



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Project Proposal

Version 1.1

Date: March 6th, 2021

Learn English Together

Submitted by

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Approved by

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Proposal Review Panel Representative:

Name

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Capstone Project 2- Mentor:

Name

Signature

Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master /	Ha, Le Thanh		
Project Leader & contact details	Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
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DOCUMENT APPROVALS

The following signatures are required for approval of this document.

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Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REVISION HISTORY

Version	Date	Comments	Author
1.0	March 6 th , 2021	Initial Release	H2MT Team
1.1	March 13 th , 2021	Update Current Status of Art	H2MT Team

TABLE OF CONTENT

1. Introduction	5
1.1. Purpose Of Document	5
1.2. Project Goal.....	5
2. Problem Definition	5
2.1. Business need.....	5
2.2. Solution	6
3. Current Status of Art.....	6
4. Engineering Approach.....	7
4.2. System context description.....	7
4.3. Technical Constraints.....	8
5. Tasks and Deliverables	10
6. Project Management.....	11
6.1. Cost/Budget for Project.....	11
6.2. Tentative Schedule.....	12
6.2.1. Master Plan	12
6.2.3. Scrum Process.....	13
7. Project Constraints	14
8. Conclusion.....	16
9. References	16
10. Attachment.....	16

1. Introduction

1.1. Purpose of Document

- The document provides an overview of the project includes the purpose and scope of the project.
- Identify business needs, problems or situations related to the initialization and construction projects.
- Provide solutions for business needs and give the overview of system architecture.
- Provide overview about resources, schedule, solution and budget for the project.

1.2. Project Goal

LET is an application system that supports and helps lost learners learn English in a natural and exciting way. Learning a new language is like learning your mother tongue, language needs to come naturally. The system will be a community of people with similar interests in learning English, helping and supporting each other to learn English. Good people will tutor friends who are weaker than me to learn English. From there will create a community together to learn and improve English.

2. Problem Definition

In a globalized economy, learning English is more urgent than ever. So, learning English is essential for everyone. But many learners do not make progress or give up halfway because the methodology is ineffective, has no mentor, no support, or no motivation. There are many others who have good English proficiency, they want to share support, inspire others to learn from the experiences they have learned in learning English. In addition, some people want to open teaching centers but do not have experience in teaching, have not shown their quality and prestige and they need a place where they can teach, improve the quality of their lesson's curriculum, and build trust with others.

2.1. Business need

- Community helps each other learn English.
- Application can learn vocabulary, listen for beginners.
- Application that make learning more efficient by learning in groups.
- The application can interact with others and support each other in learning.

- The application can help, share and inspire others to learn English.

2.2. Solution

Group C2SE.12 system is a community that makes learning English of everyone easier by learning to interact with others through forms such as group learning of 5-7 members and in groups. Those who learn English well will teach English to those who are most afraid of learning English in a natural way. Studying together with others creates motivation, feeling comfortable for English learners, learning English in the most exciting way. In addition to those study groups, users can randomly search for someone with English skills in the system to help them. And people with English proficiency can create events and seminars to share experiences and inspire others.

3. Current Status of Art

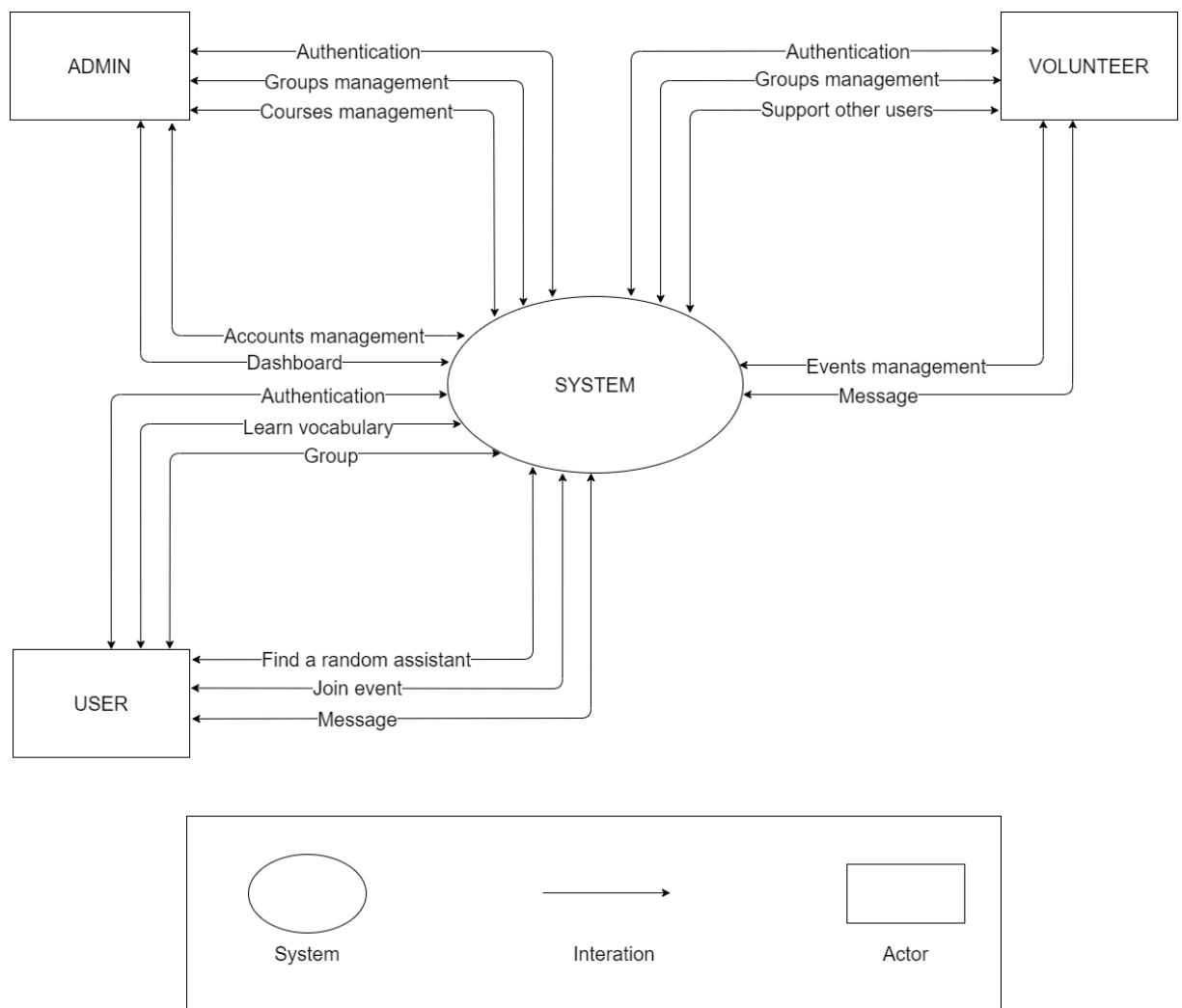
	LET	myenglishonline.ca	www.learnenglish.de
Community	X		
Group	X	X	
Event	X	X	
Dashboard	X	X	X
Vocabulary	X		X
Test, Mini Test	X		X
Message	X		X

Our website overcomes disadvantages that competitors inconvenience users such as:

- Create a community for people to interact with each other to learn English.
- Feeling comfortable learning English.
- Users can learn and talk directly on the system when they have questions that need to be answered.
- Users take the initiative in learning English.

4. Engineering Approach

4.1. System context diagram



4.2. System context description

– Admin:

- Admin can authenticate identity (login / logout)
- Admin can manage groups in the system.
- Admin can manage accounts in the system (Add, change roles, lock accounts)
- Admin can create management courses (add default course, edit default courses, block course)
- Admin can view dashboard chart statistics

– Volunteer:

- Volunteer can authenticate identity (login / logout)
- Volunteer can manage groups created by them (create, teaching online, create quiz, manage users in group, change group, delete group)
- Volunteer can receive random assistance from the user in need of assistance (video, audio, text)
- Volunteers can manage their events (create event, online conference, change event, delete event)
- Volunteers can interact privately with other users through message

– User:

- User can authenticate identity (login / logout)
- User can learn vocabulary
- User can join groups (Study online, take quizzes, review old lesson transcripts, interact with team members)
- User can find random helpers (video, audio, text)
- User can join events
- User can interact privately with other users through message

4.3. Technical Constraints

Technical to develop:

- Programming language: JavaScript
- Library: Hook, Redux, React hook form, Font awesome, Material ui, Express.js.
- Technology: Reactjs, Nodejs, Polling, Elasticsearch, Redis, WebSocket, Mail gun.
- Database: Mongo dB.
- Version Control System: GitHub
- Team Management: Trello, Zalo, Google drive
- Develop tools: Visual Studio Code

Environments:

- Internet Connection
- Operation System: Google Chrome, Microsoft Edge, CocCoc, Firefox

Other Constraints:

- Resource: 4 people.
- Budget: Limited.
- Time: The project must be completed within 03 months.
- These features are not available in the first version of the product.

5. Tasks and Deliverables

No.	Task name	Description
1.	Start up	
1.1	Project kick off meeting	Encountering the developer team and stakeholder to clear out the goal, defining of the base elements for the project and other project planning activities
1.2	Discuss about project	Brighten up the current ideal to both developer team and stakeholder
1.3	Create Document	Release the artifacts or schematics related to project to product owner, include Proposal, User story, Product backlog, Project plan...
2.	Development	
2.1	Sprint Planning	A Sprint begins with a sprint planning session that sets goals and plans details for the work to be done
2.2	Sprint 1	Release the first look of the product (ver1.0) with functions which have been committed in the contract
2.3	Sprint 2	Release the update for ver1.0 (ver1.1) with functions which have been approved by product owner
2.4	Sprint 3	The next update (ver1.2) for previous phase
3.	Project 's meeting	Private meeting between members to make plan what will be presented to customer in the final release
4.	Final Release	Release the final version to product owner with complete function

6. Project Management

6.1. Cost/Budget for Project

Full Name	Role	Salary Rate (USD/hour)
Ha, Le Thanh	Scrum Master	2
Hieu, Le Xuan	Team Member	2
My, Ngo Ngoc	Team Member	2
Thong, Doan Trung	Team Member	2

Table 1. Cost person/hours

No	Criteria	Price	Total (USD)
1	Working hours	2	2700
2	Other cost	100	400
			3100

Table 2. Total cost estimation

Description	Amount	Unit
Number of members	4	Person
Number of working hours per day	3	Hours
The cost per hour per member	2	USD
The number of working days	90	Days

Table 3. Description

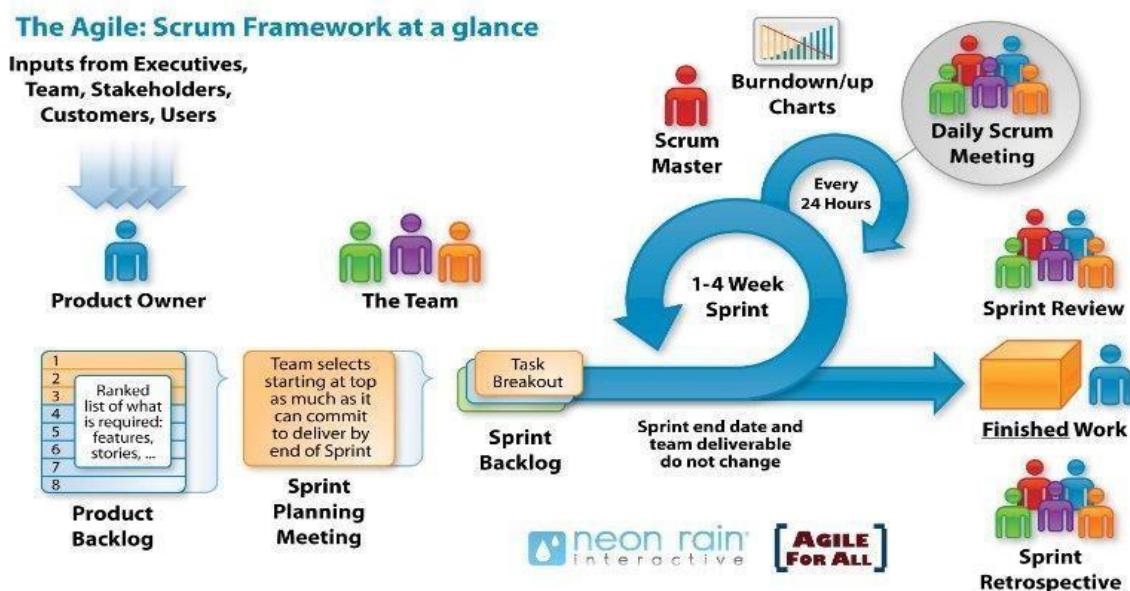
- The explanation for the table
- Amount of working hours = 4 members * 3 hours * 90 days
- Other cost = 4 members * 100 USD

6.2. Tentative Schedule

6.2.1. Master Plan

NO	Task Name	Duration	Start	Finish
1.	Initial	8 days	26 – Feb - 2021	06– Feb – 2021
1.1	Gathering Requirement	2 days	26 – Feb – 2021	28 – Feb – 2021
1.2	Create Proposal Document	6 days	01 – Mar – 2021	06 – Mar – 2021
2	Start Up	8 days	07 – Mar – 2021	14 – Mar – 2021
2.1	Project Kick-off Meeting	2 days	07 – Mar – 2021	08 – Mar – 2021
2.2	Create Document	6 days	09 – Mar – 2021	14 – Mar – 2021
3	Development	84 days	15 – Mar – 2021	01 – Jun– 2021
3.1	Sprint 1	28 days	15 – Mar – 2021	12 – Apr – 2021
3.2	Sprint 2	28 days	13 – Apr – 2021	10 – May – 2021
3.3	Sprint 3	21 days	11 – May – 2021	01 – Jun – 2021
4	Project's Retrospective Meeting	03 days	05 – Jun – 2021	07 – Jun – 2021
5	Final Release	01 days	08 – Jun – 2021	08 – Jun – 2021

6.2.3. Scrum Process



- Scrum is an iterative and incremental agile software development framework for managing software projects and product or application development.
- Scrum focuses on project management institutions where it is difficult to plan ahead.
- Mechanisms of empirical process control, where feedback loops that constitute the core management technique is used as opposed to traditional command-and-control management.
- Its approach to planning and managing projects is by bringing decision-making authority to the level of operation properties and certainties.
- Benefit of the methodology:
 - Project can respond easily to change.
 - Problems are identified early.
 - Customers get the most beneficial work first.
 - Work done will better meet the customer's needs.
 - Improved productivity.
 - Ability to maintain a predictable schedule for delivery.

7. Project Constraints

Constraint	Constraints Description	Guidelines for Acceptance
Economic	<ul style="list-style-type: none"> • Start trial (1 month free) • Trial period has ended <ul style="list-style-type: none"> + Renew monthly: 4.99 \$ per month + Renew by year: 2.99 \$ per month + Lifetime: 99.99 \$ once 	Elements for consideration are design costs, production costs, maintenance costs, operating costs, and sales price
Environmental	The system does not affect the environment	Impact of the design on the environment as well as impact of the environment (e.g, temperature range, humidity, vibration, electromagnetic interference immunity, and shock) on the design should be considered. Design for recycling and design to use recycled materials should also be considered
Ethical	<ul style="list-style-type: none"> -User information after registration will be encrypted, and we will not share with any organization. - Respecting user privacy settings - Working to ensure the security of our users' information 	Ethical considerations can be broad. Areas that are typically addressed include intellectual property, reverse- engineering, privacy, security, and the conflict between cost and safety.

	- Do not tracking users	
Public health, safety, and welfare	The application works on web platform, so when using, users will look at the screen of laptop, pc, tablet, mobile device. So, we recommend not to use the application for more than 180 minutes, to protect the eyes and health of the user.	Includes safety standards as well as impact of the design on users (for example, electrical or physical hazards)
Social and Global	Making it easier for beginners, students, or employees who want to learn language, children help them increase their communication skills, and make friends with many others.	Addresses aspects such as benefits, risks, the man-machine interface, the acceptance of products by the intended user or by society at large, global and socially responsible engineering.
Cultural	<ul style="list-style-type: none"> - This application is for Vietnamese people to learn English, so the website will use Vietnamese. - To remove this barrier, we can add a function to choose to display English or Vietnamese language websites. 	<p>Which cultural characteristics could influence the approach?</p> <p>How do the design from different cultures differ?</p>
Sustainability	Human resources include 4 members of Duy Tan University. The app is written in javascript, using reactjs technology that breaks the components of the	Refers to sustainability of resources, including material, energy, supplies, manufacturing techniques, personnel, operation, and the need for additional

	system into separate operations for easier maintenance.	infrastructure, as well as sustainability of the design including reliability, lifetime, durability, reusability, maintainability.
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8. Conclusion

This product creates a community that promises to help everyone have an effective English learning environment. Bring a new feeling of learning English, with no barriers between good learners and poor English learners. Help improve English skills. The project is expected to be completed within 3 months at a cost of not more than \$ 3100.

9. References

[1]. Software Development Standards for the Guidance and Control Software Project: <https://sw-eng.larc.nasa.gov>

[2]. General Software Coding Standards and Guidelines:

https://www.nws.noaa.gov/oh/hrl/developers_docs/General_Software_Standards.pdf

[3]. Scrum and best practices: <https://docs.microsoft.com/en-us/azure/devops/boards/sprints/best-practices-scrum?view=azure-devops>

[4]. The Scrum Guide: <https://www.scrum.org/resources/scrum-guide>

[5]. The ISO/IEC & IEEE/EIA Standard 12207, IEEE standards: IEEE-829 [3], IEEE-1008 [5], IEEE-1012

[6] React documentation: <https://reactjs.org/docs/getting-started.html>

10. Attachment



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Project Plan

Version 1.1

Date: March 20th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name	Signature	Date
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Capstone Project 2- Mentor:

Name	Signature	Date
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PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

DOCUMENT APPROVALS

The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

DOCUMENT NAME

Document Title	Project Plan Document		
Author(s)	H2MT Team		
Role	Product Owner, Team Member, Scrum Master		
Date	March 16 th , 2021	File name:	C2SE.12_ProjectPlan_LET_ver1.0.doc

REVISION HISTORY

Version	Person(s)	Date	Description
1.0	Le Thanh Ha	16-Mar-2021	Create Project plan document
1.1	Le Thanh Ha	20-Mar-2021	Fix Project plan document

TABLE OF CONTENTS

1. Introduction:.....	6
1.1. Purpose:	6
1.2. Project Overview:	6
1.3. Project Deliverable:	6
2. Team Organization:	6
2.1. Scrum Team Information:	6
2.2. Role and Responsibility:.....	7
2.3. Communication Methodology:	8
2.4. Communication and Report:	8
3. Development Process:	9
4. Schedule and Cost:	10
4.1. Detailed Schedule:.....	10
4.2. Cost:	16
5. Project Risk:	17
6. Deliverables.....	18

Introduction:

1.1. Purpose:

This document provides a summary of the project's objectives, division of work, the major milestones, required resources, time and overall schedule and budget allocation used and based on the document proposal to build a dating website application on time, at the request and plan.

1.2. Project Overview:

- Reference to C2SE.12_Proposal_LET_ver1.2.docx

1.3. Project Deliverable:

- The project will be implemented for users such as admin, manager, teacher, alumni, and student.

2. Team Organization:

2.1. Scrum Team Information:

Table 1: Scrum Team Organization.

Full Name	Phone	Email	Position
MSc Huy, Truong Dinh	0982132352	truongdinhhuy@dtu.edu.vn	Mentor
Ha, Le Thanh	0334002818	lethanhhadtu@gmail.com	Scrum Master
Hieu, Le Xuan	0399706614	xuanhieu.le.1999@gmail.com	Member
My, Ngo Ngoc	0764497391	ngongocmy851999@gmail.com	Member
Thong, Doan Trung	0886428208	doanthong002@gmail.com	Member

2.2. Role and Responsibility:

Table 2: Role and Responsibilities.

Role	Responsibility	Name/Title
Product Owner	<ul style="list-style-type: none"> - Understand the user and customers with their needs. - Collaborate with the development team. - Manage the stakeholders. - Describe the user experience and product features. - Provides detail user stories. 	Duy Tan University
Scrum Master	<ul style="list-style-type: none"> - Communicate the value of Scrum - Teach the organization on Scrum to maximize business value - Attend all Scrum meetings - Preserve the integrity and spirit of the Scrum framework - Maintain the focus of the Team - Make the Team aware of impediments and facilitate efforts to resolve them - Serve as a coach and mentor to members of the Team - Respectfully hold the Team, Product Owner and Stakeholders accountable for their commitments - Continually work with the Team and business to find and implement improvements 	Ha, Le Thanh
Secretary	<ul style="list-style-type: none"> - Record the content of group meetings and activities of the member 	Hieu, Le Xuan
Reviewer	<ul style="list-style-type: none"> - Review documents 	All Members
Developer	<ul style="list-style-type: none"> - Analysis of the functions and requirements of the product. - Code and test. - Fix error. 	All Members
Analyzer	<ul style="list-style-type: none"> - Gather user stories. - Analysis user story to do specify Document. 	All Members
Tester	<ul style="list-style-type: none"> - Do the Test plan 	All Members

	<ul style="list-style-type: none"> - Creation of test designs, test processes, test cases and test data. - Carry out testing as per the defined procedures. - Graph the results and make sure people know when test results decline. - Prepare all reports related to software testing carried out. - Analysis and evaluate the Test result. - Ensure that all tested related work is carried out as per the defined standards and procedures. 	
Mentor	<ul style="list-style-type: none"> - Guide on the process. - Monitoring all activities of Team. - Help with anything. 	MSc Huy, Truong Dinh

2.3. Communication Methodology:

Table 3: Communication Methodology.

Audience/ Attendees	Topic/ Deliverable	Frequency	Method
Mentor and Team member	Project Progress Review	Weekly	Meeting, Email, Zalo
Team Member	Project Progress Review and Daily Meeting	Daily	Trello, GitHub, Zoom

2.4. Communication and Report:

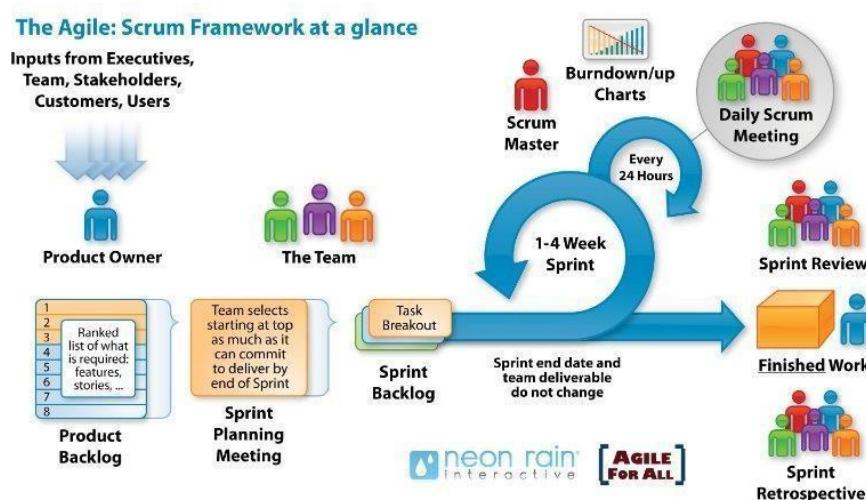
Table 4: Communication and Report.

Type of communication	Methods, tools	Frequency	Information	People
Communication among in group				
Scrum meeting	Face to face or Hangouts	Every two day	Informed about what was done in the last 24 hours, working on plans for today, the difficulties encountered and the solutions required, just meeting 10-15 minutes.	Project team

Sprint Planning Meeting	Meet face to face	15-20 days	All members in team together to analyze the requirements, functions, working on the sprint going to do, planning and design for the sprint.	Project team
Retrospective meeting	Meet face to face	15-20 days	Complete documentation. For each stage, sharing materials, given the strengths and weaknesses for each. Period for each member and the solution calculated measurement project.	Project team and Mentor
Demo	Meeting online	Every day	A web-based task tracking system. To manage or divide task, report bugs/issues.	Project team.

3. Development Process:

Scrum Process



- Scrum is an iterative and incremental agile software development framework for managing software projects and product or application development.
- Scrum focuses on project management institutions where it is difficult to plan.
- Mechanisms of empirical process control, where feedback loops that constitute the core management technique are used as opposed to traditional command-and-control management.
- Its approach to planning and managing projects is by bringing decision-making authority to the level of operation properties and certainties.

Benefit of the methodology:

- Project can respond easily to change.
- Problems are identified early.
- Customers get the most beneficial work first.
- Work done will better meet the customer's needs.
- Improved productivity.
- Ability to maintain a predictable schedule for delivery.

4. Schedule and Cost:

4.1. Detailed Schedule:

No.	Task Name	Start	Finish	Effort
1	Initial	26/02	06/03	21 hrs
1.1	Gathering Requirement	26/02	28/03	8 hrs
1.1.1	Get requirement from Mentor MSc Huy Truong Dinh	26/02	27/02	2 hrs
1.1.2	Analyzing requirement	27/02	28/02	6 hrs
1.2	Create Proposal Document	01/03	06/03	16 hrs
1.2.1	Product Definition	01/03	02/03	3 hrs
1.2.2	Business Need	02/03	03/03	2 hrs

1.2.3	Prior Art	03/03	04/03	3 hrs
1.2.4	Proposed Solution	04/03	05/03	3 hrs
1.2.5	Master Plan	05/03	06/03	5 hrs
2	Start Up	07/03	14/03	44 hrs
2.1	Project kick-off	07/03	08/03	2 hrs
2.2	Create Document	08/03	14/03	42 hrs
2.2.1	Project's Meeting	08/03	08/03	3 hrs
2.2.2	Create User Stories	09/03	09/03	6 hrs
2.2.3	Create Product Backlog	10/03	10/03	10 hrs
2.2.4	Review Document	11/03	11/03	5 hrs
2.2.5	Create Project Plan	12/03	12/03	8 hrs
2.2.6	Create Architecture Design Document	13/03	13/03	8 hrs
2.2.7	Review Document	14/03	14/03	2 hrs
3	Development			
3.1	Sprint 1	15/03	12/04	103 hrs
3.1.1	Sprint Planning Meeting	15/03	15/03	4 hrs
3.1.2	Create Sprint Backlog	15/03	15/03	2 hrs
3.1.3	Create Test Plan document for Sprint 1	16/03	16/03	2 hrs
3.1.4	Create Database document for Sprint 1	16/03	16/03	2 hrs
3.1.5	Design	17/03	25/03	21 hrs
3.1.5.1	Design interface of Home Page	17/03	18/03	5 hrs

3.1.5.2	Design interface of Register	18/03	18/03	4 hrs
3.1.5.3	Design interface of Login	18/03	18/03	4 hrs
3.1.5.4	Design interface of profile	19/03	19/03	4 hrs
3.1.5.5	Design interface of chat room group	20/03	20/03	4 hrs
3.1.5.6	Design interface of list group	21/03	21/03	4 hrs
3.1.5.7	Design interface of member group	22/03	22/03	4 hrs
3.1.5.8	Design interface of call video group	23/03	23/03	4 hrs
3.1.5.9	Design interface of record group	24/03	24/03	4 hrs
3.1.5.10	Design interface of message	25/03	25/03	4 hrs
3.1.6	Coding	26/03	09/04	58 hrs
3.1.6.1	Code Main Menu for users	26/03	28/03	16 hrs
3.1.6.2	Code Login for users	29/03	30/03	4 hrs
3.1.6.3	Code Register for users	30/03	31/03	4 hrs
3.1.6.4	Code Profile for users	01/04	02/04	10 hrs
3.1.6.5	Code Group for users	03/04	06/04	10 hrs
3.1.6.6	Code Message	07/04	09/04	10 hrs
3.1.7	Testing & Fix Bug	09/04	11/04	10 hrs
3.1.7.1	Test Main Menu	09/04	09/04	2 hrs
3.1.7.2	Test Login	09/04	09/04	2 hrs

3.1.7.3	Test Register	10/04	10/04	2 hrs
3.1.7.4	Test profile	10/04	10/04	4 hrs
3.1.7.5	Test group	11/04	11/04	4 hrs
3.1.7.6	Test message	11/04	11/04	4 hrs
3.1.8	Release Sprint 1	11/04	12/04	4 hrs
3.1.8.1	Sprint 1 Review Meeting	11/04	11/04	2 hrs
3.1.8.2	Sprint 1 Retrospective	12/04	12/04	2 hrs
3.2	Sprint 2	13/04	10/05	185 hrs
3.2.1	Sprint Planning Meeting	13/04	13/04	4 hrs
3.2.2	Create Sprint Backlog	13/04	13/04	2 hrs
3.2.3	Create Test Plan document for Sprint 2	14/04	14/04	2 hrs
3.2.4	Create Database document for Sprint 2	14/04	14/04	2 hrs
3.2.5	Design	15/04	20/04	40 hrs
3.2.5.1	Design user interface of Find a helper	15/04	16/04	8 hrs
3.2.5.2	Design user interface of Support for user	16/04	17/04	8 hrs
3.2.5.3	Design user interface of Search user	17/04	18/04	8 hrs
3.2.5.4	Design user interface of Learn Vocabulary	18/04	19/04	8 hrs
3.2.5.5	Design user interface of Quiz	19/04	20/04	8 hrs
3.2.6	Coding	20/04	06/05	99 hrs
3.2.6.1	Code Find a helper	20/04	21/04	18 hrs
3.2.6.2	Code Support for user	21/04	23/04	18 hrs
3.2.6.3	Code Search	24/04	26/04	16 hrs

3.2.6.4	Code Learn Vocabulary	27/04	02/05	25 hrs
3.2.6.5	Code Quiz	03/05	06/05	22 hrs
3.2.7	Testing & Fix Bug	07/05	08/05	32 hrs
3.2.7.1	Test Find a helper	07/05	07/05	8 hrs
3.2.7.2	Test Support for user	07/05	07/05	5 hrs
3.2.7.3	Test Case for Search	08/05	08/05	5 hrs
3.2.7.4	Test Learn Vocabulary	08/05	08/05	7 hrs
3.2.7.5	Test Quiz	08/05	08/05	7 hrs
3.2.8	Release Sprint 2	09/05	10/05	4 hrs
3.2.8.1	Sprint 2 Review Meeting	09/05	09/05	2 hrs
3.2.8.2	Sprint 2 Retrospective	10/05	10/05	2 hrs
3.3	Sprint 3	11/05	01/06	119 hrs
3.3.1	Sprint Planning Meeting	11/05	11/05	4 hrs
3.3.2	Create Sprint Backlog	11/05	11/05	2 hrs
3.3.3	Create Test Plan document for Sprint 3	12/05	12/05	2 hrs
3.3.4	Create Database document for Sprint 3	12/05	12/05	2 hrs
3.3.5	Design	13/05	17/05	30 hrs
3.3.5.1	Design interface of Dashboard	13/05	14/05	8 hrs
3.3.5.2	Design interface of Manager account	14/05	15/05	5 hrs
3.3.5.3	Design interface of Admin	15/05	16/05	10 hrs
3.3.5.4	Design interface of Event	16/05	17/05	7 hrs
3.3.6	Coding	18/05	28/05	59 hrs
3.3.6.1	Code Dashboard	18/05	20/05	12 hrs
3.3.6.2	Code Admin	21/05	23/05	15 hrs

3.3.6.3	Code Manager account	23/05	25/05	22 hrs
3.3.6.4	Code Event	26/05	28/05	10 hrs
3.3.5	Testing & fix Bug	29/05	30/05	16 hrs
3.3.7.1	Test Dashboard	29/05	29/05	4 hrs
3.3.7.2	Test Admin	29/05	29/05	4 hrs
3.3.7.3	Test Manager account	30/05	30/05	4 hrs
3.3.7.4	Test Event	30/05	30/05	4 hrs
3.3.6	Release Sprint 3	31/05	01/06	4 hrs
3.3.6.1	Sprint 3 Review Meeting	31/05	31/05	2 hrs
3.3.6.2	Sprint 3 Retrospective	01/06	01/06	2 hrs

Table 5: Detailed Schedule.

4.2. Cost

4.2.1. Cost Person/Hours

Full Name	Role	Salary Rate (USD/hour)
Ha, Le Thanh	Scrum Master	2
Hieu, Le Xuan	Team Member	2
My, Ngo Ngoc	Team Member	2
Thong, Doan Trung	Team Member	2

Table 1. Cost person/hours

4.2.2. Total Cost Estimate

No	Criteria	Price	Total (USD)
1	Working hours	2	2700
2	Other cost	100	400
			3100

Table 2. Total cost estimation

Description	Amount	Unit
Number of members	4	Person
Number of working hours per day	3	Hours
The cost per hour per member	2	USD
The number of working days	90	Days

- The explanation for the table:
 - Amount of working hours = 4 members * 3 hours * 90 days
 - Other cost = 4 members * 100 USD

5. Project Risk:

Table 7: Rating for likelihood and seriousness for each risk.

RATING FOR LIKELIHOOD AND SERIOUSNESS FOR EACH RISK			
L	Rated as Low	E	Rated as Extreme (Used for Seriousness only)
M	Rated as Medium	NA	Not Assessed
H	Rated as High		

Table 8: Project Risk.

Risk	Definition	Level	Likelihood	Mitigation Strategy
Estimates of project planning	The plan may be delayed for the initial estimate of the project.	L	L	Analysis and assessment of the scale. Reduce requirements.
Requirements	Internal contradictions that may exist in the request. Important requirements may be missing from the formal requirements specification.	H	H	Uniform requirements prior to analysis.
Estimated project schedule	Time sort of work.	E	E	Time project was created to be updated and evaluated regularly.
Programming experience	Programming Languages and technology	M	L	Experience sharing used to reduce the research time.
Technical processes	The standard procedure cannot meet the requirements of specific solutions.	L	M	Analysis of requirements and processes to ensure

	The new process may be required. The process can be improved and more efficient.			appropriate levels. If the new process is needed, we need to evaluate this response has improved over the old process.
Network	Block by Limited Bandwidth	H	H	Upgrade transmission line network
Time	Project implementation period is too short, so our team cannot complete this project on a short time. During project implementation, our team to learn and have more work to do, our team cannot focus all their time to carry out this project.	H	M	Reduce time and increase individual personal time working in their stay on the 7th day and Sunday.
Project Management	Project management system may not be sufficient to support the requirements of the project.	L	H	Discuss with the group to offer solutions and consistent accuracy.

6. Deliverables

Table 9: Deliverables

No.	Document	Deadline	File Name
1	Proposal Document.	16 –Mar – 2021	C2SE.12_Proposal_LET_ver1.2.docx
2	Project Plan Document	20 –Mar – 2021	C2SE.12_ProjectPlan_LET_ver1.1.docx



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Product Backlog

Version 1.0

Date: March 20th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name	Signature	Date
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Capstone Project 2- Mentor:

Name	Signature	Date
------	-----------	------

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master /	Ha, Le Thanh		
Project Leader & contact details	Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
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	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

DOCUMENT APPROVALS

The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

DOCUMENT NAME

Document Title	Product Backlog Document		
Author(s)	Le Thanh Ha		
Role	Product Owner, Team Member, Scrum Master		
Date	March 20 th , 2021	File name:	C2SE.12_ProductBacklog_LET_ver1.0.doc

REVISION HISTORY

Version	Person(s)	Date	Description
1.0	Le Thanh Ha	20-Mar-2021	Create product backlog document

TABLE OF CONTENTS

1.	Introduction	5
1.1.	Purpose.....	5
1.2.	Scope.....	5
1.3.	References.....	5
2.	Product Backlog	6
2.1.	Product Backlog Specification.....	6
3.	Constraint	9
4.	Stakeholders and User Descriptions Summary.....	9

1. Introduction

The agile product backlog in Scrum is a prioritized features list, containing short descriptions of all functionality desired in the product. When applying Scrum, it's not necessary to start a project with a lengthy, upfront effort to document all requirements. Typically, a Scrum team and its product owner begin by writing down everything they can think of for agile backlog prioritization. This agile product backlog is almost always more than enough for a first sprint. The Scrum product backlog is then allowed to grow and change as more is learned about the product and its clients.

1.1. Purpose

- Provide a prioritized features list, containing short description of all functionality desired in the product.
- Lists everything that the product owner and Scrum team feels should be included in the software they are developing.

1.2. Scope

- Lists the user's role.
- Write all the user's requirements.
- Lists some main function of website.
- Short description of all the functionality desired in the product.
- Given the priority of each feature and function of the product.

1.3. References

Table 1: References

No	Reference	Note
1	http://agilebench.com/blog/the-product-backlog-for-agile-teams	How to create product backlog
2	http://www.mountaingoatsoftware.com/agile/scrum/product-backlog/example/	Product Backlog Example

2. Product Backlog

2.1. Product Backlog Specification

Priority and Estimates

Priorities are set from 1 to 5.

- The maximum priorities are 5
- The minimum priorities are 1
- Priorities of some user stories can be the same with others
- If a user story has dependencies, it must have lower priority than its dependencies

Table 1: Product Backlog Specification (Admin)

ID	Theme	As a/an	I want to	So that	Priority
PB01	Manager accounts	Admin	Have a manager account	I can monitor and manage users account	5
PB02	Manager groups	Admin	Have a manager group	I can monitor and manage all group	5
PB03	Manager courses	Admin	Have a manager course	I can monitor and manage all courses	5
PB04	Manage system	Admin	Manage the system	I can view and manage the entire system	5
PB05	View dashboard	Admin	View dashboard	I can have an overview of the users and activity on the system	4

Table 2: Product Backlog Specification (Volunteer)

ID	Theme	As a/an	I want to	So that	Priority
PB01	Register	Volunteer	Register an account	I can have an Account.	5
PB02	Login	Volunteer	Login into the website	I can use the function of the web.	5
PB03	Manager groups	Volunteer	Have a manager group	I can monitor and manage member in the group	4
PB04	Manager events	Volunteer	Have a manager event	I can monitor and manage member in the event	
PB05	Edit my profile	Volunteer	Edit my profile.	I can update my information when information need change.	2
PB06	Support users	Volunteer	Support user learning	I can connect and support learning for users	4
PB07	Message	Volunteer	Chat with users in system.	I can communicate with them.	4

Table 3: Product Backlog Specification (User)

ID	Theme	As a/an	I want to	So that	Priority
PB01	Register	User	Register an account	I can have an Account.	5
PB02	Login	User	Login into the web	I can use the function of the web.	5
PB03	Edit profile	User	Edit my profile	I can manage my account	3
PB04	Learn Vocabulary	User	Learn vocabulary	I can learn vocabulary on the system	4
PB05	Group	User	Join a group	I can participate in academic exchanges here.	4
PB06	Join event	User	Join an event	I can participate in event activity	4
PB07	Find random supporter	User	Find random supporters.	I can have questions answered when I have trouble.	4

3. Constraint

Table 3: Constraint

Constraint	Condition
Time	Project completion time limit in 3 months so time to complete project be restricted
People constraint	4 people working together to finish the project
Requirements	According to Product owner's Requirements

4. Stakeholders and User Descriptions Summary

Table 4: Stakeholders and User Descriptions Summary

Name	Description	Role
Product Owner	The Person who gives the Requirement.	Duy Tan University
Scrum Master	This is the stakeholder who leading, manage the website development Team.	Le Thanh Ha
Requirement Analyzer	This is a stakeholder that works with the Analysts to correctly translate requests or needs into requirements to be used for design.	All Member
Software Architect	This is a stakeholder that is primary for leading the website development.	Ngo Ngoc My
Coder	This is a stakeholder that programs the software.	All Member



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

User Story

Version 1.1

Date: April 10th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name	Signature	Date
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Capstone Project 2- Mentor:

Name	Signature	Date
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PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master /	Ha, Le Thanh		
Project Leader & contact details	Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
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	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

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My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REVISION HISTORY

Version	Date	Comments	Author
1.0	April 10 th , 2021	Initial Release	H2MT Team
1.1	April 15 th , 2021	Update	H2MT Team

TABLE OF CONTENT

1. USER STORIES	5
1.1. USER STORIES FOR ADMIN	5
1.2. USER STORIES FOR USER	5
1.2.1. Student	5
1.2.2. Volunteer	6
2. SYSTEM ARCHITECTURE	7
3. PRODUCT BACKLOG	7
4. REFERENCES	7

1. User Stories

1.1. User stories for admin

ID	As a/an	I want to ...	so that ...	Acceptance Criteria
1	Admin	login into the website	I can use the function of the website	Enter the correct email and password
2	Admin	manage information user	I can add new user to the website / add, delete, edit accounts.	-must login correct email admin password
3	Admin	manage information groups	I can add new user to the website / add, delete, edit groups.	-must login correct email admin password
4	Admin	manage content courses	I can add new user to the website / add, delete, edit courses.	-must login correct email admin password
5	Admin	see statistics about the number of users, English learning results, rankings	I can visualize data and manage the website effectively.	-Statistics tables are accurate and updated continuously

1.2. User stories for user

1.2.1. Student

ID	As a/an	I want to ...	so that ...	Acceptance Criteria
1	Student	register by creating a username and password	the system can remember me and my data.	<ul style="list-style-type: none"> -Users can only submit a form by filling in all the required fields. -The email the user provides must not be provided by a free email service. -Users receive notification after successfully registering.
2	Student	log in with my username and password	the system can authenticate me and I can trust it	-Enter the correct email and password registered

3	Student	join the group	I can learn and learn from volunteers	-The page shows the grouped items
4	Student	review the knowledge	I have learned .	displays lessons learned for review
5	Student	chat in the chat room	I can talk about what I learned	-The text of the message is clearly displayed and contains the username of the sender
6	Student	learn new English vocabulary	I can improve my vocabulary ability	-displays new vocabulary - show details about pronunciation and meaning
7	Student	take the entrance quiz or quiz questions after 1 lesson so that	I can check my English and see the comprehension level.	- Includes 1 user capacity test
8	Student	Chat everyone	I can exchange knowledge, share learning experiences	message content is displayed clearly

1.2.2. Volunteer

ID	As a/an	I want to ...	so that ...	Acceptance Criteria
1	Volunteer	register by creating a username and password	the system can remember me and my data.	-Users can only submit a form by filling in all the required fields. -The email the user provides must not be provided by a free email service. -Users receive notification after successfully registering.
2	Volunteer	log in with my username and password	the system can authenticate me and I can trust it	-Enter the correct email and password registered
3	Volunteer	create group	students can participate in learning .	-show all required fields- fill full the information

4	Volunteer	live stream	I can teach students the knowledge when joining the group	-The image quality during the live stream is of good quality -There is a chat box for students
5	Volunteer	manager members of groups progress	I can better statistics progress learn of members	-display all necessary information of students

2. System Architecture

Reference to Architecture Document v1.1

3. Product backlog

Reference to Product Backlog Document v1.1

4. References

- [1]. Scrum Process: A gentle introduction - <https://scrumguides.org/>
- [2]. Scrum Guide - <https://scrumguides.org/scrum-guide.html>
- [3]. [https://en.wikipedia.org/wiki/Scrum_\(software_development\)](https://en.wikipedia.org/wiki/Scrum_(software_development))



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Architecture Design

Version 1.1

Date: March 6th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name

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Date

Capstone Project 2- Mentor:

Name

Signature

Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

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Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REVISION HISTORY

Version	Date	Comments	Author
1.0	March 18 th , 2021	Initial Release	Ngo Ngoc My
1.1	March 21 th , 2021	Update Current Status of Art	Ngo Ngoc My

TABLE OF CONTENT

1. Introduction	5
1.1. Purpose	5
1.2. Document reference	5
2. Project reference.....	5
2.1. Project Overview	5
2.2. Business Driver	6
2.2.1. Business problem	6
2.2.2. Business need.....	6
2.2.3. Project goals	6
3. Architecture Drivers	6
3.2. System Context	7
3.3. Architecture Driver Specification.....	8
3.3.1. Use Case Entities.....	8
3.3.2. Operational Use Case	9
3.4. Quality Attributes	13
4. Constraints	14
4.1. Business Constraint.....	14
4.2. Technical Constraint.....	14
5. High-level Architecture.....	15
5.1. Component and Connector View (C&C view)	15
5.1.1. Prose	16
5.1.2. Role and Responsibility of Elements.....	17
5.2. Module View	18
5.2.1. Prose	18
5.2.2. Role and Responsibility of Elements.....	18
5.3. Allocation View.....	21
5.3.2. Prose	22
5.3.3. Role and Responsibility of Elements.....	23

1. Introduction

1.1. Purpose

This specification covers following:

- Brief specification of the project, high level requirement, system context for the system.
- Use case diagram, detail quality attribution.
- Architecture presented by various architecture view types: Component and Connector view, Module view and Allocation view.

1.2. Document reference

No	Reference
1	C1SE.12_ProductBacklog_ver1.1.docx
2	C1SE.12_UserStory_ver1.1.docx
3	C1SE.12_ProjectPlan_ver1.1.docx

Table 1: Document Reference

2. Project reference

2.1. Project Overview

- Project name: **Learn English Together**
- Development team

Full name	Position
Ha, Le Thanh	Scrum Master
Hieu, Le Xuan	Scrum Member
My, Ngo Ngoc	Scrum Member
Thong, Doan Trung	Scrum Member

2.2. Business Driver

2.2.1. Business problem

2.2.2. Business need

- Community helps each other learn English.
- Application can learn vocabulary, listen for beginners.
- Application that make learning more efficient by learning in groups.
- The application can interact with others and support each other in learning.
- The application can help, share and inspire others to learn English.

2.2.3. Project goals

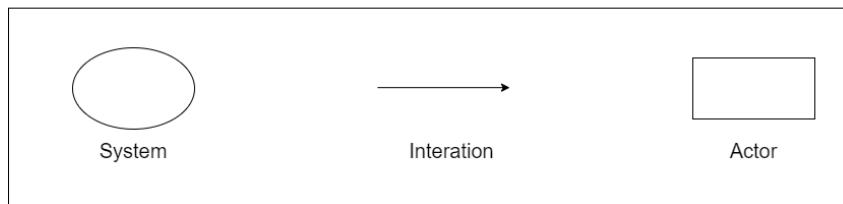
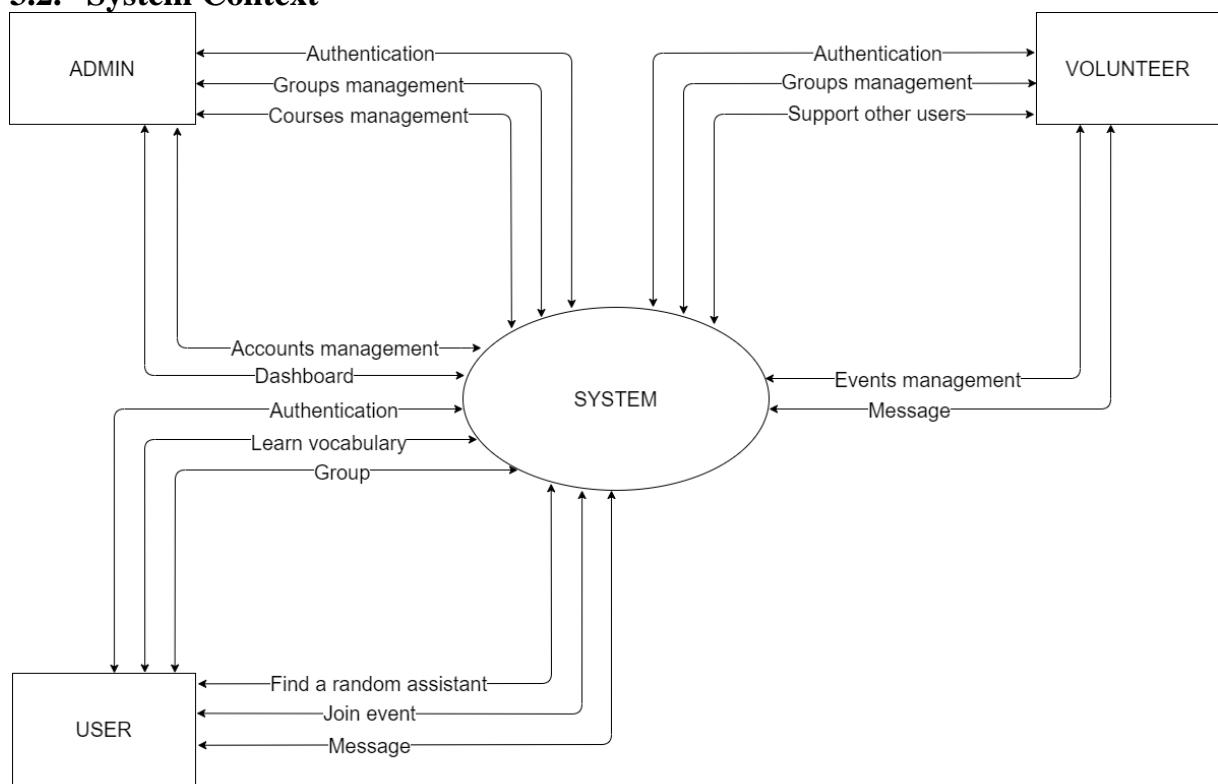
LET is an application system that supports and helps lost learners learn English in a natural and exciting way. Learning a new language is like learning your mother tongue, language needs to come naturally. The system will be a community of people with similar interests in learning English, helping and supporting each other to learn English. Good people will tutor friends who are weaker than me to learn English. From there will create a community together to learn and improve English.

3. Architecture Drivers

3.1. High-level Requirements

Refer to C1SE.12_ProductBacklog_ver1.1

3.2. System Context



– Admin:

- Admin can authenticate identity (login / logout)
- Admin can manage groups in the system.
- Admin can manage accounts in the system (Add, change roles, lock accounts)
- Admin can create management courses (add default course, edit default courses, block course)
- Admin can view dashboard chart statistics

– Volunteer:

- Volunteer can authenticate identity (login / logout)

- Volunteer can manage groups created by them (create, teaching online, create quiz, manage users in group, change group, delete group)
 - Volunteer can receive random assistance from the user in need of assistance (video, audio, text)
 - Volunteers can manage their events (create event, online conference, change event, delete event)
 - Volunteers can interact privately with other users through message
- **User:**
- User can authenticate identity (login / logout)
 - User can learn vocabulary
 - User can join groups (Study online, take quizzes, review old lesson transcripts, interact with team members)
 - User can find random helpers (video, audio, text)
 - User can join events
 - User can interact privately with other users through message

3.3. Architecture Driver Specification

3.3.1. Use Case Entities

ID	E01
Title	Admin
Description	Admin is a person who managing the system.
Provides Assumptions	Admin is the management of the entire system
Requires Assumptions	Already have a default account
Identified Use Cases	UC01, UC02

ID	E02
Title	Volunteer
Description	Volunteer is a teacher who using the system

Provides Assumptions	Provide person information (optional)
Requires Assumptions	Connect the internet
Identified Use Cases	UC03 to UC5

ID	E03
Title	Student
Description	Student is a learner who using the system
Provides Assumptions	Provide person information (optional)
Requires Assumptions	Connect the internet
Identified Use Cases	UC05 to UC09

3.3.2. Operational Use Case

ID	UC01
Title	Login
Description	Login into system
Entities Involved	E01
Precondition	Admin is already has default account.
Primary Flow	<ol style="list-style-type: none"> 1. Navigate to Admin System website 2. Choose “Use with Admin” button. 3. Navigate to Login page 4. Fill the form with the default account of the admin 5. Click on “Login” button
Post Conditions	Already have default account.
Alternate Flows	<p>In step 4 of the Primary Flow, if [Email]/[Username] or [Password] is incorrect, the system will prompt manager “email or password is incorrect” or “username or password is incorrect”, respectively.</p> <p>In step 1, 2, 3, 5 of the Primary Flow, if the system has problem, it will show error message.</p>

ID	UC02
Title	Manage groups account courses in the system
Description	Create, Edit, Delete data from database of the system
Entities Involved	E01
Precondition	Successful logged in the admin website
Primary Flow	<ol style="list-style-type: none"> 1. Click on [Manage Table] on Sidebar 2. Choose the Table to manage 3. Click on “Add ...” button to create new record 4. Click on “Delete ...” button to delete all the record had chosen 5. Click on “Edit” icon to show edit modal
Post Conditions	
Alternate Flows	<p>In step 1 of the Primary Flow, if the system has problem, it will show error message.</p> <p>In step 2 of the Primary Flow</p> <p>With [Edit]/[Add] option, if the input field be empty, the system will prompt manager “This field not be empty”.</p> <p>With [Delete] option, the system will prompt user “Do you want to delete this account?”. Click “OK” to delete or click “Cancel” to drop.</p>

ID	UC03
Title	Create, change and delete group
Description	Create, change or delete groups that you manage
Entities Involved	E02
Preconditions	Access the website
Primary Flow	<ol style="list-style-type: none"> 1. Open Learning English Together on browser. 2. Press [Group] on menu bar to navigate the group page. 3. Click the plus sign to add the group 4. For each group you want to change, press the edit button and press the delete button if you want to delete the group
Post Conditions	
Alternate Flows	<p>In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages.</p> <p>In step 3, 4 of the Primary Flow:</p> <p>System will send message “Error link” if link is not exist anymore.</p>

ID	UC04
Title	Live Stream
Description	Live stream to teach
Entities Involved	E02
Preconditions	Access the website
Primary Flow	<p>1. Open Learning English Together on browser.</p> <p>2. Press [Group] on menu bar to navigate the group page.</p> <p>3. Click to select the topic then click to select group</p> <p>4. Start streaming to teach</p>
Post Conditions	
Alternate Flows	<p>In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages.</p> <p>In step 3, 4 of the Primary Flow:</p> <p>System will send message “Error link” if link is not exist anymore.</p>

ID	UC05
Title	Create, change and delete event
Description	Create events for everyone to discuss you can change or delete the event you create
Entities Involved	E02
Preconditions	Access the website
Primary Flow	<p>1. Open Learning English Together on browser.</p> <p>2. Press [Event] on menu bar to navigate the group page.</p> <p>3. Create events on this page</p> <p>4. For each event you want to change, hit the edit button and hit the delete button if you want to delete the event</p>
Post Conditions	
Alternate Flows	<p>In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages.</p> <p>In step 3, 4 of the Primary Flow:</p> <p>System will send message “Error link” if link is not exist anymore.</p>

ID	UC06
Title	Join group
Description	Create, change or delete groups that you manage
Entities Involved	E02

Preconditions	Access the website
Primary Flow	<ol style="list-style-type: none"> 1. Open Learning English Together on browser. 2. Press [Group] on menu bar to navigate the group page. 3. Choose the topic you want to join then click the join button
Post Conditions	
Alternate Flows	<p>In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages.</p> <p>In step 3, 4 of the Primary Flow: System will send message “Error link” if link is not exist anymore.</p>

ID	UC07
Title	Chat room
Description	Create, change or delete groups that you manage
Entities Involved	E02
Preconditions	Access the website
Primary Flow	<ol style="list-style-type: none"> 1. Open Learning English Together on browser. 2. Press [Group] on menu bar to navigate the group page. 3. Click to select the topic then click to select group 4. Press to join class and chat
Post Conditions	
Alternate Flows	<p>In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages.</p> <p>In step 3, 4 of the Primary Flow: System will send message “Error link” if link is not exist anymore.</p>

ID	UC08
Title	Vocabulary
Description	Create, change or delete groups that you manage
Entities Involved	E02
Preconditions	Access the website
Primary Flow	<ol style="list-style-type: none"> 1. Open Learning English Together on browser. 2. Press [Course] on menu bar to navigate the group page. 3. Choose vocabulary course you need to learn
Post Conditions	

Alternate Flows	In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages. In step 3, 4 of the Primary Flow: System will send message “Error link” if link is not exist anymore.
------------------------	--

ID	UC09
Title	Quiz
Description	Create, change or delete groups that you manage
Entities Involved	E02
Preconditions	Access the website
Primary Flow	
Post Conditions	<ol style="list-style-type: none"> 1. Open Learning English Together on browser. 2. Press [Group] on menu bar to navigate the group page. 3. Click to select the topic then click to select group 4. Click to join the class and take the test
Alternate Flows	In step 1, 2, 3 of the Primary Flow, if the system has a problem, it will show error messages. In step 3, 4 of the Primary Flow: System will send message “Error link” if link is not exist anymore.

3.4. Quality Attributes

Quality attribute: Usability	ID: QA01
Stimulus	Manager interacts with the website. User interacts with the website.
Source(s) of the Stimulus	User, Manager
Relevant Environment	Runtime
Artifact Stimulated	Website
Response	System should response fast with smooth animation
Response Measure(s)	System should response within 4 seconds

Quality attribute: Security	ID: QA02
Stimulus	Users do not want to disclose sensitive information illegally
Source(s) of the Stimulus	System
Relevant Environment	The system is online, connected to network
Artifact Stimulated	System Database, Server
Response	

Response Measure(s)	
Quality attribute: Modifiability	ID: QA03
Stimulus	Manager want to update account or information
Source(s) of the Stimulus	Manager
Relevant Environment	Runtime
Artifact Stimulated	Website
Response	The system should responses to updated information
Response Measure(s)	System should response within 3 seconds

4. Constraints

4.1. Business Constraint

- Project will be started on: Feb 26th, 2021.
- Project will be finished on: May 25th, 2021.
- Project will be finished in 90 days (2880).

4.2. Technical Constraint

- Programming language: JavaScript
- Library: Hook, Redux, React hook form, Font awesome, Material ui, Express.js.
- Technology: ReactJs, Nodejs, Polling, Elasticsearch, Redis, WebSocket, Mail gun.
- Database: Mongo dB.
- Version Control System: GitHub
- Team Management: Trello, Zalo, Google drive
- Develop tools: Visual Studio Code

Environments:

- Internet Connection
- Operation System: Google Chrome, Microsoft Edge, CocCoc, Firefox

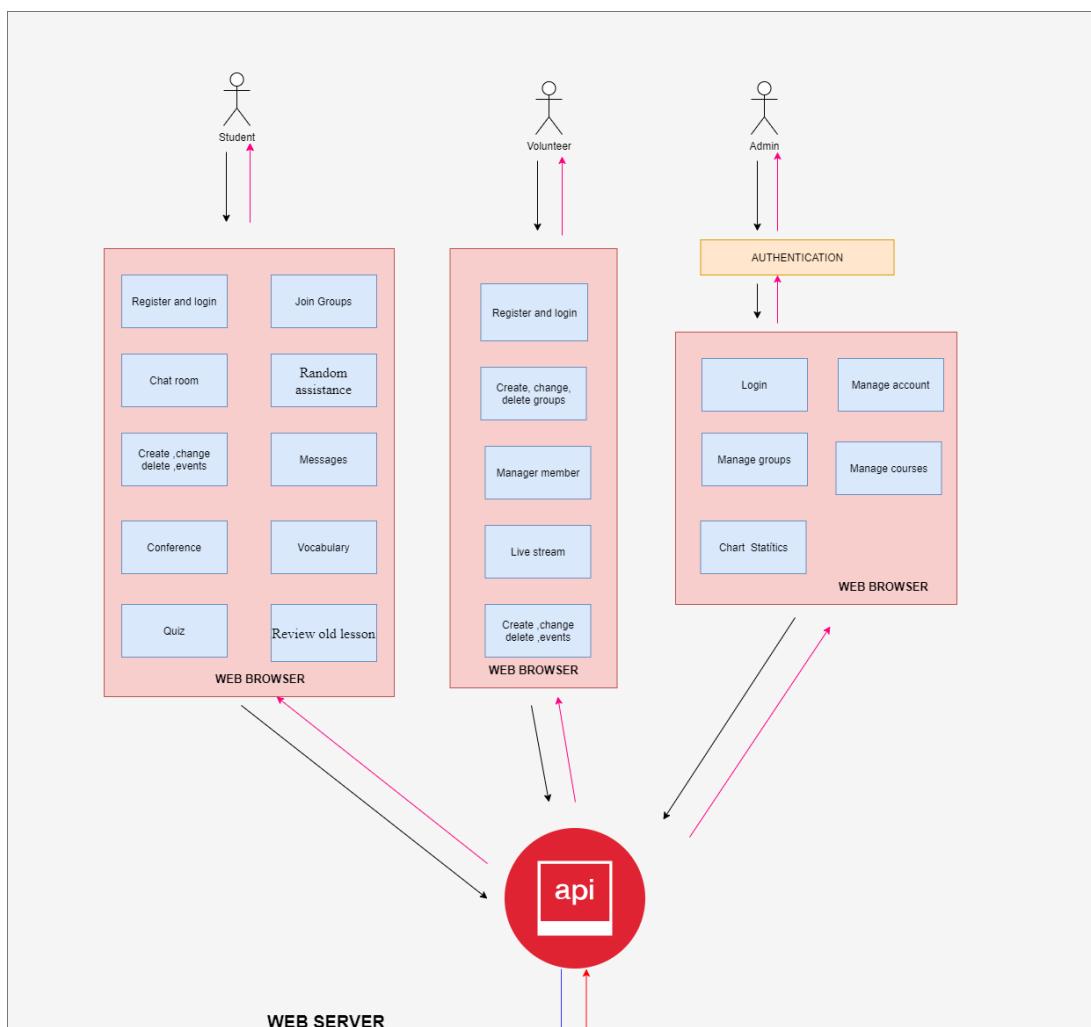
Other Constraints:

- Resource: 4 people.
- Budget: Limited.
- Time: The project must be completed within 03 months.
- These features are not available in the first version of the product.

4. High-level Architecture

5.

5.1. Component and Connector View (C&C view)

**Legend**

Database



API gateway



End-user

Text

Send Request

Response Request

Web Brower

Web Server

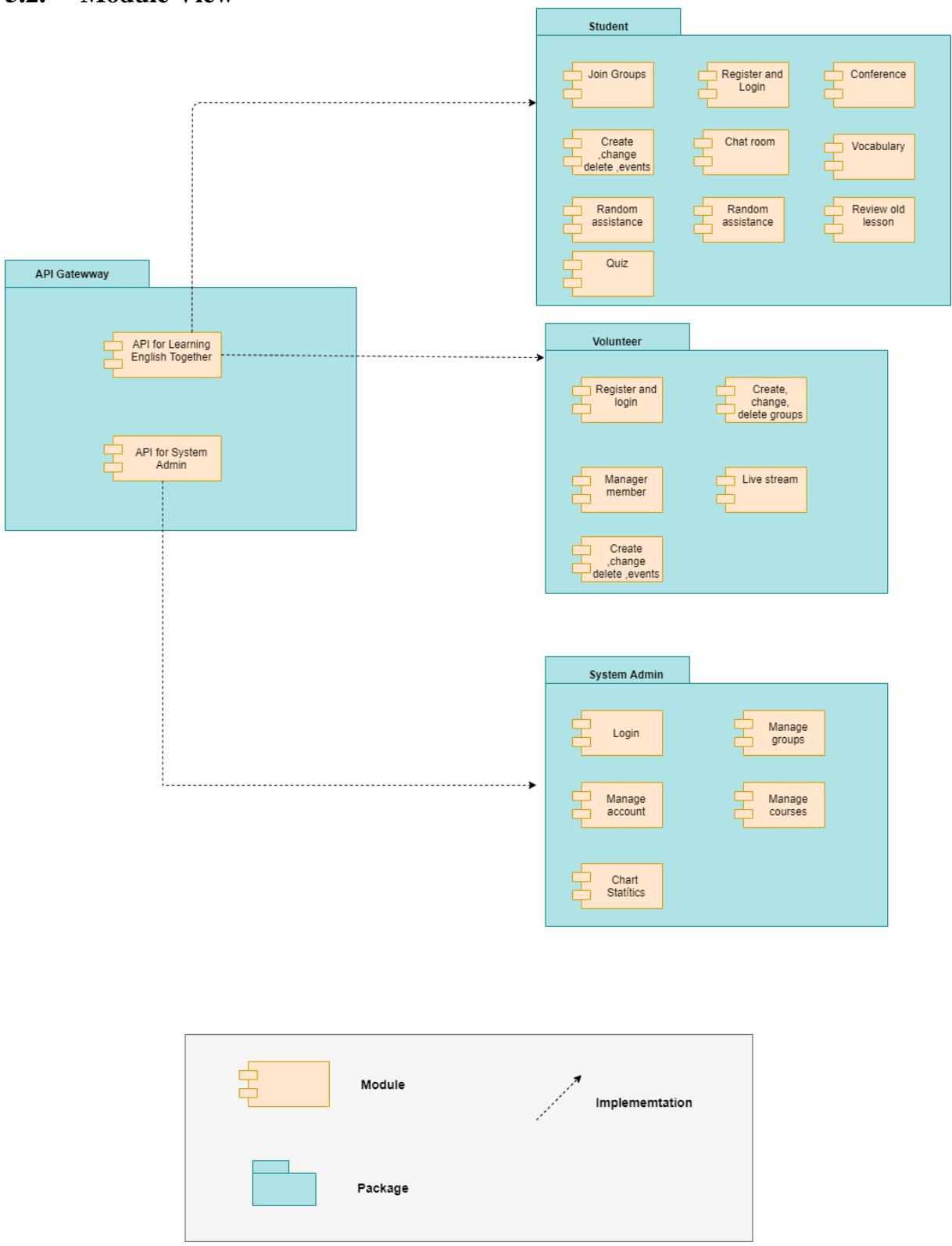
5.1.1. Prose

End-User here is Manager or User uses our system via Web browser, respectively. When users access the system, users will use the features provided. When client-server sending a service request, they will be able to use the system through API Gateway which the main communicate with return all data is retrieved by querying to Database.

5.1.2. Role and Responsibility of Elements

- **End-User** will responsible for sending the request and receiving the response.
- **Authentication** will receive the request from Manager and checks to see if Manager's credentials match the one in a database of authorized users or in a data authentication server. Then, the request is sent to the Web Browser for processing with the respective Manager.
- **Web Browser** is responsible for processing the End-user's request. It will receive the request from the End-user and present it to the manager as a Website. It includes two modules with different purposes.
- **API Gateway** is responsible for collecting requests from End-User to process by communication to Database by reading and writing data.
- **Database** is a place that stores data and manipulation data of the system. The database will access the Database to take the data to handle some user requests.

5.2. Module View



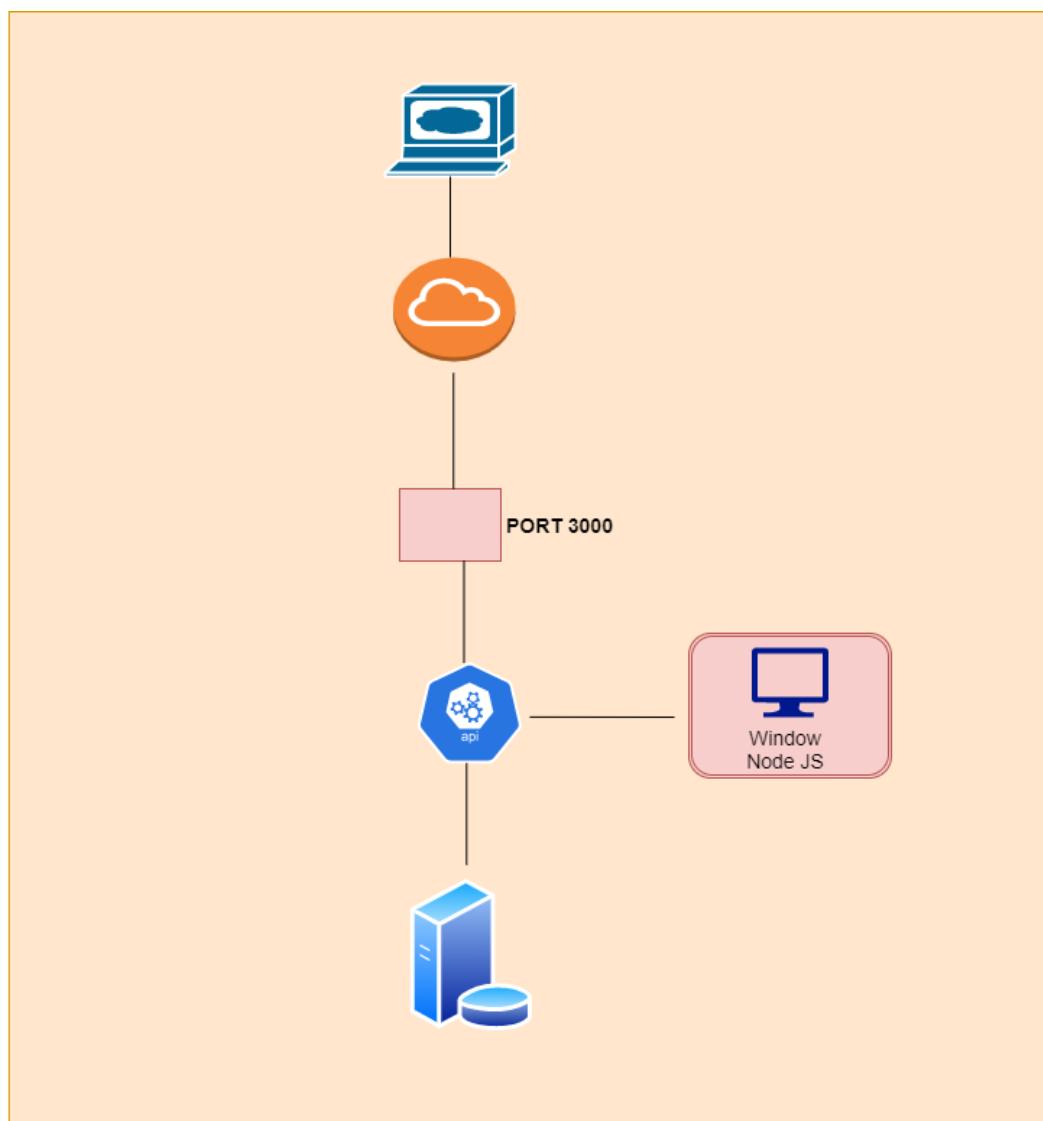
5.2.1. Prose

- To process and authorize request from the user, packages which responsibility for interacting with the user, are tied up together to authorize the association between user and data. All requests come from users firstly will be received by API Gateway. Then, API will handle the request and get necessary data from Database and response respectively.

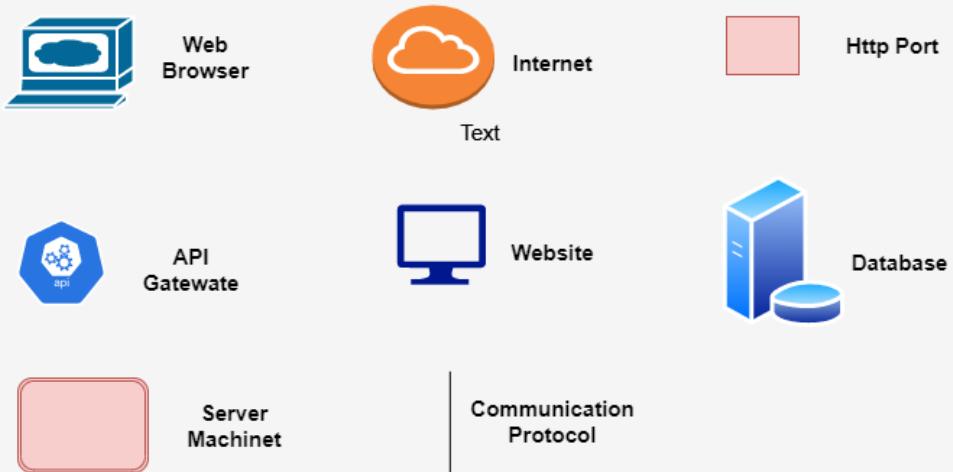
5.2.2. Role and Responsibility of Elements

- **System Admin package** responsibility for operating the data which was received from API module and presenting to manager as a Website. In this package includes a module with purpose is manage data table from the database.
- **Learning English Together Website package** responsibility for operating the data which was received from API module and presenting to user as a website. In this package includes six modules with different purposes.
- **API Gateway package** responsibility for collecting request from user or manager to process by communication to Data Access module to query data and responding to Learning English Together Website package or System Admin as JSON file. This package includes two modules with different purposes
 - o *API for Learning English Together Website module* includes queries which relate to the requests from user to operate the functionals in the Website.
 - o *API for System Admin module* includes queries which relate to the requests from manager to operate the functionals in Website.

5.3. Allocation View



Legend



5.3.2. Prose

- End users here are respectively Managers or Users using our system through a Web browser. All requests are processed in a Central Web Server, data access is only made between the Web Server and the Database Server. All transactions between the user and the system will be deployed on Firebase through the API call.

5.3.3. Role and Responsibility of Elements

- **Web Browser** is an interface for managers to interact with the system and submit their requests.
- **API Gateway** is responsible for collecting requests from End-User to process by communication to Database by reading and writing data.
- **Database** is a place that stores data and manipulation data of the system. The database will access the Database to take the data to handle some user requests.
- **Internet** is the communication environment between the website and the server.
- **Website** is the place to receive and process requests from end users.
- **Server machine** is a computer program or device that provides a service to another computer program and its user



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Database Design

Version 1.1

Date: March 15th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name Signature Date

Capstone Project 2- Mentor:

Name Signature Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
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REVISION HISTORY

Version	Date	Comments	Author	Approval
1.0	March 15 th , 2021	Initial Release	Ngoc My Ngo	
1.1	April 20 th , 2021	Update	Ngoc My Ngo	

TABLE OF CONTENT

1. Introduction	5
1.1 Purpose.....	5
1.2 Scope.....	5
1.3 Introduction about MongoDB	5
2.Database Diagram	6
2.1 Table Overview	6
2.2 Entity Relationship Diagram	7
2.3 Table Relationship Diagram	8
3. Database Design for Sprint.....	9
3.1 Table Group.....	9
3.2 Table User	9
3.3 Table Frame.....	10
3.4 Table PrivateMessage	11
3.5 Table PublicMessage	11
3.6 Table Events	11
3.7 Table Course.....	12
3.8 Table CourseVocabulary.....	12
3.9 Table CourseOfUsser.....	13
3.10 Table Rating	13
4.Hardware and software Requirements	14

1. Introduction

The Database Design maps the logical data model to the target database management system with consideration to the system's performance requirements. The Database Design converts logical or conceptual data constructs to physical data constructs (e.g., tables...) of the target Database Management System.

1.1 Purpose

The purpose of the Database Design is to ensure that every database transaction meets or exceeds its performance requirements. This document takes into account data and transaction volume to produce a schema and environment that will meet necessary performance.

1.2 Scope

The Database Design Document has the following objectives:

- To describe the design of a database, that is, a collection of related data stored in one or more computerized files that can be accessed by users or developers via a DBMS.
- To serve as a basis for implementing the database and related software units. It provides the acquirer visibility into the design and provides information necessary for software development.

1.3 Introduction about MongoDB

MongoDB is a NoSQL database which stores the data in form of key-value database and can be installed across different platforms like Windows, Linux etc. pairs. It is an **Open Source, Document Database** which provides high performance and scalability along with data modelling and data management of huge sets of data in an enterprise application.

MongoDB also provides the feature of Auto-Scaling. Since, MongoDB is a cross platform like Windows, Linux etc.

A Document is nothing but a data structure with name-value pairs like in JSON. It is very easy to map any custom Object of any programming language with a MongoDB Document. For example: **Student** object has attributes **name**, **rollno** and **subjects**, where subjects are a List.

Document for Student in MongoDB will be like:

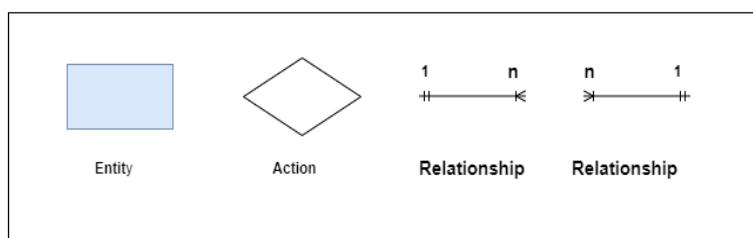
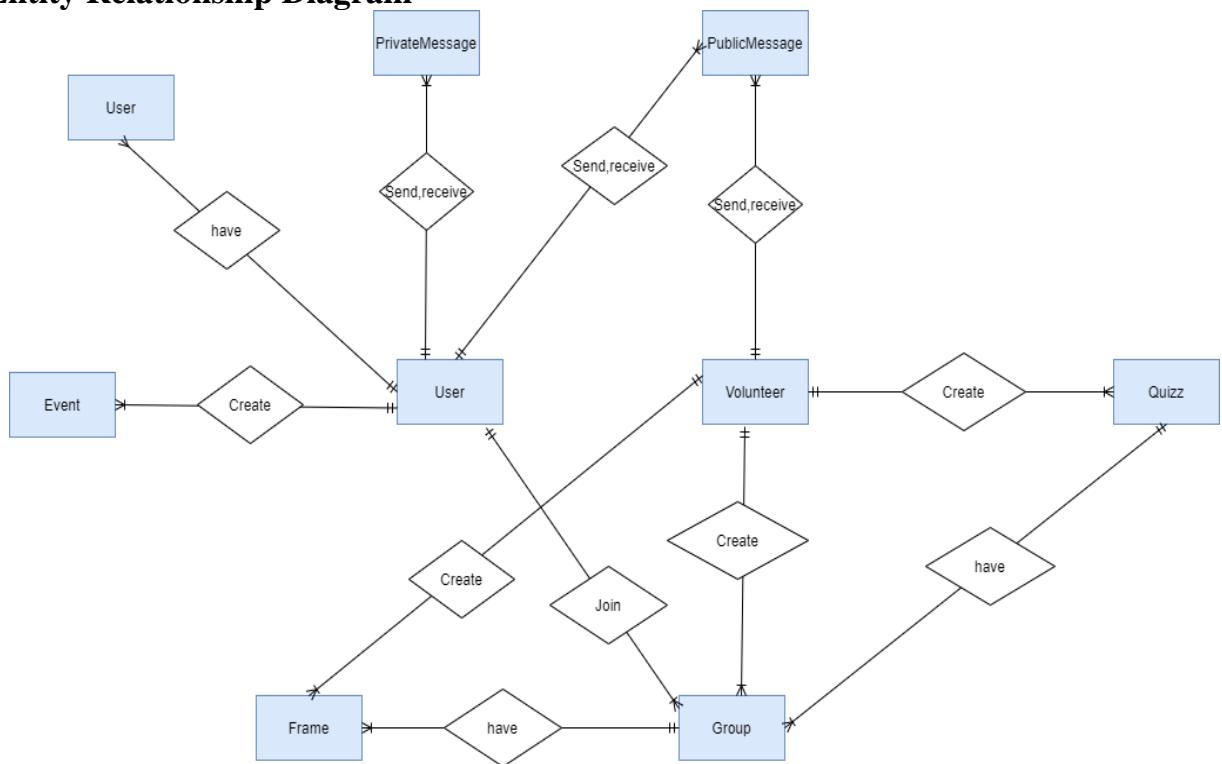
```
{  
    name : "Stduytonight",  
    rollno : 1,  
    subjects : ["C Language", "C++", "Core Java"]  
}
```

We can see, Documents are actually JSON representation of custom Objects. Also, excessive JOINS can be avoided by saving data in form of Arrays and Documents(Embedded) inside a Document.

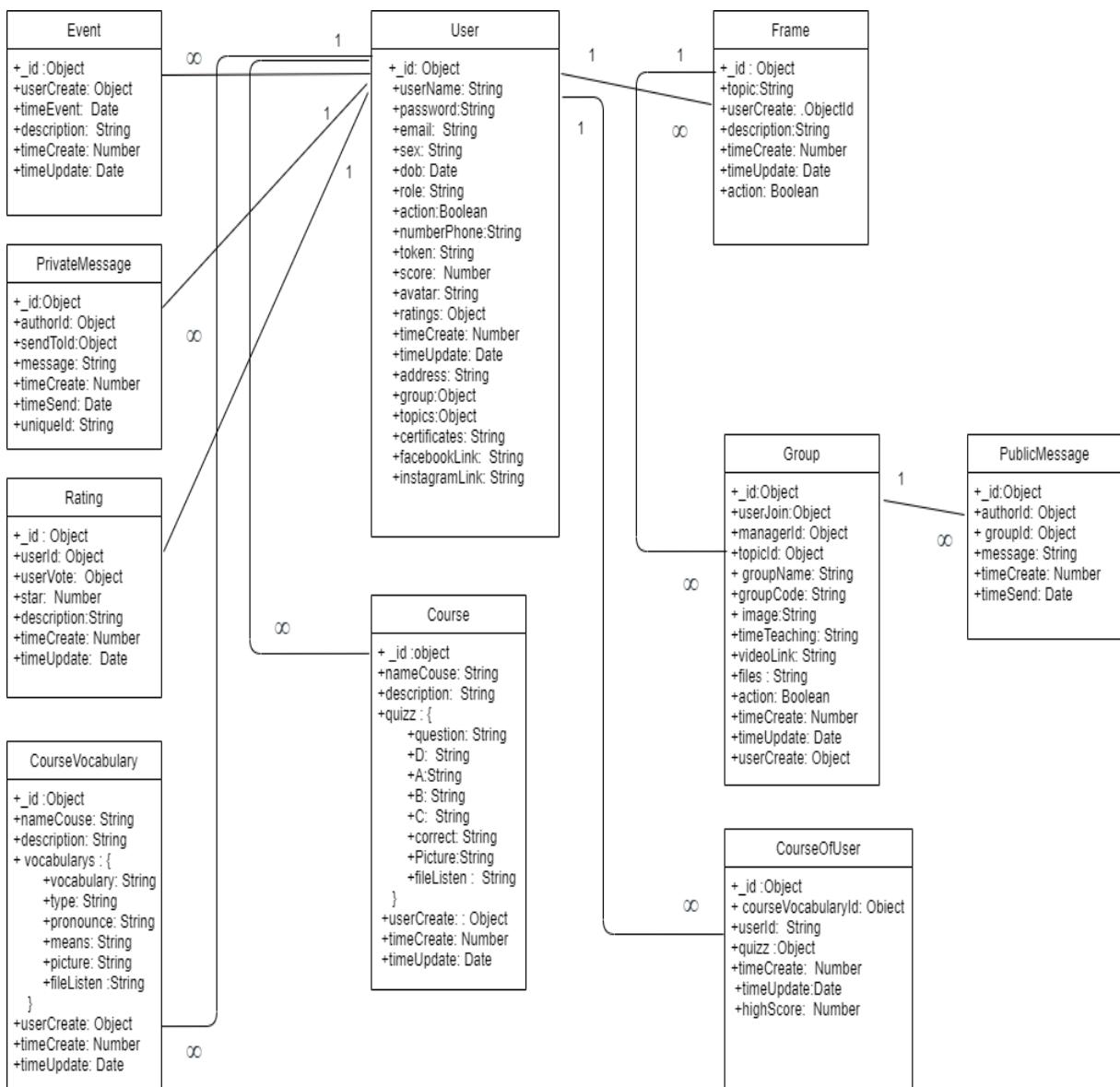
2.Database Diagram**2.1 Table Overview**

Table Name	Short Description
Group	This table shows group information including all related fields.
User	This table shows member information including all related fields.
Frame	This table shows topic of a group.
PrivateMessage	This table shows messages between members.
PublicMessage	This table shows messages between User in the group.
Quizz	This table shows quiz of the group.
Event	This table shows all the events for the website.

2.2 Entity Relationship Diagram



2.3 Table Relationship Diagram



3. Database Design for Sprint

3.1 Table Group

Group				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary Key	the MongoDB driver automatically generates an ObjectId
2	userJoin	Object		Id user join group
3	managerId	Object		Id manager group
4	topicId	Object		Id topic group
5	groupName	String		Name of group
6	groupCode	String		Code group
7	image	String		Avatar of group
8	timeTeaching	date		Time teach
9	videoLink	String		Link join group when live stream
10	files	String		Files are uploaded to the group
11	action	Boolean		Action of group
12	timeCreate	Date		Time Create
13	timeUpdate	Date		Time Update
14	userCreate	Object		Id User Create Group

3.2 Table User

User				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	Id Mongodb Create
2	userName	String		Name of user. Display on website.
3	password	String		Password of user. password after saving to db will be encrypted
4	email	String		Connect with user and help user get their password back. Its value must be unique in the collection
5	sex	String		Sex of user.
6	dob	Date		Date of birth of user

7	role	String		user authorization. Three type: 1. Admin 2. Volunteer 3. Student
8	action	Boolean		Status of user
9	numberPhone	String		Phone of user
10	token	String		Token of user device
11	score	String		User's score when participating in learning on the web
12	avatar	String		Avatar of user. Save the path to cloud nary. Display on website.
13	ratings	Object		Rank of user
14	timeCreate	Date		User Time create
15	timeUpdate	Date		User Time Update
16	address	String		Address of user
17	group	Object		All group user actives
18	topics	String		Topics that users participate in learning
19	certificate	String		Certificate of user
20	facebookLink	String		The link to the user's personal Facebook
21	instagramLink	String		The link to the user's personal Instagram

3.3 Table Frame

Frame				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	Id Mongodb Create
2	topic	String		Name Topic
3	userCreate	Object		Id User Create
4	description	String		Content Topic
5	timeCreate	Number		Time Create
6	timeUpdate	Date		Time Update
7	action	Boolean		Status of Topic

3.4 Table PrivateMessage

PrivateMessage				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	Id Mongodb Create
2	authorId	Object		Id Sender
3	sendToId	Object		Id Receiver
4	message	String		Content Message
5	timeCreate	Number		Time Create
6	timeSend	Date		Time when message is sent
7	uniqueId	Number		Private Message ID

3.5 Table PublicMessage

PublicMessage				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary Key	the MongoDB driver automatically generates an ObjectId. It is ID of message.
2	authorId	Object		Id of Sender
3	groupID	Object		Id of the group that the user joins
4	message	String		Content of message
5	timeCreate	Number		Time when message is created
6	timeSend	Date		Time when message is sent

3.6 Table Events

Event				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	the MongoDB driver automatically generates an ObjectId. It is ID of event.
2	userCreate	Object		Event ID
3	timeEvent	Date		Event Time
4	description	String		Event Content
5	timeCreate	Number		Time when event is created
6	timeUpdate	Date		Time when message is updated

3.7 Table Course

Course				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	the MongoDB driver automatically generates an ObjectId. It is ID of course. Each course will create 1 course by id
2	nameCourse	String		Name of course
3	description	String		descriptions of the courses you take
4	quiz	String		
	question	String		questions of the test
	D	String		multiple choice answer plan
	A	String		multiple choice answer plan
	B	String		multiple choice answer plan
	C	String		multiple choice answer plan
	correct	String		the correct answer to the question (A, B, C, D)
	picture	String		simulation image of the question
	fileListen	String		audio file of the question
5	userCreate	Object		Id of user create course
6	timecreate	Number		Time when user is created course
7	timeUpdate	Date		Time when user is updated course

3.8 Table CourseVocabulary

CourseVocabulary				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	the MongoDB driver automatically generates an ObjectId. It is ID of course. Each course will create 1 course by id
2	nameCourse	String		Name of course
3	description	String		descriptions of the courses you take
4	vocabularys	String		
	vocabulary	String		vocabulary
	type	String		from that kind of vocabulary (v, n, adv, adj...)

	pronounce	String		Write down the pronunciation of that word
	means	String		meaning of the word
	picture	String		simulation image of the vocabulary
	fileListen	String		pronunciation of words
5	userCreate	Object		Id of user create course
6	timecreate	Number		Time when user is created course
7	timeUpdate	Date		Time when user is updated course

3.9 Table CourseOfUsser

CourseOfUsser				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	the MongoDB driver automatically generates an ObjectId. It is ID of course.
2	coursevocabularyId	Object		Id of course vocabulary
3	userId	Strin		Id of user join course
4	quizz	Object		Id of course vocabulary
5	timeCreate	Nummber		Time when user is created
6	timeUpdate	Date		Time when user is updated
7	highScore	Number		the user's score is achieved when learning vocabulary

3.10 Table Rating

Rating				
Id	Field	Type	Constrain	Description
1	_id	Object	Primary key	the MongoDB driver automatically generates an ObjectId. It is ID of event.
2	userId	Object		id of user
3	userVote	Object		id of other people to vote for you
4	star	Number		star when you reach the highest rank in the leaderboard
5	description	String		Description of rating
6	timeCreate	Nummber		Time when event is created
7	timeUpdate	Date		Time when message is updated

4. Hardware and software Requirements

This section provides an overview of hardware and software requirements. Below are descriptions of the technological components of the Easy English Website:

Attributes of Easy English WEBSITE	
Attributes	Descriptions
Database	MongoDB
Software	Reactjs, Nodejs, Polling, Elasticsearch, Redis, Websocket, Mail gun
Hardware	Computer
Library	Hook, Redux, React hook form, Bootstrap 4, Fontawesome, Material ui, Express.js.



International School
Capstone Project 2

CMU-SE 451 – C2SE.12

User Interface Design

Version 1.1

Date: March 6th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name	Signature	Date
------	-----------	------

Capstone Project 2- Mentor:

Name	Signature	Date
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PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
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Project Web URL			
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The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
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REVISION HISTORY

Version	Date	Comments	Author
1.0	March 6 th , 2021	Initial Release	H2MT Team
1.1	March 13 th , 2021	Update Current Status of Art	H2MT Team

TABLE OF CONTENT

1. Introduction	5
1.1. Purpose.....	5
1.2. Scope.....	5
2. Interface Design	5
2.1. Home page.....	5
2.2. Navbar	6
2.3. Footer.....	6
2.4. Group.....	7
2.4.1. Topic.....	7
2.4.2. Group of topic	8
2.4.3. Detail group	9
2.5. Profile	10
2.6. Live stream.....	11
2.7. Chat.....	12

1. Introduction

1.1. Purpose

This specification covers following:

- Documentation helps to better understand the user interface of the website, the detailed description and functionality of the website.
- With this documentation, the development team can understand the structure and composition details to create a consistent and complete system.

1.2. Scope

- Overview of the stages and modules of the software.
- Create complete interface and describe them clearly.

2. Interface Design

2.1. Home page

The screenshot shows the homepage of a learning management system. At the top, there's a navigation bar with icons for home, library, news, calendar, and others. On the right, there's a user profile section with a picture and name. Below the navigation bar, there are two main sections: 'KHÓA HỌC CỦA BẠN' (Courses you have taken) and 'NHÓM CỦA BẠN' (Groups you are in). Each section contains three cards with course or group names and small thumbnail images. To the right of these sections is a sidebar titled 'Bạn bè' (Friends) which lists several users with their profile pictures and names. The overall layout is clean and modern, using a light blue and white color scheme.

Homepage

No.	Field name	Type	Require	Target
1	Background		Background: #101522	
2	My Courses	Grid View	Heading: h2 tag Font-size: 20px color: Button: members	list of courses you have taken

3	My Groups	Grid view	Heading h2 tag Font-size: 20px color: Images group, topic group: : font-size: 13px	
4	My friend		Padding: 10 20px Color: #fff Font-size: 13px;	Friend online

2.2. Navbar



Navbar				
No.	Field name	Type	Require	Target
1	Logo	Image		Logo.png
2	Menu	List	Height: 60px; Font-size: 19px; Font-family: "Source sans pro". Responsive: max-width: 960px;	Search, home, group, event, random assistance, login/logout, notification

2.3. Footer

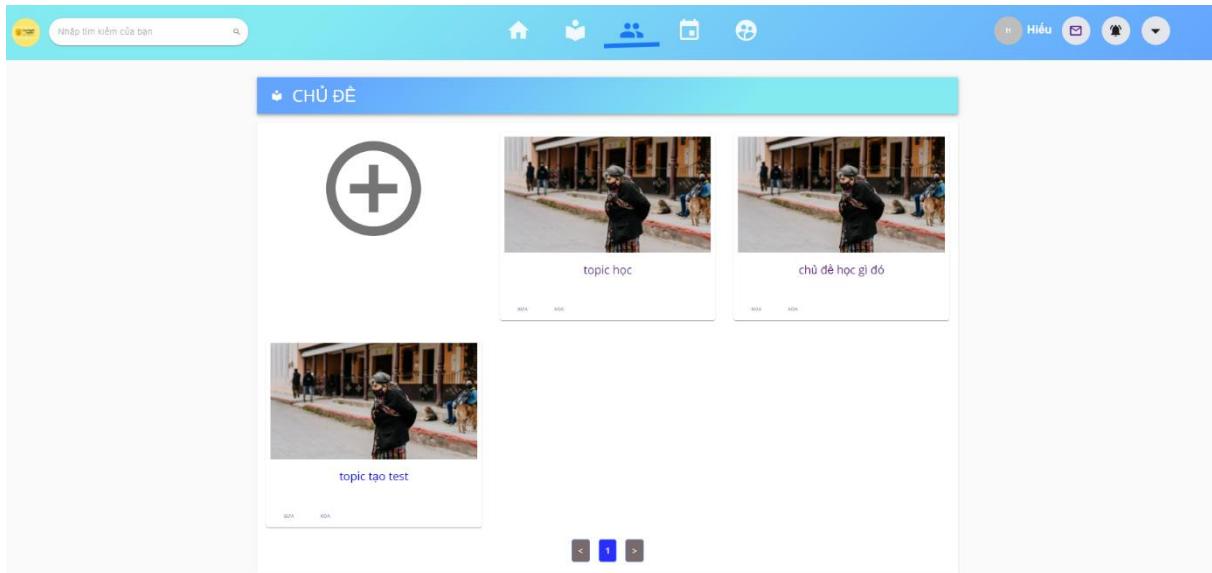


No.	Field name	Type	Require	Target
1	About web		Font-size: 15px	Learning English together, support, contact, policy

2	Credits	P tag	Font-size: 15px; Font-family: “source sans pro” Responsive: 960px	Copyright © C2SE.12 2021
---	---------	-------	--	--------------------------------

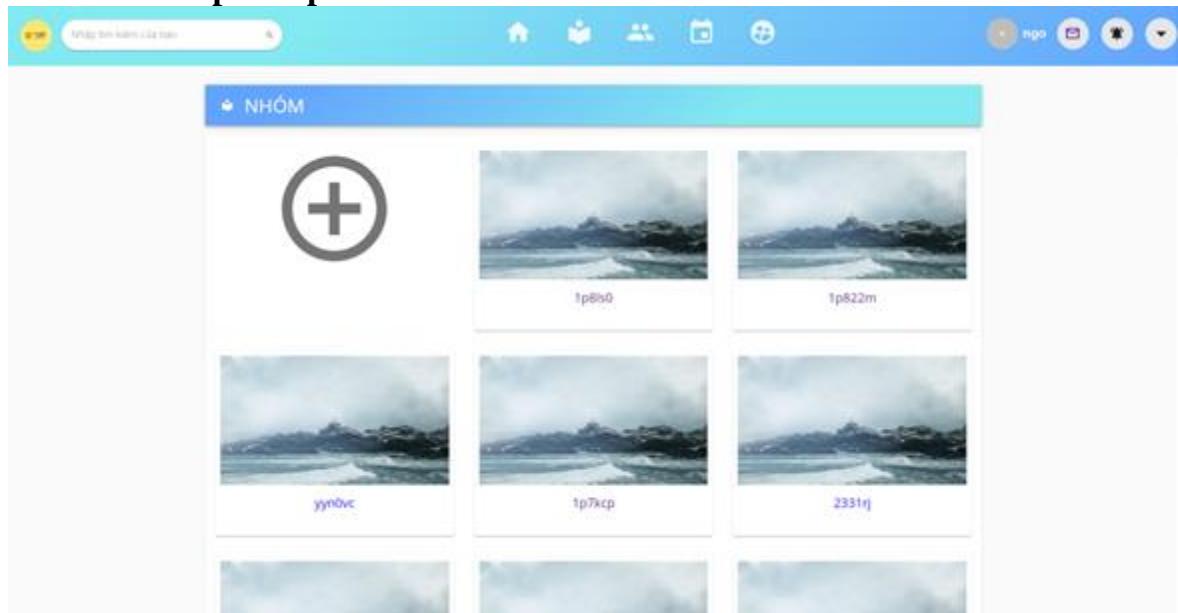
2.4. Group

2.4.1. Topic



Topic				
No.	Field name	Type	Require	Target
1	Heading	H1 tag	Font-size: 20px Background: color blue	Topic
2	Topic		Image topic Name topic font-size:13px color blue	When onClick name topic, list group topic
3	Next page	ul tag	Color: blue Font-size : 13px	Number page and button next page

2.4.2. Group of topics



Group of topics				
No.	Field name	Type	Require	Target
1	Heading	H1 tag	Font-size: 20px	Topic
2	Group		Image group Name group font-size:13px color blue	When onClick name group, detail of group
3	Next page	ul tag	Color: blue Font-size : 13px	Number page and button next page

2.4.3. Detail group

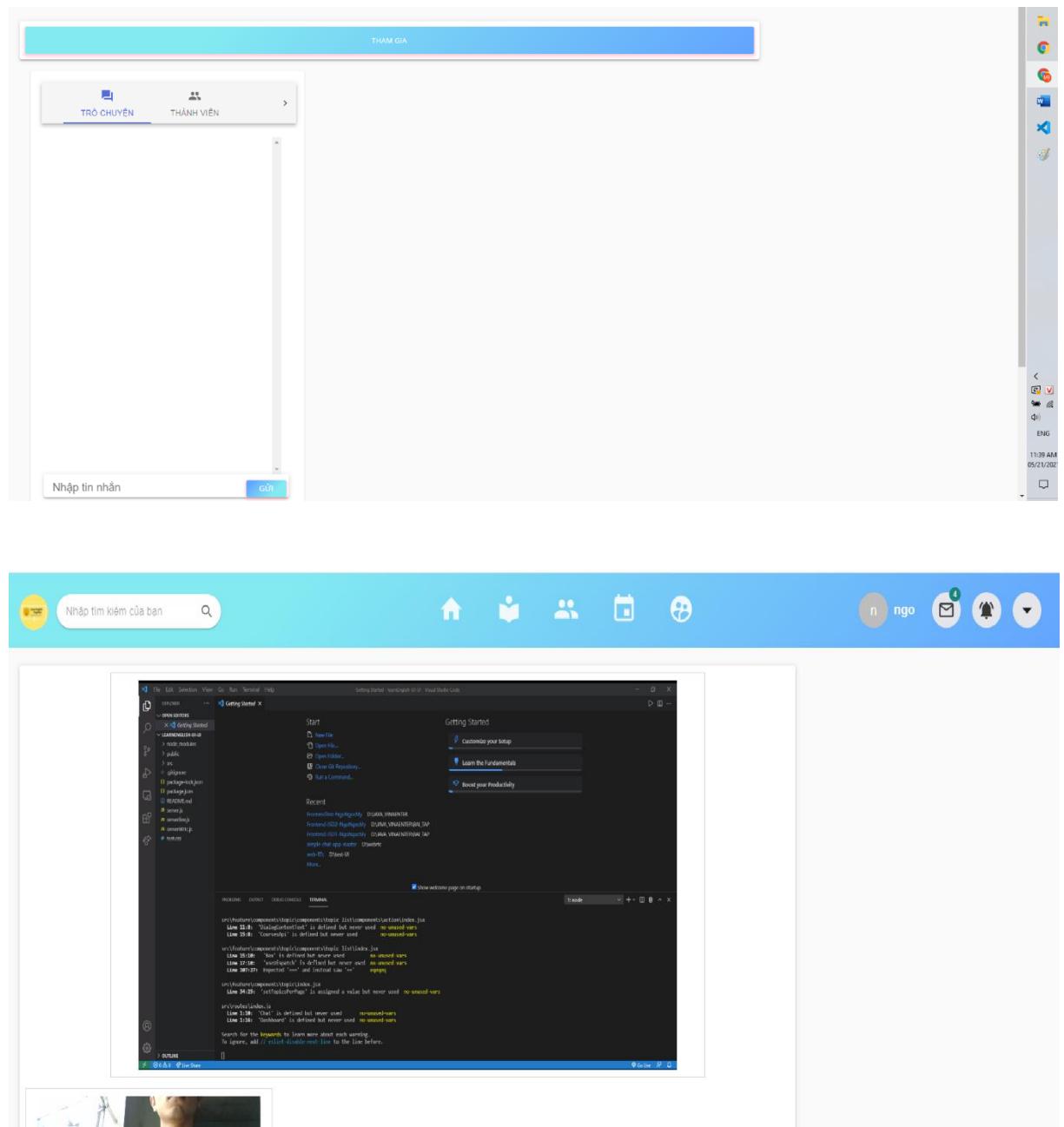
Detail group

No.	Field name	Type	Require	Target
1	Member	List	Heading: h2 tag background blue Position: left screen Avatar member and name ember: font-size 13px	Member group
2	Video courses		Heading: h2 tag background blue Position: center Screen	the video has been recorded
3	Chat room		Heading: h2 tag background blue; Position: right screen; Content chat: font-size: 13px; Input box: width : 100px, height : 20px; Button send: background: blue	
4	List video course	List	Heading: h2 tag background blue; Position: Below video courses	List video has been recorded

2.5. Profile

Profile				
No.	Field name	Type	Require	Target
1	Avatar	image	Font-size: 250px	Avatar of user
2	Username	P tag	Font-size: 13px; Font-weight: bold	
3	My Courses	Grid View	Heading: h2 tag Font-size: 20px color: Button: learn and delete course	list of courses you have taken
4	Follow	Button	Font-size: 13px; Background color: orange;	When others click, they will follow you
5	Followers	P tag	Font-size: 13px	Show tracking number

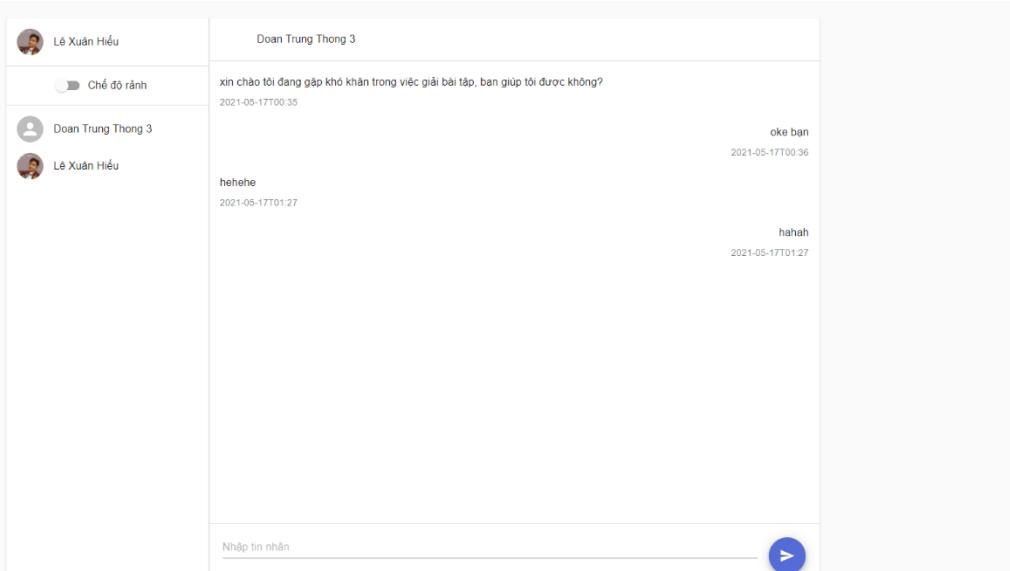
2.6. Live stream



Profile				
No.	Field name	Type	Require	Target
1	Button join	image	Font-size: 250px	Avatar of user
2	Menu room	List	Width: 450px; Height: 70px; Background color: Grey	Chat, record, record, members

3	Button share screen	Button	Heading: h2 tag Font-size: 20px color: Button: learn and delete course	When others click, my screen will share
4	Camera		Font-size: 13px; Background color: orange;	back to the front of the computer screen

2.7. Chat



Profile				
No.	Field name	Type	Require	Target
1	Avatar	image	Font-size: 250px	Avatar of user
2	Username	P tag	Font-size: 13px; Font-weight: bold	
3	Button sending	Button	Font-size: 13px; Background color: blue;	When others click, message will send to receiver
4	Content message	Button	Font-size: 13px;	

5	Time sending		Font-size: 12px; Show real time sending	
6	List friend	list	Font-size: 13px; Avatar: Font-size: 250px; Username: Font-size: 13px; Font-weight: bold	



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Capstone Project 2

CMU-SE 451 – C2SE.12

Test Plan Sprint 1

Version 1.1

Date: April 10th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name

Signature

Date

Capstone Project 2- Mentor:

Name

Signature

Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

DOCUMENT APPROVALS

The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REVISION HISTORY

Version	Date	Comments	Author
1.0	April 11 th , 2021	Initial Release	Ngoc My Ngo
1.1	April 15 th , 2021	Update	Ngoc My Ngo

TABLE OF CONTENT

1. Introduce	5
1.1. Purpose.....	5
1.2. Limit.....	5
1.3. References.....	5
2. Test Plan.....	6
2.1. Test outline	6
2.2. Test requirement.....	6
3. Test strategy.....	7
3.1. Test type.....	7
3.1.1. Unit test	7
3.1.2. Functional test.....	8
3.1.3. Test the user interface	8
3.1.4. Test configuration.....	9
3.2. Test tool.....	10
3.3. Technical inspection (Equipment and hardware)	10
3.4. Pass / fail condition	10
4. Test source	11
5. Test schedule.....	11
5.1 Test plan.....	11

1. Introduce

This document is the Test Plan for the Learning English Together Website project, presented by Quality Assurance. It describes the testing strategy and approach to testing QA will use to validate this product's pre-release. It also contains the various resources needed to successfully complete this project.

1.1. Purpose

The purpose of this document is to provide an overview and guidance for the Website Learning English Together - Test Plan project. The objective is also to establish a level of general understanding to the client of the testing procedure addressed in this document.

1.2. Limit

This Test Plan is for 1.1 release

Sprint 1 includes 11 functions:

- Main Menu
- Login for users
- Register for users
- Profile for users
- Group for users
- Message

1.3 References

STT	References	Document information	Note
1	Documentation User Stories	This document provides a user story and goal-oriented perspective of the Learning English Together Website Project	
2	Sprint Backlog document	A list of tasks determined by the Scrum Team to be completed in each sprint.	

2. Test Plan

2.1 Test outline

- Unit testing
- Functional test
- Test the user interface
- Test configuration
- Acceptance test

2.2 Test requirement

The following list describes the functions that will be tested for Sprint 1:

Id	Function	Test case type	Note
FC01	Main Menu	<ul style="list-style-type: none">• Test the user interface• Functional test• Acceptance test	
FC02	Login for users	<ul style="list-style-type: none">• Test the user interface• Functional test• Acceptance test	
FC03	Register for users	<ul style="list-style-type: none">• Test the user interface• Functional test• Acceptance test	
FC04	Profile for users	<ul style="list-style-type: none">• Test the user interface• Functional test	

		<ul style="list-style-type: none"> ● Acceptance test 	
FC05	Group for users	<ul style="list-style-type: none"> ● Test the user interface ● Functional test ● Acceptance test 	
FC06	Message	<ul style="list-style-type: none"> ● Test the user interface ● Functional test ● Acceptance test 	

3. Test strategy

- The test strategy presented is the method to test the system.
- Test requirement must describe what should be tested; Test strategy outlines the ways that are used for testing.
- In this section, techniques and standards for assessment are the main content that needs attention...

3.1 Test type

3.1.1 Unit test

- Unit testing is a procedure used to determine if the source code (units) of software is working properly
- Unit testing is done by developers.

Test objectives:	Make sure the source code is working without errors, working well
Skill:	All functions, methods, processes, and classes are subjected to testing to ensure there are no risks and must be carefully tested and made sure that any minor errors are not ignored.
Completion criteria:	Debugging with no errors All functions, methods, classes, procedures are 100%
Special considerations:	

3.1.2 Functional test

Functional testing will be performed to verify all functional requirements have been met successfully. This will be done through black box testing.

Technical objectives:	Verify system functional requirements.
Skill:	<ul style="list-style-type: none"> ▪ Use the Black Box test ▪ Design test cases to perform functional testing ▪ Based on user stories to create test cases for the functional system: <ul style="list-style-type: none"> - Image Carousel - Medical Report Online - View latest new - View map of number statistics about Covid-19 in Viet Nam - View evolution of the disease - Patients details cases - New Video - Image Collection - View number of statistics about Covid-19 in patients - View information of support medical center related to COVID-19 - Regular Questions
Oracles:	
Required tools:	<ul style="list-style-type: none"> ● Instructions for use Test
Success criteria:	<p>All of the following have been tested successfully:</p> <p>All major use cases</p> <ul style="list-style-type: none"> • All major features

3.1.3 Test the user interface

User interface (UI) testing verifies user interaction with software. The goal of UI testing is to ensure that the UI provides users with proper access and navigation through the test target's functions. Additionally, UI testing ensures that the objects in the UI functionality are as expected and conform to company or industry standards.

Technical goals:	<p>Do the following to observe and record conformance to standard and target behavior:</p> <p>Navigating through business requirements and functions that reflect test goals, covering from window to window, field to field, and use of access methods (tab keys, mouse movements, keys acceleration).</p> <ul style="list-style-type: none"> ● Window objects and properties can be moved such as menu, size, position, status, and focus.
Skill:	Create or modify tests for each window to verify navigation and object status appropriate for each window and application object.
Oracles:	The tester will verify the matching function based on the requirement.
Required tools:	
Success criteria:	All windows objects can be done, properly navigated through test target and test target works as expected.

3.1.4 Test configuration

Test Configuration Verify that the test target works correctly under different software configurations and interacts with different software.

Technical goals:	Accurately verify the test target functionality on different platforms and in different configurations.
Skill:	<ul style="list-style-type: none"> ● Execute unrelated software on the same platform as the test target to verify no side effects.
Oracles:	Test target behavior.
Required tools:	<p>This technique requires the following tools:</p> <ul style="list-style-type: none"> ● Restore and restore the base configuration ● Install monitoring tool (registry, hard disk, CPU, memory,

	etc.)
Success criteria:	The test target worked as expected, and the software that wasn't the test target worked as expected

3.1.5 Acceptance test

Please refer to Acceptance Check attached in the documentation

3.2 Test tool

Work	Tools	Company
Manage test activities	Excel	Microsoft
Project management	Trello, Slack	Swap Up, Stewart Butterfield
Database system management	Mongoose DB	Microsoft
Test GUI	Test it manually	

3.3 Technical inspection (Equipment and hardware)

Purpose	Tools	Describe	Version
The Run commands	Browser	Testing web	Internet Explorer, Chrome

3.4 Pass / fail condition

A test case will have the script action, the condition, the input value, and the expected result.

- If the result of the test case is sequentially the same as the input provided, the result is correct with the expected result => Pass
- If result is failed, or differs from expected result => Fail

4. Test source

Role	Assigned to	Responsibility
Scrum master	Thanh Ha, Le	<p>Provide management supervision for the project.</p> <ul style="list-style-type: none"> • Define control points for error handling • Acquire the right resources for testing • Provide management reports
Tester	Ngoc My, Ngo	<p>Provide management supervision for testing. Ensures that the identified testing activities are traceable to the defined functional / business requirements.</p> <ul style="list-style-type: none"> • Identify what information people need to write and support. • System / function test, integration and system. • Test management • Test planning • Evaluation and coordination of testing strategies

5. Test schedule

5.1 Test plan

Task	Milestone Task	Responsible	Start day	End day
Main menu	Test Plan	My, Ngo Ngoc	09/04/2021	09/04/2021
	Test case	My, Ngo Ngoc	09/04/2021	09/04/2021
	Execute Test case	My, Ngo Ngoc	09/04/2021	09/04/2021

Login	Test Plan	My, Ngo Ngoc	09/04/2021	09/04/2021
	Test case	My, Ngo Ngoc	09/04/2021	09/04/2021
	Execute Test case	My, Ngo Ngoc	09/04/2021	09/04/2021
Register	Test Plan	My, Ngo Ngoc	10/04/2021	10/04/2021
	Test case	My, Ngo Ngoc	10/04/2021	10/04/2021
	Execute Test case	My, Ngo Ngoc	10/04/2021	10/04/2021
Groups	Test Plan	My, Ngo Ngoc	10/04/2021	10/04/2021
	Test case	My, Ngo Ngoc	10/04/2021	10/04/2021
	Execute Test case	My, Ngo Ngoc	10/04/2021	10/04/2021
Message	Test Plan	My, Ngo Ngoc	11/04/2021	11/04/2021
	Test case	My, Ngo Ngoc	11/04/2021	11/04/2021
	Execute Test case	My, Ngo Ngoc	11/04/2021	11/04/2021



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Capstone Project 2

CMU-SE 451 – C2SE.12

Test Plan Sprint 2

Version 1.1

Date: May 10th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name

Signature

Date

Capstone Project 2- Mentor:

Name

Signature

Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

DOCUMENT APPROVALS

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Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REVISION HISTORY

Version	Date	Comments	Author
1.0	May 8 th , 2021	Initial Release	Ngoc My Ngo
1.1	May 10 th , 2021	Update	Ngoc My Ngo

TABLE OF CONTENT

1. Introduce	5
1.1. Purpose.....	5
1.2. Limit.....	5
1.3. References.....	5
2. Test Plan.....	6
2.1. Test outline	6
2.2. Test requirement.....	6
3. Test strategy.....	7
3.1. Test type.....	7
3.1.1. Unit test	7
3.1.2. Functional test.....	7
3.1.3. Test the user interface	8
3.1.4. Test configuration.....	9
3.2. Test tool.....	9
3.3. Technical inspection (Equipment and hardware)	10
3.4. Pass / fail condition	10
4. Test source	10
5. Test schedule.....	11
5.1. Test plan.....	11

1. Introduce

This document is the Test Plan for the Learning English Together Website project, presented by Quality Assurance. It describes the testing strategy and approach to testing QA will use to validate this product's pre-release. It also contains the various resources needed to successfully complete this project.

1.1. Purpose

The purpose of this document is to provide an overview and guidance for the Website Learning English Together - Test Plan project. The objective is also to establish a level of general understanding to the client of the testing procedure addressed in this document.

1.2. Limit

This Test Plan is for 1.1 release

Sprint 2 includes 5 functions:

- Find a helper
- Support for user
- Search
- Learn Vocabulary
- Quiz

1.3 References

STT	References	Document information	Note
1	Documentation User Stories	This document provides a user story and goal-oriented perspective of the Learning English Together Website Project	
2	Sprint Backlog document	A list of tasks determined by the Scrum Team to be completed in each sprint.	

2. Test Plan

2.1 Test outline

- Unit testing
- Functional test
- Test the user interface
- Test configuration
- Acceptance test

2.2 Test requirement

The following list describes the functions that will be tested for Sprint 2:

Id	Function	Test case type	Note
FC01	Find a helper	<ul style="list-style-type: none">● Test the user interface● Functional test● Acceptance test	
FC02	Support for user	<ul style="list-style-type: none">● Test the user interface● Functional test● Acceptance test	
FC03	Search	<ul style="list-style-type: none">● Test the user interface● Functional test● Acceptance test	
FC04	Learn Vocabulary	<ul style="list-style-type: none">● Test the user interface● Functional test● Acceptance test	
FC05	Quiz	<ul style="list-style-type: none">● Test the user interface	

		<ul style="list-style-type: none"> ● Functional test ● Acceptance test 	
--	--	--	--

3. Test strategy

- The test strategy presented is the method to test the system.
- Test requirement must describe what should be tested; Test strategy outlines the ways that are used for testing.
- In this section, techniques and standards for assessment are the main content that needs attention...

3.1 Test type

3.1.1 Unit test

- Unit testing is a procedure used to determine if the source code (units) of software is working properly
- Unit testing is done by developers.

Test objectives:	Make sure the source code is working without errors, working well
Skill:	All functions, methods, processes, and classes are subjected to testing to ensure there are no risks and must be carefully tested and made sure that any minor errors are not ignored.
Completion criteria:	Debugging with no errors All functions, methods, classes, procedures are 100%
Special considerations:	

3.1.2 Functional test

Functional testing will be performed to verify all functional requirements have been met successfully. This will be done through black box testing.

Technical objectives:	Verify system functional requirements.
Skill:	<ul style="list-style-type: none"> ▪ Use the Black Box test ▪ Design test cases to perform functional testing ▪ Based on user stories to create test cases for the functional system: <ul style="list-style-type: none"> - Image Carousel

	<ul style="list-style-type: none"> - Medical Report Online - View latest new - View map of number statistics about Covid-19 in Viet Nam - View evolution of the disease - Patients details cases - New Video - Image Collection - View number of statistics about Covid-19 in patients - View information of support medical center related to COVID-19 - Regular Questions
Oracles:	
Required tools:	<ul style="list-style-type: none"> • Instructions for use Test
Success criteria:	<p>All of the following have been tested successfully:</p> <p>All major use cases</p> <ul style="list-style-type: none"> • All major features

3.1.3 Test the user interface

User interface (UI) testing verifies user interaction with software. The goal of UI testing is to ensure that the UI provides users with proper access and navigation through the test target's functions. Additionally, UI testing ensures that the objects in the UI functionality are as expected and conform to company or industry standards.

Technical goals:	<p>Do the following to observe and record conformance to standard and target behavior:</p> <p>Navigating through business requirements and functions that reflect test goals, covering from window to window, field to field, and use of access methods (tab keys, mouse movements, keys acceleration).</p> <ul style="list-style-type: none"> • Window objects and properties can be moved such as menu, size, position, status, and focus.
Skill:	Create or modify tests for each window to verify navigation and object status appropriate for each window and application

	object.
Oracles:	The tester will verify the matching function based on the requirement.
Required tools:	
Success criteria:	All windows objects can be done, properly navigated through test target and test target works as expected.

3.1.4 Test configuration

Test Configuration Verify that the test target works correctly under different software configurations and interacts with different software.

Technical goals:	Accurately verify the test target functionality on different platforms and in different configurations.
Skill:	<ul style="list-style-type: none"> Execute unrelated software on the same platform as the test target to verify no side effects.
Oracles:	Test target behavior.
Required tools:	<p>This technique requires the following tools:</p> <ul style="list-style-type: none"> Restore and restore the base configuration Install monitoring tool (registry, hard disk, CPU, memory, etc.)
Success criteria:	The test target worked as expected, and the software that wasn't the test target worked as expected

3.1.5 Acceptance test

Please refer to Acceptance Check attached in the documentation

3.2 Test tool

Work	Tools	Company
Manage test activities	Excel	Microsoft
Project management	Trello, Slack	Swap Up, Stewart Butterfield
Database system management	Mongoose DB	Microsoft

Test GUI	Test it manually	
----------	------------------	--

3.3 Technical inspection (Equipment and hardware)

Purpose	Tools	Describe	Version
The Run commands	Browser	Testing web	Internet Explorer, Chrome

3.4 Pass / fail condition

A test case will have the script action, the condition, the input value, and the expected result.

- If the result of the test case is sequentially the same as the input provided, the result is correct with the expected result => Pass
- If result is failed, or differs from expected result => Fail

4. Test source

Role	Assigned to	Responsibility
Scrum master	Thanh Ha, Le	<p>Provide management supervision for the project.</p> <ul style="list-style-type: none"> • Define control points for error handling • Acquire the right resources for testing • Provide management reports

Tester	Ngoc My, Ngo	<p>Provide management supervision for testing. Ensures that the identified testing activities are traceable to the defined functional / business requirements.</p> <ul style="list-style-type: none"> • Identify what information people need to write and support. • System / function test, integration and system. • Test management • Test planning • Evaluation and coordination of testing strategies
---------------	--------------	--

5. Test schedule

5.1 Test plan

Task	Milestone Task	Responsible	Start day	End day
Find a helper	Test Plan	My, Ngo Ngoc	07/05/2021	07/05/2021
	Test case	My, Ngo Ngoc	07/05/2021	07/05/2021
	Execute Test case	My, Ngo Ngoc	07/05/2021	07/05/2021
Support for user	Test Plan	My, Ngo Ngoc	07/05/2021	07/05/2021
	Test case	My, Ngo Ngoc	07/05/2021	07/05/2021
	Execute Test case	My, Ngo Ngoc	07/05/2021	07/05/2021
Search	Test Plan	My, Ngo Ngoc	08/05/2021	08/05/2021
	Test case	My, Ngo Ngoc	08/05/2021	08/05/2021
	Execute Test case	My, Ngo Ngoc	08/05/2021	08/05/2021

Learn Vocabulary	Test Plan	My, Ngo Ngoc	08/05/2021	08/05/2021
	Test case	My, Ngo Ngoc	08/05/2021	08/05/2021
	Execute Test case	My, Ngo Ngoc	08/05/2021	08/05/2021
Quiz	Test Plan	My, Ngo Ngoc	08/05/2021	08/05/2021
	Test case	My, Ngo Ngoc	08/05/2021	08/05/2021
	Execute Test case	My, Ngo Ngoc	08/05/2021	08/05/2021



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International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Test Plan Sprint 3

Version 1.1

Date: May 20th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name

Signature

Date

Capstone Project 2- Mentor:

Name

Signature

Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

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My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REVISION HISTORY

Version	Date	Comments	Author
1.0	May 15 th , 2021	Initial Release	Ngoc My Ngo
1.1	May 20 th , 2021	Update	Ngoc My Ngo

TABLE OF CONTENT

1. Introduce	5
1.1. Purpose.....	5
1.2. Limit.....	5
1.3. References.....	5
2. Test Plan.....	5
2.1. Test outline	5
2.2. Test requirement.....	6
3. Test strategy.....	6
3.1. Test type.....	6
3.1.1. Unit test	6
3.1.2. Functional test.....	7
3.1.3. Test the user interface.....	7
3.1.4. Test configuration.....	8
3.2. Test tool.....	9
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3.4. Pass / fail condition	9
4. Test source	9
5. Test schedule.....	10
5.1 Test plan.....	10

1. Introduce

This document is the Test Plan for the Learning English Together Website project, presented by Quality Assurance. It describes the testing strategy and approach to testing QA will use to validate this product's pre-release. It also contains the various resources needed to successfully complete this project.

1.1. Purpose

The purpose of this document is to provide an overview and guidance for the Website Learning English Together - Test Plan project. The objective is also to establish a level of general understanding to the client of the testing procedure addressed in this document.

1.2. Limit

This Test Plan is for 1.1 release

Sprint 2 includes 5 functions:

- Admin Dashboard
- Event

1.3 References

STT	References	Document information	Note
1	Documentation User Stories	This document provides a user story and goal-oriented perspective of the Learning English Together Website Project	
2	Sprint Backlog document	A list of tasks determined by the Scrum Team to be completed in each sprint.	

2. Test Plan

2.1 Test outline

- Unit testing
- Functional test
- Test the user interface
- Test configuration
- Acceptance test

2.2 Test requirement

The following list describes the functions that will be tested for Sprint 1:

Id	Function	Test case type	Note
FC01	Admin dashboard	<ul style="list-style-type: none"> ● Test the user interface ● Functional test ● Acceptance test 	
FC02	Event	<ul style="list-style-type: none"> ● Test the user interface ● Functional test ● Acceptance test 	

3. Test strategy

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- In this section, techniques and standards for assessment are the main content that needs attention...

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Completion criteria:	Debugging with no errors All functions, methods, classes, procedures are 100%
Special considerations:	

3.1.2 Functional test

Functional testing will be performed to verify all functional requirements have been met successfully. This will be done through black box testing.

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Oracles:	
Required tools:	<ul style="list-style-type: none"> ● Instructions for use Test
Success criteria:	<p>All of the following have been tested successfully:</p> <p>All major use cases</p> <ul style="list-style-type: none"> • All major features

3.1.3 Test the user interface

User interface (UI) testing verifies user interaction with software. The goal of UI testing is to ensure that the UI provides users with proper access and navigation through the test target's functions. Additionally, UI testing ensures that the objects in the UI functionality are as expected and conform to company or industry standards.

Technical goals:	<p>Do the following to observe and record conformance to standard and target behavior:</p> <p>Navigating through business requirements and functions that reflect test goals, covering from window to window, field to field, and use of access methods (tab keys, mouse movements, keys acceleration).</p> <ul style="list-style-type: none"> ● Window objects and properties can be moved such as menu, size, position, status, and focus.
Skill:	Create or modify tests for each window to verify navigation and object status appropriate for each window and application object.
Oracles:	The tester will verify the matching function based on the requirement.
Required tools:	
Success criteria:	All windows objects can be done, properly navigated through test target and test target works as expected.

3.1.4 Test configuration

Test Configuration Verify that the test target works correctly under different software configurations and interacts with different software.

Technical goals:	Accurately verify the test target functionality on different platforms and in different configurations.
Skill:	<ul style="list-style-type: none"> ● Execute unrelated software on the same platform as the test target to verify no side effects.
Oracles:	Test target behavior.
Required tools:	<p>This technique requires the following tools:</p> <ul style="list-style-type: none"> ● Restore and restore the base configuration ● Install monitoring tool (registry, hard disk, CPU, memory, etc.)
Success criteria:	The test target worked as expected, and the software that wasn't the test target worked as expected

3.1.5 Acceptance test

Please refer to Acceptance Check attached in the documentation

3.2 Test tool

Work	Tools	Company
Manage test activities	Excel	Microsoft
Project management	Trello, Slack	Swap Up, Stewart Butterfield
Database system management	Mongoose DB	Microsoft
Test GUI	Test it manually	

3.3 Technical inspection (Equipment and hardware)

Purpose	Tools	Describe	Version
The Run commands	Browser	Testing web	Internet Explorer, Chrome

3.4 Pass / fail condition

A test case will have the script action, the condition, the input value, and the expected result.

- If the result of the test case is sequentially the same as the input provided, the result is correct with the expected result => Pass
- If result is failed, or differs from expected result => Fail

4. Test source

Role	Assigned to	Responsibility
Scrum master	Thanh Ha, Le	<p>Provide management supervision for the project.</p> <ul style="list-style-type: none"> • Define control points for error handling • Acquire the right resources for testing

		<ul style="list-style-type: none"> • Provide management reports
Tester	Ngoc My, Ngo	<p>Provide management supervision for testing. Ensures that the identified testing activities are traceable to the defined functional / business requirements.</p> <ul style="list-style-type: none"> • Identify what information people need to write and support. • System / function test, integration and system. • Test management • Test planning • Evaluation and coordination of testing strategies

5. Test schedule

5.1 Test plan

Task	Milestone Task	Responsible	Start day	End day
Admin dashboard	Test Plan	My, Ngo Ngoc	18/05/2021	18/05/2021
	Test case	My, Ngo Ngoc	19/05/2021	24/05/2021
	Execute Test case	My, Ngo Ngoc	25/05/2021	25/05/2021
Event	Test Plan	My, Ngo Ngoc	26/05/2021	26/05/2021
	Test case	My, Ngo Ngoc	27/05/2021	28/05/2021
	Execute Test case	My, Ngo Ngoc	28/05/2021	28/05/2021

Status	Task
Pass	15
Fail	5

Header + Footer

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on CocCoc	Show correct design	1	Ngoc My, Ngo	Pass
2		Check interface on Microsoft Edge	Show correct design	1	Ngoc My, Ngo	Pass
3		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My, Ngo	Pass
4		Check interface on chrome	Show correct design	1	Ngoc My, Ngo	Pass
5	Test case Header	Button "Homepage"	Display "Homepage" page	1	Ngoc My, Ngo	Pass
6		Button "Course"	Display "Course" page	1	Ngoc My, Ngo	Pass
7		Button "Group"	Display "Group" page	1	Ngoc My, Ngo	Pass
8		Button "Event"	Display "Event" page	1	Ngoc My, Ngo	Pass
9		Button "Find random helpers "	Display "Volunteer" can help you	1	Ngoc My, Ngo	Pass
10		SearchBar	Search in web	1	Ngoc My, Ngo	Pass
11		Button "Username and avatar"	Link to personal page	1	Ngoc My, Ngo	Pass
12		Icon lettter	Link to chat page	1	Ngoc My, Ngo	Pass
13		Icon bell	Link to notification page	1	Ngoc My, Ngo	Pass
14	Test case Footer	Button link "introduction"	Display "Introduction" page	1	Ngoc My, Ngo	Pass
15		Button link "Team"	Display "Team product" page	1	Ngoc My, Ngo	Pass
16		Button link "address"	Display "address" page	1	Ngoc My, Ngo	Pass
17		Button link "terms of use"	Display "terms of use" page	1	Ngoc My, Ngo	Pass
18		Button link "Privacy Policy"	Display "Privacy Policy" page	1	Ngoc My, Ngo	Fail
19		Button link "cookies policy"	Display "Privacy Policy" page	1	Ngoc My, Ngo	Fail
20		Button link "setting"	Display "cookies policy" page	1	Ngoc My, Ngo	Pass
21		Button link "help"	Display "help" page	1	Ngoc My, Ngo	Fail
22		Button link "language"	Display "language" page	1	Ngoc My, Ngo	Pass
23		Button link "report"	Display "report" page	1	Ngoc My, Ngo	Fail
24		Button link "contact us"	Display "Contact us" page	1	Ngoc My, Ngo	Fail
25		Button link "Comments"	Display "Comment" page	1	Ngoc My, Ngo	Fail

LOGIN-REGISTER

Status	Task
Pass	16
Fail	1

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on CocCoc	Show correct design	1	Ngoc My, Ngo	Pass
2		Check interface on Microsoft Edge	Show correct design	1	Ngoc My, Ngo	Pass
3		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My, Ngo	Pass
4		Check interface on chrome	Show correct design	1	Ngoc My, Ngo	Pass
5	Test Case Login	Input box "email"	Enter email	1	Ngoc My, Ngo	Pass
		Input box "password"	Enter passwword	1		Pass
6		Icon show and hiden password	show and hiden passwod	1	Ngoc My, Ngo	Pass
7		Button link "forgot password"	Request a password reset	1	Ngoc My, Ngo	Fail
8		Button "Log in"	Link to home page	1	Ngoc My, Ngo	Pass
9		Button link "Do not have an account"	Link to form register	1	Ngoc My, Ngo	Pass
11	Test Case Register	Input box "Username"	Enter Username	1	Ngoc My, Ngo	Pass
12		Input box "email"	Enter email	1	Ngoc My, Ngo	Pass
13		Input box "password"	Enter passwword	1	Ngoc My, Ngo	Pass
14		Input box "repeat password"	Enter repeat password	1	Ngoc My, Ngo	Pass
15		Icon show and hiden password	show and hiden passwod	1	Ngoc My, Ngo	Pass
16		Button "Register"	Link to form log in	1	Ngoc My, Ngo	Pass
17		Button link "Do you already have an account"	Link to form log in	1	Ngoc My, Ngo	Pass

PROFILE USER

Status	Task
Pass	8
Fail	0

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on chrome	Show correct design	1	Ngoc My, Ngo	Pass
2		Check interface on CocCoc	Show correct design	1	Ngoc My, Ngo	Pass
3		Check interface on Microsoft Edge	Show correct design	1	Ngoc My, Ngo	Pass
4		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My, Ngo	Pass
5	Test Case Profile user	Image avatar	Displays avatar of user	1	Ngoc My, Ngo	Pass
6		Button edit profile	link to form edit profile	1	Ngoc My, Ngo	Pass
7		Icon Facebook	Link to Facebook page	1	Ngoc My, Ngo	Pass
8		Icon instagram	Link to Instagram page	1	Ngoc My, Ngo	Pass
9		Text User name	Displays name of user	1	Ngoc My, Ngo	Pass
10		Text flower	Displays flow of user	1	Ngoc My, Ngo	Pass
11		List Course	Displays course user join	1	Ngoc My, Ngo	Pass
12		List Group	Displays group user join		Ngoc My, Ngo	Pass

Find a helper

Status	Task
Pass	8
Fail	0

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
2		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
3		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
4		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
5	Test case find a helper	Button "search helper"	Display list helper	1	Ngoc My Ngo	Pass
6		Name and avatar for helper	Show avatar and name for helper	1	Ngoc My Ngo	Pass
7		Message	Show the content of the discussion message	1	Ngoc My Ngo	Pass
8		Button "send"	Send message content	1	Ngoc My Ngo	Pass

Learn Vocabulary

Status	Task
Pass	18
Fail	2

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
2		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
3		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
4		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
11	Test case Learn vocabulary home	Button "Learn vocabulary"	Go to the page of learning vocabulary quizzes	1	Ngoc My Ngo	Pass
12		Learned vocabulary	Display completed vocabulary	1	Ngoc My Ngo	Pass
13		Show vocabulary creator	Display vocabulary creator	1	Ngoc My Ngo	Pass
14		Ranking	Show the ranking of this vocabulary course	1	Ngoc My Ngo	Pass
15		Topic and description	Show vocabulary course name and description	1	Ngoc My Ngo	Pass
16	Test case Learn vocabulary page	Vocabulary	Show vocabulary course	1	Ngoc My Ngo	Pass
17		Vocabulary quiz answers	Show 4 multiple choice answers(A,B,C,D)	1	Ngoc My Ngo	Pass
18		Button "choose"	Choose 1 answer	1	Ngoc My Ngo	Pass
19		Button "Pronounce"	When clicking on it will pronounce that word	1	Ngoc My Ngo	Pass
20		Image	Show illustrations for vocabulary	1	Ngoc My Ngo	Pass
21		Review vocabulary	Display vocabulary, word meaning, pronunciation, illustrations	1	Ngoc My Ngo	Fail
22		Complete all vocabulary questions	Show the number of correct sentences and the score you got	1	Ngoc My Ngo	Pass
23		Choose the wrong answer	Show the answer to that question	1	Ngoc My Ngo	Pass
24		Choose the wrong area Click "Ok"	Go to the re-enter form from there	1	Ngoc My Ngo	Pass
24		Re-enter the word	Clicking "ok" will move to another question Click "Repeat" to see the answer to this	1	Ngoc My Ngo	Fail
25		Sound	Pronounce correctly and hear the pronunciation clearly	1	Ngoc My Ngo	Pass

Search

Status	Task Number
Pass	8
Fail	1

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
2		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
3		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
4		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
		Search bar position	Show correct design			Pass
5	Test case Search	Enter what you want to search	Displays a list of search results	1	Ngoc My Ngo	Pass
6		Enter the search word is not available	Displays a message that there are no search results	1	Ngoc My Ngo	Fail
7		Click on the search result	Go to that search results page	1	Ngoc My Ngo	Pass
8		Button "seach"	Go to a list of search results page	1	Ngoc My Ngo	Pass

Admin Dash-board

Status	Task
Pass	29
Fail	4

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case for user management	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
2		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
3		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
4		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
5	Test case Login Admin	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
6		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
7		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
8		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
9		1. Enter the correct Email Admin address 2. Enter the correct Admin password	Show successful login. Access to the Admin website	1	Ngoc My Ngo	Pass
10		1. Enter the wrong Email Admin address 2. Enter the correct Admin password	Displays the message "Email address is incorrect. Please enter correct email address"	1	Ngoc My Ngo	Pass
11		1. Enter the correct Email Admin address 2. Enter the wrong Admin password 3. Click the Login button	Displays the message "Incorrect password is displayed. Please enter correct password"	1	Ngoc My Ngo	Pass
12	Test case manager account	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
13		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
14		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
15		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
16		1. Click to select one or more checkboxes 2. Click the button "Delete User"	The selected user data has been deleted and the message "Delete user successful" is displayed	1	Ngoc My Ngo	Pass
17		Button "Add User"	Display the form to add users	1	Ngoc My Ngo	Pass
18		Icon "Delete User"	Displays the Delete Patient notification form "You are sure you want to delete this patient !!!"	1	Ngoc My Ngo	Pass
19		1. Click the icon "Update User" 2. Edit user information 3. Click button Update	Show message "updated successfully"	1	Ngoc My Ngo	Pass
20		Button LogOut	Visit the User Management website	1	Ngoc My Ngo	Pass

21	Test case manager course	1. Enter the right format name course 2. Enter the image in the correct format 3.Click Add	The message "Add course successfully"	1	Ngoc My Ngo	Pass
22		1. Enter the right format name course 2. Enter the image in the incorrect format 3.Click Add	The message "Link news is not in format"	1	Ngoc My Ngo	Pass
23		1. Do not enter name course 2. Enter the image in the correct format 3.Click Add	Display the message "You need to enter all information"	1	Ngoc My Ngo	Pass
24		1.Click edit course 2. Do not enter name course 3. Enter the image in the correct format 4.Click Update	Shows "are you sure to delete this course" warning Click "OK" The message "Add course successfully"	1	Ngoc My Ngo	Pass
25		1.Click course 2.Click Delete	Shows "are you sure to delete this course" warning Click "OK" The message "Delete course successfully"	1	Ngoc My Ngo	Pass
30	Test case manager group	1.Enter name group 2. Add image 3.Enter time teaching 4. Click Add	The message "Add group successfully"	1	Ngoc My Ngo	Pass
31		1.Enter name group 2. Add image 3.Do not enter time teaching 4. Click Add	Display the message "You need to enter all information"	1	Ngoc My Ngo	Pass
32		1.Do not enter name group 2. Add image 3.Do not enter time teaching 4. Click Add	Display the message "You need to enter all information"	1	Ngoc My Ngo	Pass
33		1.Click Group 2.Click Delete	Shows "are you sure to delete this course" warning Click "OK" The message "Delete group successfully"		Ngoc My Ngo	Fail

33		1.Enter name group 2. Do not add image 3.Enter time teaching 4. Click Add	The message "Add group successfully"	1	Ngoc My Ngo	Pass
34		Statistics on the number of students	display the graph of the number of students by month or week	1	Ngoc My Ngo	Fail
35	Test case Chart statitics	Statistics on the number of teacher	display the graph of the number of teacher by month or week	1	Ngoc My Ngo	Fail
36		Statistical chart of students with high scores	display a graph of student statistics with high scores by month or week	1	Ngoc My Ngo	Fail

Event

Status	Task
Pass	8
Fail	1

No.	Test case name	Test steps	Desired results	Priority	Responsible	Status
1	Test case interface	Check interface on chrome	Show correct design	1	Ngoc My Ngo	Pass
2		Check interface on CocCoc	Show correct design	1	Ngoc My Ngo	Pass
3		Check interface on Microsoft Edge	Show correct design	1	Ngoc My Ngo	Pass
4		Check interface on Mozilla Firefox	Show correct design	1	Ngoc My Ngo	Pass
5	Test case event	1.Enter Description 2.Click "add event"	The message "Add event successfully"	1	Ngoc My Ngo	Pass
6		1. Click "event" 2.Click Edit event" 3.Enter content edit 4.Click "Update"	The message "Update event successfully"	1	Ngoc My Ngo	Pass
7		1. Click "event" 2.Click Edit event" 3.Click "Delete"	Shows "are you sure to delete this event" warning Click "OK" The message "Delete event successfully"	1	Ngoc My Ngo	Pass
8		Comment	Other users can comment on this event	1	Ngoc My Ngo	Pass
9		Button "Like"	Other users drop likes for the event	1	Ngoc My Ngo	Fail

Project Name:	LEARNING ENGLISH TOGETHER
Module Name:	Sprint 1
Development Team:	C2SE.12
Start Date:	15/3/2021
End Date:	12/4/2021

No.	Member Name	Estimate
1	Ha	Lê Thanh Hà
2	Hieu	Lê Xuân Hiếu
3	My	Ngô Ngọc Mỹ
4	Thong	Đoàn Trung Thông
Total		165

On Time
Lately
Early
Unfinished

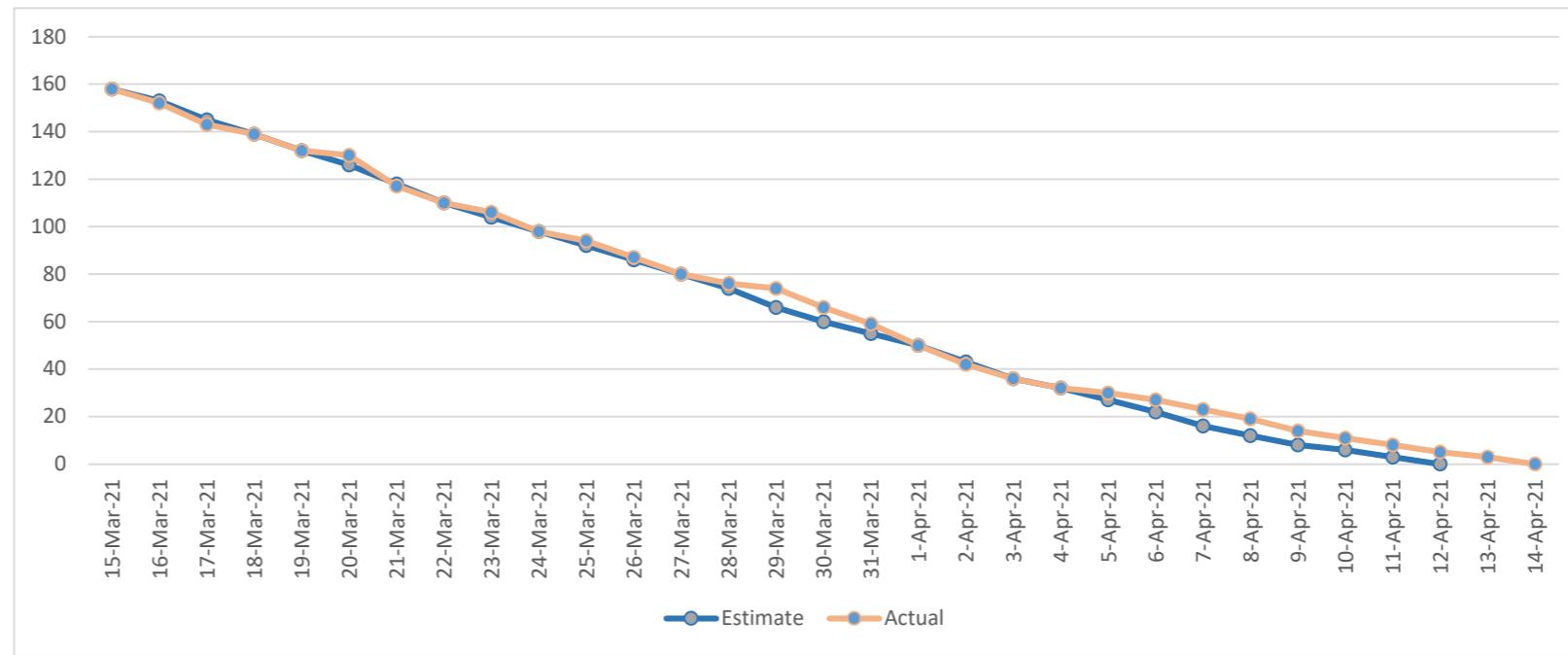
Project Name:	LEARNING ENGLISH TOGETHER
Module Name:	Sprint 1
Development Team:	C2SE.12
Start Date:	15/3/2021
End Date:	12/4/2021

No.	Member Name	Estimate	Actual
1	Ha	Lê Thanh Hà	40
2	Hieu	Lê Xuân Hiếu	42
3	My	Ngô Ngọc Mỹ	41
4	Thong	Đoàn Trung Thông	44
Total		167	169

On Time
Lately
Early
Unfinished

Burn down chart Sprint 1

Estimate	Actual	Date
158	158	15-Mar-21
153	152	16-Mar-21
145	143	17-Mar-21
139	139	18-Mar-21
132	132	19-Mar-21
126	130	20-Mar-21
118	117	21-Mar-21
110	110	22-Mar-21
104	106	23-Mar-21
98	98	24-Mar-21
92	94	25-Mar-21
86	87	26-Mar-21
80	80	27-Mar-21
74	76	28-Mar-21
66	74	29-Mar-21
60	66	30-Mar-21
55	59	31-Mar-21
50	50	1-Apr-21
43	42	2-Apr-21
36	36	3-Apr-21
32	32	4-Apr-21
27	30	5-Apr-21
22	27	6-Apr-21
16	23	7-Apr-21
12	19	8-Apr-21
8	14	9-Apr-21
6	11	10-Apr-21
3	8	11-Apr-21
0	5	12-Apr-21
	3	13-Apr-21
	0	14-Apr-21



Project Name:		LEARNING ENGLISH TOGETHER
Module Name:		Sprint 2
Development Team:		C2SE.12
Start Date:		13/4/2021
End Date:		10/5/2021

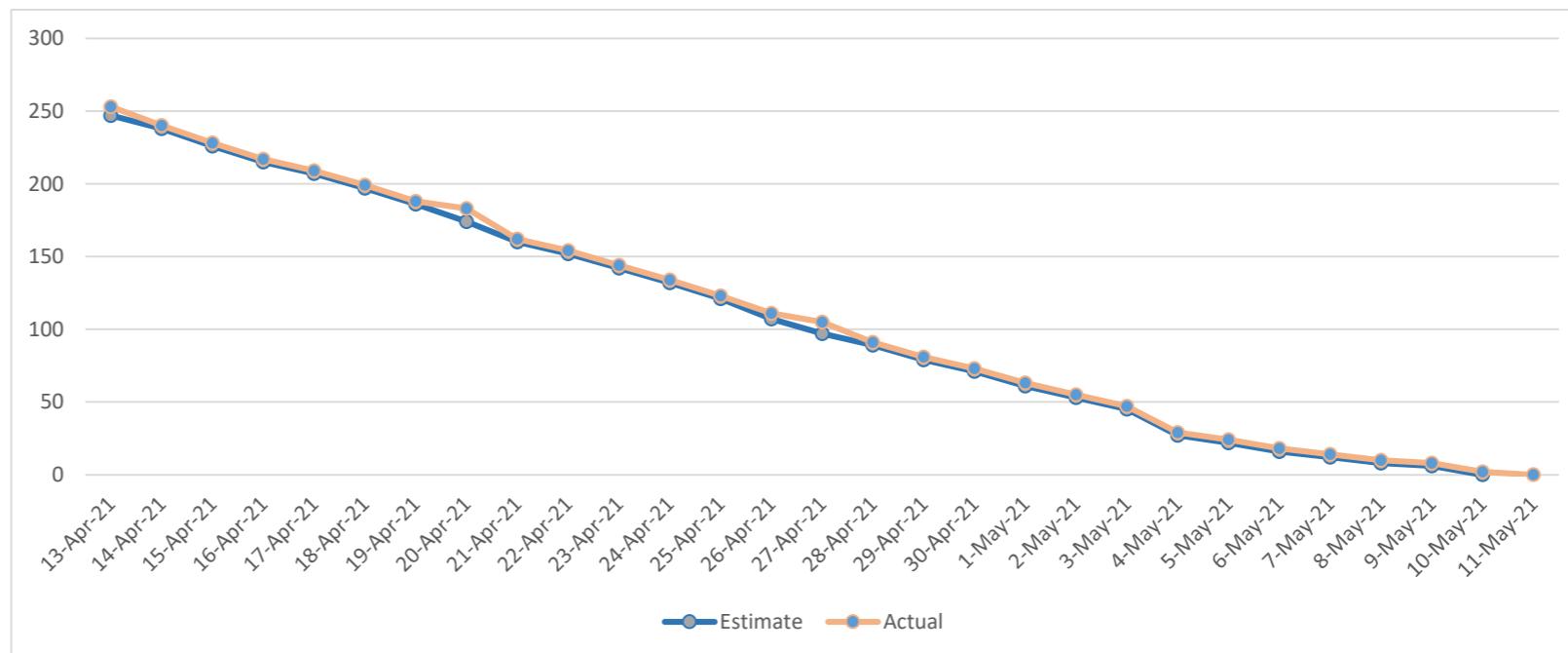
No.	Member Name	Estimate	Actual
1	Ha	Lê Thanh Hà	61
2	Hieu	Lê Xuân Hiếu	67
3	My	Ngô Ngọc Mỹ	65
4	Thong	Đoàn Trung Thông	66
Total		259	277

[Yellow]	On Time
[Red]	Lately
[Green]	Early
[Blue]	Unfinished

SPRINT 2 REPORT	Component	Task Name	Responsible Member	Actual	13-Apr-21	14-Apr-21	15-Apr-21	16-Apr-21	17-Apr-21	18-Apr-21	19-Apr-21	20-Apr-21	21-Apr-21	22-Apr-21	23-Apr-21	24-Apr-21	25-Apr-21	26-Apr-21	27-Apr-21	28-Apr-21	29-Apr-21	30-Apr-21	1-May-21	2-May-21	3-May-21	4-May-21	5-May-21	6-May-21	7-May-21	8-May-21	9-May-21	10-May-21	11-May-21
					Sprint Plan Meeting		All member	6	[Yellow] 0																								
		Create Sprint Backlog for Sprint 2	Ha	6	[Yellow] 4																												
		Create Test Plan document for Sprint 2	Ha	8	8	6	[Yellow] 0																										
		Design UI																															
		UI Find a helper	Hieu	8	8	6	3	[Yellow] 0																									
		UI Support for user	My	8	8	6	4	2	[Red] 0																								
		UI Search user	Thong	8	8	5	3	[Yellow] 0																									
		UI Learn Vocabulary	Hieu	10	10	10	10	10	8	4	[Green] 0																						
		UI Quiz	Hieu	6	6	6	6	4	2	[Yellow] 0																							
		UI test case Find a helper	My	6	6	6	6	4	2	[Yellow] 0																							
		UI test case Support for user	My	5	5	5	5	5	4	2	[Yellow] 0																						
		UI test case Search user	Thong	6	6	6	6	4	2	[Yellow] 0																							
		UI test case Learn Vocabulary	Hieu	6	6	6	6	6	6	4	2	[Red] 0																					
		UI test case Quiz	Ha	6	6	6	6	6	6	4	[Yellow] 0																						
		Database	Thong	10	10	10	10	10	10	10	10	6	[Yellow] 0																				
		Coding																															
		(Front-end) Find a helper	Hieu, Ha	8	8	8	8	8	8	8	8	8	8	2	[Yellow] 0																		
		(Front-end) Support for user	My	6	6	6	6	6	6	6	6	6	6	4	[Yellow] 0																		
		(Front-end) Search user	Ha	6	6	6	6	6	6	6	6	6	6	4	[Green] 0																		
		(Front-end) Learn Vocabulary	Ha	8	8	8	8	8	8	8	8	8	8	8	8	8	8	6	3	[Yellow] 0													
		(Front-end) Quiz	Hieu	7	7	7	7	7	7	7	7	7	7	7	7	7	5	4	2	[Red] 0													
		(Back-end) Find a helper	My	8	8	8	8	8	8	8	8	8	8	8	8	8	6	4	2	[Yellow] 0													
		(Back-end) Support for user	My	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	4	2	[Red] 0												
		(Back-end) Search user	Thong	8	8	8	8	8	8	8	8	8	8	8	8	8	6	4	[Yellow] 0														
		(Back-end) Learn Vocabulary	Thong	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	6	2	[Yellow] 0												
		(Back-end) Quiz	Thong	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	6	[Yellow] 0										
		Testing and fix bug																															
		Design Test Case for (Front-end) Find a helper	My	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	[Green] 0											
		Design Test Case for (Front-end) Support for user	Ha	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	1	[Yellow] 0										
		Design Test Case for (Front-end) Search user	Hieu	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	[Green] 0											
		Design Test Case for (Front-end) Learn Vocabulary	My	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	[Yellow] 0								
		Design Test Case for (Front-end) Quiz	Hieu	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	[Yellow] 0									
		Design Test Case for (Back-end) Find a helper	Ha	4	4	4	4																										

Burn down chart Sprint 2

Estimate	Actual	Date
247	253	13-Apr-21
238	240	14-Apr-21
226	228	15-Apr-21
215	217	16-Apr-21
207	209	17-Apr-21
197	199	18-Apr-21
186	188	19-Apr-21
174	183	20-Apr-21
160	162	21-Apr-21
152	154	22-Apr-21
142	144	23-Apr-21
132	134	24-Apr-21
121	123	25-Apr-21
107	111	26-Apr-21
97	105	27-Apr-21
89	91	28-Apr-21
79	81	29-Apr-21
71	73	30-Apr-21
61	63	1-May-21
53	55	2-May-21
45	47	3-May-21
27	29	4-May-21
22	24	5-May-21
16	18	6-May-21
12	14	7-May-21
8	10	8-May-21
6	8	9-May-21
0	2	10-May-21
	0	11-May-21



Project Name:	LEARNING ENGLISH TOGETHER
Module Name:	Sprint 3
Development Team:	C2SE.12
Start Date:	11/05/21
End Date:	1/6/2021

No.	Member Name	Estimate
1	Ha	Lê Thanh Hà
2	Hieu	Lê Xuân Hiếu
3	My	Ngô Ngọc Mỹ
4	Thong	Đoàn Trung Thông
Total		224

 	On Time
 	Lately
 	Early
 	Unfinished

SPRINT 3 REPORT	Component	Task Name	Responsible Member	Estimate	11-May-21	12-May-21	13-May-21	14-May-21	15-May-21	16-May-21	17-May-21	18-May-21	19-May-21	20-May-21	21-May-21	22-May-21	23-May-21	24-May-21	25-May-21	26-May-21	27-May-21	28-May-21	29-May-21	30-May-21	31-May-21	1-Jun-21	
					11-May-21	12-May-21	13-May-21	14-May-21	15-May-21	16-May-21	17-May-21	18-May-21	19-May-21	20-May-21	21-May-21	22-May-21	23-May-21	24-May-21	25-May-21	26-May-21	27-May-21	28-May-21	29-May-21	30-May-21	31-May-21	1-Jun-21	
	Sprint Plan Meeting	All member	Ha	6	0																						
	Create Sprint Backlog for Sprint 3	Ha	6	0																							
	Create Test Plan document for Sprint 3	Ha	8	8	6	0																					
	Design UI																										
	UI Dashboard	Hieu	8	8	6	4	0																				
	UI Manager account	My	8	8	6	4	0																				
	UI Admin	Thong	8	8	5	3	0																				
	UI Event	Hieu	10	10	10	10	10	8	5	2																	
	UI test case Dashboard	Hieu	6	6	6	6	4	2	0																		
	UI test case Manager account	My	6	6	6	6	4	2	0																		
	UI test case Admin	My	5	5	5	5	5	4	2	0																	
	UI test case Event	Ha	6	6	6	6	4	2	0																		
	Database																										
	Design database	Thong	10	10	10	10	10	10	10	6	0																
	Coding																										
	(Front-end) Dashboard	Ha	6	6	6	6	6	6	6	6	0																
	(Front-end) Manager account	Hieu	8	8	8	8	8	8	8	8	8	0															
	(Front-end) Admin	Ha	7	7	7	7	7	7	7	7	7	0															
	(Front-end) Event	My	8	8	8	8	8	8	8	8	8	0															
	(Back-end) Dashboard	My	6	6	6	6	6	6	6	6	6	0															
	(Back-end) Manager account	Thong	8	8	8	8	8	8	8	8	8	0															
	(Back-end) Admin	Thong	10	10	10	10	10	10	10	10	10	0															
	(Back-end) Event	Thong	10	10	10	10	10	10	10	10	10	0															
	Testing and fix bug																										
	Design Test Case for (Front-end) Dashboard	My	4	4	4	4	4	4	4	4	4	0															
	Design Test Case for (Front-end) Manager account	Ha	4	4	4	4	4	4	4	4	4	0															
	Design Test Case for (Front-end) Admin	Hieu	4	4	4	4	4	4	4	4	4	0															
	Design Test Case for (Front-end) Event	My	5	5	5	5	5	5	5	5	5	0															
	Design Test Case for (Back-end) Dashboard	Hieu	5	5	5	5	5	5	5	5	5	0															
	Design Test Case for (Back-end) Manager account	Ha	4	4	4	4	4	4	4	4	4	0															
	Design Test Case for (Back-end) Admin	Ha	4	4	4	4	4	4	4	4	4	0															
	Design Test Case for (Back-end) Event	Hieu	4	4	4	4	4	4	4	4	4	0															
	Fix Bug & Release Sprint 3																										
	Implement test case	All member	8	8	8	8	8	8	8	8	8	0															
	Fix bugs and report	All member	20	20	20	20	20	20	20	20	20	0															
	Retest	All member	10	10	10	10	10	10	10	10	10	0															
	Closing	All member	2	2	2	2	2	2	2	2	2	0															
		TOTAL	224	212	203	191	180	172	162	151	143	137	131	121	111	98	86</td										

Project Name:	LEARNING ENGLISH TOGETHER
Module Name:	Sprint 3
Development Team:	C2SE.12
Start Date:	11/05/21
End Date:	1/6/2021

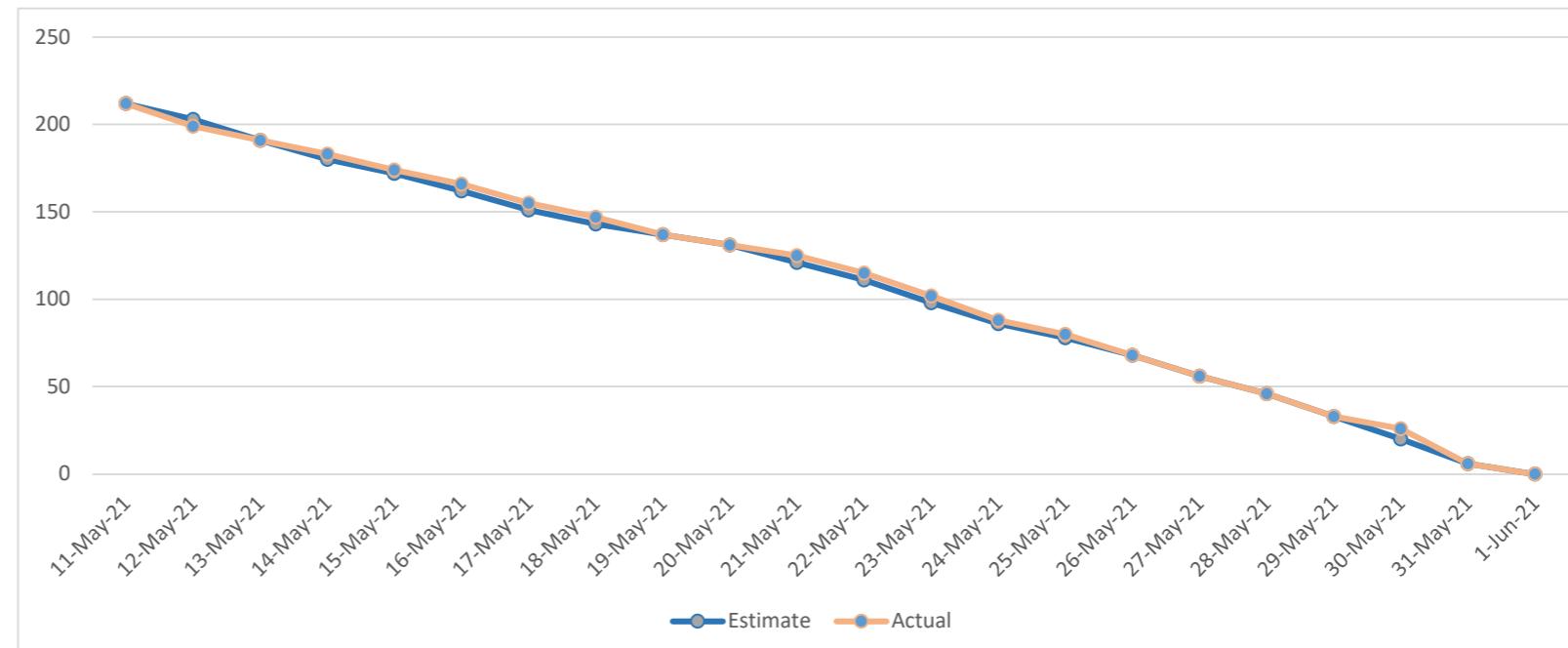
No.	Member Name	Estimate	Actual
1	Ha	Lê Thanh Hà	40
2	Hieu	Lê Xuân Hiếu	42
3	My	Ngô Ngọc Mỹ	41
4	Thong	Đoàn Trung Thông	44
	Total		167
			250

 	On Time
 	Lately
 	Early
 	Unfinished

SPRINT 1 REPORT	Component	Task Name	Responsible Member	Actual	11-May-21	12-May-21	13-May-21	14-May-21	15-May-21	16-May-21	17-May-21	18-May-21	19-May-21	20-May-21	21-May-21	22-May-21	23-May-21	24-May-21	25-May-21	26-May-21	27-May-21	28-May-21	29-May-21	30-May-21	31-May-21	1-Jun-21
					11-May-21	12-May-21	13-May-21	14-May-21	15-May-21	16-May-21	17-May-21	18-May-21	19-May-21	20-May-21	21-May-21	22-May-21	23-May-21	24-May-21	25-May-21	26-May-21	27-May-21	28-May-21	29-May-21	30-May-21	31-May-21	1-Jun-21
	Sprint Plan Meeting	All member	6	0																						
	Create Sprint Backlog for Sprint 1	Ha	6	0																						
	Create Test Plan document for Sprint 1	Ha	8	8	2	0																				
	Design UI																									
	UI Dashboard	Hieu	8	8	6	4	3	0																		
	UI Manager account	My	8	8	6	4	0																			
	UI Admin	Thong	8	8	5	3	0																			
	UI Event	Hieu	10	10	10	10	10	10	8	6	4	0														
	UI test case Dashboard	Hieu	6	6	6	6	4	3	0																	
	UI test case Manager account	My	6	6	6	6	4	2	0																	
	UI test case Admin	My	5	5	5	5	4	2	0																	
	UI test case Event	Ha	6	6	6	6	4	2	0																	
	Database																									
	Design database	Thong	10	10	10	10	10	10	10	10	6	0														
	Coding																									
	(Front-end) Dashboard	Ha	6	6	6	6	6	6	6	6	6	0														
	(Front-end) Manager account	Hieu	8	8	8	8	8	8	8	8	8	8	0													
	(Front-end) Admin	Ha	7	7	7	7	7	7	7	7	7	7	0													
	(Front-end) Event	My	8	8	8	8	8	8	8	8	8	8	0													
	(Back-end) Dashboard	My	6	6	6	6	6	6	6	6	6	6	0													
	(Back-end) Manager account	Thong	8	8	8	8	8	8	8	8	8	8	0													
	(Back-end) Admin	Thong	10	10	10	10	10	10	10	10	10	10	0													
	(Back-end) Event	Thong	10	10	10	10	10	10	10	10	10	10	0													
	Testing and fix bug																									
	Design Test Case for (Front-end) Dashboard	My	4	4	4	4	4	4	4	4	4	4	0													
	Design Test Case for (Front-end) Manager account	Ha	4	4	4	4	4	4	4	4	4	4	0													
	Design Test Case for (Front-end) Admin	Hieu	4	4	4	4	4	4	4	4	4	4	0													
	Design Test Case for (Front-end) Event	My	5	5	5	5	5	5	5	5	5	5	0													
	Design Test Case for (Back-end) Dashboard	Hieu	5	5	5	5	5	5	5	5	5	5	0													
	Design Test Case for (Back-end) Manager account	Ha	4	4	4	4	4	4	4	4	4	4	0													
	Design Test Case for (Back-end) Admin	Ha	4	4	4	4	4	4	4	4	4	4	0													
	Design Test Case for (Back-end) Event	Hieu	4	4	4	4	4	4	4	4	4	4	0													
	Fix Bug & Release Sprint 1																									
	Implement test case	All member	8	8	8	8	8	8	8	8	8	8	0													
	Fix bugs and report	All member	20	20	20	20	20	20	20	20	20	20	0													
	Retest	All member	10	10	10	10	10	10	10	10	10	10	0													
	Closing	All member	2	2	2	2	2	2	2	2	2	2	0													
		TOTAL	224	212	199	191	183	174	166																	

Burn down chart Sprint 3

Estimate	Actual	Date
212	212	11-May-21
203	199	12-May-21
191	191	13-May-21
180	183	14-May-21
172	174	15-May-21
162	166	16-May-21
151	155	17-May-21
143	147	18-May-21
137	137	19-May-21
131	131	20-May-21
121	125	21-May-21
111	115	22-May-21
98	102	23-May-21
86	88	24-May-21
78	80	25-May-21
68	68	26-May-21
56	56	27-May-21
46	46	28-May-21
33	33	29-May-21
20	26	30-May-21
6	6	31-May-21
0	0	1-Jun-21





International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Code Standard

Version 1.0

Date: April 18th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name Signature Date

Capstone Project 2- Mentor:

Name Signature Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
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Project Web URL			
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CODE STANDARD DOCUMENT

Document Title	Code Standard Document		
Author(s)	H2MT Team		
Role	Product Owner, Team Member, Scrum Master		
Date	April 18 th , 2021	File name:	C2SE.22_LET_CodeStandard_ver1.0.doc
URL			
Access	Project and CMU Program		

REVISION HISTORY

Version	Person(s)	Date	Description
1.0	Le Thanh Ha	April 18 th , 2021	Draft for comment

DOCUMENT APPROVALS

The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

TABLE OF CONTENTS

1. Introduction.....	6
2. Code Conventions for the Java Script Programming Language.....	6
2.1 Imperative and structured	6
2.2 Weakly typed	6
2.3 Dynamic	7
2.3.1 Typing	7
2.3.2 Run-time evaluation.....	7
2.4 Object-orientation (prototype-based)	8
2.4.1 Prototypes	8
2.4.2 Functions as object constructors	8
2.4.3 Functions as methods.....	9
2.5 Functional	9
2.6 Delegative.....	9
2.6.1 Functions as roles (Traits and Mixins).....	9
2.6.2 Object composition and inheritance.....	9
2.7 Miscellaneous.....	9
2.7.1 Run-time environment.....	9
2.7.2 Array and object literals	10
2.7.3 Promises	10
2.8 Syntax.....	11
2.8.1 Case sensitivity	11
2.8.2 Whitespace and semicolons	11
2.8.3 Comments	12
2.9 Variables	12
2.9.1 Scoping and hoisting	13
2.10 Primitive data types	14
2.11 Native Objects	15
2.11.1 Array	15
2.11.2 Date.....	15
2.11.3 Error.....	15
2.12 Related technologies.....	16
2.12.1 JSON	16
3. References.....	16

1. Introduction

This document aims to set out a standard to programming languages to Prevent COVID-19 Website project that includes JavaScript should conform. It is expected that were appropriate changes be made to these standards to adapt them for the language in question.

2. Code Conventions for the Java Script Programming Language

2.1 Imperative and structured

JavaScript supports much of the structured programming syntax from C (e.g., if statements, while loops, switch statements, do while loops, etc.). One partial exception is scoping: JavaScript originally had only function scoping with var. ECMAScript 2015 added keywords let and const for block scoping, meaning JavaScript now has both function and block scoping. Like C, JavaScript makes a distinction between expressions and statements. One syntactic difference from C is automatic semicolon insertion, which allows the semicolons that would normally terminate statements to be omitted.

2.2 Weakly typed

JavaScript is weakly typed, which means certain types are implicitly cast depending on the operation used.

- The binary `+` operator casts both operands to a string unless both operands are numbers. This is because the addition operator doubles as a concatenation operator
- The binary `-` operator always casts both operands to a number
- Both unary operators (`+`, `-`) always cast the operand to a number

Values are cast to strings like the following:

- Strings are left as-is
- Numbers are converted to their string representation
- Arrays have their elements cast to strings after which they are joined by commas (,,)
- Other objects are converted to the string `[object Object]` where `Object` is the name of the constructor of the object

Values are cast to numbers by casting to strings and then casting the strings to numbers. These processes can be modified by defining `toString` and `valueOf` functions on the prototype for string and number casting respectively.

JavaScript has received criticism for the way it implements these conversions as the complexity of the rules can be mistaken for inconsistency. For example, when adding a number to a string, the number will be cast to a string before performing concatenation, but when subtracting a number from a string, the string is cast to a number before performing subtraction.

Left operand	Operator	Right operand	Result
[] (empty array)	+	[] (empty array)	"'" (empty string)
[] (empty array)	+	{ } (empty object)	"[object Object]" (string)
false (Boolean)	+	[] (empty array)	"false" (string)
"123" (string)	+	1 (number)	"1231" (string)
"123" (string)	-	1 (number)	122 (number)

Often also mentioned is { } + [] resulting in 0 (number). This is misleading: the { } is interpreted as an empty code block instead of an empty object, and the empty array is cast to a number by the remaining unary + operator. If you wrap the expression in parentheses ({ } + []) the curly brackets are interpreted as an empty object and the result of the expression is "[object Object]" as expected.

2.3 Dynamic

2.3.1 Typing

JavaScript is dynamically typed like most other scripting languages. A type is associated with a value rather than an expression. For example, a variable initially bound to a number may be reassigned to a string. JavaScript supports various ways to test the type of objects, including duck typing.

2.3.2 Run-time evaluation

JavaScript includes an eval function that can execute statements provided as strings at run-time.

2.4 Object-orientation (prototype-based)

Prototypal inheritance in JavaScript is described by Douglas Crockford as:

You make prototype objects, and then ... make new instances. Objects are mutable in JavaScript, so we can augment the new instances, giving them new fields and methods. These can then act as prototypes for even newer objects. We don't need classes to make lots of similar objects...

In JavaScript, an object is an associative array, augmented with a prototype (see below); each string key provides the name for an object property, and there are two syntactical ways to specify such a name: dot notation (obj. x = 10) and bracket notation (obj['x'] = 10). A property may be added, rebound, or deleted at run-time. Most properties of an object (and any property that belongs to an object's prototype inheritance chain) can be enumerated using a for...in loop.

2.4.1 Prototypes

JavaScript uses prototypes where many other object-oriented languages use classes for inheritance. It is possible to simulate many class-based features with prototypes in JavaScript.

2.4.2 Functions as object constructors

Functions double as object constructors, along with their typical role. Prefixing a function call with new will create an instance of a prototype, inheriting properties and methods from the constructor (including properties from the Object prototype). ECMAScript 5 offers the Object. Create method, allowing explicit creation of an instance without automatically inheriting from the Object prototype (older environments can assign the prototype to null). The constructor's prototype property determines the object used for the new object's internal prototype. New methods can be added by modifying the prototype of the function used as a constructor. JavaScript's built-in constructors, such as Array or Object, also have prototypes that can be modified. While it is possible to modify the Object prototype, it is generally considered bad practice because most objects in JavaScript will inherit methods and properties from the Object prototype, and they may not expect the prototype to be modified.

2.4.3 Functions as methods

Unlike many object-oriented languages, there is no distinction between a function definition and a method definition. Rather, the distinction occurs during function calling; when a function is called as a method of an object, the function's local `this` keyword is bound to that object for that invocation.

2.5 Functional

A function is first-class; a function is an object. As such, a function may have properties and methods, such as `.call()` and `.bind()`. A nested function is a function defined within another function. It is created each time the outer function is invoked. In addition, each nested function forms a lexical closure: The lexical scope of the outer function (including any constant, local variable, or argument value) becomes part of the internal state of each inner function object, even after execution of the outer function concludes. JavaScript also supports anonymous functions.

2.6 Delegative

JavaScript supports implicit and explicit delegation.

2.6.1 Functions as roles (Traits and Mixins)

JavaScript natively supports various function-based implementations of Role patterns like Traits and Mixins. Such a function defines additional behavior by at least one method bound to this keyword within its function body. A Role then has to be delegated explicitly via `call` or `apply` to objects that need to feature additional behavior that is not shared via the prototype chain.

2.6.2 Object composition and inheritance

Whereas explicit function-based delegation does cover composition in JavaScript, implicit delegation already happens every time the prototype chain is walked in order to, e.g., find a method that might be related to but is not directly owned by an object. Once the method is found it gets called within this object's context. Thus, inheritance in JavaScript is covered by a delegation automatism that is bound to the `prototype` property of constructor functions.

2.7 Miscellaneous

2.7.1 Run-time environment

JavaScript typically relies on a run-time environment (e.g., a web browser) to provide objects and methods by which scripts can interact with the environment (e.g., a web page DOM). These environments are single-threaded. JavaScript also relies on the run-time environment to provide the ability to include/import scripts (e.g., HTML <script> elements). This is not a language feature per se, but it is common in most JavaScript implementations. JavaScript processes messages from a queue one at a time. JavaScript calls a function associated with each new message, creating a call stack frame with the function's arguments and local variables. The call stack shrinks and grows based on the function's needs. When the call stack is empty upon function completion, JavaScript proceeds to the next message in the queue. This is called the event loop, described as "run to completion" because each message is fully processed before the next message is considered. However, the language's concurrency model describes the event loop as non-blocking: program input/output is performed using events and callback functions. This means, for instance, that JavaScript can process a mouse click while waiting for a database query to return information.

2.7.2 Array and object literals

Like many scripting languages, arrays and objects (associative arrays in other languages) can each be created with a succinct shortcut syntax. In fact, these literals form the basis of the JSON data format.

2.7.3 Promises

JavaScript also supports promises, which are a way of handling asynchronous operations. There is a built-in Promise object that gives access to a lot of functionalities for handling promises, and defines how they should be handled. It allows one to associate handlers with an asynchronous action's eventual success value or failure reason. This lets asynchronous methods return values like synchronous methods: instead of immediately returning the final value, the asynchronous method returns a promise to supply the value at some point in the future. Recently, combinator methods were introduced in the JavaScript specification, which allows developers to combine multiple JavaScript promises and do operations on the basis of different scenarios. The methods introduced are: Promise.race, Promise.all, Promise.allSettled and Promise.any.

2.8 Syntax

2.8.1 Case sensitivity

JavaScript is case sensitive. It is common to start the name of a constructor with a capitalized letter, and the name of a function or variable with a lower-case letter.

```
var a=5;  
console.log(a); // 5  
console.log(A); // throws a  
Reference Error: A is not defined
```

2.8.2 Whitespace and semicolons

The five problematic tokens are the open parenthesis "(", open bracket "[", slash "/", plus "+", and minus "-". Of these, the open parenthesis is common in the immediately-invoked function expression pattern, and open bracket occurs sometimes, while others are quite rare. The example given in the spec is:

```
a = b + c  
(d + e).foo()  
// Treated as:  
// a = b + c (d + e).foo();
```

with the suggestion that the preceding statement be terminated with a semicolon.

Some suggest instead the use of leading semicolons on lines starting with '(' or '[', so the line is not accidentally joined with the previous one. This is known as a defensive semicolon, and is particularly recommended, because code may otherwise become ambiguous when it is rearranged. For example:

```
;(d + e).foo()  
// Treated as:  
// a = b + c;  
// (d + e).foo();
```

Initial semicolons are also sometimes used at the start of JavaScript libraries, in case they are appended to another library that omits a trailing semicolon, as this can result in ambiguity of the initial statement.

The five restricted productions are return, throw, break, continue, and post-increment/decrement. In all cases, inserting semicolons does not fix the problem, but makes the parsed syntax clear, making the error easier to detect. return and throw take an optional value, while break and continue take an optional label. In all cases, the advice is to keep the value or label on the same line as the statement. This most often shows up in the return statement, where one might return a large object literal, which might be accidentally placed starting on a new line. For post-increment/decrement, there is potential ambiguity with pre-increment/decrement, and again it is recommended to simply keep these on the same line.

```
return
a + b;

// Returns undefined. Treated as:
// return;
// a + b;
// Should be written as:
// return a + b;
```

2.8.3 Comments

Comment syntax is the same as in C++, Swift and many other languages.

```
/* this is a long, multi-line comment
about my script. May it one day
be great. */

/* Comments /* may not be nested */ Syntax error */
```

2.9 Variables

Variables in standard JavaScript have no type attached, and any value can be stored in any variable. Before ES6, variables were declared only with a var statement. Starting with ES6, the version of the language finalized in 2015, variables can also be declared with let or const which are for block level variables. The value assigned to a const cannot be changed, but its properties can. An identifier must start with a letter, underscore (_), or dollar sign (\$); subsequent characters can also be digits (0-9). Because JavaScript is case sensitive, the uppercase characters "A" through "Z" are different from the lowercase characters "a" through "z".

Starting with JavaScript 1.5, ISO 8859-1 or Unicode letters (or \uXXXX Unicode escape sequences) can be used in identifiers. In certain JavaScript implementations, the at sign (@) can be used in an identifier, but this is contrary to the specifications and not supported in newer implementations.

2.9.1 Scoping and hoisting

Variables declared with var are lexically scoped at a function level, while ones with let or const have a block level scope. Declarations are processed before any code is executed. This is equivalent to variables being forward declared at the top of the function or block, and is referred to as *hoisting*.

With var the variable value is undefined until it is initialized, and forward reference is not possible. Thus, a var x = 1 statement in the middle of the function is equivalent to a var x declaration statement at the top of the function, and an x = 1 assignment statement at that point in the middle of the function – only the declaration is hoisted, not the assignment. Variables declared with let or const do not set the value to undefined, so until it is initialized, referencing the variable will cause an error.

Function statements, whose effect is to declare a variable of type Function and assign a value to it, are similar to variable statements, but in addition to hoisting the declaration, they also hoist the assignment – as if the entire statement appeared at the top of the containing function – and thus forward reference is also possible: the location of a function statement within an enclosing function is irrelevant.

Be sure to understand that

```
var func = function() { .. } // will NOT be hoisted
function func() { .. } // will be hoisted
```

Block scoping can be produced by wrapping the entire block in a function and then executing it – this is known as the immediately-invoked function expression pattern – or by declaring the variable using the `let` keyword.

2.10 Primitive data types

The JavaScript language provides six primitive data types:

- Undefined
- Null
- Number
- String
- Boolean
- Symbol

Some of the primitive data types also provide a set of named values that represent the extents of the type boundaries. These named values are described within the appropriate sections below.

```
// Declares a function-scoped variable named `x`, and implicitly assigns the
// special value `undefined` to it. Variables without value are automatically
// set to undefined.
var x;

// Variables can be manually set to `undefined` like so
var x2 = undefined;

// Declares a block-scoped variable named `y`, and implicitly sets it to
// `undefined`. The `let` keyword was introduced in ECMAScript 2015.
let y;

// Declares a block-scoped, un-reassignable variable named `z`, and sets it to
// a string literal. The `const` keyword was also introduced in ECMAScript 2015,
// and must be explicitly assigned to.
const z = "this value cannot be reassigned!";

// Declares a variable named `myNumber`, and assigns a number literal (the value
// `2`) to it.
let myNumber = 2;

// Reassigns `myNumber`, setting it to a string literal (the value `foo`).
// JavaScript is a dynamically-typed language, so this is legal.
myNumber = "foo";
```

2.11 Native Objects

2.11.1 Array

An Array is a JavaScript object prototyped from the Array constructor specifically designed to store data values indexed by integer keys. Arrays, unlike the basic Object type, are prototyped with methods and properties to aid the programmer in routine tasks (for example, join, slice, and push).

As in the C family, arrays use a zero-based indexing scheme: A value that is inserted into an empty array by means of the push method occupies the 0th index of the array.

```
var myArray = [];           // Point the variable myArray to a newly ...
                           // ... created, empty Array
myArray.push("hello World"); // Fill the next empty index, in this case 0
console.log(myArray[0]);    // Equivalent to console.log("hello World");
```

2.11.2 Date

A Date object stores a signed millisecond count with zero representing 1970-01-01 00:00:00 UT and a range of ± 108 days. There are several ways of providing arguments to the Date constructor. Note that months are zero-based.

```
new Date();                // create a new Date instance representing the current
                           // time/date.
new Date(2010, 2, 1);      // create a new Date instance representing 2010-
                           // Mar-01 00:00:00
new Date(2010, 2, 1, 14, 25, 30); // create a new Date instance representing
                           // 2010-Mar-01 14:25:30
new Date("2010-3-1 14:25:30"); // create a new Date instance from a String.
```

2.11.3 Error

Custom error messages can be created using the Error class:

```
throw new Error("Something went wrong.");
```

2.12 Related technologies

2.12.1 JSON

JSON, or JavaScript Object Notation, is a general-purpose data interchange format that is defined as a subset of JavaScript's object literal syntax.

3. References

WIKIPEDIA

[https://en.wikipedia.org/wiki/JavaScript#Growth_and_standardization]

[https://en.wikipedia.org/wiki/JavaScript#Imperative_and_structured]

[https://en.wikipedia.org/wiki/JavaScript_syntax]



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Meeting Minutes

Version 1.0

Date: Mar 10th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name

Signature

Date

Capstone Project 2- Mentor:

Name

Signature

Date

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
	Ha, Le Thanh	lethanhhadtu@gmail.com	0334002818
	Hieu, Le Xuan My, Ngo Ngoc Thong, Doan Trung	xuanhieu.le.1999@gmail.com ngongocmy851999@gmail.com doanthong002@gmail.com	0399706614 0764497391 0886428208

DOCUMENT APPROVALS

The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

DOCUMENT NAME		
Document Title	Team Meeting Document	
Author(s)	Le Thanh Ha	
Date	10 March, 2021	File name: C2SE.12_Team Meeting Document v1.0.docx

REVISION HISTORY

Version	Person(s)	Date	Description
1.0	Le Thanh Ha	10- Mar-2021	Create Team Meeting Document

REVISION HISTORY

Meeting Information						
Product	Learn English Together					
Subject	Introduce, discuss topic & process					
Location	Meeting Online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	28/02/2021	7h00 PM	10h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● L Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Introducing team members.● Discussing about the topic.● Discussing ideas and name of project.						
Result Items						
<ul style="list-style-type: none">● The members are not good about code, but we can try our best.● Process: SCRUM.● Project topic: Learn English Together.						

Meeting Information						
Product	Learn English Together					
Subject	Discuss to split and manage work tasks proposal					
Location	Meeting Online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	01/03/2021	7h00 PM	9h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● L Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Use the trello system to split work tasks.● Do proposal.						
Result Items						
<ul style="list-style-type: none">● Divide the task of each member on trello.● Divide work into documents.● Complete proposal.						

Meeting Information						
Product	Learn English Together					
Subject	Review proposal, interface and prepare to report to mentor					
Location	Online Meeting					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	03/03/2021	7h00 PM	9h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Summarize the parts of the proposal.● Prepare to report to a mentor.						
Result Items						
<ul style="list-style-type: none">● Review the good parts and edit incomplete parts of the proposal.● Prepare reports on what has been done and plan for the implementation of the next part of the proposal.						

Meeting Information						
Product	Learn English Together					
Subject	Report Proposal and plan to do Project Plan, Product Backlog, User Story					
Location	Meeting Online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	07/03/2021	9h AM	11h00 AM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Report Proposal Document for Mentor.● Plan to do Project Plan, Product Backlog, User Story.						
Result Items						
<ul style="list-style-type: none">● Recorded errors in proposal.● Fix Proposal Document.						

Meeting Information						
Product	Learn English Together					
Subject	Discuss about Design Interface and Database					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	10/03/2021	1h30 PM	4h30 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Discussing about Design Interface.● Discussing about Design Database.						
Result Items						
<ul style="list-style-type: none">● Create Design Interface Document.● Create Database Document.						

Meeting Information						
Product	Learn English Together					
Subject	Preparing for the sprint 1, prepare to report to mentor					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	14/03/2021	01h00 PM	05h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Plan the implementation of sprint 1.						
Result Items						
<ul style="list-style-type: none">● Edit the incomplete parts, assign the implementation of the next part of Sprint.						

Meeting Information						
Product	Learn English Together					
Subject	Report to mentor					
Location	209 Phan Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	20/03/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Report to mentor.						
Result Items						
<ul style="list-style-type: none">● Discuss about add functionality, improve interface and more access permissions.● Fix Product Backlog document.● Plan to do Sprint Backlog.● Plan Breaking User Story.						

Meeting Information						
Product	Learn English Together					
Subject	Discuss about add functionality, improve interface and more access permissions					
Location	Online Meeting					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	23/03/2021	7h00 PM	10h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Discuss about add functionality, improve interface and more access permissions.						
Result Items						
<ul style="list-style-type: none">● Discussing add Functionality.● Improve Group Interface.						

Meeting Information						
Product	Learn English Together					
Subject	Edit the entire document to suit the function of Group.					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	26/03/2021	01h00 PM	05h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Edit the entire document to suit the function of Group.						
Result Items						
<ul style="list-style-type: none">● Edit the entire document.● Edit the entire document to suit the function of Group.						

Meeting Information						
Product	Learn English Together					
Subject	Discuss messaging functionality.					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	02/04/2021	01h00 PM	05h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Meeting finished function Group.● Prepare for retrospective sessions.● Discuss messaging functionality.						
Result Items						
<ul style="list-style-type: none">● Complete basic document.● Done Task.						

Meeting Information						
Product	Learn English Together					
Subject	Report to mentor					
Location	209 Phan Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	12/04/2021	2h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Report to a mentor.						
Result Items						
<ul style="list-style-type: none">● Reports on what has been done and plan for the implementation of the next part of the Sprint 1.						

Meeting Information						
Product	Learn English Together					
Subject	Prepare to sprint 2					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	13/04/2021	7h00 PM	10h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Prepare for sprint 2.						
Result Items						
<ul style="list-style-type: none">● Reports on what has been done and plan for the implementation of the next part of the Sprint 2.						

Meeting Information						
Product	Learn English Together					
Subject	Discussion function Find a helper					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	15/04/2021	1h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Discussion function Find a helper.						
Result Items						
<ul style="list-style-type: none">● Basic discussion of the functions of Find a helper.						

Meeting Information						
Product	Learn English Together					
Subject	Report the process of each member					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	18/04/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none"> ● Le Thanh Ha ● Le Xuan Hieu ● Ngo Ngoc My ● Doan Trung Thong 					
Related documents						
Content						
<ul style="list-style-type: none"> ● Report the process of each member. ● Demo product. ● Check all document. ● Completed function assigned work. ● Test function assigned. 						
Result Items						
<ul style="list-style-type: none"> ● Fix Function. ● Fix Document. ● Complete the Architectures document. 						

Meeting Information						
Product	Learn English Together					
Subject	Report Mentor					
Location	209 Phan Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	20/04/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Report to mentor.● Review Document.						
Result Items						
<ul style="list-style-type: none">● Fix architectures document.						

Meeting Information						
Product	Learn English Together					
Subject	Discussion function Learn vocabulary					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	22/04/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none"> ● Le Thanh Ha ● Le Xuan Hieu ● Ngo Ngoc My ● Doan Trung Thong 					
Related documents						
Content						
<ul style="list-style-type: none"> ● Report the process of each member. ● Demo product. ● Discussion function Learn vocabulary. ● Completed function assigned work. 						
Result Items						
<ul style="list-style-type: none"> ● Basic discussion of the functions of Learn vocabulary. ● Fix Document. 						

Meeting Information						
Product	Learn English Together					
Subject	Discussion function Quiz					
Location	287 Nguyen Chi Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	28/04/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none"> ● Le Thanh Ha ● Le Xuan Hieu ● Ngo Ngoc My ● Doan Trung Thong 					
Related documents						
Content						
<ul style="list-style-type: none"> ● Report the process of each member. ● Demo product. ● Discussion function Quiz ● Completed function assigned work. 						
Result Items						
<ul style="list-style-type: none"> ● Basic discussion of the functions of Quiz. ● Fix Document. 						

Meeting Information						
Product	Learn English Together					
Subject	Report Mentor					
Location	209 Phan Thanh Street, Da Nang City					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	07/05/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Report to mentor.● Review Document.						
Result Items						
<ul style="list-style-type: none">● Reports on what has been done and plan for the implementation of the next part of the Sprint 3.						

Meeting Information						
Product	Learn English Together					
Subject	Prepare to sprint 3					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	09/05/2021	7h00 PM	10h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Prepare for sprint 3.						
Result Items						
<ul style="list-style-type: none">● Reports on what has been done and plan for the implementation of the next part of the Sprint 3.						

Meeting Information						
Product	Learn English Together					
Subject	Discussion function Dashboard					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	11/05/2021	1h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Discussion function Dashboard.						
Result Items						
<ul style="list-style-type: none">● Basic discussion of the functions of Dashboard.						

Meeting Information						
Product	Learn English Together					
Subject	Report the process of each member					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	15/05/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none"> ● Le Thanh Ha ● Le Xuan Hieu ● Ngo Ngoc My ● Doan Trung Thong 					
Related documents						
Content						
<ul style="list-style-type: none"> ● Report the process of each member. ● Demo product. ● Check all document. ● Completed function assigned work. ● Test function assigned. 						
Result Items						
<ul style="list-style-type: none"> ● Fix Function. ● Fix Document. ● Complete the Architectures document. 						

Meeting Information						
Product	Learn English Together					
Subject	Report Mentor					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	17/05/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Report to mentor.● Review Document.						
Result Items						
<ul style="list-style-type: none">● Fix architectures document.						

Meeting Information						
Product	Learn English Together					
Subject	Discussion function Admin					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	18/05/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none"> ● Le Thanh Ha ● Le Xuan Hieu ● Ngo Ngoc My ● Doan Trung Thong 					
Related documents						
Content						
<ul style="list-style-type: none"> ● Report the process of each member. ● Demo product. ● Discussion function Admin. ● Completed function assigned work. 						
Result Items						
<ul style="list-style-type: none"> ● Basic discussion of the functions of Admin. ● Fix Document. 						

Meeting Information						
Product	Learn English Together					
Subject	Discussion function Event					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	21/05/2021	3h00 PM	5h00 PM			
Attendees	<ul style="list-style-type: none"> ● Le Thanh Ha ● Le Xuan Hieu ● Ngo Ngoc My ● Doan Trung Thong 					
Related documents						
Content						
<ul style="list-style-type: none"> ● Report the process of each member. ● Demo product. ● Discussion function Event ● Completed function assigned work. 						
Result Items						
<ul style="list-style-type: none"> ● Basic discussion of the functions of Event. ● Fix Document. 						

Meeting Information						
Product	Learn English Together					
Subject	Report Mentor					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	26/05/2021	8h00 PM	10h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Prepare to release product						
Result Items						
<ul style="list-style-type: none">● Prepare to release product						

Meeting Information						
Product	Learn English Together					
Subject	Release.					
Location	Meeting online					
Date and Time	<i>Date</i>	<i>Start Time</i>	<i>End Time</i>			
	29/05/2021	7h00 PM	10h00 PM			
Attendees	<ul style="list-style-type: none">● Le Thanh Ha● Le Xuan Hieu● Ngo Ngoc My● Doan Trung Thong					
Related documents						
Content						
<ul style="list-style-type: none">● Release product						
Result Items						
<ul style="list-style-type: none">● Release product						



International School

Capstone Project 2

CMU-SE 451 – C2SE.12

Reflection

Version 1.0

Date: May 25th, 2021

Learn English Together

Submitted by

Ha, Le Thanh

Hieu, Le Xuan

My, Ngo Ngoc

Thong, Doan Trung

Approved by

MSc Huy, Truong Dinh

Proposal Review Panel Representative:

Name	Signature	Date
------	-----------	------

Capstone Project 2- Mentor:

Name	Signature	Date
------	-----------	------

PROJECT INFORMATION

Project acronym	LET		
Project Title	Learn English Together		
Start Date	26 Feb 2021	End Date	08 Jun 2021
Lead Institution	International School, Duy Tan University		
Project Mentor	MSc Huy, Truong Dinh		
Scrum master / Project Leader & contact details	Ha, Le Thanh Email: lethanhhadtu@gmail.com Tel: 0334002818		
Partner Organization	Duy Tan University		
Project Web URL			
Team members	Name	Email	Tel
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	Hieu, Le Xuan	xuanhieu.le.1999@gmail.com	0399706614
	My, Ngo Ngoc	ngongocmy851999@gmail.com	0764497391
	Thong, Doan Trung	doanthong002@gmail.com	0886428208

DOCUMENT APPROVALS

The following signatures are required for approval of this document.

Ha, Le Thanh Student ID: 2321122516 <i>Scrum Master</i>	Signature	Date
Hieu, Le Xuan Student ID: 2321124665 <i>Team Member</i>	Signature	Date
My, Ngo Ngoc Student ID: 2321124970 <i>Team Member</i>	Signature	Date
Thong, Doan Trung Student ID: 2321124144 <i>Team Member</i>	Signature	Date

REFLECTION DOCUMENT

Document Title	Reflection		
Reporting Period	10 May, 2021		
Author(s) & project	Le Thanh Ha, Project Manager		
Role	Le Thanh Ha	Member	
	Le Xuan Hieu	Member	
	Ngo Ngoc My	Member	
	Doan Trung Thong	Member	
Date	10 May, 2021	Filename	Reflection_v1.0
URL			
Access	Project and CMU Program		

Document History		
Version	Date	Comments
1.0	25 th May, 2021	Official Document

Your Name	Le Thanh Ha
Team Number/	<i>Team 12</i>
Team Name	<i>H2MT Team</i>
Project title	Learn English Together
How many students are on your team? List the team member's name	4

Reflection (Required)**What challenges did you face while completing this project?**

- Study full time so there is no time for the project
- Unknown to use GitHub
- The impact of the 19 covid and natural disasters

What were the highlights for you/your team during this project?

- Real time and Calendar
- Working attitude

If you were to do the project again, what would you do differently?

- Divide tasks that are more suitable for everyone

What is the most important thing you learned in this project?

- Using GitHub
- Teamwork
- New Technology

What part of the project did you do your best work on?

- Code front end and build document for project

What was the most enjoyable part of this project?

- Group

What was the least enjoyable part of this project?

- Login, Register

How could you/your mentor(s) change this project to make it better next time?

- Review more often

How did you share this project? (Examples: class or school presentation, guest collaboration, etc.)

- Deploy and search for partners through social networks

Your Name	Le Xuan Hieu
Team Number/	<i>Team 12</i>
Team Name	<i>H2MT Team</i>
Project title	Learn English Together
How many students are on your team? List the team member's name	4

Reflection (Required)**What challenges did you face while completing this project?**

- Study full time so there is no time for the project.
- At the beginning of the project at a time of epidemic, storm flood, it was difficult to meet the team, to meet mentors.

What were the highlights for you/your team during this project?

- Real time and Calendar

If you were to do the project again, what would you do differently?

- Divide tasks that are more suitable for everyone

What is the most important thing you learned in this project?

- Learn more about HTML5, CSS3, JavaScript
- Group management skills
- Work division and team organization skills

What part of the project did you do your best work on?

- I am the main front-end developer of the project

What was the most enjoyable part of this project?

- Group

What was the least enjoyable part of this project?

- Login, Register

How could you/your mentor(s) change this project to make it better next time?

- Review more often

How did you share this project? (Examples: class or school presentation, guest collaboration, etc.)

- Deploy and search for partners through social networks

Your Name	Ngo Ngoc My
Team Number/	<i>Team 12</i>
Team Name	<i>H2MT Team</i>
Project title	Learn English Together
How many students are on your team? List the team member's name	4

Reflection (Required)**What challenges did you face while completing this project**

- Study full time so there is no time for the project
- Many new technologies to learn
- The impact of the 19 covid

What were the highlights for you/your team during this project?

- Real time and Calendar
- Working attitude

If you were to do the project again, what would you do differently?

- Better perform the work assigned by the team leader

What is the most important thing you learned in this project?

- Teamwork
- Learn how to solve a problem with your team
- Learning new technologies
- Improved coding abilities

What part of the project did you do your best work on?

- Code back-end and build document for project

What was the most enjoyable part of this project?

- Learning vocabulary

What was the least enjoyable part of this project?

- Event and message

How could you/your mentor(s) change this project to make it better next time?

- Review more often

How did you share this project? (Examples: class or school presentation, guest collaboration, etc.)

- Deploy and search for partners through social networks

Your Name	Doan Trung Thong
Team Number/	<i>Team 12</i>
Team Name	<i>H2MT Team</i>
Project title	Learn English Together
How many students are on your team? List the team member's name	4

Reflection (Required)**What challenges did you face while completing this project?**

- Work full time at company so there is no time for the project
- Connect between front-end and back-end

What were the highlights for you/your team during this project?

- Real time and Calendar
- Working attitude

If you were to do the project again, what would you do differently?

- Spend more time on the project

What is the most important thing you learned in this project?

- Teamwork
- New Technology

What part of the project did you do your best work on?

- Develop back-end and deploy on aws server.

What was the most enjoyable part of this project?

- Learn English

What was the least enjoyable part of this project?

- Massagers and call video

How could you/your mentor(s) change this project to make it better next time?

- Review more often

How did you share this project? (Examples: class or school presentation, guest collaboration, etc.)

- Deploy and search for partners through social networks