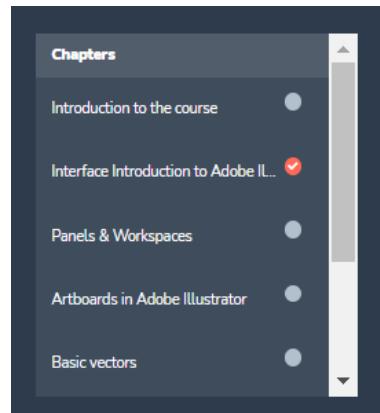


Figure 32: Update progress

Course Tabs

Course tabs consist of other function that can be accessed by the students.



Figure 33: Course tabs

Course Tabs – About

About the class

Welcome to the complete beginners guide to Adobe Illustrator. On this course I will be introducing you to the program and covering some essential practice exercises. Then I will be demonstrating how to create a small project in Adobe Illustrator from start to finish.

Reminder

- 1. Make use of the resources given by the teachers**
Learneasy allows teacher to upload their own course resources for their student to use as extra study materials. Make sure you can make big use of these resources to enhance your understanding of the course!
- 2. Be friendly, be helpful**
To let our students to have more interaction with teachers and other learners, there will be Q&A section for every course. Make sure you also make good use of the Q&A, do not offend teacher and other learner in the Q&A section. Try to give as much help for other learners if you can!
- 3. Do not spread hate comments in Q&A sections.**
Learneasy is a platform which provides student to learn, to achieve new goals, not a platform to spread hate comments. Be responsible to what you post or say on the platform.

Gareth David

Hello everyone! This is Gareth the Design Guy! I'm glad to be on Learneasy and I can't wait to share all the design knowledge with you all! See you in my course! Happy design!

Figure 34: Course tab - About

In About tab, the student can view the details of the course such as the course description, reminder, and the teacher of the course. By clicking on the name of the teacher, student can view the profile of the teacher. They will be able to view other courses of the teacher.

Teacher details

Gareth David  
@gareth2020
Joined 2021/03/03
Hello everyone! This is Gareth the Design Guy! I'm glad to be on Learneasy and I can't wait to share all the design knowledge with you all! See you in my course! Happy design!

Courses from this teacher

 Introduction into Adobe InDesign Gareth David 	 Complete Beginners Guide for Illustrator Gareth David 
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Education for everyone and anywhere.
[Home](#) [Courses](#) [About Us](#) [FAQ](#) [Become a teacher](#)

Design and Develop by Winnie, Ming En, and Ricky - SDP Assignment

Figure 35: Teacher profile (Student view)

Course Tab – Rating

In rating tab, the students will be able to give rating to the course and teacher. The ratings that are given by other student or themselves will be listed in this section too. To give a rating, click on “Give Rating” and a rating modal box should appears. The student needs to rate the course and teacher using the rating star and they also can give comment to the course. After they rate, click on submit to give rating. An alert box should appear if it is successful.

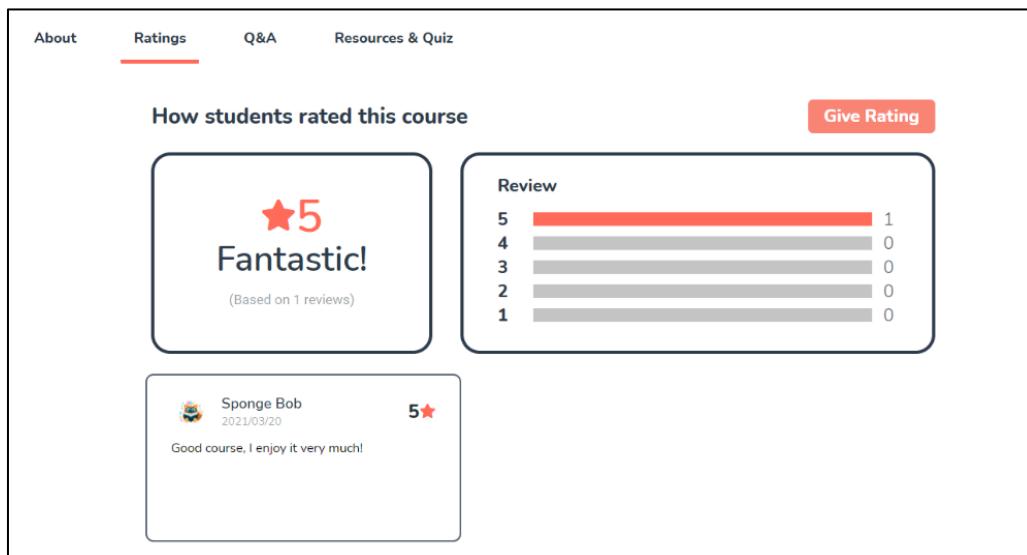


Figure 36: Ratings tab

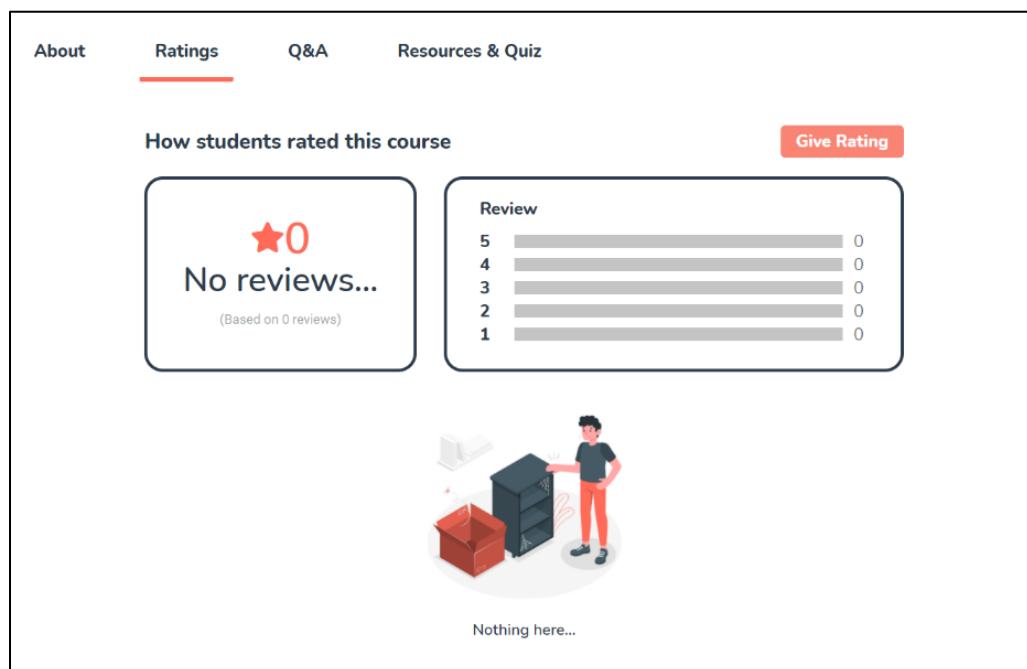


Figure 37: Rating empty state

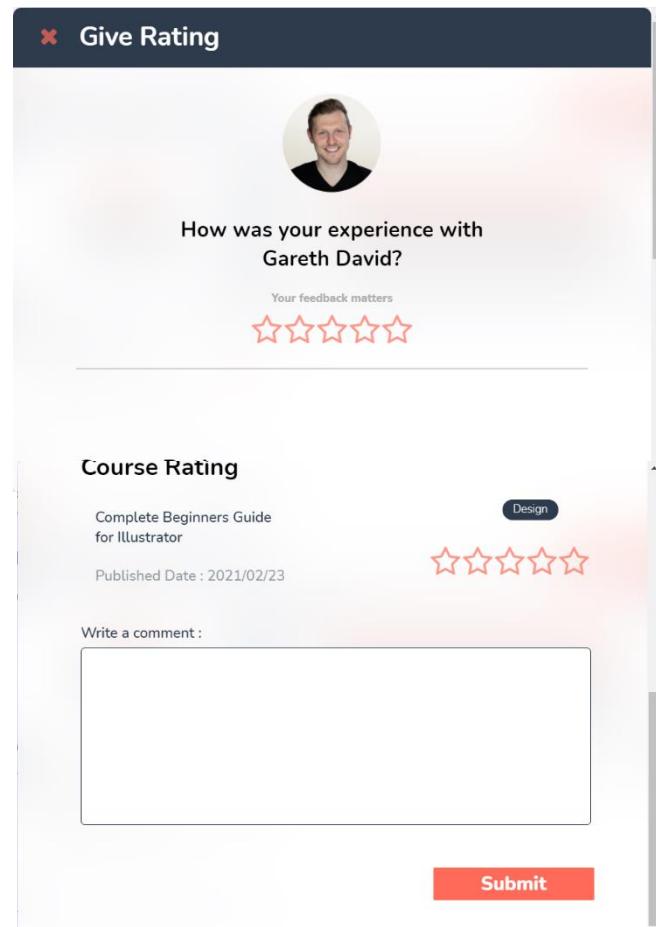


Figure 38: Rating model

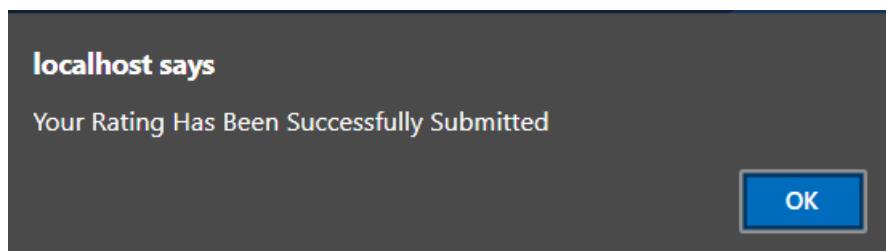


Figure 39: Rating submitted successfully.

Course Tab – Q&A

To let student to interact with teachers, there will be a Q&A section for students to ask their questions in every course. Student can type in their question in the text area given in the tab and then post the question by clicking on the “Ask Question” button. An alert box will appear if the question has been posted successfully. For each question, it will create a discussion to discuss the question. By clicking on the chat bubble, the student can open the discussion and discuss with teacher and other students. In the discussion, student can add their opinion or answer to the question.

The screenshot shows a navigation bar with tabs: About, Ratings, Q&A (which is highlighted with a red underline), and Resources & Quiz. Below the tabs, the Q&A section is titled "Q&A". It contains a text input field with placeholder text "Ask your question here...". Below the input field, a red text "1 Questions" is displayed. A single question is listed: "Hi gareth, how can I paint a square using shortcut?", posted by "Sponge Bob" on "2021/03/20". To the right of the question is a small red speech bubble icon.

Figure 40: Q&A tab

The screenshot shows a single question in the Q&A tab. The question is "Hi gareth, how can I paint a square using shortcut?", posted by "Sponge Bob" on "2021/03/20". To the right of the question is a small red speech bubble icon.

Figure 41: Question

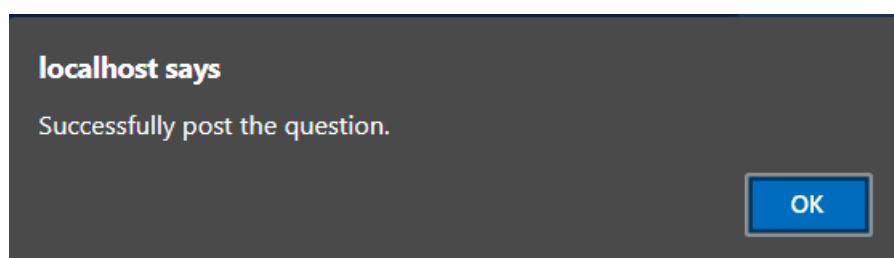


Figure 42: Post question successfully

The screenshot shows a Q&A section on the Learneasy platform. At the top, there's a navigation bar with links for 'Course', 'Quiz', 'About Us', 'FAQ', and 'My Account'. Below the navigation, a user named 'Sponge Bob' has posted a question from March 20, 2021, asking how to paint a square using a shortcut. A text input field is provided for users to type their answers, with a 'Post' button at the bottom right. The footer contains the Learneasy logo, social media links (Facebook, Instagram, Twitter), and a note about the design and development team.

Figure 43: Discussion on a question

Course Tab – Resources & Quiz

The screenshot shows the 'Resources & Quiz' tab. It features tabs for 'About', 'Ratings', 'Q&A', and 'Resources & Quiz', with the latter being the active tab. Under the 'Resources' section, there are two download links: 'Adobe Illustration Cheat Sheet' and 'Illustrator for Beginners'. In the 'Quiz' section, there is a card for a 'Communication Quiz' created by 'Amy Smith', featuring a small thumbnail image of a person.

Figure 44: Resources & Quiz tab

Resources & Quiz tab is used for downloads extra study material and access the quizzes of the course. By clicking on the title of the resources, the student can download the file and do extra study off platform. For quiz, click on the quiz card to answer the quiz that created by the teacher.

Quiz

The screenshot shows the 'Quizzes' section of the Learneasy website. At the top, there's a navigation bar with 'Learneasy' logo, 'Course', 'Quiz', 'About Us', 'FAQ', and 'My Account'. Below the navigation is a search bar with placeholder 'Search your quiz here' and a 'Browse Course' button. The main content area displays a grid of nine quiz cards, each with a thumbnail image, title, description, creator, creation date, and marks available. The quizzes listed are:

- Digital Marketing Quiz: Digital Marketing Guide, Created By Ruth Carman, Created On 2021-03-09, Marks 10.
- Business Quiz: Business Analytics Fundamentals, Created By Amy Smith, Created On 2021-03-01, Marks 10.
- Communication Quiz: Communication Skills, Created By Amy Smith, Created On 2021-03-09, Marks 10.
- Fundamentals Graphic Design Practice: Fundamentals of Graphic Design, Created By Learn Free, Created On 2021-03-10, Marks 10.
- Illustrator Practice: Complete Beginners Guide for Illustrator, Created By Everett David, Created On 2021-03-02, Marks 10.
- Adobe Photoshop Test: Adobe Photoshop Test, Created By PH1 Learn, Created On 2021-03-15, Marks 10.
- JavaScript Quiz: JavaScript Tutorials, Created By Eric Kessing, Created On 2021-03-04, Marks 10.
- PHP Practice: PHP Tutorials, Created By Dan Kessing, Created On 2021-03-01, Marks 10.
- C++ Quiz Test: C++ Tutorials, Created By Mark Hamilton, Created On 2021-03-01, Marks 10.
- Adobe Design Test: Introduction into Adobe InDesign, Created By Everett David, Created On 2021-03-10, Marks 10.

At the bottom of the page, there's a footer with 'Learneasy' logo, 'Education for everyone and anywhere.', links to 'Home', 'Courses', 'About Us', 'FAQ', and 'Become a teacher', and social media icons for Facebook, Twitter, and LinkedIn. A red footer bar contains the text 'Design and Develop by Wan Ng, Ming Er, and Ricky - SGP Assignment'.

Figure 45: Quiz Page

This is the quiz homepage for student which they have enrolled courses. The quiz will be display out based on the courses the student enrolled and if the student did not enroll any courses, the page will be in empty state. Student can view the quizzes through the “Quiz” on the navigation bar or directly access to quiz under “Resources & Quiz” tab under the course. By clicking on the quiz card, they can do the quizzes that prepared by the teacher. From this page, the student also can search for the quiz name to using the search bar located at the banner. Same as the search function in browse course page, the search bar will have autocompleted function. Beside the search bar is a button where the student can be redirected to browse course page after clicking on that.

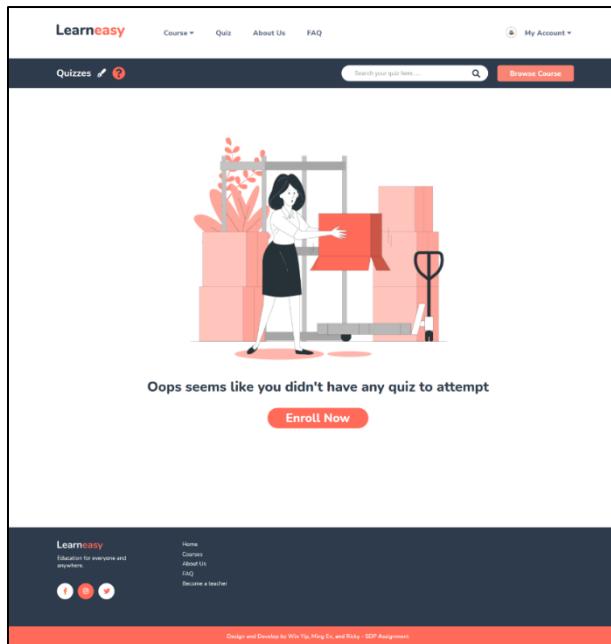


Figure 46: Quiz Empty State

Quiz Form

Entrepreneurial Quiz

Reminder : Please read and answer all the questions in the time set. You are not allowed to search or get the answer from the internet while attending the quiz. The timer will start counting when you attend the first question and will stop when you done and click the "Submit" button.

Result: **0/10**

1 _____ carried out indirectly through existing resources? 2

Market research
 Secondary research
 Demographics
 Primary research

2 Which distinguishes goods or services through a design, symbol, name, term, or other features? 2

Positioning
 Marketing
 Demographics
 Brand

3 _____ conducted directly on a subject or subjects? 2

Secondary research
 Marketing
 Market research
 Primary research

4 The development and use of strategies for getting a product or service to customers. 2

Marketing
 Market Segment
 Brand
 Positioning

5 Stages that a product or service is in the market - introduction, growth, maturity, and decline? 2

Positioning
 Product life cycle (PLC)
 Market research
 Primary research

Submit

Figure 47: Quiz Form

This page will be where the student answering the question that created by the teacher. The quiz title will be show on top of the page which will let you know what quiz you are doing and a reminder to remind student when they are doing the quiz, follow the reminder and don't refer any answer from other websites and finish all the question within the time set.

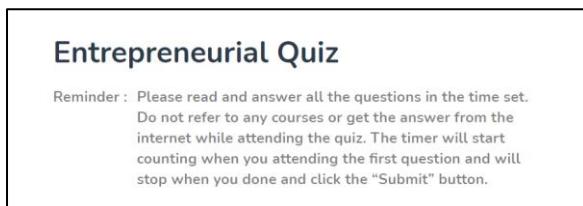


Figure 48: Title and Reminder



Figure 49: Result and the timer

When the student has reached the end of the quiz page, the “Back to Top” button will appear below the “Time Remains” box. You can click on the button and bring you to question number 1.



Figure 50: Back to Top button

If has reached the time (timer), student will receive a confirmation box if they haven submit the quiz to mark yet. Student able to click on the “OK” button on the confirmation box to check the result or click “Cancel” to stay on the page.



Figure 51: Confirmation box

The alert box will pop up when the student clicks on the “Submit” button and submit the quiz without fill in the questions. Without any answer (selecting checkboxes) or haven finish the quiz, students are unable to submit to check the answer.

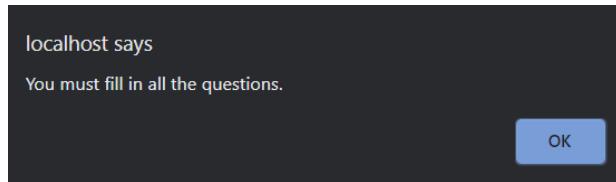


Figure 52: Submitting without answer

Student will receive a message box which they have select all the answers. They can check the answer by clicking on the “OK” button, student will be redirected to Result page.

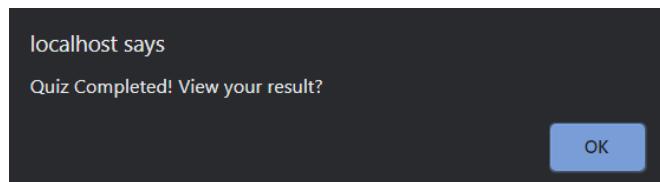


Figure 53: Quiz submitted

In the result page, you can check your score and the correct answer for each question in this page. The result/marks you get from the quiz will be showed on the result column and the correct answers will listed out on the page (beside the result column).

A screenshot of the Learneasy quiz result page. At the top, it shows the "Learneasy" logo, navigation links for "Course", "Quiz", "About Us", and "FAQ", and a "My Account" dropdown. Below that, it says "HTML and CSS Quiz" and "View Your Score and Correct Answers!!!". On the right, it displays the "Result: 10/10". The main area shows five questions with their correct answers and scores:

- 1 Who is making the Web standards? The World Wide Web Consortium (Score: 2, Correct)
- 2 Which of the following is a font property? All of these are font properties (Score: 2, Correct)
- 3 Which character is used to indicate an end tag? / (Score: 2, Correct)
- 4 What is the purpose of HTML? To make a webpage (Score: 2, Correct)
- 5 Google Chrome is an example of a what? Web browser (Score: 2, Correct)

A "Time Remains" box shows a red "----" indicating time has run out. A "Back" button is at the bottom left, and the footer includes social media icons and a copyright notice: "Design and Develop by Vico Yip, Ning Lin and Ricky - SDP Assignment".

Figure 54: Quiz result page

Profile

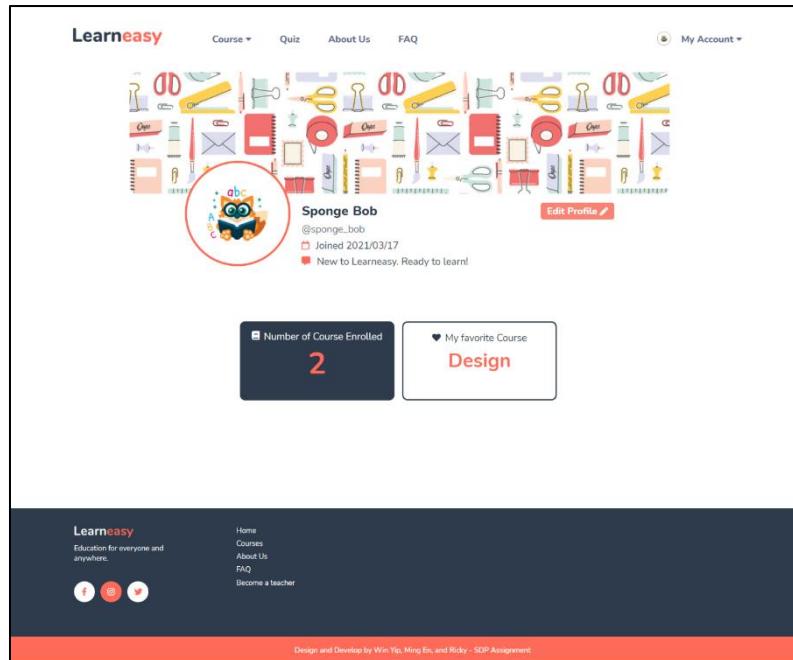


Figure 55: Profile

To access to student's profile, hover over "My Account" and select "Profile". The profile will consist of the details of the student such as name, username, join date, and their bio. From here, they can change their profile picture, cover picture, names, and bio by clicking on the "Edit Profile" button. A modal will appear to let them edit their profile. Below of the profile details, the student can view the number of course they enrolled and their favorite course. That two data is calculated and analyzed by the system automatically based on the courses they enrolled.

A screenshot of the 'Edit Profile' modal. The title bar says 'Edit Profile' with a close button and a 'Save' button. The form fields include 'Upload Profile Picture' (with a red 'Upload' button and placeholder 'No file chosen, yet.'), 'Upload Cover Picture' (with a red 'Upload' button and placeholder 'No file chosen, yet.'), 'First Name' (input field containing 'Sponge'), 'Last Name' (input field containing 'Bob'), and a 'Bio' text area (containing 'New to Learneeasy. Ready to learn!').

Figure 56: Edit Profile

If the profile is updated successfully:



Figure 57: Update successfully

Settings

Figure 58: Settings

In settings page, the student can do settings on their account such as change email address, change the password, and even delete the whole account. To do so, they need to type in the current password to update any changes. An alert box will appear if they are able to make changes on their account. If they are deleting the account, they will be redirected to the visitor homepage.

Figure 59: Change Email

Figure 60: Change Password

Figure 61: Delete Account

If the process is successful, the user will be able to see this:



Figure 62: Updated successfully.

Logout

After the student done all they need to do on the platform, they can logout their account by clicking on the logout button under “My Account”. A confirmation box will appear to confirm the user’s decision. Click on “Yes” to confirm logout. After they logout, they will be redirected to visitor homepage.

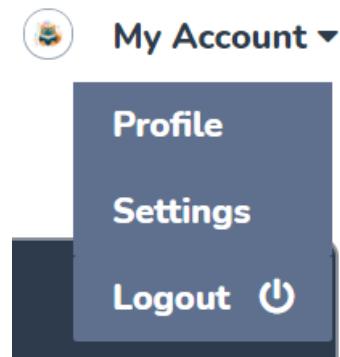


Figure 63: Logout button

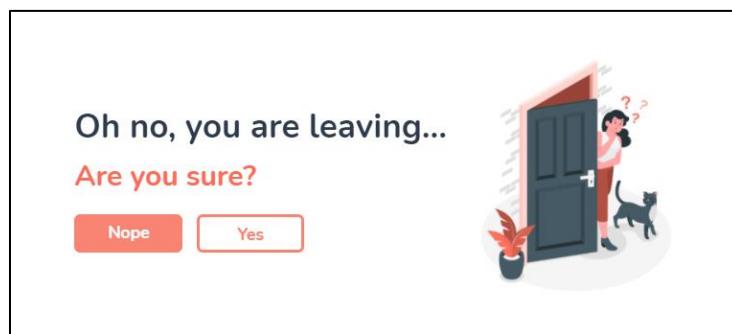


Figure 64: Logout confirmation

13.3 Teacher User Manual

When you execute Learneeasy system, you will be led to the visitor page. If you would like to become a teacher of Learneeasy, you may click “Become a teacher” tag on navigation bar part or you may scroll down to “Become a teacher on Learneeasy” section and click “Learn more” button to transferred to “Become a teacher” page.

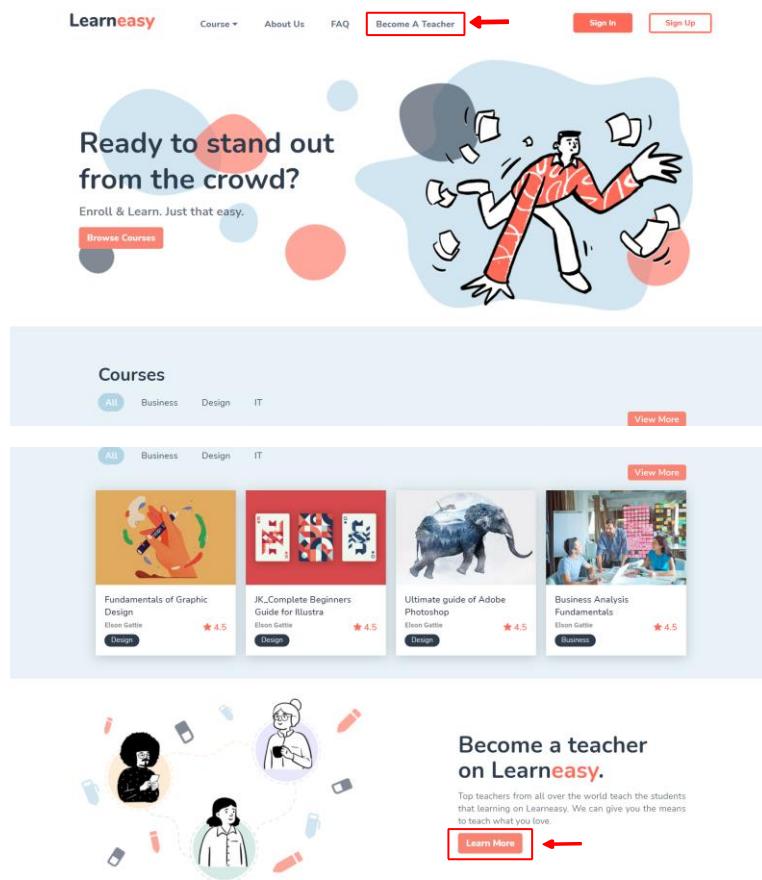


Figure 65: Visitor Homepage

There are some requirements you have to notice when you want to register a Learneeasy teacher account. For sign up a teacher account, you are required to fill in all of the text field in “Teacher Registration” page.

Figure 66: Register Teacher Account Page

If there are any empty text field, a notification will remind you to fill in empty text field.



Figure 67: Text Field Empty Error Message

Error message if the password and confirm password doesn't match.

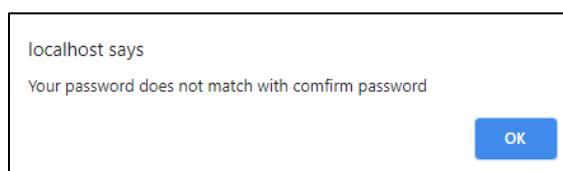


Figure 68: Error Message

Allow to view the password and confirm password field with clicking the eyes icon.

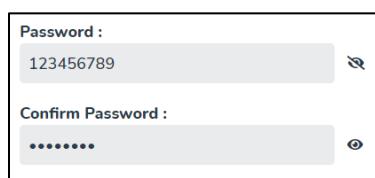


Figure 69: View Password

Required to change your username when the username that you fill in is existed.

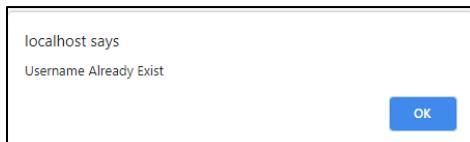


Figure 70: Username exist error message

Submit education proof with click “Choose File” button and select your education proof document, else you are not able to submit the registration form.

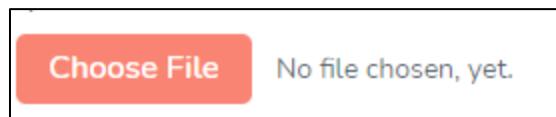


Figure 71: Choose Education File

Required to check “Agree to Terms & Conditions” checkbox before signing up for your teacher account.

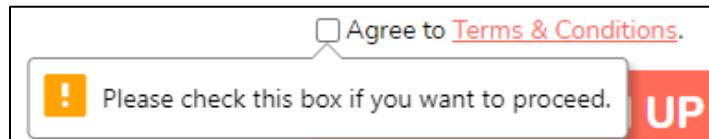


Figure 72: Error Message

Click “Sign up” button to register a Learneeasy teacher account. If you are successfully to create a Learneeasy teacher account, an alert box will show and notice you that your registration successfully

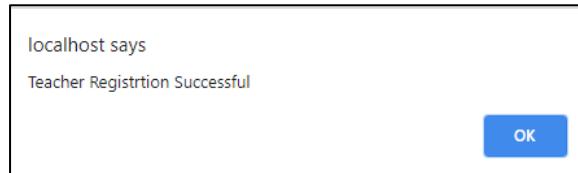


Figure 73: Success Register Message

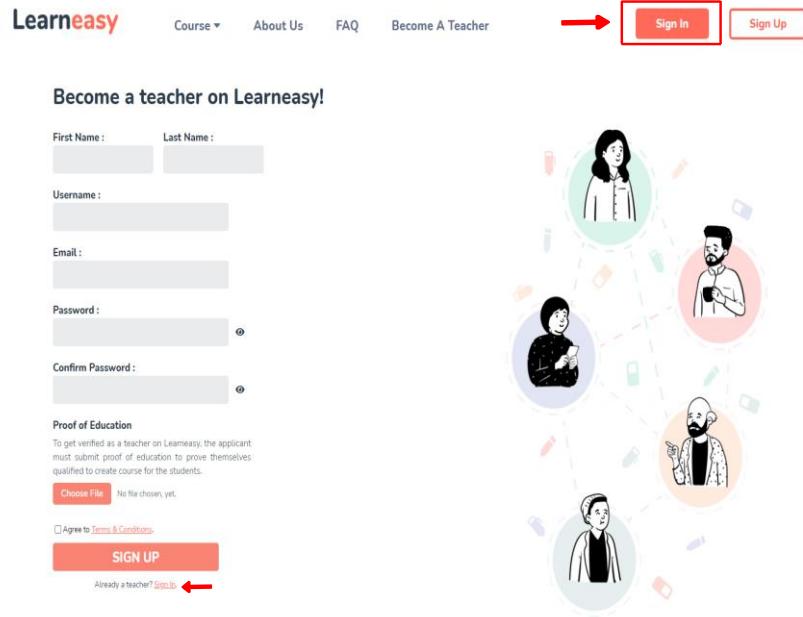


Figure 74: Lead Teacher to Sign In

After you successfully create a teacher account, you are able to click “Sign in” button on navigation bar to transferred to sign in page or you can also click “Sign In” tag at below of Sign-up page to transferred to sign in page.

Teacher Sign In page

In teacher sign in page, you are required to select “Teacher” button to sign in Learneeasy as a teacher.

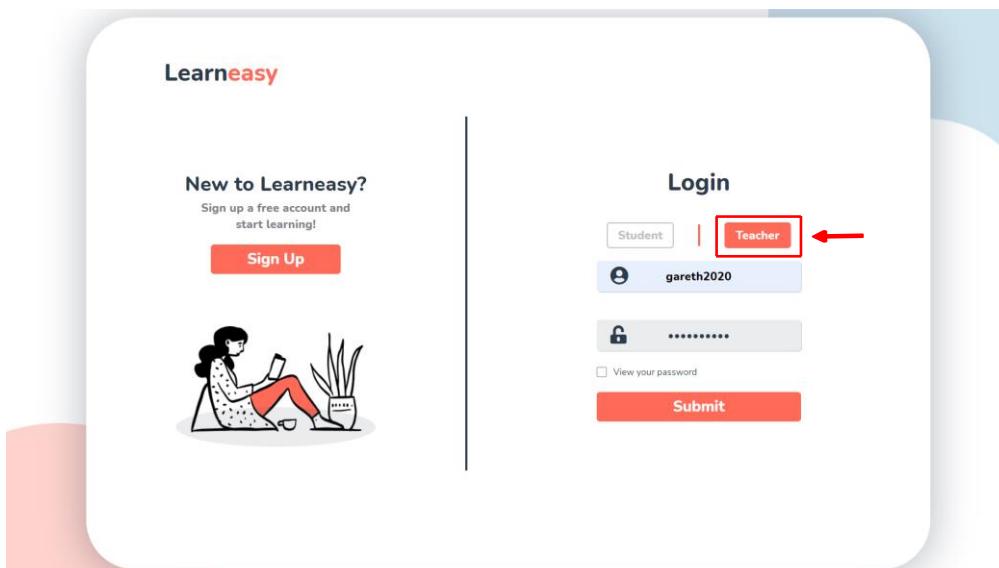


Figure 75: Teacher Login Page

All of the text field in sign in page should be fill in. If you leave any text field as empty, a notification will be shown to remind you to fill in the text field.

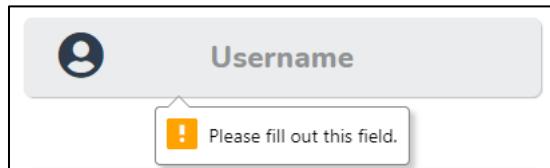


Figure 76: Error Message

Click “View your password” checkbox to view you answer.



Figure 77: View Password

After filling in valid account information, click “Submit” button to login. If the information you enter is valid, an alert box will pop up as the picture below. Else, an alert error message.

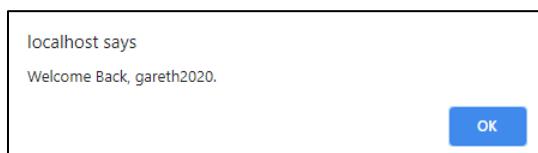


Figure 78: Successfully Login



Figure 79: Invalid Account Error Message

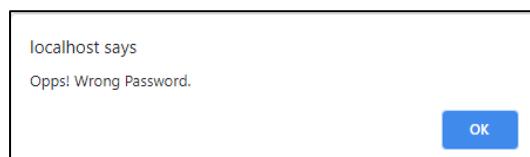


Figure 80: Wrong Password Error Message

Teacher Homepage

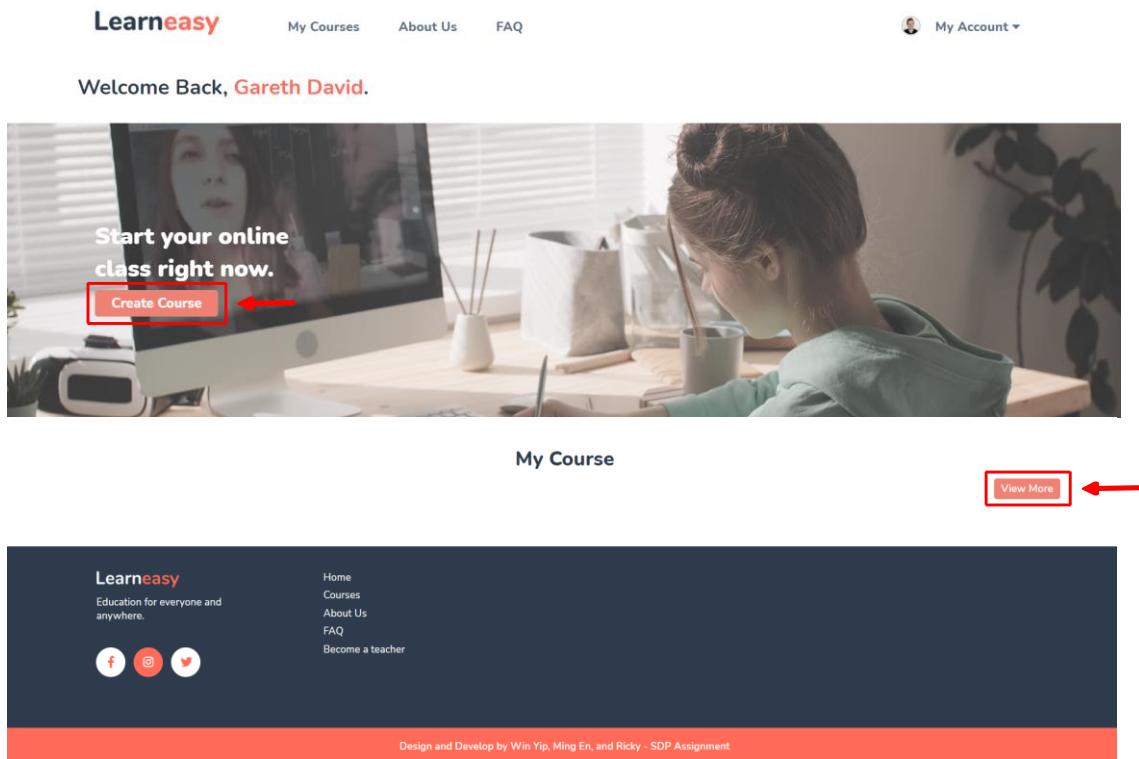


Figure 81: Teacher Homepage

In teacher homepage, you are able to click “Create Course” button to transferred to Create Course page. Before a teacher create their own course, they have to wait until admin verified their teacher account.

Error message display when the teacher account not yet been verified.

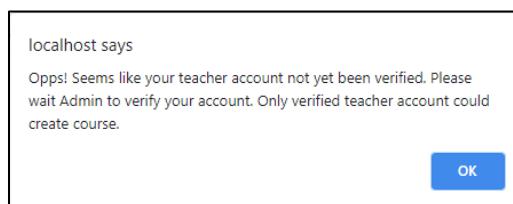


Figure 82: Teacher haven't verified message

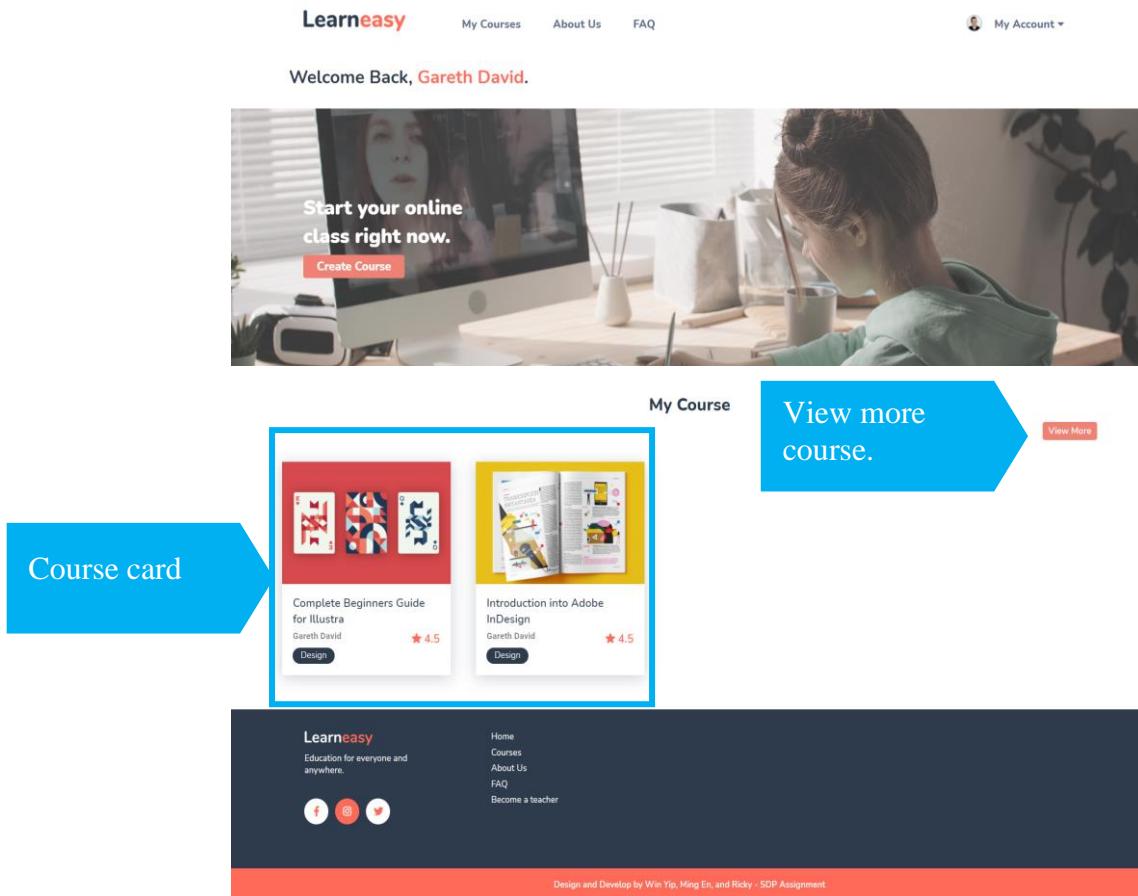


Figure 83: Teacher Homepage (verified)

Teacher navigation bar

Teacher navigation bar contains 4 tabs and 1 dropdown list which are “Learnneeasy” , My Courses , About Us, FAQ, My Account. When clicking on the “My Course” button, you will be redirected to list of courses created by you. While click on the “About Us” and “FAQ” tabs, you will redirect to the related pages. In “About Us” page, you get to know the vision and mission of Learnneeasy. In the “FAQ” page, there are several types of frequently asked questions.



Figure 84: Teacher navigation bar

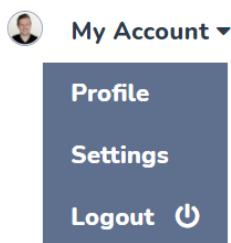


Figure 85: My Account

There is a dropdown list of “My Account” tabs which consist of profile, settings and logout function. To view your own account, click on “Profile”. While to change your email address, password or delete your account, select “Settings”. Else, if you want to logout from your account after you are all set, click on “Logout” and you will receive a message. Click on “Yes” and you logout successfully.

Teacher Profile page.

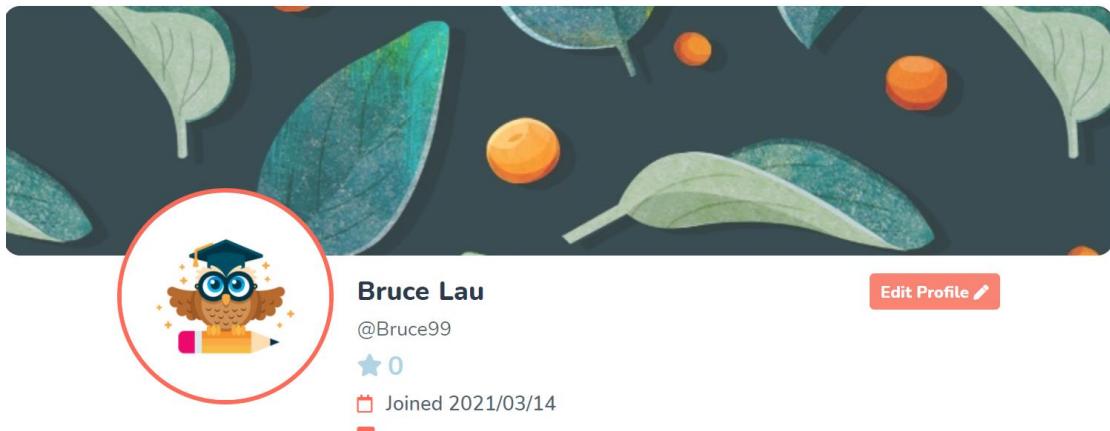


Figure 86: Teacher Profile

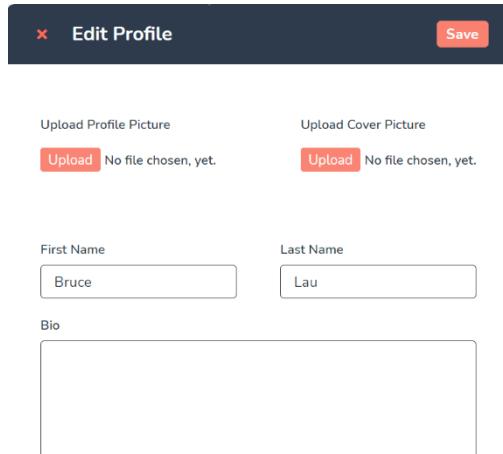
Learneeasy My Courses About Us FAQ My Account ▾



Figure 87: Teacher Profile (verified)

Teacher status will be displayed once admin has approved the teacher by their education proof. Besides that, teacher able to edit their profile by clicking on the “Edit Profile” button.

A modal will appear to let them edit their profile. Teacher able to edit their profile such as profile and cover picture, first name and last name and also teacher's bio.

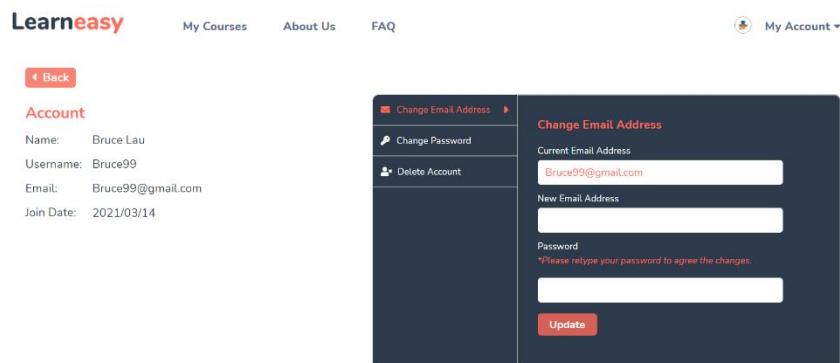


The image shows a modal window titled "Edit Profile". At the top right is a red "Save" button. Below the title are two input fields: "Upload Profile Picture" and "Upload Cover Picture", both showing a placeholder message "No file chosen, yet." A large text area for "Bio" is below these fields, containing the text "Bruce Lau". To the left of the bio area are two input fields: "First Name" with "Bruce" and "Last Name" with "Lau".

Figure 88: Edit Profile Modal Box

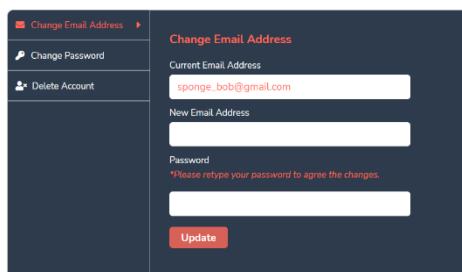
Teacher Settings

In settings page, the student can so settings on their account such as change email address, change the password, and even delete the whole account. To do so, they need to type in the current password to update any changes. An alert box will appear if they are able to make changes on their account. If they are deleting the account, they will be redirected to the become a teacher page.



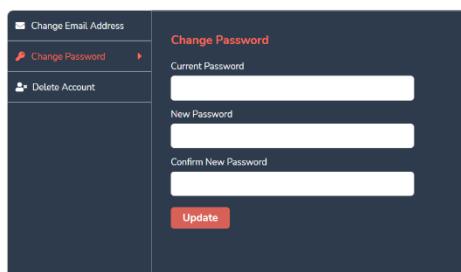
The image shows a "Learneasy" website interface. On the left, there's a sidebar with "My Courses", "About Us", and "FAQ". On the right, there's a "My Account" dropdown. The main content area has a "Back" button and a "Account" section. It lists the user's information: Name: Bruce Lau, Username: Bruce99, Email: Bruce99@gmail.com, and Join Date: 2021/03/14. To the right of this is a modal window titled "Change Email Address". It contains fields for "Current Email Address" (Bruce99@gmail.com), "New Email Address", and "Password". At the bottom is a red "Update" button.

Figure 89: Teacher Settings



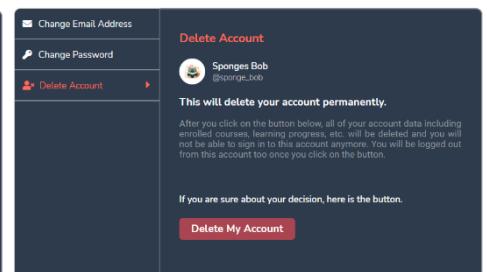
This is a screenshot of the "Change Email Address" form. It features a sidebar with "Change Email Address", "Change Password", and "Delete Account". The main area has fields for "Current Email Address" (sponge_bob@gmail.com), "New Email Address", and "Password". A note at the bottom says "Please retype your password to agree the changes." and a red "Update" button is at the bottom.

Figure 90: Change Email



This is a screenshot of the "Change Password" form. It has a sidebar with "Change Email Address", "Change Password", and "Delete Account". The main area contains fields for "Current Password", "New Password", and "Confirm New Password", along with a red "Update" button.

Figure 91: Change Password



This is a screenshot of the "Delete Account" form. It includes a sidebar with "Change Email Address", "Change Password", and "Delete Account". The main content area shows a user profile for "Sponge Bob" and a warning message: "This will delete your account permanently. After you click on the button below, all of your account data including enrolled courses, learning progress, etc. will be deleted and you will not be able to sign in to this account anymore. You will be logged out from this account too once you click on the button." At the bottom is a red "Delete My Account" button.

Figure 92: Delete Account

If the process is unable to update a new email address and password. To change a password, make sure key in the correct password in the password field and confirm password field. Else you will receive an error message same as the picture below.

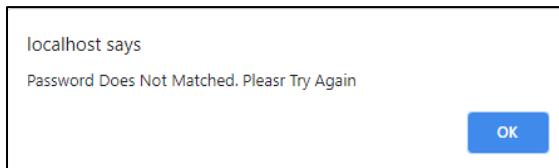


Figure 93: Error Message



Figure 94: Error Message



Figure 95: Error Message

If the process is successfully updated new information to the database.



Figure 96: Success Message

If teacher account has been deleted, you will receive a message box.



Figure 97: Account deleted message

Logout

Teacher can logout their account by clicking on the logout button under “My Account”. A confirmation box will appear to confirm the user’s decision. Click on “Yes” to confirm logout. After they logout, they will be redirected to visitor homepage.

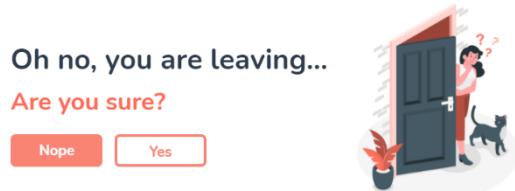


Figure 98: Logout confirmation

Teacher Create Course Page

A screenshot of the "Create Course" page from the Learneasy platform. At the top, there is a navigation bar with the Learneasy logo, "My Courses", "About Us", and "FAQ" links. Below the navigation bar, there is a "Back" button with a left arrow icon. The main title is "Create Course" in red. The first section is "Course Name:" with a input field containing "Digital Marketing Guide". Next to it is a "Categories:" dropdown menu set to "Business". The next section is "About the Class:" with a text area containing: "Digital marketing is the use of the Internet, mobile devices, social media, search engines, and other channels to reach consumers. Some marketing experts consider digital marketing to be an entirely new endeavor that requires a new way of approaching customers and new ways of understanding how customers behave compared to traditional marketing." Below this is a "Course Cover Picture:" section with a "Choose File" button and a file name "Digital Marketing Guide.jpeg". At the bottom are "Cancel" and "Next" buttons.

Figure 99: Create Course Page

To create a course, teacher required to proceed three page such as create course page, upload content page, upload resources page. For teacher create course page, teacher is required to fill in all of the text field in this page.

Teacher require to choose the category of the course such as business, design and IT.

Categories:

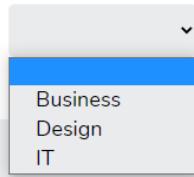


Figure 100: Course Category

After filling in all the require information such as the course cover picture, course description, course title, course category, click on the “Create Course” button to proceed next steps.

Course Cover Picture:

[Choose File](#) Digital Marketing Guide.jpeg

Figure 101: Course Cover



Figure 102: Course created message

Upload Content page

In upload content page, teacher is required to fill in chapter title and select a video file from his device to upload course contents.

The screenshot shows a web page titled "Upload Content". At the top, there is a red "Back" button. Below it is a navigation bar with four buttons: "Course Detail", "Upload Content" (which is highlighted in red), "Upload Resource", and "Create Quiz".

The main area starts with a "Chapter Title:" label and a text input field. Below the input field is a "Choose File" button, a message "No file chosen, yet.", and a green "OK" button.

Underneath, there is a section titled "Content List" with a horizontal line. A small illustration of a person standing next to a filing cabinet and a trash bin is centered. Below the illustration, the text "Nothing here..." is displayed.

At the bottom, there are two buttons: "Cancel" (red) and "Next" (green).

Figure 103: Course Content

Teacher can choose to upload what course's content they want by clicking on the button. If teacher want to edit or delete the course detail they just created, click on the "Course Detail" page to redirect back to "Create Course Page". Else, teacher can proceed to the following steps before completing upload all the course content such as upload content, upload resource and create quiz.

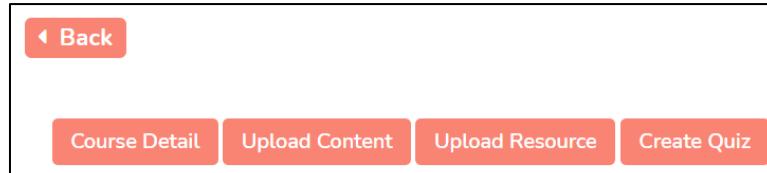


Figure 104: Create Course

After the content has been successfully uploaded, the content will be displayed in content list section. Teacher able to edit or delete the content they uploaded by clicking the "Edit" or "Delete" button.

Content List		
1	Introduction to the course	https://www.youtube.com/embed/lBouhf Edit Delete

Figure 105: Content List

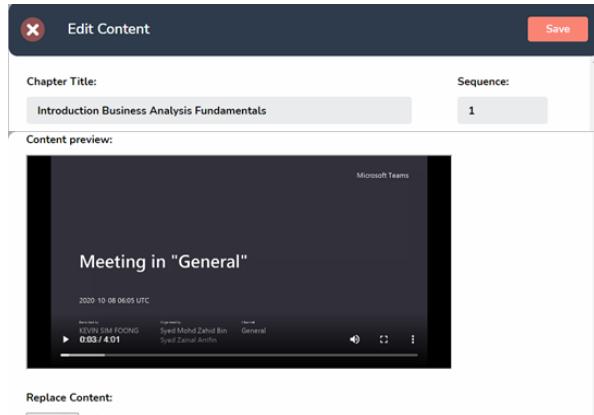


Figure 106: Edit modal box

If the course successfully uploaded content, teacher would receive a message box.



Figure 107: Successfully Message



Figure 108: Error Message



Upload Resources page

Upload Resources page is quite similar with upload content page. In upload resources page, teacher is required to fill in chapter title and select a resource file from his device to upload the resource.

Course Detail Upload Content Upload Resource Create Quiz

Upload Resources

Resource Title:

Choose File No file chosen, yet. OK

Resources List

Nothing here...

Cancel Next

Figure 109: Resource's page

If the course successfully uploaded resources, teacher would receive a message box.



Figure 110: Successfully Message

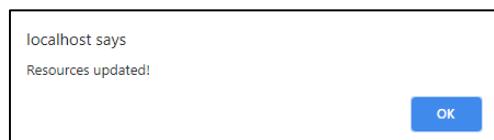


Figure 111: Successfully Message

Create Quiz page

Create Quiz

Quiz Form

Quiz title : 0/50 Time :

Course: Complete Beginners Guide for Illustra
Created by: 1
Created date: 2021-03-14 03:27:25

Create Quiz

Figure 112: Create Quiz

In create quiz page, teacher should fill in all of the quiz form requirement, if not teacher is unable to create a quiz. Quiz form will be displayed which course name is this quiz for, created by who with teacher id and the created date for this quiz.

If the quiz successfully created, teacher would receive a message box.

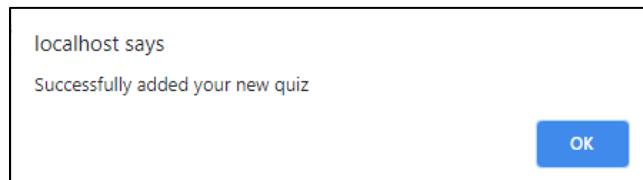


Figure 113: Successfully Message

Create Quiz Question

Teacher is required to create 5 question and only allow to create 5 questions for each quiz. Teacher is required to fill in the text field question sequence number, question, question score.

A screenshot of a web form titled "Quiz Question". The form contains two sections, each with a question sequence number (1 and 2), a question text area, a score input field, and a "Create Quiz" button. The first section has four options in the question area. The second section has three options. A vertical scroll bar is visible on the right side of the form.

Figure 114: Create Quiz Question

Teacher able to add the quiz question by clicking “Add Question”. After teacher done adding all the questions, click on the “Create Quiz” and you are all done.

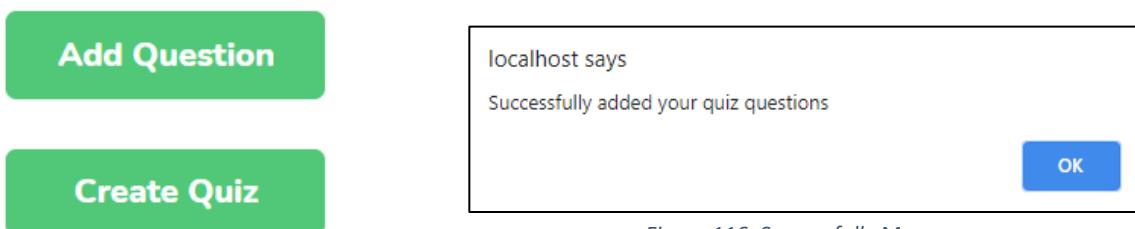


Figure 116: Successfully Message

Figure 115: Add Question and Create Quiz

Teacher My Course page

In teacher My Course page, teacher able to view all of the courses he has created, and those courses will be present with a course card form. In this page, teacher able to search the course were created by themselves. Apart from that, teacher able to create a new course by clicking the “Create Course” button or view quiz by clicking on the “View Quiz” button.

The screenshot shows the 'My Course' section of a learning management system. At the top, there is a search bar with placeholder text 'Search your course here....' and a magnifying glass icon. To the right of the search bar are two buttons: 'Create Course' (in blue) and 'View Quiz' (in red). Below the search bar, there are two course cards. The first card is titled 'Complete Beginners Guide for Illustra' and is categorized under 'Design'. It features three small thumbnail images of designs. The second card is titled 'Introduction into Adobe InDesign' and is also categorized under 'Design'. It features a thumbnail image of an open book showing a spread of Adobe InDesign interface. Both cards include a 'Published Date' (e.g., 2021-02-23 08:42:13), a 'View' button, and an 'Edit' button.

Figure 117: My Course page

Course Content

The screenshot shows the 'Learneasy' platform displaying a course page. On the left, a large blue arrow points to the word 'Content'. The main content area shows a course card for 'Complete Beginners Guide for Illustrator'. The card features a video thumbnail of a smiling man, the title 'Complete Beginners Guide', and a large orange 'FREE COURSE' button. To the right of the card is a sidebar with a 'Chapters' section containing links to 'Introduction to the course', 'Interface Introduction to Adobe Il...', 'Panels & Workspaces', 'Artboards in Adobe Illustrator', 'Basic vectors', and 'Fill and Stroke'. Another blue arrow on the left points to the word 'Course Tabs'. Below the course card, there is a tabbed section with tabs for 'About', 'Ratings', 'Q&A', 'Resources & Quiz', 'Student Progress', and 'Statistics'. The 'About' tab is currently selected. The 'About' tab content includes a bio for 'Gareth David' and a message from him. At the bottom of the page, there is a footer with the 'Learneasy' logo, social media links, and a copyright notice: 'Design and Develop by Win Yip, Ming En, and Ricky - SDP Assignment'.

Figure 118: Course Content

Rating

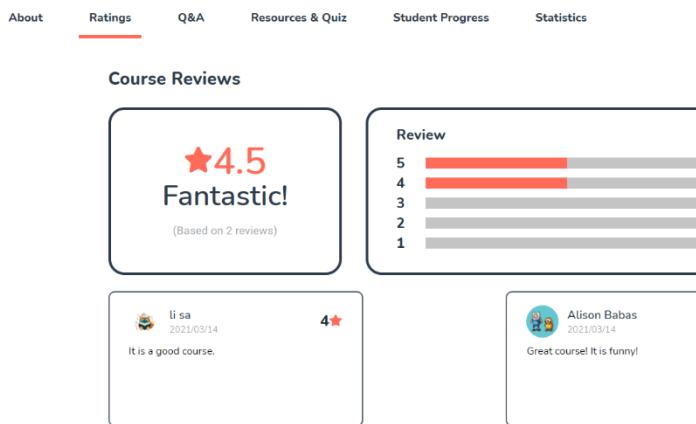


Figure 119: Rating tab

Q&A



Figure 120: Quiz tab

◀ Back

Q&A: Complete Beginners Guide for Illustra

A question from Alison Babas is shown, followed by a text input field for answers.

Post by Alison Babas (2021/03/12): how do i install illustra

Type your answer here...

Post

0 Answers

Figure 121: Discussion tab

Teacher can add the comment in the discussion tab, reply the student's questions. After teacher send the reply, teacher will receive a message box where the answer has been added.



Figure 122: Answer added!

Resources & QnA

Teacher able to download the resource by clicking on the resources link and able to view the quiz by clicking on the quiz card.

The screenshot displays the 'Resources & Quiz' section of a course interface. At the top, there are several navigation tabs: 'About', 'Ratings', 'Q&A', 'Resources & Quiz' (which is highlighted with a red underline), 'Student Progress', and 'Statistics'. Below these tabs, there are two main sections: 'Resources' and 'Quiz'. The 'Resources' section contains two items: 'Adobe Illustration Cheat Sheet' and 'Illustrator for Beginners', each represented by a small thumbnail and a download icon. The 'Quiz' section contains two cards, each showing a thumbnail of a blue textured background, the text '10 Qs', and the title of the quiz. Both cards are attributed to 'Gareth David'.

Figure 123: Resources & QnA

Edit Course Detail

Teacher able to “Edit Course” function pages by clicking on “Edit” button on the course card in the teacher homepage. The “Edit Course” function consists of 4 main pages which are “Course Detail” page, “Upload Content” page, “Upload Resource” page and “Create Quiz” page. The first page will be displayed after teacher click on “Edit” button is Course Detail page. Besides that, all of the course detail will be displayed in the text field of course name, category and about the class

Course

Course Name: Complete Beginners Guide for Illustra

Categories: Design

About the Class:

Welcome to the complete beginners guide to Adobe Illustrator.
On this course I will be introducing you to the program and covering some essential practise exercises.
Then I will be demonstrating how to create a small project in Adobe Illustrator from start to finish.

Course Cover Picture:

Choose File No file chosen, yet.

Cancel Next

Figure 124: Edit Course details

Edit Upload Content

Edit upload content page is quite similar to the upload content, the only difference is that all the selected course content on this page will be displayed in the content list. Teacher also able to add more new content, edit content and delete a course content. All of the functions are similar to I mentioned in upload content page.

Upload Content

Chapter Title:

Choose File No file chosen, yet. OK

Content List		
1	Introduction to the course	https://www.youtube.com/embed/Boufh Edit Delete
2	Interface Introduction to Adobe Illustrator	https://www.youtube.com/embed/QKWN Edit Delete
3	Panels & Workspaces	https://www.youtube.com/embed/2E9oG Edit Delete
4	Artboards in Adobe Illustrator	https://www.youtube.com/embed/9GbLm Edit Delete
5	Basic vectors	https://www.youtube.com/embed/GFYOL Edit Delete
6	Fill and Stroke	https://www.youtube.com/embed/xhATZ Edit Delete
7	Color Theory	https://www.youtube.com/embed/MX67t Edit Delete
8	10 Handy Tips for beginners	https://www.youtube.com/embed/wRL9r Edit Delete

Cancel Next

Figure 125: Edit Upload Content

Edit Upload Resources

Edit upload resources page is also quite similar to the upload resources page, the only difference is that all the selected course resources on this page will be displayed in the recourses list. Teacher also able to add more new resource, edit resource and delete resource. All of the functions are similar to I mentioned in upload resource page.

The screenshot shows the 'Edit Upload Resources' page. At the top, there is a 'Back' button. Below it are four tabs: 'Course Detail', 'Upload Content', 'Upload Resource' (which is highlighted in red), and 'Create Quiz'. The main area is titled 'Upload Resources'. It has a 'Resource Title:' input field with a placeholder 'Enter resource title...'. Below it is a file input field with the message 'No file chosen, yet.' and a green 'OK' button. A section titled 'Resources List' contains a table with two rows:

Resource Title	File Name	Edit	Delete
Adobe Illustration Cheat Sheet	AI-CheatSheet.pdf	Edit	Delete
Illustrator for Beginners	illustrator_for_beginners.pdf	Edit	Delete

At the bottom are 'Cancel' and 'Next' buttons.

Figure 126: Edit Upload Resource

Quiz page

In view quiz page, teacher able to view all of the quizzes has been created before and those quizzes will be present with a course card form. If the teacher has not created any quiz before, this page will display an empty quiz page to remind the teacher that he has not created any quiz before.

The screenshot shows the 'Empty Quiz Page'. At the top, there is a navigation bar with 'Quizzes' and a search bar. The main area features a cartoon illustration of a person working in a garden. Below the illustration, a message reads 'Oops seems like you didn't have any quiz'. At the bottom is a 'Create Course' button.

Figure 127: Empty Quiz Page

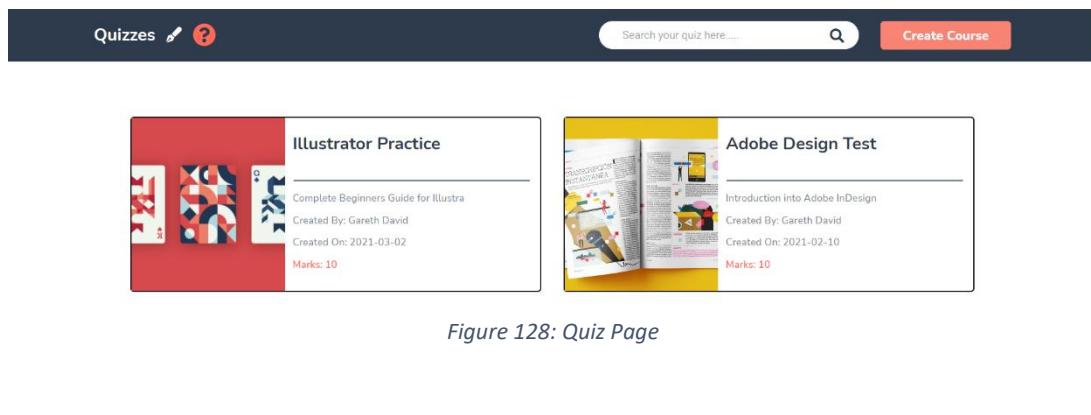


Figure 128: Quiz Page

View Quiz Form Page

Teacher able to view all of the quiz detail in this page such as the quiz title, total score for quiz, all of the quiz question and quiz options and quiz timer. Teacher is unable to edit anything in this page. Teacher allow delete the quiz by clicked on “Delete” button.

Illustrator Practice

Reminder : Please read and answer all the questions in the time set.
Do not refer to any courses or get the answer from the internet while attending the quiz. The timer will start counting when you attending the first question and will stop when you done and click the "Submit" button.

Result : 0/10

Time Remains
7 mins

1 Line segments between anchor points are referred to as _____.

Segments
 Paths
 Lines
 Graphics

2 How do you change the color of a shape?

By changing the stroke line.
 By selecting it and changing the fill.
 By selecting it.
 By changing it to none.

3 The graphics created in Adobe Illustrator are...?

Vector graphics
 Bitmap images
 Lines
 Paths

4 How do you get a reference image or photo into Illustrator?

Drag and drop it in.
 File>Save>Desktop.
 File>Place
 Embed it.

5 How do you get a photo reference image to stay in your Illustrator project?

File>Save
 Embed it
 Edit>Arrange
 Object>Live Trace

Delete **Edit**

Figure 129: Quiz Question



Figure 130: Confirmation Message

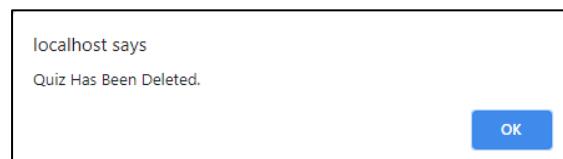


Figure 131: Deleted Message

Edit Quiz page

Edit quiz page is quite similar with Quiz Form page. The different is all of the quiz detail will be auto fill in into the text field such as quiz title and quiz timer. Besides, teacher able to edit the quiz title and quiz timer, once teacher done editing the quiz title and quiz timer, teacher is required to click “Update Quiz ” button to proceed next page which is edit quiz question page.

The screenshot shows a 'Quiz Form' page with the following details:

- Quiz title :** Illustrator Practice
- Time :** 7 mins
- Course:** Complete Beginners Guide for Illustration
- Created by:** gareth2020
- Created date:** 2021-03-02

Buttons:

- A red 'Edit Quiz Question' button in the top right corner.
- A green 'Update Quiz' button at the bottom left.

Figure 132: Edit Quiz page



Figure 133: Success Message (updated)

Edit Quiz Question page

In edit quiz question page, all of the quiz question will be displayed in this page such as quiz sequences, question, score, options and correct answer. Teacher able to edit the question detail in this page. After teacher edit the question, they should click update question button to update their changes.

The screenshot shows a list of five questions from a quiz. Each question has a number, a question text, a list of options with one selected, and a score field.

- Question 1:** Line segments between anchor points are referred to as _____.
Score: 2
Options: Segments (radio button checked), Paths, Lines, Graphics.
- Question 2:** How do you change the color of a shape?
Score: 2
Options: By changing the stroke line, By selecting it and changing the FILL (radio button checked), By selecting it, By changing it to none.
- Question 3:** The graphics created in Adobe Illustrator are...?
Score: 2
Options: Vector graphics (radio button checked), Bitmap images, Lines, Paths.
- Question 4:** How do you get a reference image or photo into Illustrator?
Score: 2
Options: Drag and drop it in, File>Save>Desktop, File>Place (radio button checked), Embed it.
- Question 5:** How do you get a photo reference image to stay in your Illustrator project?
Score: 2
Options: File>Save, Embed it (radio button checked), Edit>Arrange, Object>Live Trace.

Update Question

Figure 134: Edit Quiz Question page

After teacher clicked on update question button and successfully update quiz question, teacher will be led to view quiz form page.

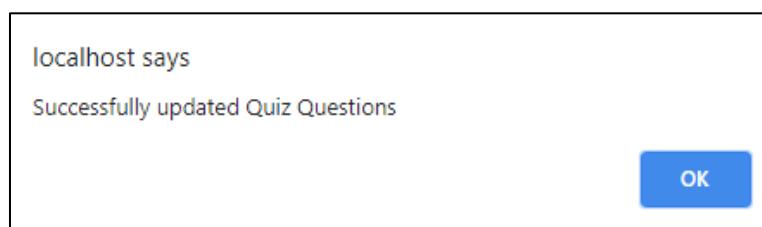


Figure 135: Updated Message

Admin User Manual

This is the login page for Admin. It is a different platform for the admin compare to the multilevel login page where student and teacher access to their homepage. The link provided to access to the admin login page will only through the organization who qualifier for the position to manage the e-learning system.

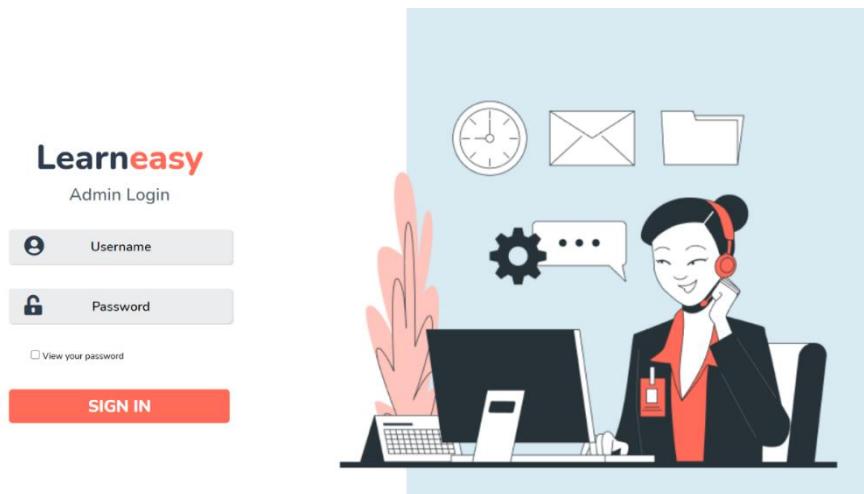


Figure 136: Admin Login Page

The error message will show when admin didn't fill in all the required text field.

A screenshot of the Login Form for Learneeasy. The form is identical to Figure 136, but it shows an error message: a yellow box with an exclamation mark and the text 'Please fill out this field.' is positioned above the 'Password' input field. The rest of the interface is the same, with the 'SIGN IN' button at the bottom.

Figure 137: Login Form

Admin can view the password by ticking the “View your password” checkbox.

A screenshot of a password input field. The field contains the word 'password' and a lock icon. Below the input field is a checkbox labeled 'View your password' with a checked checkmark.

Figure 138: View password

Error message will show when admin key in the wrong password or username.

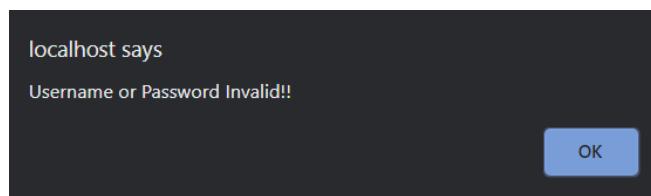


Figure 139: Error Message

After admin key in the correct username and password, success message will show and will redirect to Admin Homepage.



Figure 140: Login Successfully

Admin Homepage

A screenshot of the Admin Homepage for "Learneasy". The page has a header with the "Learneasy" logo and navigation links for "Manage User", "Courses", "Report", and "My Account". The main content area starts with a welcome message "Welcome Back, learneasy". Below this are five cards showing statistics: "Total Students" (12, grey), "Total Teachers" (7, purple), "Total Users" (19, pink), "Total Courses" (12, green), and "Total Quizzes" (0, orange). Underneath these, there's a section titled "Courses by Category:" with three buttons: "Business Courses: 4 courses", "Design Courses: 4 courses", and "IT Courses: 4 courses". At the bottom of the page is a footer with the text "Design and Develop by Win Yo, Ming En and Ricky - SDP Assignment".

Figure 141: Admin Homepage

Navigation Bar (Admin)

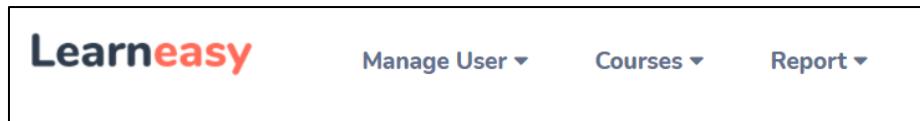


Figure 142: Navigation Bar

The admin navigation bar contains 4 dropdown list tabs, which are “Manage User” where admin able to manage student, teacher and admin, while “Courses” is to let the Admin to monitor/review or manage the 3 categories of courses (IT, Business, Design) and “Report” for Admin to view the statistics of the enrolment of each course and the enrolment duration of each student in the course.

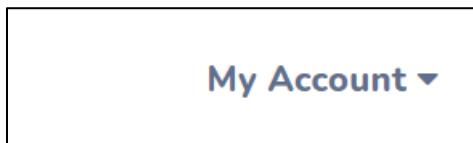


Figure 143: My Account (nav)

Right site of the admin navigation bar, admin able to logout when the mouse scroll over the “My Account” tab and the dropdown list show “Logout”, admin can click to logout.

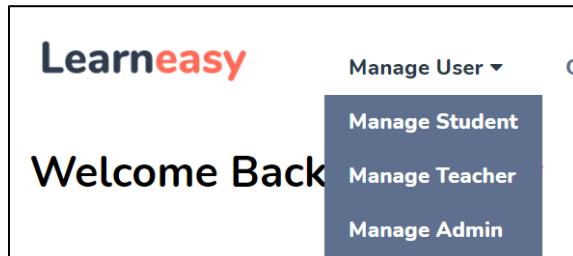


Figure 144: Manage User (nav)

Admin can click on the “Manage Student” to the student list for managing or monitor the student who used the e-learning platform. Besides that, admin can click on the “Manage Teacher” to the teacher list as well as admin able to approve the teacher account and managing teacher. Admin also able to add admin/register for a new admin via the “Manage Admin” tab.

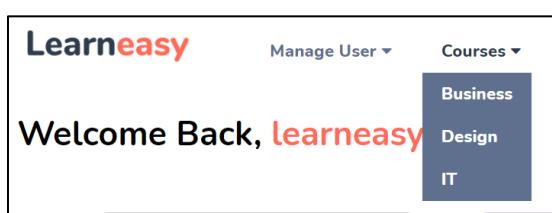


Figure 145: Courses (nav)

Admin can monitor the courses by category such as Business, Design and IT.

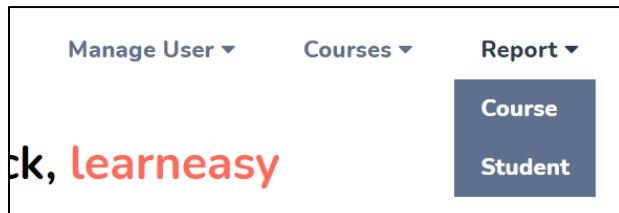


Figure 146: Report (nav)

Admin able to view the statistics on the course or student by clicking the “Course” or “Student” and you will be redirected to the selected page.

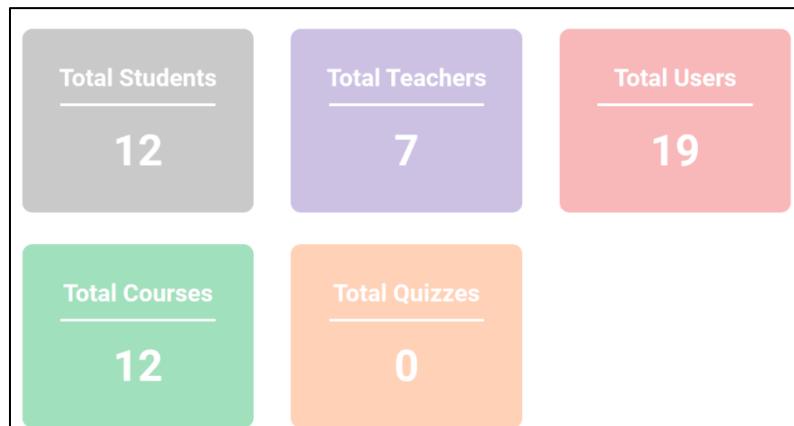


Figure 147: Homepage Statistic

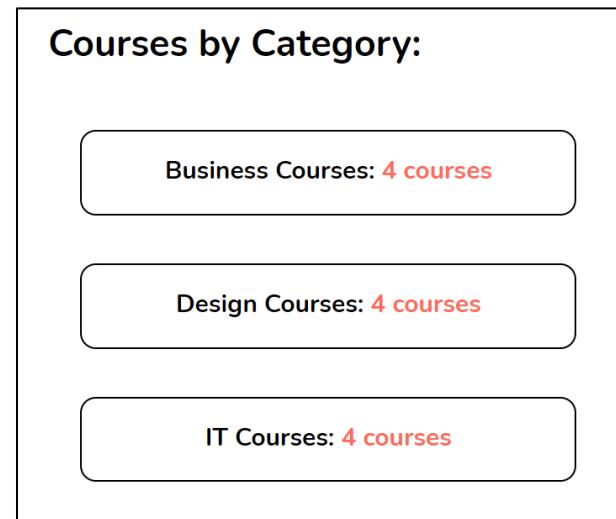


Figure 148: Homepage Statistic (category)

Manage Student page

ID	Username	First Name	Last Name	Email Address	Join Date	View
21	test123	test	test	test123@gmail.com	2021-02-23 08:42:13	<button>View</button>
22	alibaba123	Alison	Babas	rickywong0625@gmail.com	2021-02-23 09:01:09	<button>View</button>
19	Ricky0625	Ricky	Song	rickywong0625@gmail.com	2021-02-22 16:35:47	<button>View</button>
23	Abu007	Abu	Bubu	abububu@gmail.com	2021-03-03 19:49:54	<button>View</button>

Figure 149: Manage Student page

Admin can search student by the username. Besides that, admin can view more details information by clicking the “View” button.

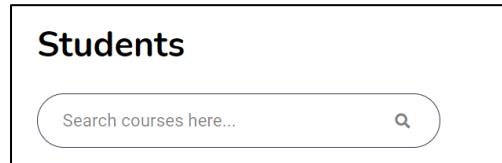


Figure 150: Search Function

ID	Username	First Name	Last Name	Email Address	Join Date	View
21	test123	test	test	test123@gmail.com	2021-02-23 08:42:13	<button>View</button>

Figure 151: Student List

Admin able to view the profile of the student such as username, join date, profile and cover picture, student’s bio and number of course enrolled. Admin can delete a student information by clicking the “Delete” button.



Figure 152: Student profile

Manage Teacher page

ID	Username	First Name	Last Name	Email Address	Join Date	View
1	gareth2020	Gareth	David	gareth_david@gmail.com	2021-03-03	<button>View</button>
2	phlearn2020	PH	Learn	phlearn@gmail.com	2021-03-01	<button>View</button>

Figure 153: Manage Teacher page

ID	Username	First Name	Last Name	Email Address	Join Date	View
1	gareth2020	Gareth	David	gareth_david@gmail.com	2021-03-03	<button>View</button>

Figure 154: Teacher List

ID	Username	Education Proof	Update Status
7	ruthcarman	Business Analysis Fundamentals Resource.pdf	<button>Update</button>

Figure 155: Teacher Approval List

By clicking the “Update” button, teacher status will be change from status = “0” to “1”. Once the teacher account has been approved, then teacher only can create their courses. If the status has successfully updated, a message box will show same as the picture below (figure 156).

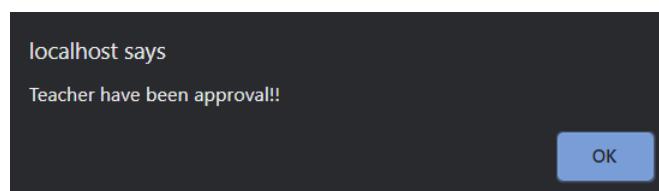


Figure 156: Teacher approved

Gareth David

@gareth2020

★ 0

Joined 2021/03/03

Hi, this is Gareth the design guy!
Can't wait to create more design courses for everyone
who loves design and loves to learn more about design!
See you all in my courses! Happy Design!

Figure 157: Teacher profile

Admin able to delete or change the status of the teacher, click on the “Change Status” the status will be change to “0” which teacher unable to create course. Besides that, click on the “Delete” button, information of the teacher will be deleted.

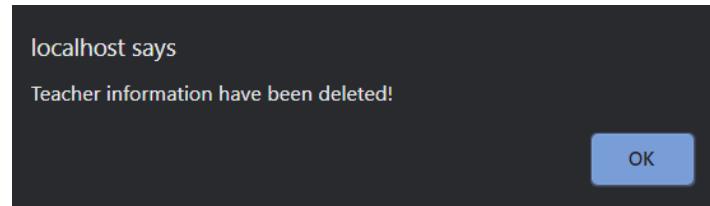


Figure 158: Deleted message

Manage Admin page

Admin					
ID	Username	First Name	Last Name	Email Address	Delete
13	jadson	Jadson	Chong	jadson@gmail.com	<button>Delete</button>
11	learneeasy	learn	easy	learneeasy@gmail.com	<button>Delete</button>

Figure 159: Manage Admin page

Admin able to add new admin by clicking on the “Add Admin” button and the result will display below the admin list. Besides that, admin also able to delete admin by clicking on the “Delete” button.

Figure 160: Admin Registration form

If the admin enters a different password in the password and confirm password field. An alert box will show as the picture below(figure 161). Else, if fulfill all the requirement, the admin is successfully added.

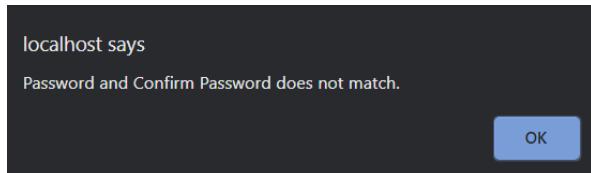


Figure 161: Error Message

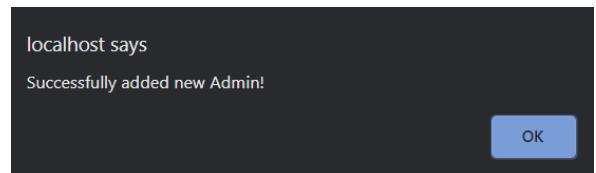


Figure 162: Admin added message

Course page

Courses			
Introduction into Adobe InDesign Elon Gattie Design	Communication Skills Elon Gattie Business	Ultimate guide of Adobe Photoshop Elon Gattie Design	Fundamentals of Graphic Design Elon Gattie Design
Digital Marketing Guide Elon Gattie Business	Enterprising & Entrepreneurial Elon Gattie Business	Complete Beginners Guide for Illustrator Elon Gattie Design	JavaScript Tutorials Elon Gattie IT
HTML and CSS Tutorials Elon Gattie IT	Business Analysis Fundamentals Elon Gattie Business	PHP Tutorials Elon Gattie IT	C++ Tutorials Elon Gattie IT

Figure 163: Course page

Design Courses			
Introduction into Adobe InDesign Elon Gattie Design	Ultimate guide of Adobe Photoshop Elon Gattie Design	Complete Beginners Guide for Illustrator Elon Gattie Design	Fundamentals of Graphic Design Elon Gattie Design

Figure 164: Business course (category)

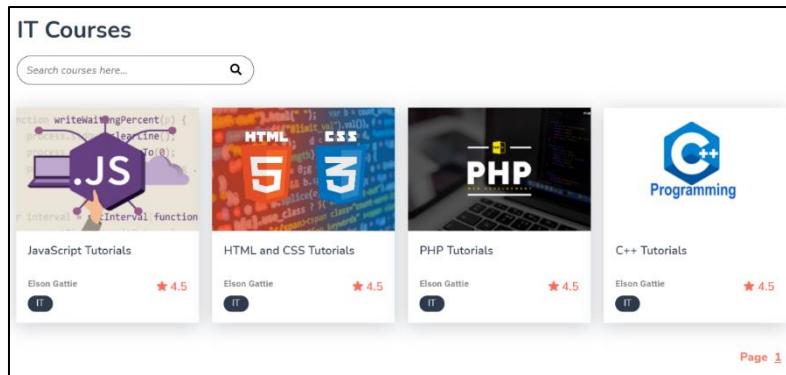


Figure 165: IT course (category)

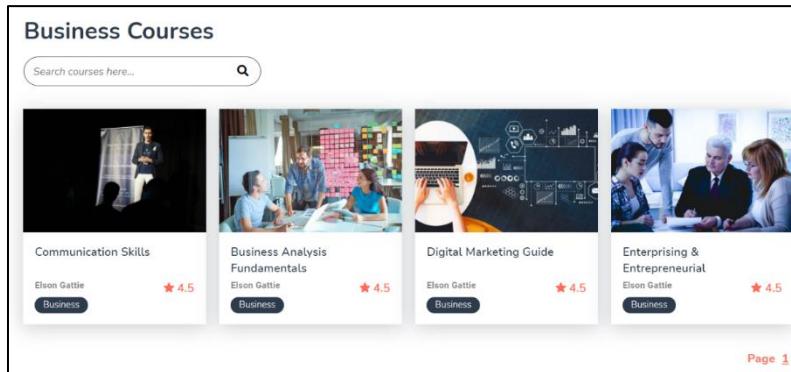


Figure 166: Business course (category)

Course Content page

The screenshot displays the 'JavaScript Tutorials' course content page on the Learneasy platform. At the top, there's a navigation bar with 'Learneasy', 'Manage User', 'Courses', 'Report', and 'My Account'. Below the navigation is the course title 'JavaScript Tutorials' and a video thumbnail featuring a smiling man. To the right of the video is a sidebar titled 'Chapters' listing several video titles. Below the video, there are tabs for 'About', 'Ratings', 'Q&A', and 'Resources & Quiz', with 'About' being the active tab. The 'About' section contains a bio for Dani Krossing and a summary of the course's focus on teaching JavaScript programming. The overall layout is clean and professional.

Figure 167: Course Content page

The course content page will be same as the teacher and student view but the only things that admin can do is just monitor/view the courses. Admin unable to comment or give ratings to the course.

About Ratings Q&A Resources & Quiz

About the class

In this JavaScript tutorial for beginners you will learn what JavaScript is and how JavaScript is used inside websites. This JavaScript for beginners course will only focus on teaching JavaScript programming, and not any of the frameworks, libraries or platforms. So if you are completely new at JavaScript programming then this course is a great place to start!

Reminder

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ridiculus convallis turpis arcu in fermentum, maecenas libero. Risus, praesent quis enim hieulo condimentum. Pharetra, iaculis lacus, in et commodo sed. In congue magna enim ornare egestas.


Dani Krossing

On my course you will find online computer courses in programming and multimedia skills for people who wants to learn web development or video production. The courses include video editing, HTML, CSS, JavaScript, Bootstrap, and PHP tutorials.

Figure 168: About the course

About Ratings Q&A Resources & Quiz

How students rated this course

 0
No reviews...
(Based on 0 reviews)

Review

5	0
4	0
3	0
2	0
1	0



Nothing here...

Figure 169: Rating tab

About Ratings **Q&A** Resources & Quiz

1 Questions

Hello is me Win Yip


Alison Babas
2021/03/12

Figure 170: Q&A tab

About Ratings Q&A **Resources & Quiz**

Resources

Click on the name of the file to download.

 Fundamentals of Business Analysis

Quiz



Nothing here...

Figure 171: Resources & Quiz tab

Report (Course)

The screenshot shows the 'Courses' section of the LearnEasy platform. At the top, there is a navigation bar with links for 'Manage User', 'Courses', 'Report', and 'My Account'. Below the navigation is a search bar labeled 'Search courses here...' with a magnifying glass icon. The main area displays a table with four columns: 'ID', 'Course Name', 'Course Category', and 'Course Created Date'. Each row contains a 'View' button. The data in the table is as follows:

ID	Course Name	Course Category	Course Created Date	Action
1	Business Analysis Fundamentals	Business	2021-02-23 08:42:13	<button>View</button>
2	Communication Skills	Business	2021-02-23 08:42:13	<button>View</button>
3	Digital Marketing Guide	Business	2021-02-23 08:42:13	<button>View</button>
4	Enterprising & Entrepreneurial	Business	2021-02-23 08:42:13	<button>View</button>

Figure 172: Report course

Admin able to monitor the courses as well from the report page. Admin able to view more details information such as total number of students enrolled in the course by the student unique ID, username and enroll start date.

The screenshot shows the 'Course Details' page for the 'Business Analysis Fundamentals' course. At the top left is a 'Back' button. The main title is 'Courses'. Below the title is a thumbnail image of three people working at a desk. To the right of the image, the course details are listed: 'Course Name : Business Analysis Fundamentals', 'Course Category : Business', and 'Course Created By : Amy Smith'. A horizontal line separates this from the 'Course Description'. The description text is: 'Fundamentals of Business Analysis is a core course in the Business Analyst Certificate Program. This program focuses on the set of tasks and techniques a business analyst uses to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and to recommend solutions that enable the organization to achieve its goals. Today, business analysis encompasses a set of well-defined skills and knowledge that combine traditional business topics with technical topics. This is because the solution to business problems often involves the implementation of some sort of technology-centered solution.' Below the description is the 'Course Created Date : 2021-02-23 08:42:13'. At the bottom are two buttons: 'View Course' and 'Report'.

Figure 173: Course Details

In this course details page, all the course information such as course name, course category, course created by, course cover picture, course description and course created date. Click on the “View Course” button to view the content of the course. Else, click on the “Report” button, a modal box will show the statistics of the course.

Course Statistics		
Total Students	ID	Username
1	22	alibaba123

Figure 174: Course Statistics

In the report page, it will show how many students enrolled in this course, the student details contain of student ID, student username and the student enrolled start date.

Report (student)

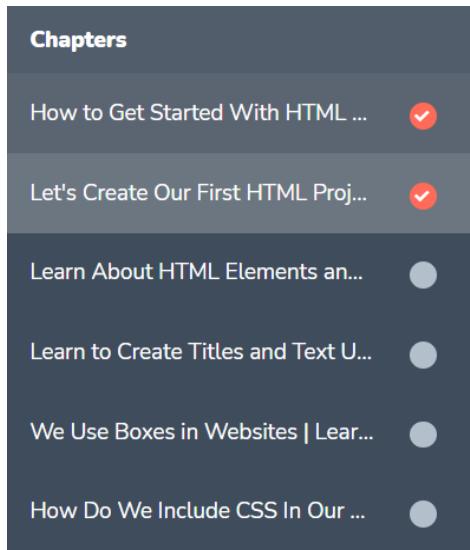
Student Enrollment Report						
ID	Username	Enroll Start Date	Enroll End Date	Duration(Days)	Course ID	
26	maria2020	2021-03-05	2021-03-06	1	36	
24	Ricky0635	2021-03-05	2021-03-06	1	36	
22	alibaba123	2021-03-05	2021-04-30	56	36	
22	alibaba123	2021-03-09	2021-03-16	7	35	

Figure 175: Student Enrollment Report

Student enrollment report list, if the student completed the course, the list would show the student information by his ID, username, enrollment start and end date, the duration of completing the course and course ID.

14.0 Report Designs and User Manual

- *Student*



This is student progress bar when student finished the chapter, student required to check the checkbox manually. If student checked all the checkboxes, mean that the student has completed the courses and the course will be display in the “Completed” tabs in the Student Homepage as the picture below. The information require for the student progress bar is from the enrolment table. Retrieving the data from the enrolment table which are the content sequences and course ID from course table, enrolment ID (enrolment table) and student ID (student table). By using the IDs, the progress status and cont_sequence able to update into the database (progress table) according to the IDs. At the same times, the enrolment progress column in the enrolment table will also update based on the data from progress table.

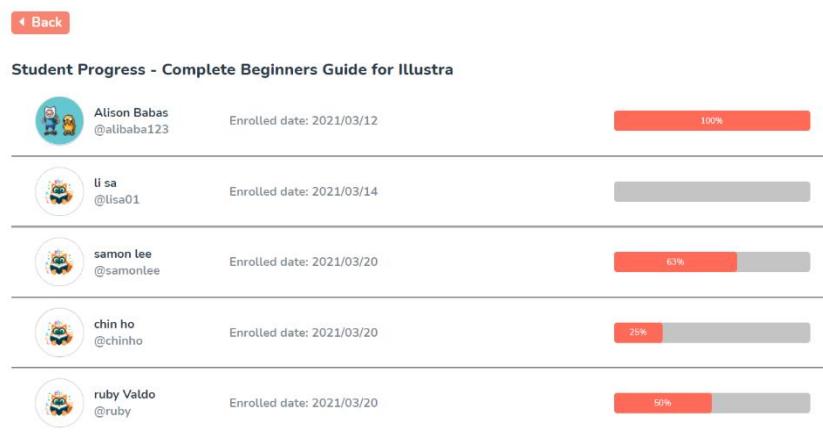
A screenshot of a student homepage for "Learneasy". The top navigation bar includes links for "Course ▾", "Quiz", "About Us", and "FAQ". Below the navigation, it says "Welcome Back, Alison Babas.". A dark blue footer bar contains three tabs: "Home", "In Progress", and "Completed". The "Completed" tab is underlined, indicating it is the active tab.

Student completed the course and will be show in this “Completed” tab in the student homepage. Besides that, student will also get a certificate (as the picture below: Certificate of Completion) which they have completed the courses. The information of the student, course will be show inside the certificate, student able to know what the course is the student completed, completed date and the student’s name.

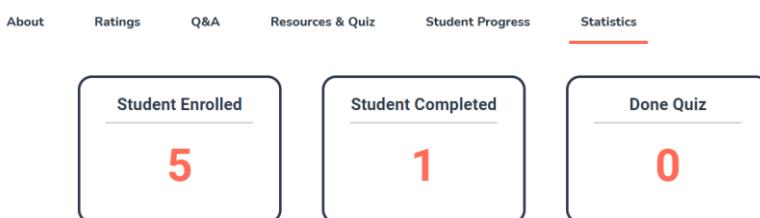
Certificate of Completion



- *Teacher*



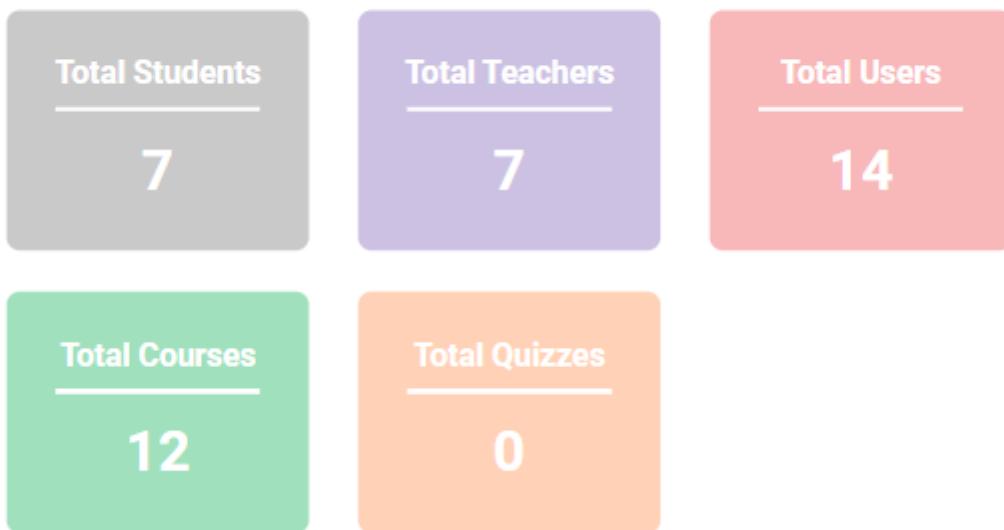
The progress checked by the students will update to “Student Progress” tab from teacher site immediately. The information required for the progress bar is from the enrolment table. If the enrolment progress is “0”, then it will be a light grey bar background without percentage, else it will show as the picture above. It calculates by the enrolment progress from the enrolment table of each student from the course. The student progress will also require joining student table as well to get the student username.



In course statistics tab, teacher able to view 3 kind of statistic where are the total number of students enrolled in this course, total number of students completed this course and total number of students done quiz. Teacher able to know the total enrollment of the course where calculate by the cour_id from the enrolment table. For example: the course ID created by the teacher is “1”, so by using the course ID, calculate total of course ID found in the enrolment table and the result will display in the Student Enrolled statistics box. The student completed will be calculated by the enrolment end date from the enrolment table by course ID as well. Apart from that, the quiz statistics will be calculated from the result table and join the table to quiz table. In this case, we are able to get the numbers of how many students has completed the quiz from the result table (by the quiz_id) and use the quiz_id from the quiz table where after getting the course ID information from the join table which is quiz table.

- *Admin*

Welcome Back, **learneasy**



This the Homepage for Admin system. There are 5 statistics boxes where calculate the total students, teachers, users, courses and quizzes. The data information required and provided as the following lists below.

1. Total Students: The statistics count the total students from the student table where calculate by the “stud_id”.
2. Total Teachers: The statistics count the total teachers from the teacher table where calculate by the “teac_id”.
3. Total Users: The statistics count by the total students and total teachers (not included admin). Retrieving the data from the student table and teacher table which are “stud_id” and “teac_id”. Then, create a variable named “total users” where will calculate from the “stud_id” + “teac_id”.
4. Total Courses: The statistics count the total courses from the course table where calculate by the “cour_id”.
5. Total Quizzes: The statistics count the total quizzes from the quiz table where calculate by the “quiz_id”.

Courses by Category:

Business Courses: 4 courses

Design Courses: 4 courses

IT Courses: 4 courses

Besides that, calculate the courses by the category will also show in the Admin Homepage as well. The information that I used to calculate the total courses by category is from the course table. Retrieving the data from the course table, and categorize the course by a column in the course table named “cour_category”. In this column, it can be known as saving the category/types of the courses. So, calculate the “cour_id” based on the “cour_category” will display the output result as the picture above.

There are also a report tabs in the Admin system. In the tab, admin able to view the course report and student report. In the picture below, it is a course report where will calculate the total enroll students in the course. It will also display the enrolled student's id, username and enrollment start date for details information.

Course Statistics

Total Students	ID	Username	Enrollment Start Date
3	26	maria2020	2021-03-05
	24	Ricky0635	2021-03-05
	22	alibaba123	2021-03-05

The information needed for the course statistics is from the enrolment table and join the student table where to get the student's username. First, retrieving the data from the enrolment table calculate by each of the course ID ("cour_id"). It will also need the enrollment start date ("enro_start_date") as well. Then, to get the student's name, the steps is to join to the student table. In this case, there are a column named in the enrolment table which is "stud_id", so we are able to join to the student table because there is also same column named which is "stud_id". After join to the student table, the report able to retrieve data of the student username.

Student Enrollment Report

Student Enrollment Report					
ID	Username	Enroll Start Date	Enroll End Date	Duration(Days)	Course ID
24	Ricky0635	2021-03-05	2021-03-16	11	36

This is the student enrollment report where calculate the duration of student to complete a course. The information requires to form this enrollment report is from the enrolment table. It will also require joining student table same as the process in the course report above to get the student's username. Other than that, all the information is able to get from the enrolment table which are ID, enroll start date, enroll end date and Course ID. The duration is calculated by the enroll start date and end date. It is a subtraction from enroll end date minus to enroll start date.

15.0 Test Plan

- 15.1 Ricky Wong Tiong Song – TP054622 (Manage Course)

Title:	Learneeasy E-Learning System
Component Name:	View Course (Student)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successfully show enroll course page if student not yet enroll the course.	Click on the course that not yet been enrolled by the student.	1. Click on a course card. 2. Examine the result.	-	Student will be redirected to “Enroll Course page” without any error.	Student redirect to Enroll course page successfully.	Pass
CR002	Successfully show course if the student already enrolls the course.	Click on the course that been enrolled by the student.	1. Click on an enrolled course card. 2. Examine the result.	-	Student will redirect to course content page where they can gain full access of the course.	Student redirect to course content page successfully.	Pass
CR003	Successfully show course or enroll course page that is same as the user’s choice.	Click three different course cards.	1. Click on the first course card. 2. Check the detail of the following page is corresponding to user’s choice. 3. If match, proceed to next course card.	1. Click on the course card which course id = 3. 2. Click on the course card which course id =36. 3. Click on the course card which course id = 38.	The user will be able to view either enroll course page or course content page that is corresponding to the choice.	Course cards will show the corresponding details according to user’s choice.	Pass

Title:	Learneasy E-Learning System
Component Name:	View Course (Visitor)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successfully show “Enroll course page”.	Click on one of the course cards.	1. Click on a course card. 2. Examine the result.	-	Visitor will only be redirected to “Enroll course page” no matter what course card they choose.	Visitor redirect to “Enroll course page” successfully .	Pass
CR002	Successfully show “Enroll course page” that is same as the user’s choice.	Click three different course cards.	1. Click on the first course card. 2. Check the detail of the following page is corresponding to user’s choice. 3. If match, proceed to next course card.	1. Click on the course card which course id =1. 2. Click on the course card which course id =37. 3. Click on the course card which course id =40.	The user will be able to view either enroll course page that is corresponding to the choice.	Course cards will show the corresponding details according to user’s choice.	Pass

Title:	Learneasy E-Learning System
Component Name:	View Course (Teacher)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successfully show course page (teacher view).	Click on one of the courses which is belongs to the logged teacher.	1. Click on a course card. 2. Examine the result.	-	Teacher will be redirected to the corresponding course page (teacher view).	Teacher successfully enter corresponding course page (teacher view).	Pass
CR002	Successfully show the course that is corresponding to the user’s choice.	Click three different course cards.	1. Click on the first course card. 2. Check the detail of the following page is corresponding to user’s choice. 3. If match, proceed to next course card.	1. Click on the course card that is belongs to the teacher. 2. Examine the result.	Teacher should be able to redirect to the corresponding course page(teacher view) and the details of the page is correct.	Course cards will show the corresponding details according to user’s choice and the details are correct.	Pass

Title:	Learneasy E-Learning System
Component Name:	View Course (Admin)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successfully show course page (admin view).	Click on one of the courses cards.	1. Click on a course card. 2. Examine the result.	-	Admin will be redirected to the corresponding course page (admin view).	Admin successfully enter corresponding course page (admin view).	Pass
CR002	Successfully show the course that is corresponding to the user's choice.	Click three different course cards.	1. Click on the first course card. 2. Check the detail of the following page is corresponding to user's choice. 3. If match, proceed to next course card.	1. Click on the course card which course id =2. 2. Click on the course card which course id =34. 3. Click on the course card which course id = 39.	Admin should be able to redirect to the corresponding course page(admin view) and the details of the page is correct.	Course cards will show the corresponding details according to user's choice and the details are correct.	Pass

Title:	Learneasy E-Learning System
Component Name:	Search Course (All User)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successfully display the related course based on the keyword.	Enter a certain keyword.	1. Enter a keyword in the search bar. 2. Click search button.	Enter “Fundamental” in the search bar.	Courses name that has “Fundamental” word in it should be displayed.	Course with the name that includes “Fundamental” displays in the course list.	Pass
CR002	Successfully display nothing when searching something that is not exists.	Enter a certain keyword.	1. Enter a keyword in the search bar. 2. Click search button.	Enter “Master” in the search bar.	Nothing should be displayed.	Nothing displayed in the course list.	Pass

Title:	Learneasy E-Learning System
Component Name:	Create Course (Teacher)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Unsuccessful – Unverified teacher cannot create course.	Login into an unverified teacher account.	1. Login into unverified teacher account. 2. Click on the Create Course button.	-	An alert box should appear which indicates the teacher account not yet been verified.	Alert box appears.	Pass
CR002	Successful – Verified teacher can enter create course page.	Login into a verified teacher account.	1. Login into verified teacher account. 2. Click on the Create Course button.	-	No alert box should appear, and teacher should be redirected to the create course page successfully.	No alert box appears. Teacher successfully redirect to the create course page.	Pass
CR003	Unsuccessful – Teacher will not be able to submit course detail form if there is a blank field.	Leave some text field blank on the course detail form.	1. Submit the form without fill in anything. 2. Check the form will be submitted or not.	-	The form is not going to submit.	The form is not submitting to the server side. There will be alert box beside the blank field.	Pass
CR004	Successfully submit the course detail form if all the given field are filled and the cover picture is uploaded.	All the fields must be filled with information.	1. Enter all the fields. 2. Click “Next” to submit the form. 3. Check if the page will be redirected to upload content page. (Means success).	Course name: “Introduction into Sketch”. Course Description: “Learn how to sketch in few steps.” Category: “Design” Cover picture: Random picture on local device.	The form should be submitted to the server side. An alert box should come along before redirect to upload content page.	The course detail form has been submitted successfully. The alert box appears, and teacher is able to redirect to upload content page.	Pass
CR005	Unsuccessful – Teacher will not be able to submit upload content form if there is a blank field.	Leave some text field blank on the upload content form.	1. Submit the form without fill in any info or upload any content. 2. Check the form will be submitted or not.	-	The form is not going to submit.	The form is not submitting to the server side. There will be alert box beside the blank field.	Pass
CR006	Successfully submit the upload content form if all the given field are filled and the content is uploaded.	All the fields must be filled with information and must choose one video to upload.	1. Enter all the fields. 2. Click “OK” to submit the form. 3. Check if the uploaded content appears in the content list. (Means success)	Chapter name: “Introduction”. Content: Random video on the local device.	The form should be submitted to the server side. An alert box should come along. The added content should be listed down in the content list.	The upload content form has been successfully submitted to server side. The alert box appears. The uploaded content is listed in the content list.	Pass

CR007	Unsuccessful – Teacher will not be able to submit upload resource form if there is a blank field.	Leave some text field blank on the upload resource form.	1. Submit the form without fill in any info or upload any resource. 2. Check the form will be submitted or not.	-	The form is not going to submit.	The form is not submitting to the server side. There will be alert box beside the blank field.	Pass
CR008	Successfully submit the upload content form if all the given field are filled and the content is uploaded.	All the fields must be filled with information and must choose one resource to upload.	1. Enter all the fields. 2. Click “OK” to submit the form. 3. Check if the uploaded resource appears in the resource list. (Means success).	Resource title: “Sketch Example”. Resource: Random document on the local device.	The form should be submitted to the server side. An alert box should come along. The added resource should be listed down in the resource list.	The upload resource form has been successfully submitted to server side. The alert box appears. The uploaded resource is listed in the resource list.	Pass

Title:	Learneasy E-Learning System
Component Name:	Edit Course (Teacher)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successful update the course detail without reupload the cover picture for the course.	Edit a course that is already been made.	1. Update the information of the course detail except no upload new cover picture. 2. Press “Next” to submit.	Update course name from “Introduction to Sketch” to “Sketching”.	The information that needs to be updated should be updated. Even though the upload cover picture input is empty, it needs to be successful to update too.	Information successfully updated without reupload new cover picture.	Pass
CR002	Successful update the course detail with a single quotation inside course description. (SQL Injection Prevention).	Need to have a single quotation inside the course description.	1. Update the course description by adding one single quotation. 2. Press “Next” to submit the form.	Update course description by adding one single quotation.	The form needs to be submitted successfully. An alert box that indicates the process the successful should appears.	As expected, text with single quotation can now update into database. The alert box appears as desired.	Pass
CR003	Successful update the course detail without reupload the content video for the course.	Edit on a content that is already listed in the content list.	1. Update the information of the content except no upload new content video. 2. Press “Submit” to submit.	Update content title from “Introduction” to “Introduction: Sketching”.	The information that needs to be updated should be updated. Even though the upload content video input is empty, it needs to be successful to update too.	Information successfully updated without reupload new content video.	Pass
CR004	Successful update the course resource without reupload the resource for the course.	Edit on a resource that is listed in the resource list.	1. Update the information of the resource except no reupload the resource. 2. Press “Submit” to submit.	Update resource title from “Sketch Example” to “Sketch demo”.	The information that needs to be updated should be updated. Even though the upload resource input is empty, it needs to be successful to update too.	Information successfully updated without reupload new resource.	Pass

Title:	Learneasy E-Learning System
Component Name:	Delete Content (Teacher)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successful delete the selected content.	Delete a content that is listed in the content list.	1. Click on the delete button which located beside edit button.	-	Content deleted and alert box appears to indicate it is successful.	Selected content deleted. Alert box appears.	Pass

Title:	Learneasy E-Learning System
Component Name:	Delete Resource (Teacher)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successful delete the selected resource.	Delete a resource that is listed in the resource list.	1. Click on the delete button which located beside edit button.	-	Resource deleted and alert box appears to indicate it is successful.	Selected resource deleted. Alert box appears.	Pass

Title:	Learneasy E-Learning System
Component Name:	Delete Course (Teacher)
Tester Name:	Ricky Wong Tiong Song
Date of Creation:	15-03-2021
Date of Review:	15-03-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Successful delete the selected course and all related data.	Delete a course.	1. Click on the delete button which located in the edit course page. 2. Check if success the user will redirect to teacher homepage or not.	Delete "Sketching" course.	The course should be deleted successfully, and one alert box should appear to indicate the process is successful.	Selected course deleted. Alert box appears. User redirect to teacher homepage.	Pass

- 15.2 Chai Ming En – TP055741 (Manage QnA)

Title:	Learneeasy E-Learning System
Component Name:	Student (QnA)
Tester Name:	Chai Ming En (TP055741)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Q&A tab	Click Q&A tab to view all question that have post by student	1. Click Q&A tab	Questions have been posted by student	All question that has been ask by student for specific course should be displayed in Q&A section	All question successfully displayed in Q&A section	Pass
CR002	Post Question	Fill in valid input	1. Fill in valid input into post question text area	Sample question for the course	-Question able to insert into database -Show in Q&A section -Notification about insert successfully	Question successfully inserts into database	Pass
CR003	Empty the text area of ask question- unable to insert post question	Leave text area of ask question with empty	1. Select text area 2. Click ask question button	Empty	No data will be insert into database	No date inserts into database. When student click ask question button when empty, the button will be disappeared	Pass
CR004	Transferred to question discussion page	Click view question discussion button.	1. Decide a question want to view 2. Click the view question	View question button	Directly transferred to question discussion page	Successfully transferred to question discussion page	Pass
CR005	Empty the text area of ask answer question- unable to answer question	Leave text area of answer question with empty	1. Click “Post” button	Empty	Unable to insert empty to data when empty	Validation successfully , notification shown to remind student fill in the text area	Pass
CR006	Add answer	Fill in sample answer and click post button	1. Fill in sample answer into text area 2. Click “Post” button	Sample answer such as the answer to the question selected in Q&A section	Successfully insert data into database - show the answer below the question - notification about insert successfully	Data successfully insert into database and a alert box will notice data has been insert successfully. The answer also will be display in question discussion page	Pass
CR007	Back button	Click “Back” Button	Click “Back” button	“Back” button	After clicked back button in question discussion page will directly transferred to Q&A section	Successfully transferred to Q&A section	Pass

Title:	Learneasy E-Learning System
Component Name:	Teacher (QnA)
Tester Name:	Chai Ming En (TP055741)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Q&A tab	Click Q&A tab to view all question that have post by student	1. Click Q&A tab	Questions have been posted by student	All question that has been ask by student for specific course should be displayed in Q&A section	All question successfully displayed in Q&A section	Pass
CR002	Question discussion page	Click view question discussion button	1. Decide a question want to view 2. Click the view question button	View question button	Directly transferred to question discussion page and the question and previous answer will be displayed in this page	Successfully transferred to question discussion page. Question and all of the previous answer have been displayed	Pass
CR003	Empty the text area of ask answer question- unable to answer question	Leave text area of answer question with empty	Click “Post” button	Empty	Unable to insert empty to data when empty	Validation successfully , notification shown to remind student fill in the text area	Pass
CR004	Add answer	Fill in sample answer and click post button	1. Fill in sample answer into text area. 2. Click “POST” button	Sample answer such as the answer to the question selected in Q&A section	Successfully insert data into database - Show the answer below the question - Notification about insert successfully	Data successfully insert into database and a alert box will notice data has been insert successfully. The answer also will be display in question discussion page	Pass
CR005	Back button	Click “Back” Button	Click “Back” Button	“Back” button	After clicked back button in question discussion page will directly transferred to Q&A section	Successfully transferred to Q&A section	Pass

Title:	Learneasy E-Learning System
Component Name:	Admin (QnA)
Tester Name:	Chai Ming En (TP055741)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Q&A tab	Click Q&A tab to view all question that have post by student	1. Click Q&A tab	Questions have been posted by student	All question that has been ask by student for specific course should be displayed in Q&A section	All question successfully displayed in Q&A section	Pass
CR002	Question discussion page	Click view question discussion button	1. Decide a question want to view 2. Click the view question button	View question button	Directly transferred to question discussion page and the question and previous answer will be displayed in this page	Successfully transferred to question discussion page. Question and all of the previous answer have been displayed	Pass
CR003	Back button	Click "Back" Button	Click "Back" button	"Back" button	After clicked back button in question discussion page will directly transferred to Q&A tab section	Successfully transferred to Q&A tab section	Pass

- 15.3 Chong Win Yip – TP056517 (Manage User)

Title:	Learneasy E-Learning System
Component Name:	Sign In Page (Student/Teacher)
Tester Name:	Chong Win Yip (TP056517)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Unsuccessful - without fill in all required input field	Empty the username or password text field	1. Fill in the username text field but not password text field 2. Click on submit button	User information such as username and password when user register (required for login page)	1. Error message “Please fill out this field” 2. Not able to login with empty text field	1. Error message show out 2. Failed to login	Pass
CR002	Unsuccessful - fill in username and password to login but not select the correct user role	Student username and password where save in the database and select user role “Teacher”	1. Select “Teacher” user role’s button 2. Fill in student username and password 3. Click on submit button	Username and password where save in the database. Examples testing student information: (username = “alibaba123”, password = “123456789”)	1. Error message “Student does not exist!” 2. Not able to login with wrong user role.	1. Error message show out 2. Failed to login	Pass
CR003	Unsuccessful - fill in username and password to login but not select the correct user role	Teacher username and password where save in the database and select user role “Student”	1. Select “Student” user role’s button 2. Fill in teacher username and password 3. Click on submit button	Username and password where save in the database. Examples testing teacher information: (username = “gareth2020”, password = “gareth2020”)	1. Error message “Teacher does not exist!” 2. Not able to login with wrong user role.	1. Error message show out 2. Failed to login	Pass
CR004	Unsuccessful -correct username and user role but invalid or wrong password	Fill in wrong password information	1. Select correct user role 2. Fill in correct username based on the user role selected 3. Key in wrong password 4. Click on submit button	Correct student or teacher’s username and select “Student” or “Teacher” user role, key in wrong password. 1. Examples testing student information: (username = “ alibaba123”, password = “123”) 2. Examples testing teacher information: (username = “ gareth2020”, password = “123”)	1. Error message “Opps! Wrong Password” 2. Not able to login with wrong password.	1. Error message show out 2. Failed to login	Pass
CR005	Unsuccessful - Invalid username and password	Fill in wrong username and password not in the database	1. Key in invalid username and password 2. Click on submit button	Examples testing user information: (username = “ testing”, password = “123”)	1. Error message “Student does not exist!” or if select “Teacher” user role, error message “Teacher does not exist!” 2. Not able to login	1. Error message show out 2. Failed to login	Pass
CR006	Successfully Login	Valid credential detail	1. Key in valid credential detail 2. Click on submit button	Credential details such as username, password and select correct user role	1. Able to access to Homepage 2. Successfully message “Welcome Back, (username)”	1. Success message show out 2. Login successfully, display Homepage	Pass

Title:	Learneasy E-Learning System
Component Name:	Sign Up Page (Student/Teacher)
Tester Name:	Chong Win Yip (TP056517)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Unsuccessful - without fill in all required input field	Empty all the required text field such as first name, last name, username, email, password and confirm password	1. No filing in any data, details information 2. Click on “SIGN UP” button	User registration information	1. Error message “First name cannot be blank” Error message “Last name cannot be blank” Error message “Username cannot be blank” Error message “Email cannot be blank” Error message “Password cannot be blank” 2. Not able to register	1. Error message show out 2. Failed to register	Pass
CR002	Unsuccessful – without tick the “Agree to Terms & Conditions” checkbox	Empty the checkbox “Agree to Terms & Conditions”	1. Field in all the requirement 2. Before submitting, don’t tick the checkbox 3. Click on “SIGN UP” button	-	1. Error message “Please check this box if you want to proceed” 2. Unable to register	1. Error message show out 2. Failed to register	Pass
CR003	Unsuccessful - fill in existed username	Key in an existed username and register a new account	1. Fill in an existed username 2. Also key in other required information 3. Click on “SIGN UP” button	Existed username = “alibab123” and user registration information	1. Error message “ Username already existed” 2. Not able to register	1. Error message show out 2. Failed to register	Pass
CR004	Unsuccessful - fill in existed email address	Key in an existed email and register a new account	1. Fill in an existed email address. 2. Also key in other required information 3. Click on “SIGN UP” button	Existed email = “test123@gmail.com ” and user registration information	1. Error message “ Email already existed ” 2. Not able to register	1. Error message show out 2. Failed to register	Pass
CR005	Unsuccessful - fill in different information in the password and confirm password field	Key in different password in password field and also in confirm password filed.	1. Fill in all required information 2. Key in different password for password field and confirm password field. Examples: (password = ‘123456789’) and (confirm password = “234567890”) 3. Click on “SIGN UP” button	User registration information, a different password for password field and confirm password field.	1. Error message “ Password and Confirm Password does not match ” 2. Not able to register	1. Error message show out 2. Failed to register	Pass
CR006	Successfully register	Valid credential detail	1. Key in all information 2. Tick “Agree to Terms & Conditions” checkbox	Information such as first name & last name, not existed username & email and match the password and confirm password	1. Able to access to Homepage 2. Successfully message “Welcome Back, (username)”	1. Success message show out 2. Register successfully and redirect to Homepage	Pass

			3. Click on “SIGN UP” button				
CR007	Only for Teacher Register Page Unsuccessful – without submit proof of education file	Choose file to submit as education proof for registration	1. Fill in all the required information 2. Without submitting the education proof file 3. Tick “Agree to Terms & Conditions” 4. Click “SIGN UP” button	-	Unable to complete the registration form	Failed to register	Pass

Title:	Learneasy E-Learning System
Component Name:	Add Admin Page (Admin)
Tester Name:	Chong Win Yip (TP056517)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

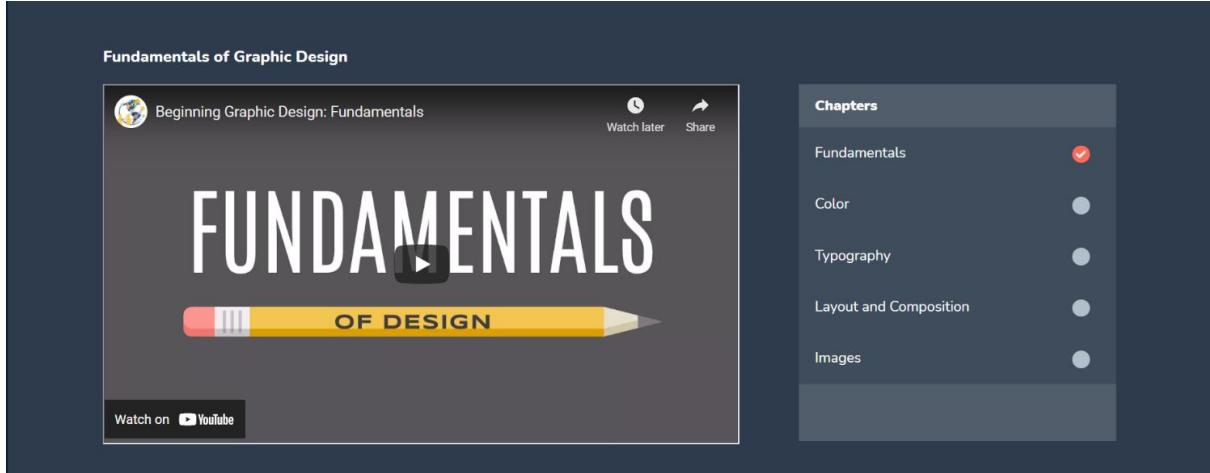
Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Unsuccessful - without fill in all required input field	Empty any of the input field	1. Fill in some of the required input field, not all 2. Click on “ADD ADMIN” button	Admin registration information	1. Error message “Please fill out this field” 2. Not able to add admin	1. Error message show out 2. Failed to register new admin	Pass
CR002	Unsuccessful - password and confirm password not match	Key in different password in password field and also in confirm password filed.	1. Fill in all required information 2. Key in different password for password field and confirm password field. 3. Click on “ADD ADMIN” button	User registration information, a different password for password field and confirm password field. Examples: (password = ‘123456789’) and (confirm password = ‘234567890’)	1. Error message “ Password and Confirm Password does not match” 2. Not able to register .	1. Error message show out 2. Failed to add new admin	Pass
CR003	Successfully added new admin	Valid admin information	1. Key in all information 2. Click on “ADD ADMIN” button	Information such as first & last name, not existed username & email and match the password and confirm password	1. Successfully message “Successfully added new admin”	1. Success message show out	Pass

Title:	Learneasy E-Learning System
Component Name:	Sign In Page (Admin)
Tester Name:	Chong Win Yip (TP056517)
Date of Creation:	12-3-2021
Date of Review:	12-3-2021

Test ID	Test Objectives	Precondition	Steps	Test Data	Expected Result	Actual Result	Status (P/F)
CR001	Unsuccessful - without fill in all required input field	Empty the username or password text field	1. Fill in the username text filed but not password text field 2. Click on submit button	User information such as username and password when user register (required for login page)	1. Error message “Please fill out this field” 2. Not able to login with empty text field	1. Error message show out 2. Failed to login	Pass
CR002	Unsuccessful -correct username but invalid or wrong password	Fill in wrong password information	1. Fill in correct username 2. Key in wrong password 3. Click on “SIGN UP” button	1. Correct admin username 2. Examples admin information: (username = “learneasy”, password = “testing123”)	1. Error message “ Username or Password invalid ” 2. Not able to login with wrong password.	1. Error message show out 2. Failed to login.	Pass
CR003	Unsuccessful – Invalid username and password	Fill in wrong username and password not in the database	1. Key in invalid username and password 2. Click on submit button	Examples admin information: (username = “ learnerasy ”, password = “ testing123 ”)	1. Error message “Username or Password invalid” 2. Not able to login	1. Error message show out 2. Failed to login	Pass
CR004	Successfully Login	Valid credential detail	1. Key in valid credential detail 2. Click on “SIGN IN” button	Credential details such as username and password	1. Able to access to Homepage 2. Successfully message “Successfully Login”	1.. Success message show out 2. Login successfully and redirect to Admin Homepage	Pass

16.0 Significant Source Codes – Course Content

Result:



Main code:

```
<div class="course-content-div">
    <p class="content-course-name"><?php echo $cour_name;?></p>
    <div class="course-video-chapter">
        <?php
            //Display the selected course detail
            $sql = "SELECT * FROM content WHERE cour_id = '$cid' AND cont_sequence = 1";
            $result = mysqli_query($conn, $sql);
            $row = mysqli_fetch_array($result);
        ?>
        <iframe id="course-content-iframe" name="course-video" src=<?php echo $row['cont_video_file'];?>" allowfullscreen></iframe>
        <div class="course-chapter">
            <p class="fixed-chapter">Chapters</p>
            <?php
                //Display the selected course detail
                $sql = "SELECT * FROM content WHERE cour_id = '$cid' ORDER BY cont_sequence";
                $result = mysqli_query($conn, $sql);
            ?>
            <if(mysqli_num_rows($result) > 0)>
                while ($row = mysqli_fetch_array($result)){
                    $sequence = $row['cont_sequence'];
                    <div class="chapter-name-div">
                        <a href="#"><?php echo $row['cont_video_file'];?><?php echo $row['cont_title'];?></a>
                        <p class="chapter-name"><?php echo $row['cont_title'];?></p>
                    </div>
                    <form action="update-progress.php" method="POST" class="progress-tracker" id="update-progress-<?php echo $row['cont_sequence'];?>">
                        <input type="hidden" value=<?php echo $sequence;?> name="sequence">
                        <input type="hidden" value=<?php echo $cid;?> name="cid">
                        <input type="hidden" value=<?php echo $sid;?> name="sid">
                    </?>
                    $progsql = "SELECT * FROM progress p, enrolment e WHERE (p.enro_id = e.enro_id) AND (p.cont_sequence = '$sequence') AND (e.cour_id = '$cid') AND (e.stud_id = $sid)";
                    $progresult = mysqli_query($conn, $progsql);
                    $row_status = mysqli_fetch_array($progresult);
                    $prog_status = $row['prog_status'];
                    $check = "";
                    if($prog_status == 1){
                        $check = "checked";
                    }else{
                        $check = "";
                    }
                    <label class="progress-container">
                        <input type="checkbox" onchange="document.getElementById('update-progress-<?php echo $sequence;?>').submit()" ><?php echo $check;?><span class="progress-checkmark"><i class="fas fa-checkmark"></i></span>
                    </label>
                </div>
            </?>
        </?>
    </div>
</div>
```

Course content is where the students of the course can watch the lesson prepared by their teacher. Other than that, this section is also where the students can update their learning progress to the teacher. The following section will explain how those codes assemble this feature.

When the student clicks into a course that is already enrolled by them, they will be redirected to the course page. In the URL that led them to the corresponding page, a variable name cid (course id) will be passed to the course content page. The cid will be used as a key to retrieve all the details of the selected course from the database.

localhost/Learneeasy/course-content.php?cid=36

By using \$_GET, a PHP superglobal variable, the cid will be assigned to another variable first. After that, using that variable, search the course from the database. In this case, we only need to know the name of the course and the id of the teacher that created the course. Save the information into a variable so we can use it later in our code.

```
$cid = $_GET['cid'];
$sql = "SELECT * FROM course c, teacher t WHERE (c.teac_id = t.teac_id) AND cour_id = '$cid'";
$result = mysqli_query($conn, $sql);
$row = mysqli_fetch_array($result);
$cour_name = $row['cour_name'];
$tid = $row['teac_id'];
```

So, the first thing is to display is the name of the course. By using the variable, we just stored it with the course name, put it in the corresponding HTML tag to echo it out.

```
<div class="course-content-div">
    <p class="content-course-name"><?php echo $cour_name; ?></p>
    <div class="course-video-chapter">
        |   <?php
```

After that, we need to display lessons in the iframe and each chapter in the chapter list. To always display the first chapter in the iframe every time the student clicks into the course, \$cid is used to retrieve the video file of the first chapter from the content table. Each chapter will have its sequence, so if we want to display the first chapter, we just need to set the condition to cont_sequence = 1 (content sequence equals 1). Then, echo the video file of that chapter in the source(src) of the iframe.

```

<?php
//Display the first chapter
$sql = "SELECT * FROM content WHERE cour_id = '$cid' AND cont_sequence = 1";
$result = mysqli_query($conn, $sql);
$row = mysqli_fetch_array($result);
?>
<iframe id="course-content-iframe" name="course-video" src="<?php echo $row['cont_video_file'];?>" allowfullscreen></iframe>

```

Another crucial section on the course content page is the chapter list. The chapter list will display all the chapters of the course with a checkbox to update the learning progress. Of course, update learning progress is only for students. By clicking on the chapter name, the iframe will change the video to the selected chapter. There is a target attribute in the anchor tag, it will help us to target the iframe.

```

<a href="<?php echo $row['cont_video_file'];?>" target="course-video">
    <p class="chapter-name"><?php echo $row['cont_title'];?></p>
</a>

```

Lastly, the function to update the learning progress. When the student clicks on the checkbox, the sequence of the chapter will be passed to “update-progress.php” and update the progress in the progress table. To indicate the chapter has been marked as completed, the course id and the student id will be used as keys to retrieve data from the database. If the progress status of the chapter is “1” in the table, it means the chapter is already completed. If “0” means not complete. Based on that two possible results, a variable name \$check is used to determine to tick the checkbox or not. If the chapter is completed, the checkbox will be checked. Otherwise don’t.

```

<form action="update-progress.php?" method="POST" class="progress-tracker" id="update-progress-<?php echo $row['cont_sequence'];?>">
    <input type="hidden" value=<?php echo $sequence;?> name="sequence">
    <input type="hidden" value=<?php echo $cid;?> name="cid">
    <input type="hidden" value=<?php echo $sid;?> name="sid">
    </input>
    $progsal = "SELECT * FROM progress p, enrolment e WHERE (p.enro_id = e.enro_id) AND (p.cont_sequence = '$sequence') AND (e.cour_id = '$cid') AND (e.stud_id = $sid)";
    $progresult = mysqli_query($conn, $progsal);
    $row = mysqli_fetch_array($progresult);
    $prog_status = $row['prog_status'];
    $check = "";
    if($prog_status == 1){
        $check = "checked";
    }else{
        $check = "";
    }
    <label class="progress-container">
        <input type="checkbox" onchange="document.getElementById('update-progress-<?php echo $sequence;?>').submit()" <?php echo $check;?>>
        <span class="progress-checkmark"><i class="fas fa-check"></i></span>
    </label>
</form>

```

17.0 Guide

17.1 Teacher Instruction Guide

Learneasy is a free online education system, this system will not allow any teacher to charge any additional fees to students. Any teacher found guilty of financial embezzlement, more misconduct or any such act which may bring infamy to the Learneasy shall be expelled forthwith.

Learneasy also limit teacher's religious expression in order to avoid violating the establishment clause, which requires separation between church and state. The main point is that religion should be for the church and home, not for the education system.

Learneasy is not allow any teacher share or discuss inappropriate topics, for example those of a sexual, illegal or prejudiced nature. Be aware that joking and other banter can begin as light-hearted but quickly become inappropriate. If it does, stop the interaction immediately and let the student know that professional boundaries have been crossed in a matter-of-fact way. If admin discovered any teacher is sharing inappropriate images or conversations, admin will immediately change the teacher account status from active to non-active.

Teacher of Learneasy should always be prepared. Preparation will not guarantee success, but lack of preparation makes it much less likely. Put in the time to engage your students, craft effectual lessons, and provide useful feedback.

- *Guidelines on create course*

Begin the process early, giving yourself as much time as you can to plan a new course. Successful courses require careful planning and continual revision. Consult with colleagues who have taught the same or similar courses to learn from their strategies and their general impressions of the students who typically take the course. You should think about the course goals, teaching philosophies, course content, teaching methods, and course policies.

Besides, teacher should define course goals. Determining the goals for the course will clarify what you want the students to learn and accomplish. Having these course goals in mind will then help you make decisions about which content to include, which teaching methods to use, and what kinds of assignments and exams are appropriate.

Apart from that, determine course content is one of the steps that teacher should consider. Select the major topics and determine the order in which you will teach them. For example, determine the structure of the course; arrange the topics in a logical order. Developing a rationale that guides the structure of the course can help you explain the material more clearly to the students. Determining the course structure can help you decide which texts are most appropriate.

Other than that, teacher should develop teaching methods and tools. Once you have determined the course goals and content, think about how you will present the content. Select and develop teaching methods and tools that are consistent with the course goal.

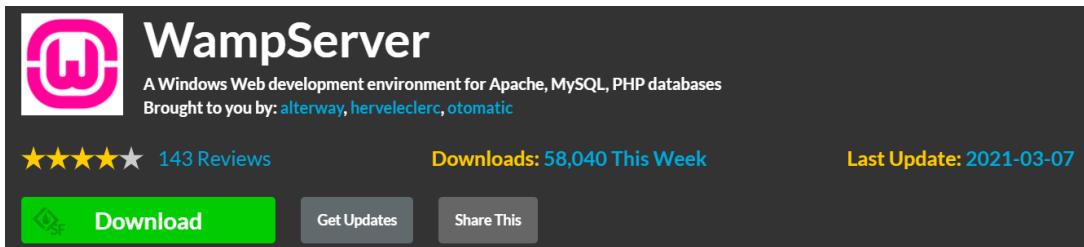
Teachers are also encouraged to post quiz and additional resources. Additional resources will enable the student to have a deeper understanding of the course and to gain knowledge that is not presented in the course content. Besides, a quiz causes students to learn more from the next study episode. Essentially it reduces forgetting which makes the next related study area more productive.

17.2 Installation Guide

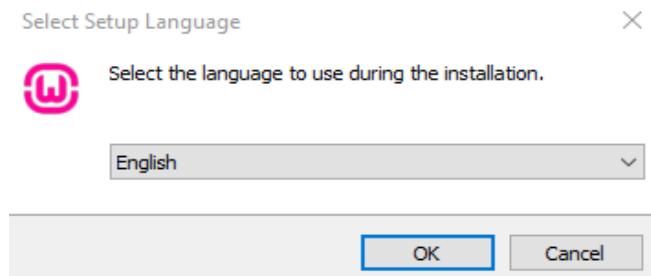
The requirement to run the system in the operating system (OS)

- In this case, I would suggest downloading Wamp Server. Click on the following link below to start download the server.

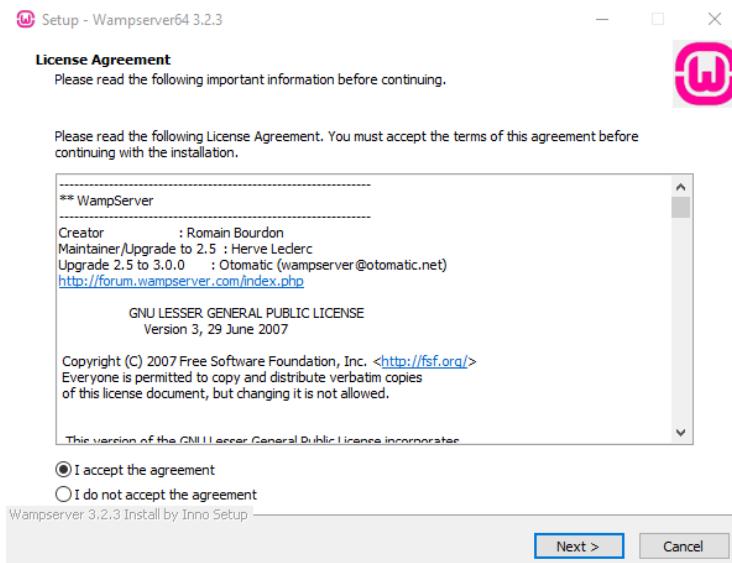
<https://sourceforge.net/projects/wampserver/> (64-bits)



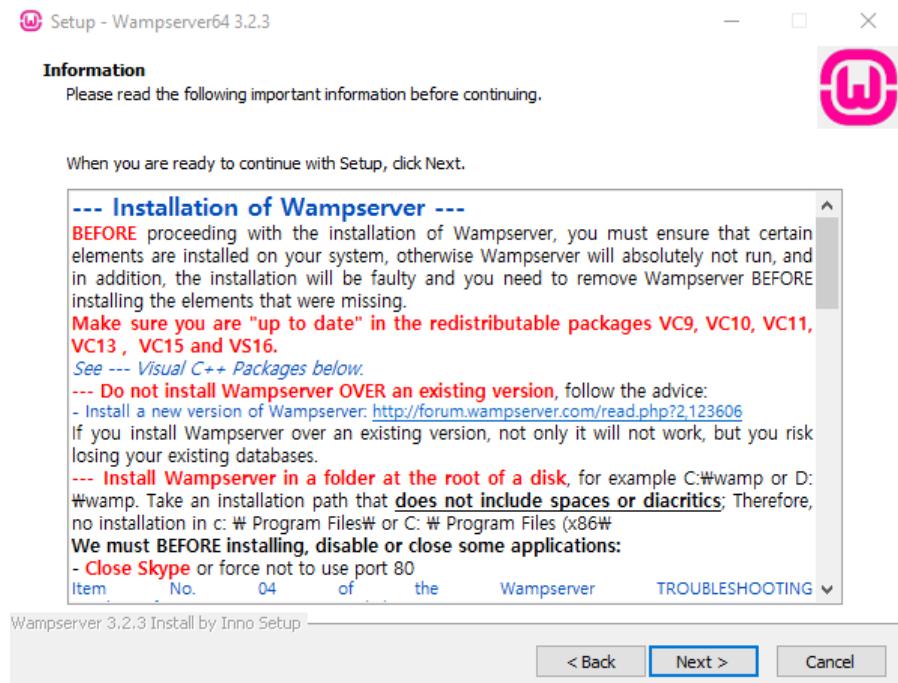
Step 1: Click on the file that downloaded in your pc which is in the “download” folder. Then, you will see a download setup same as the picture below. Select the language to use during the installation and click on the “OK” button.



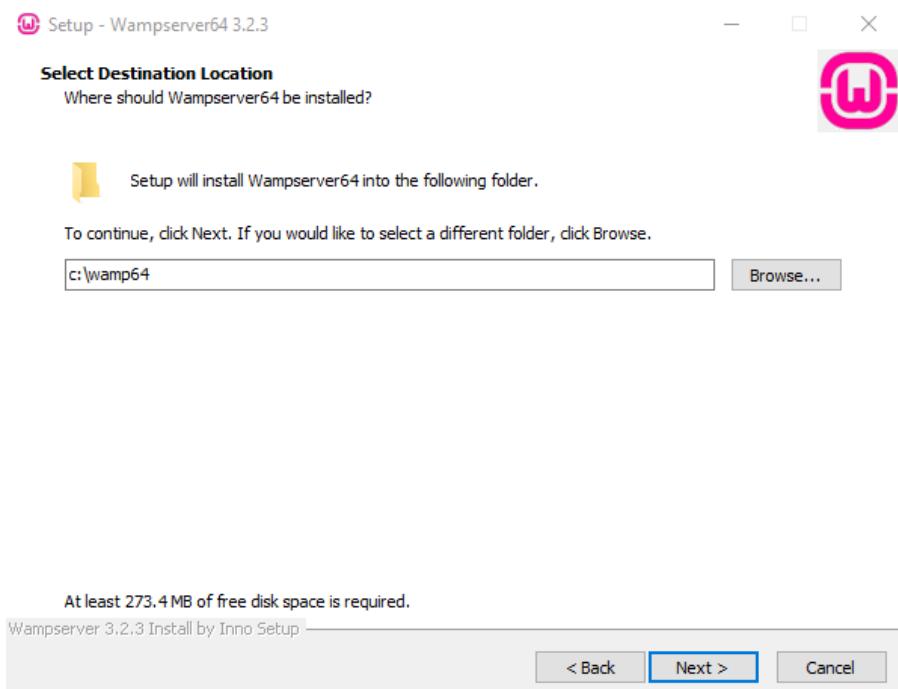
Step 2: Check the “I accept the agreement” checkboxes to proceed next installation steps.



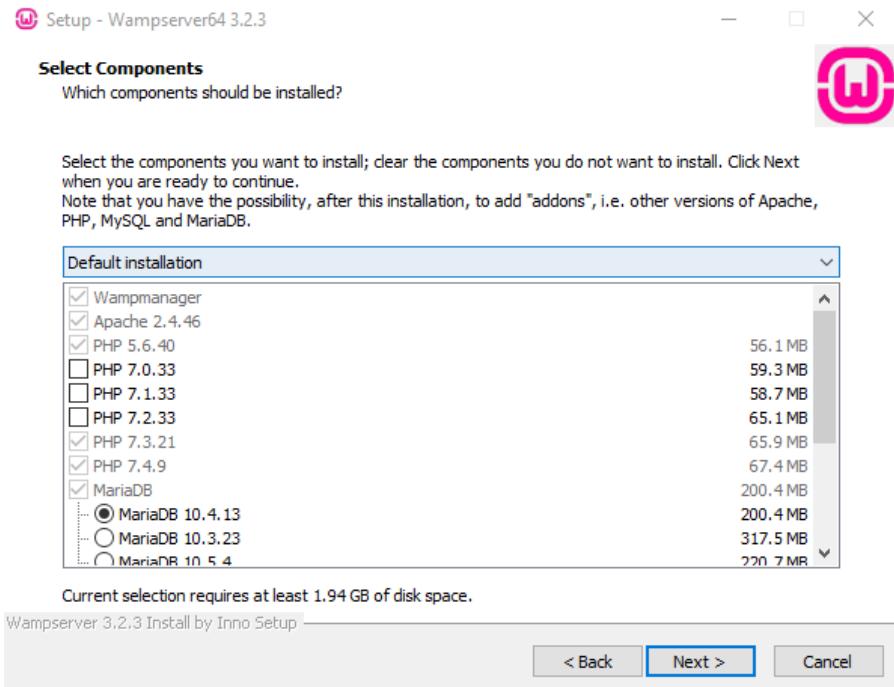
Step 3: Click on the “Next” button to continue the installation steps.



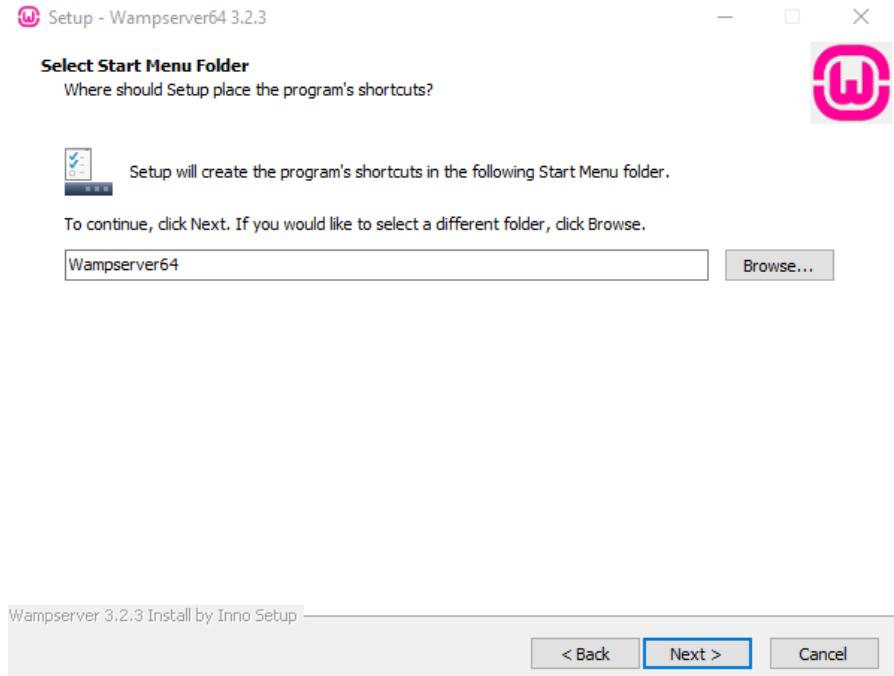
Step 4: Select or browse the destination location for the server file. After selected a different folder or you would just like to store in the default location, click on the “Next” button.



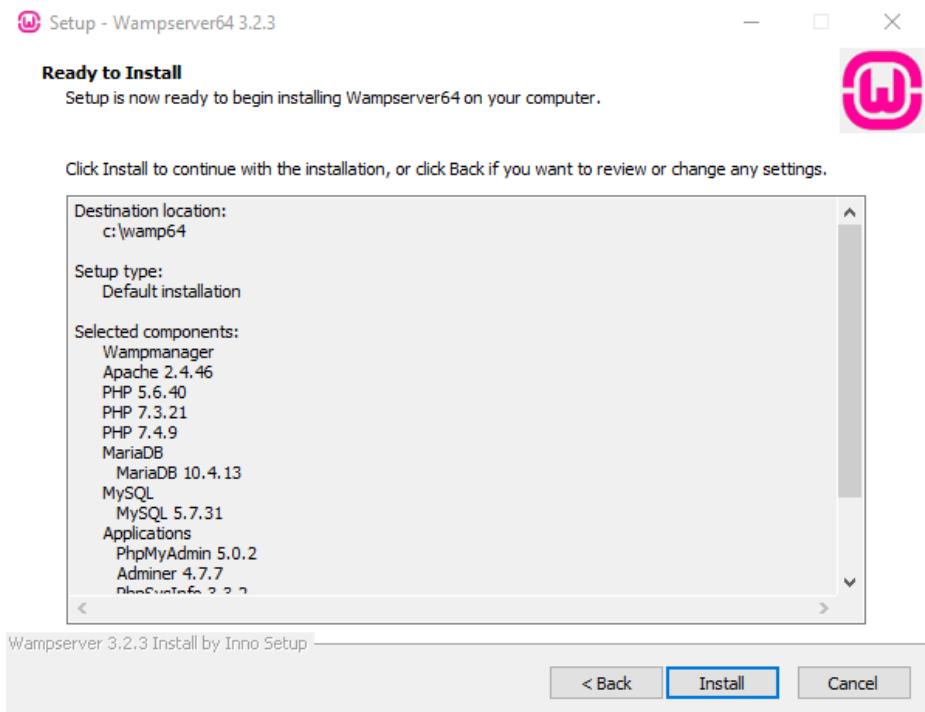
Step 5: Select the components should be installed. In my opinion, I would just use the default installation in wamp. It doesn't require any other packages to run the system. So, just click on the "Next" button without making any changes.



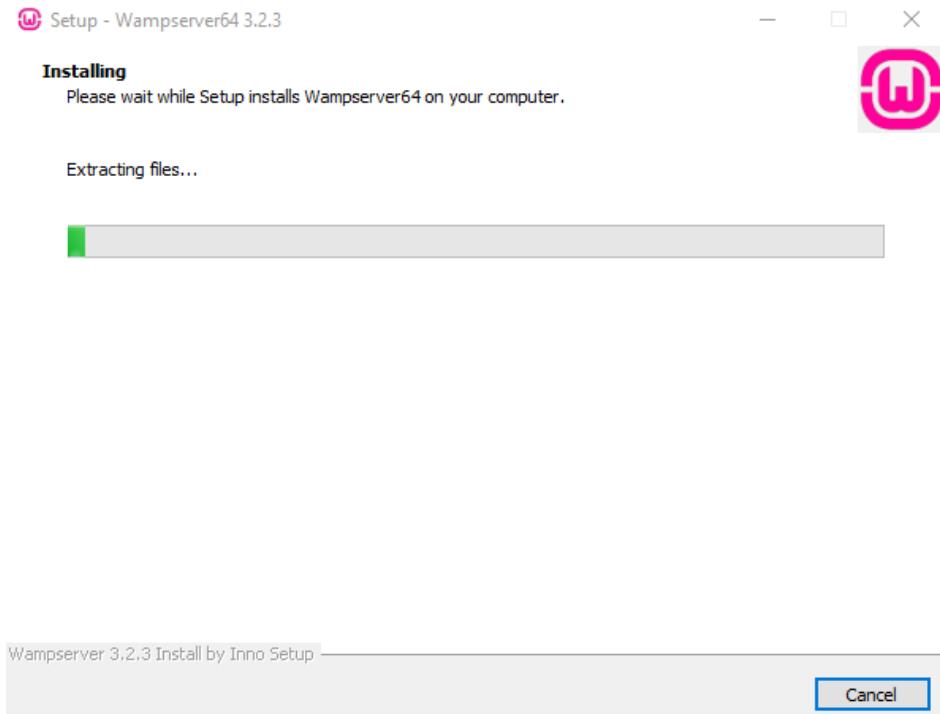
Step 6: Select start menu folder, if you would like to create a shortcut on your desk, just click on the "Next" button. Else if you would like to create a shortcut in others folder, click on the "Browse" button.



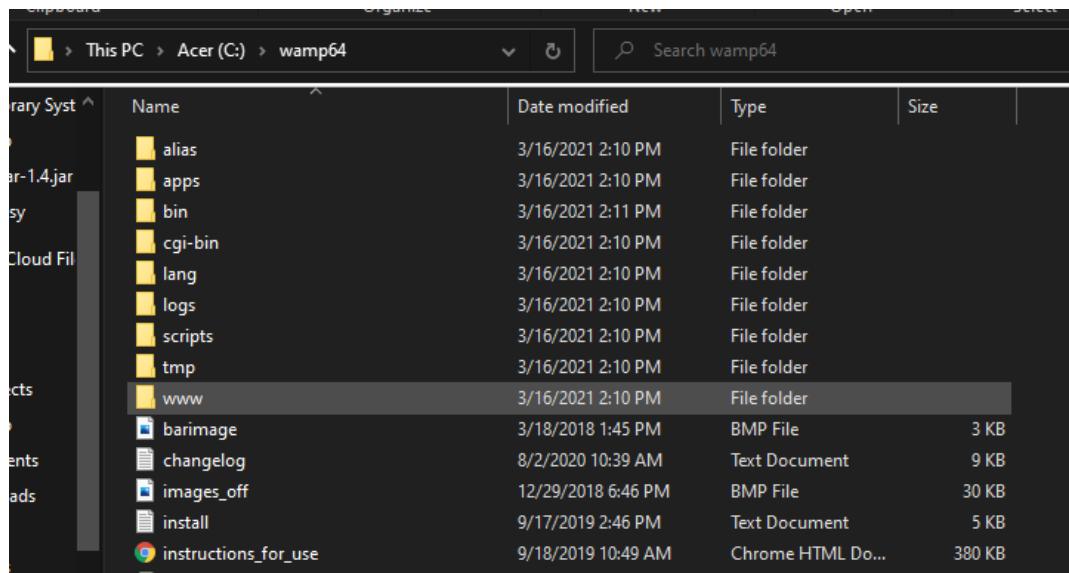
Step 7: Summary of the installation, check whether the location to store the server is correct. If all the requirement such as destination location, setup type and select components are correct, click on “Install” button and the installation process will start shortly.



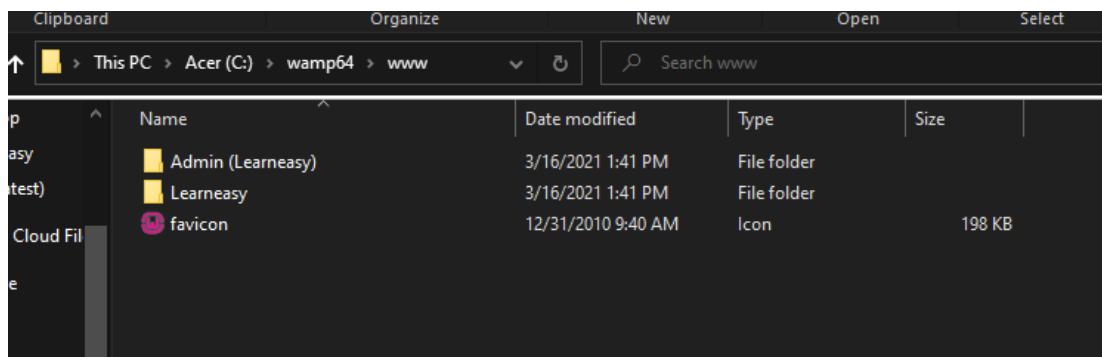
Step 8: Installation progress.



Step 9: Find the location where you store the wamp server file. Click into the file and copy all the folder in the submission folder to a folder in wamp server which is “www” folder.



Step 10: You need remove all the file in the “www” folder as well before pasting the system files. After that, you are all done (for references, refer to the picture below)



Step 11: Open the Internet Browser (for me, I’m using google chrome). Then, in the URL blank space, type “localhost” and you will see a screen same as the picture below.

The screenshot shows a Google Chrome browser window. The address bar has "localhost" typed into it. Below the address bar, there is a toolbar with icons for Apps, YouTube, YouTube Music, Gmail, and APU Webspace. The main content area displays the Apache index page, which includes the title "Index of /" and a table showing the contents of the root directory:

Name	Last modified	Size	Description
Admin (Learneasy)/	2021-03-09 23:41	-	
Learneeasy/	2021-02-23 08:59	-	
favicon.ico	2010-12-31 09:40	198K	

At the bottom of the page, it says "Apache/2.4.46 (Win64) PHP/7.3.21 Server at localhost Port 80".

Step 12: You are not done yet, one more step before completing the whole setup for the system. In this step, click on the link below and you would redirect to phpMyAdmin server. Below are the following steps before completing the system.

- <http://localhost/phpmyadmin/>

Step 13: There are not any changes need to be done in this page, you can just login with clicking the “Go” button. The default username is “root” and the password you can just leave it empty.

The image consists of three vertically stacked screenshots of the phpMyAdmin interface.

Top Screenshot: Shows the 'Welcome to phpMyAdmin' page. It features a logo of a sailboat on water with the text 'phpMyAdmin' in blue and orange. Below the logo, it says 'Welcome to phpMyAdmin'. A 'Language' dropdown menu is open, showing 'English' as the selected option.

Middle Screenshot: Shows the 'Log in' page. It has fields for 'Username' (set to 'root'), 'Password' (empty), and 'Server Choice' (set to 'MySQL'). A 'Log in' button is at the top, and a 'Go' button is at the bottom right.

Bottom Screenshot: Shows the 'Databases' page. It lists four databases: 'information_schema', 'mysql', 'performance_schema', and 'sys'. Each database entry includes its 'Collation' and 'Action' (Check privileges). A 'Create database' button is at the top left. A note at the bottom says: 'Note: Enabling the database statistics here might cause heavy traffic between the web server and the MySQL server.' with an 'Enable statistics' link.

Step 14: In this section, create a new database named “learneasy” in the database name field. Making sure that do not change any default settings and you can click on the “Create” button. The database has been created successfully.

The screenshot shows the phpMyAdmin interface for MySQL. On the left, there's a sidebar with a tree view of databases: New, information_schema, mysql, performance_schema, and sys. The main area is titled "Databases". It features a "Create database" button with a question mark icon. Below it, a search bar contains the text "learneeasy". To the right of the search bar is a dropdown menu set to "latin1_swedish_ci" and a "Create" button with a checkmark icon. A red circle highlights the "learneeasy" input field. Below the search bar is a table with columns "Database", "Collation", and "Action". It lists the existing databases: information_schema (utf8_general_ci), mysql (latin1_swedish_ci), performance_schema (utf8_general_ci), and sys (utf8_general_ci). At the bottom of the table, it says "Total: 4". There are also "Check all" and "With selected:" checkboxes, along with "Drop" and "Up" buttons.

Step 15: Click on the “learneeasy” database in the side menu of the phpMyAdmin. Please note that you have created the database before proceeding to steps 16.

The screenshot shows the phpMyAdmin interface for the "learneeasy" database. The top navigation bar shows "Server: MySQL:3306" and "Database: learneeasy". The top menu bar includes "Structure", "SQL", "Search", and "Query". The sidebar on the left shows the database structure: New, information_schema, learneeasy (which is selected and highlighted with a red circle), mysql, performance_schema, and sys. The main area displays a message: "No tables found in database." Below this is a "Create table" button with a question mark icon. A form allows entering a table name and other details, with "Name:" and "Number:" fields visible. A red circle highlights the "learneeasy" database entry in the sidebar.

Step 16: On the top menu bar, click on the “Import” button to import the “SQL” file in the in the submission file.

The screenshot shows the top menu bar of the phpMyAdmin interface for the "learneeasy" database. The menu items are: Structure, SQL, Search, Query, Export, Import, Operations, Privileges, Routines, Events, Triggers, and Designer. The "Import" button is highlighted with a red circle.

Step 17: Now, you are in the “Import” tab. The things that you need to do in this step is just choose the file and import into the database and you are all set. Click on the “Choose File” button, select a file named “learneeasy.sql” in the submission file. After chosen the file, click on the “Go” button and the phpMyAdmin will start importing all the file into “learneeasy” database.

The screenshot shows the phpMyAdmin interface with the "Import" tab selected. The main title is "Importing into the database 'learneeasy'". Under the "File to import:" section, there is a note about compressed files and a "Choose File" button, which is circled in red. Below it, there's a note about dragging files and a dropdown for character set (set to utf-8). Under "Partial import:", there's a checked checkbox for allowing interruptions and a field to skip queries (set to 0). Under "Other options:", there's a checked checkbox for enabling foreign key checks.

Step 19: Update the statement on a “php.txt” files which are (maximum file uploads size and post maximum file size). In your pc, click on the wamp icon as the picture below (figure 1) and you will saw a list of function from wamp. Hover through “PHP” tab and you will saw a drop-down list on left side and now you just need to click on the “php.ini” and a “php.txt” will show up.

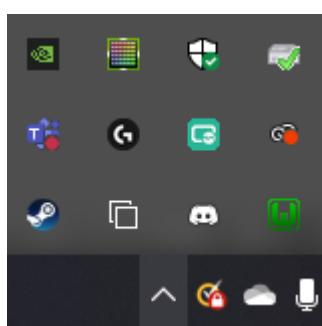


Figure 1: WAMP icon

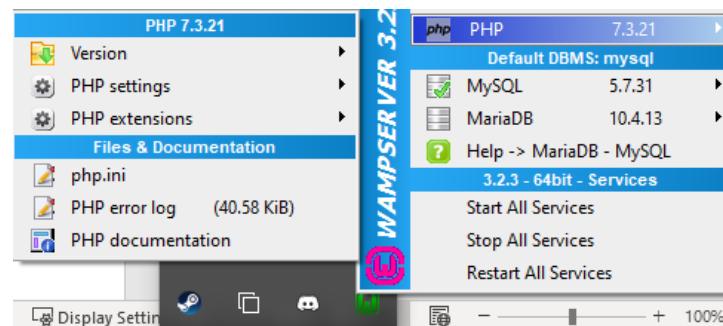
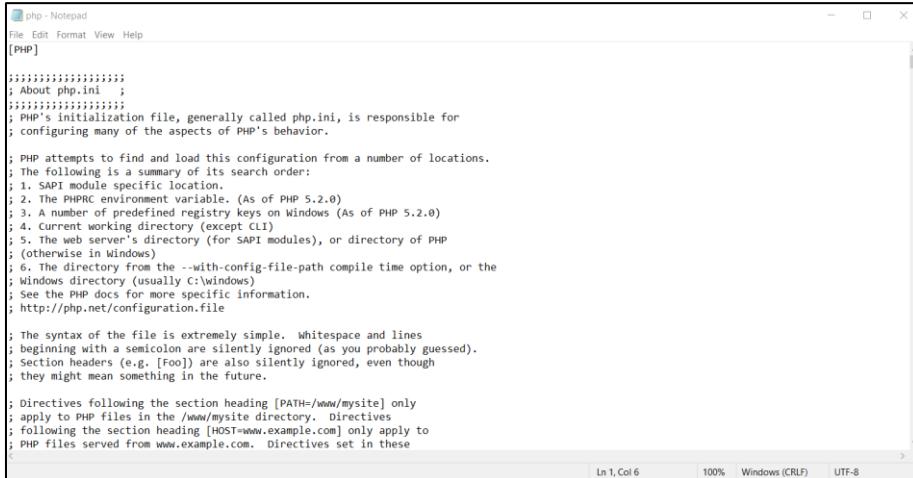


Figure 2: WAMP function (dropdown list)

This is the “php.txt” files, you can click on the shortcut key which is “ctrl + f” to search the statement keyword to update on it. After click on the shortcut key, you will saw an information box named “find”. In the message box, type the keyword “upload” with direction “Down” which is same as the figure3 and you can click on the “Find Next” button.



```

php - Notepad
File Edit Format View Help
[PHP]
;;;;;;;;;;;;;;;;;;;
; About php.ini ;
; PHP's initialization file, generally called php.ini, is responsible for
; configuring many of the aspects of PHP's behavior.

; PHP attempts to find and load this configuration from a number of locations.
; The following is a summary of its search order:
; 1. SAPI module specific location.
; 2. The PHPRC environment variable. (As of PHP 5.2.0)
; 3. A number of predefined registry keys on Windows (As of PHP 5.2.0)
; 4. Current working directory (except CLI)
; 5. The web server's directory (for SAPI modules), or directory of PHP
; (otherwise in Windows)
; 6. The directory from the --with-config-file-path compile time option, or the
; Windows directory (usually C:\windows)
; See the PHP docs for more specific information.
; http://php.net/configuration.file

; The syntax of the file is extremely simple. Whitespace and lines
; beginning with a semicolon are silently ignored (as you probably guessed).
; Section headers (e.g. [Foo]) are also silently ignored, even though
; they might mean something in the future.

; Directives following the section heading [PATH=/www/mysite] only
; apply to PHP files in the /www/mysite directory. Directives
; following the section heading [HOST=www.example.com] only apply to
; PHP files served from www.example.com. Directives set in these

```



Figure 3: Find (information)

Change the statement on the line “upload_max_filesize”, the default size will be 2M. So, change it to 100M to make sure the file size is able to upload to database. After updated the file size to 100M, use the shortcut key again and search for “post” keyword and now using the direction “Up”. Update the “post_max_size” to 100M as well and after that you can save the “php.txt” file and restart the wamp server.

```

; Maximum allowed size for uploaded files.
; http://php.net/upload-max-filesize
upload_max_filesize = 100M

```

```

; is disabled through enable_post_data_reading
; http://php.net/post-max-size
post_max_size = 100M

```

Step 20: Now you can back to the “localhost” and run the system.

Student Account:	Username: sponge_bob Password: sponge123
Teacher Account:	Username: gareth2020 Password: gareth2020
Admin Account:	Username: learneeasy Password: 123456789

18.0 Conclusion

There are both internal and external limitation in E-learning system. The internal limitation of the system is some of the subjects are not appropriate for e-learning system. Certain subject such as sport cannot be teaching through the system. Besides that, the external limitation of the system is the system depends on the technology a lot. It requires a stable internet connection for the system because there are videos teaching method on various types of courses that need a better or strong internet connection while loading the videos. If a weak connection signal in your workplace or house, you will need more times to load the video or even the video will not play during your learning time and it will also affect on your learning progress. Apart from that, you will get disconnected easily while you are attending some activities such as quizzes. A computer is also playing an essential role to the system. It requires a basic equipment of a computer or laptop that are powerful enough to support the system. Although the system is easy and free to use, but there is also a smooth device needed such as window 7 and above devices and so forth. Lastly, to develop an effective e-learning system is costly and time consuming. A good e-learning course involves multimedia, custom web development, technical support, and strong user interaction design. In conclusion, technological evolution has become much more rapid, and the systems developed last year may be already out of date. So, it is important to develop a system that can be more easily adapted or modified instead of rebuilding the entire system in order to continue provide support, productivity as the work context changes. It is impossible to capture all the requirements that can fulfill all the system designer in this moment, an ultimate idea is by creating an evolvable system that can be “appropriated” (or reinvented) by the users and tailored to meet the inevitable changes that will arise.

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20.0 Appendix

Total number of meeting : 5

Meeting Detail :

1. Meeting 1: (10/12/2020) - Microsoft Teams

minute meeting : 2.75hours

- All members attend the meeting.
- Discussion on the topic from the assignment question which are internship system, attendance system, examination system and other educational system.
- Before we select the topic, each of the group members suggest one system and provide explanation on why to choose the system.
- After that, we did research on all the system, findings and briefly discuss about the structure of all the system. In conclusion, we choose to develop e-learning system.

2. Meeting 2: (14/12/2020) - Microsoft Teams

minute meeting : 1.42hours

- All members attend the meeting.
- Create a short scenario to describe the background of the project.
- Then, we discuss and find the problem statement from the scenario, provide proposed solutions also for the problems.
- Besides that, we also list out the project objectives and project scope such as the deliverables of the system.
- Prepare presentation to get approval of the topic from teacher.

3. Meeting 3: (15/12/2020) - Microsoft Teams

minute meeting : 2hours

- All members attend the meeting.
- Topic approved by teacher which is e-learning system.
- After the approval of the topic, we schedule a meeting to discuss about the wireframe, color scheme of the system. Functions of each page and color scheme decided for the system as below and proceed to designing phase.

4. Meeting 1: (15/1/2021) - Microsoft Teams

Minute Meeting: 1hour

- All members attend the meeting.

- Discuss and correction on DFD1.

5. Meeting 2: (18/1/2021) - Microsoft Teams

Minute Meeting: 30mins

- All members attend the meeting.
- ERD, Context Diagram and DFD0 completed and checking.
- Choose process for DFD1.