<Group 6>

<ToeicExam>
Software Development Plan
Version <1.0>

Revision History

Date	Version	Description	Author
03/06/2022	1.0	Initial Release	Nguyễn Hoàng Luân

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Software Development Plan

1. Introduction

The introduction of the Software Development Plan provides an overview of the entire document. It includes the purpose, scope, definitions, acronyms, acronyms, abbreviations, references, and overview of this Software Development Plan.

2. Project Overview

2.1 Project Purpose, Scope, and Objectives

- The project helps those who are studying toeic to practice for the exam, thereby knowing their current score. Users can easily take the exam, learn vocabulary and grammar to support 2 listening and reading skills.
- The project is developed on the web environment.

2.2 Assumptions and Constraints

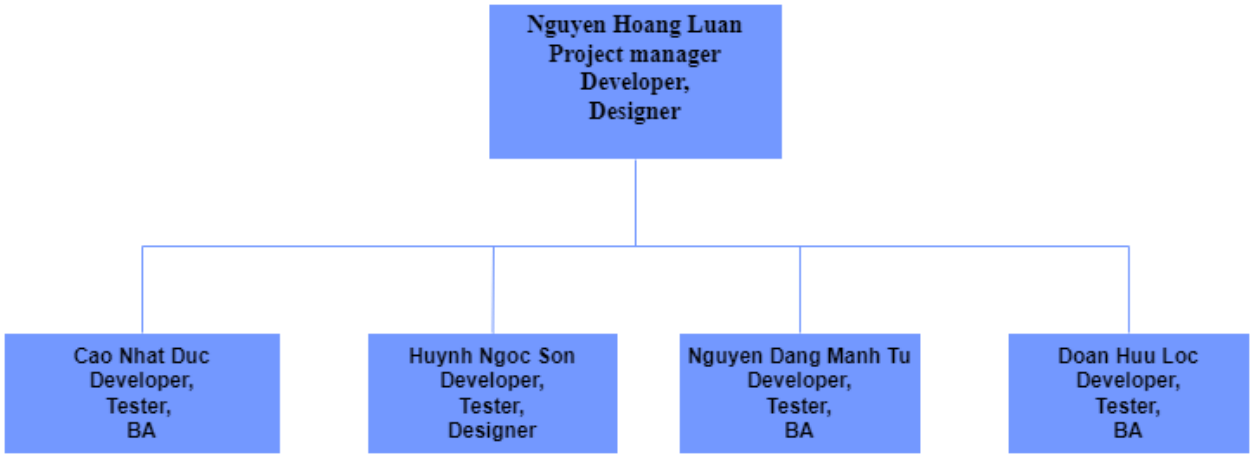
- Project has a fixed schedule of 12 weeks
- Zero-budget project.
- Project has 5 people, there will be no more people added during the project.

2.3 Project Deliverables

- Deliverables for each project phase are identified in the development. Deliverables are delivered towards the of the iteration, as specified section 4.2.4 Project Schedule.
- The final output is a complete website release full of key functions.

3. Project Organization

3.1 Organizational Structure



3.2 Roles and Responsibilities

Person	Role
Nguyen Hoang Luan, Developer, Project Manager, Designer	Monitoring and controlling, Arrange planning, deadline, document, human resources of the project. Following and report to ensure everyone successfully completes project tasks. Coding, website interface design
Doan Huu Loc, Developer, Tester, business analyst	Coding, testing, Working with customers to understand, analyze and propose the best solution for the project
Nguyen Dang Manh Tu, Developer, Tester, business analyst	Coding, testing, Working with customers to understand, analyze and propose the best solution for the project
Cao Nhat Duc, Developer, Tester, business analyst	Coding, testing, Working with customers to understand, analyze and propose the best solution for the project
Huynh Ngoc Son, Developer, Tester, Designer	Coding, testing, website interface design

4. Management Process

4.1 Project Estimates

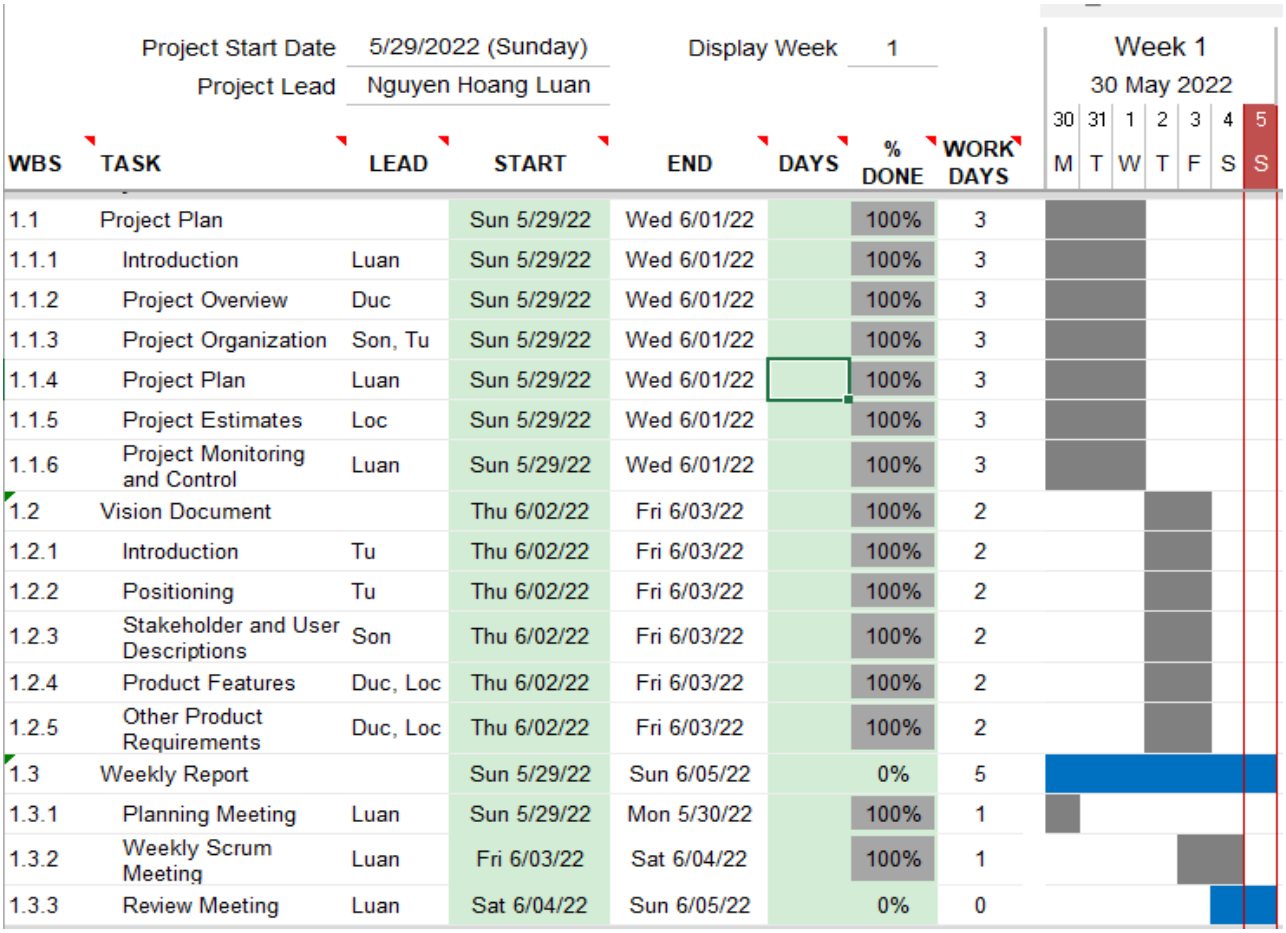
- Estimates cost:
  - 2 hours work everyday
  - 5 working days per week
  - Team has 5 members
  - 6 sprints : 6 PA(1 - 6)
  - Each sprint has 2 weeks to work
  - Estimated total working time : 2*5*(6*2)*5 = 600h
  - Cost per hour: 25.000 vnđ/h
  - Estimated total cost: 600*25 = 15.000.000 vnđ
- Schedule
  - Project start time: 29/5
  - Project end time: 11/8
  - 29/5 - 5/6: PA1

- 6/6 - 19/6: PA2
- 20/6 - 3/7: PA3
- 4/7 - 17.7: PA4
- 18/7 - 31/7: PA5
- 1/8 - 11/8: PA6

- when re-estimates will occur:
  - Members don't keep up with the project progress
  - Project progress is faster than expected
  - When unexpected functions are added
  - Training sections depend on difficulty in each sprint

4.2 Project Plan

- Sprint 1 (PA1): Inception
  - Start time: 29/5/2022
  - End time: 5/6/2022
  - List of jobs:
    - Project Plan:
      - Introduction: Nguyễn Hoàng Luân
      - Project Overview: Cao Nhật Đức
      - Project Organization: Huỳnh Ngọc Sơn và Nguyễn Đăng Mạnh Tú
      - Project Estimates: Đoàn Hữu Lộc
      - Project Plan: all members
      - Project Monitoring and Control: Nguyễn Hoàng Luân
    - Vision Document:
      - Introduction: Nguyễn Đăng Mạnh Tú
      - Positioning: Nguyễn Đăng Mạnh Tú
      - Stakeholder and User Descriptions: Huỳnh Ngọc Sơn
      - Product Features: Cao Nhật Đức, Đoàn Hữu Lộc
      - Other Product Requirements: Cao Nhật Đức, Đoàn Hữu Lộc
    - Weekly Report:
      - Planning meeting: Nguyễn Hoàng Luân
      - Weekly scrum meeting: Nguyễn Hoàng Luân
      - Review meeting: Nguyễn Hoàng Luân
  - Output request:
    - Design project plan and vision document.
    - Record full team meeting minutes as well as evaluate the team's work process through this sprint 1.
  - Gantt Chart:



Project Start Date: 5/29/2022 (Sunday) | Display Week: 1
Project Lead: Nguyen Hoang Luan

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
1.1	Project Plan		Sun 5/29/22	Wed 6/01/22		100%	3
1.1.1	Introduction	Luan	Sun 5/29/22	Wed 6/01/22		100%	3
1.1.2	Project Overview	Duc	Sun 5/29/22	Wed 6/01/22		100%	3
1.1.3	Project Organization	Son, Tu	Sun 5/29/22	Wed 6/01/22		100%	3
1.1.4	Project Plan	Luan	Sun 5/29/22	Wed 6/01/22		100%	3
1.1.5	Project Estimates	Loc	Sun 5/29/22	Wed 6/01/22		100%	3
1.1.6	Project Monitoring and Control	Luan	Sun 5/29/22	Wed 6/01/22		100%	3
1.2	Vision Document		Thu 6/02/22	Fri 6/03/22		100%	2
1.2.1	Introduction	Tu	Thu 6/02/22	Fri 6/03/22		100%	2
1.2.2	Positioning	Tu	Thu 6/02/22	Fri 6/03/22		100%	2
1.2.3	Stakeholder and User Descriptions	Son	Thu 6/02/22	Fri 6/03/22		100%	2
1.2.4	Product Features	Duc, Loc	Thu 6/02/22	Fri 6/03/22		100%	2
1.2.5	Other Product Requirements	Duc, Loc	Thu 6/02/22	Fri 6/03/22		100%	2
1.3	Weekly Report		Sun 5/29/22	Sun 6/05/22		0%	5
1.3.1	Planning Meeting	Luan	Sun 5/29/22	Mon 5/30/22		100%	1
1.3.2	Weekly Scrum Meeting	Luan	Fri 6/03/22	Sat 6/04/22		100%	1
1.3.3	Review Meeting	Luan	Sat 6/04/22	Sun 6/05/22		0%	0

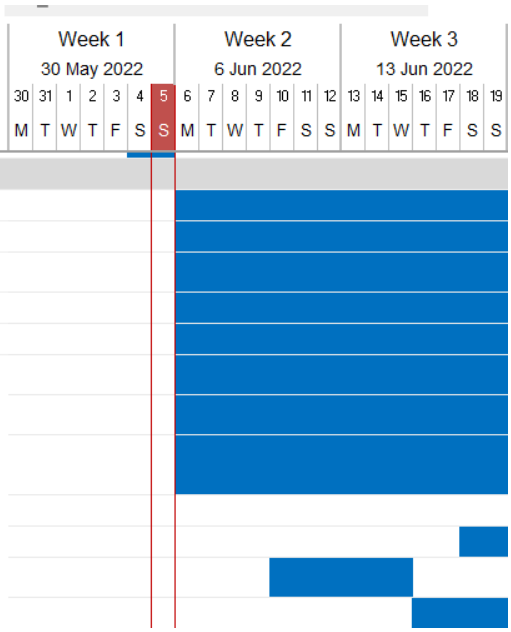
Week 1
30 May 2022
30 31 1 2 3 4 5
M T W T F S S

- Sprint 2 (PA2): Elaboration
  - Start time: 6/6/2022
  - End time: 19/6/2022
  - List of jobs:
    - Training code (html, css, javascript, sql): all members
    - Revised Project Plan: all members
    - Detailed Vision Document: all members
    - Use-case model: Cao Nhật Đức, Huỳnh Ngọc Sơn
    - Use-case specification: Đoàn Hữu Lộc, Nguyễn Đăng Mạnh Tú
    - Weekly Report:
      - Planning meeting: Nguyễn Hoàng Luân
      - Weekly scrum meeting: Nguyễn Hoàng Luân
      - Review meeting: Nguyễn Hoàng Luân
    - Create homepage interface: Huỳnh Ngọc Sơn
    - Create user screen interface: Nguyễn Hoàng Luân
    - Present a demo website of each member when training code: all members

- ➢ Output request:
  - All members must train code to have ½ basic knowledge to handle the website.
  - The members' demo websites must be good (beautiful interface, some demo functions)
  - Show corrections for Project Plan and Vision Document
  - Present the Use-case model and Use-case specifacation.
- ➢ Gantt Chart:

Project Start Date: 5/29/2022 (Sunday) | Display Week: 1 | Project Lead: Nguyen Hoang Luan

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
2	**Sprint 2**			-			-
2.1	Training Code	All	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.2	Revised Project Plan	All	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.3	Detailed Vision Document	All	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.4	Use-case model	Duc, Son	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.5	Use-case specification	Loc, Tu	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.6	Create Homepage Interface	Son	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.7	Create User Screen Interface	Luan	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.8	Present a demo website of each member when training code	All	Mon 6/06/22	Sun 6/19/22	13	0%	10
2.9	Weekly Report					0%	-
2.9.1	Planning Meeting	Luan	Sat 6/18/22	Sun 6/19/22	1	0%	1
2.9.2	Weekly Scrum Meeting	Luan	Fri 6/10/22	Wed 6/15/22	5	0%	4
2.9.3	Review Meeting	Luan	Thu 6/16/22	Sun 6/19/22	3	0%	2



- ❖ Sprint 3 (PA3): Elaboration
  - ➢ Start time: 20/6/2022
  - ➢ End time: 3/7/2022
  - ➢ List of jobs:
    - Training code(html, css, javascript, sql): all members
    - Use-case specification - 2nd submission: Đoàn Hữu Lộc, Nguyễn Đăng Mạnh Tú
    - Define Software Architecture: Nguyễn Hoàng Luân, Cao Nhật Đức và Huỳnh Ngọc Sơn
    - Class Diagrams: tất cả các thành viên
    - Create the interface of the website:
      - Mini test: Nguyễn Hoàng Luân
      - Sign in/sign up: Nguyễn Hoàng Luân
      - Full test: Huỳnh Ngọc Sơn
      - Showing the 5 highest scorers: Huỳnh Ngọc Sơn
    - Weekly Report (Planning, Weekly Srcum and Review meeting): Nguyễn Hoàng Luân

- Demo some main functions of the website (minitest, fulltest, sign up, sign in, show answer, show result): Đoàn Hữu Lộc, Cao Nhật Đức, Nguyễn Đăng Mạnh Tú, Nguyễn Hoàng Luân

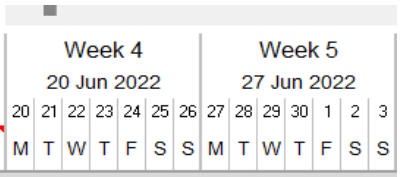
➢ Output request:

- Nguyễn Hoàng Luân and Huỳnh Ngọc Sơn present to the group displayed by the interfaces
- Presented demo some of the main functions of the website (may accept the algorithm is not optimized, but not accept the unfinished work).
- Complete use-case specification, revised SAD and UI prototype

➢ Gantt Chart:

Project Start Date: 5/29/2022 (Sunday) | Display Week: 1
Project Lead: Nguyen Hoang Luan

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
3	**Sprint 3**			-			-
3.1	Training Code	All	Mon 6/20/22	Sun 7/03/22	13	0%	10
3.2	Use-case specification 2nd submission	Loc, Tu	Mon 6/20/22	Sun 7/03/22	13	0%	10
3.3	Define Software Architecture	Luan, Son	Mon 6/20/22	Sun 7/03/22	13	0%	10
3.4	Class Diagrams	All	Mon 6/20/22	Sun 7/03/22	13	0%	10
3.5	Weekly Report	Luan	Mon 6/20/22	Sun 7/03/22	13	0%	10
3.6	Create The interface of the website		Thu 6/30/22	Sun 7/03/22	3	0%	2
3.6.1	Mini test	Luan	Thu 6/30/22	Sun 7/03/22	3	0%	2
3.6.2	Sign in/Sign up	Luan	Thu 6/30/22	Sun 7/03/22	3	0%	2
3.6.3	Full test	Son	Thu 6/30/22	Sun 7/03/22	3	0%	2
3.6.4	Showing the 5 highest scorers	Son	Thu 6/30/22	Sun 7/03/22	3	0%	2
3.7	Demo some main functions of the website (minitest, fulltest, sign up, sign in, show answer, show result)	All	Mon 6/20/22	Sun 7/03/22	13	0%	10



❖ Sprint 4 (PA4): Construction

➢ Start time: 4/7/2022

➢ End time: 17/7/2022

➢ List of jobs:

- Mini test: Nguyễn Hoàng Luân
- Full test: Cao Nhật Đức, Đoàn Hữu Lộc
- Time to do exam: Huỳnh Ngọc Sơn
- Choose the answer: Huỳnh Ngọc Sơn
- Mark the exam: Nguyễn Hoàng Luân
- Show the answers: Cao Nhật Đức
- Save test history (grades and time taken): Đoàn Hữu Lộc
- Sign in: Nguyễn Đăng Mạnh Tú

- Sign up: Nguyễn Đăng Mạnh Tú
- Revised SAD: Cao Nhật Đức, Đoàn Hữu Lộc
- UI prototype: Nguyễn Hoàng Luân, Huỳnh Ngọc Sơn, Nguyễn Đăng Mạnh Tú
- Weekly Report: Nguyễn Hoàng Luân

➢ Output request:

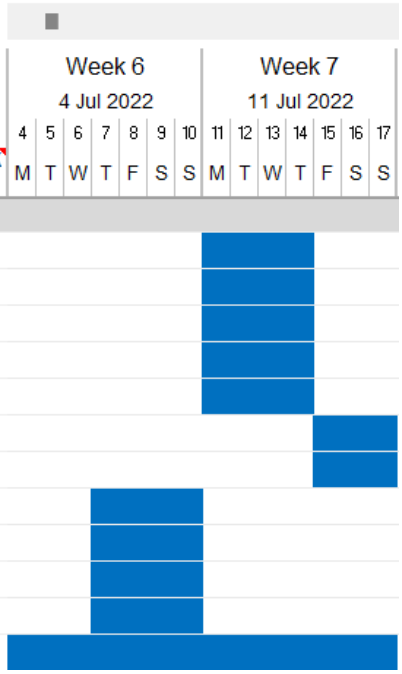
- The main functions of the website must be more than 50% complete.
- The interface is 100% complete (if the members have not code the back-end, they must complete the interface).
- Clearly outline revised SAD and UI prototype.

➢ Gantt Chart:

[Group 6]

Project Start Date: 5/29/2022 (Sunday) | Display Week: 1 | Project Lead: Nguyen Hoang Luan

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
4	**Sprint 4**			-			-
4.1	Mini test	Luan	Mon 7/11/22	Thu 7/14/22	4	0%	4
4.2	Full test	Duc, Loc	Mon 7/11/22	Thu 7/14/22	4	0%	4
4.3	Time to do exam	Son	Mon 7/11/22	Thu 7/14/22	4	0%	4
4.4	Choose the answer	Son	Mon 7/11/22	Thu 7/14/22	4	0%	4
4.5	Mark the exam	Luan	Mon 7/11/22	Thu 7/14/22	4	0%	4
4.6	Show the answers	Duc	Fri 7/15/22	Sun 7/17/22	3	0%	1
4.7	Save test history	Loc	Fri 7/15/22	Sun 7/17/22	3	0%	1
4.8	Sign in	Tu	Thu 7/07/22	Sun 7/10/22	4	0%	2
4.9	Sign up	Tu	Thu 7/07/22	Sun 7/10/22	4	0%	2
4.10	Revised SAD	Duc, Loc	Thu 7/07/22	Sun 7/10/22	4	0%	2
4.11	UI prototype	Luan, So	Thu 7/07/22	Sun 7/10/22	4	0%	2
4.12	Weekly Report	Luan	Mon 7/04/22	Sun 7/17/22	14	0%	10



❖ Sprint 5 (PA5): Construction

➢ Start time: 18/7/2022

➢ End time: 31/7/2022

➢ List of jobs:

- Adjusting the main functions is not complete yet: tất cả các thành viên
- Weekly Report: Nguyễn Hoàng Luân
- Test Plan: Nguyễn Hoàng Luân
- Donate: Nguyễn Hoàng Luân
- Discussion forum: Huỳnh Ngọc Sơn
- About website: Huỳnh Ngọc Sơn

- Chat with admin: Huỳnh Ngọc Sơn
- Note: Nguyễn Đăng Mạnh Tú
- Feedback: Nguyễn Đăng Mạnh Tú
- Blogs: Nguyễn Đăng Mạnh Tú
- Show 5 users have high score: Cao Nhật Đức
- Release: Cao Nhật Đức
- Contact: Đoàn Hữu Lộc
- Test Cases: Đoàn Hữu Lộc
- Online dictonary: Đoàn Hữu Lộc

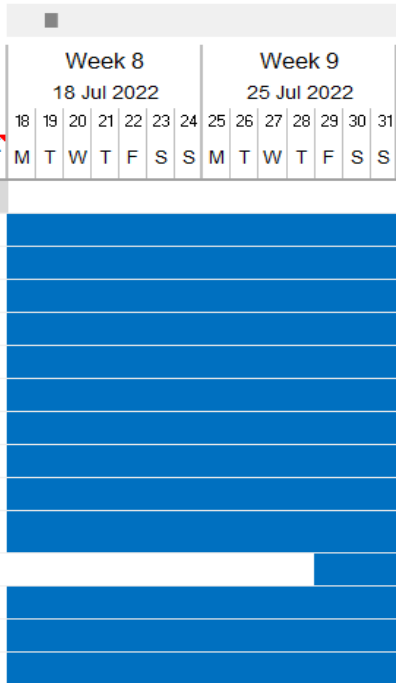
➢ Output request:
- Create a Release with over 70% completeness
- Test cases and test plans are completed

➢ Gantt Chart:

[Group 6]

Project Start Date 5/29/2022 (Sunday) Display Week 1
Project Lead Nguyen Hoang Luan

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
5	**Sprint 5**			-			-
5.1	Weekly Report	Luan	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.2	Test Plan	Luan	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.3	Donate	Luan	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.4	Discussion Forum	Son	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.5	About website	Son	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.6	Chat with admin	Son	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.7	Note	Tu	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.8	Feed back	Tu	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.9	Blogs	Tu	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.10	Show 5 users have high score	Duc	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.11	Release	Duc	Fri 7/29/22	Sun 7/31/22	2	0%	1
5.12	Contact	Loc	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.13	Test Cases	Loc	Mon 7/18/22	Sun 7/31/22	14	0%	10
5.14	Online Dictonary	Loc	Mon 7/18/22	Sun 7/31/22	14	0%	10



❖ Sprint 6 (PA6): Construction
➢ Start time: 1/8/2022
➢ End time: 11/8/2022
➢ List of jobs:
- Produce a release after finishing editing (more than 80% of the original expected result): Cao Nhật Đức
- Test case execution and test report:
  - Test cases: Đoàn Hữu Lộc, Nguyễn Đăng Mạnh Tú
  - Test report: Nguyễn Hoàng Luân
  - Test summary report: Huỳnh Ngọc Sơn

- Fix the errors that appear after testing: all members (need meeting and dividing details)
- Presentation in front of class: Nguyễn Hoàng Luân
- Weekly Report: Nguyễn Hoàng Luân

➢ Output request:

- Produce a website with more than 80% completeness compared to the initial expected result
- The presentation is clear, coherent and detailed.

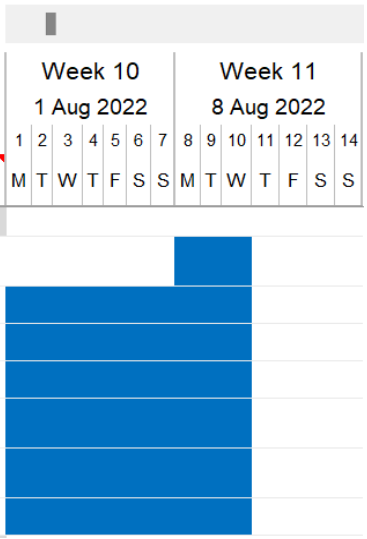
➢ Gantt Chart:

[Group 6]

Project Start Date 5/29/2022 (Sunday) Display Week 1

Project Lead Nguyen Hoang Luan

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
6	**Sprint 6**			-			-
6.1	Produce a lease after finishing editing	Duc	Mon 8/08/22	Wed 8/10/22	10	0%	3
6.2	Test Cases	Loc, Tu	Mon 8/01/22	Wed 8/10/22	10	0%	8
6.3	Test Report	Luan	Mon 8/01/22	Wed 8/10/22	10	0%	8
6.4	Test Summary Report	Son	Mon 8/01/22	Wed 8/10/22	10	0%	8
6.5	Fix the errors that appear after testing	All	Mon 8/01/22	Wed 8/10/22	10	0%	8
6.6	Presentation in front of class	Luan	Mon 8/01/22	Wed 8/10/22	10	0%	8
6.7	Weekly Report	Luan	Mon 8/01/22	Wed 8/10/22	10	0%	8



4.3 Project Monitoring and Control

4.3.1 Reporting

- ❖ Weekly status reports are located on gg drive (Planning meeting, weekly scrum meeting, review meeting)
- ❖ Documents for each sprint are updated and stored in gg drive
- ❖ Trello is the place to assign tasks to each member, members are responsible for updating their own work in this trello. And mark that job done or not?
- ❖ Slack (or Messenger/Telegram): to see the group discuss as well as make important announcements related to the project.

4.3.2 Risk Management

Risk ID	Risk Description	Priority	Mitigation Strategy or Contingency Plan

1	Not oriented how to code? Where to start?	High	- All members need thorough code training, once they have a solid background, they will be able to know where to start? And how to start? - Mr. Thanh and Mr. Loc shared coding courses on moodle, we need to watch and learn it quickly.
2	The leader has not focused on building and giving directions to the group	Medium	- Leader (Nguyen Hoang Luan) must take the time to train 6 PAs first. Then re-introduce it to the group members. - It is necessary to organize the team to do the sprints early to have more time to fix bugs, if any, before the deadline.
3	Some of the members couldn't take on the role but the deadline was over	Medium	- The remaining members of the team, in each meeting, the Leader will clearly state the tasks of each member. Let the members have a basic understanding of the work that the rest of the members are doing. - Tasks must be given deadlines 2 days earlier to prevent a member from doing it, giving that member a 2 day chance to do it again. The worst case (impossible) will be left to the remaining members to handle.
4	The members don't know what they're doing after being assigned	Medium	- This error will lie in the Leader (70%) because they do not know the work that has been vaguely assigned to the members. - The leader must be someone who fully understands the requirements and job content to guide the members in the clearest way.
5	The meeting time of the members is not correct	Low	- Leader (Nguyen Hoang Luan) needs to attend the meeting on time to set an example for other students. I am the Leader myself, but being late to the meeting is not good. - Urging team members to meet on time.
6	The members' meticulousness while using trello,	Low	- It is necessary to participate in the discussion with the Leader and the rest of the slack members when there is a problem (bug, do not understand something?, etc.) - Regularly check trello to see your work in the sprint (will be announced during the meeting and announced on Slack)

	slack, gg drive, github		- For drive and github, it is necessary to promptly update the code as well as the documentation for timely use by team members when necessary.

4.3.3 Configuration Management

- Our team will store and share data (documents, group meeting minutes, meeting information) for each other through:
  - Google Drive: store documents and team minutes for each sprint
  - Trello: evaluation results for each sprint
  - Github: manage and share source code among members. Help synchronize the source code with the rest of the members.