

A Student Friend ELO



Plan of Approach

Group DEV-A5-1

Version 0.1

Client: Floor W. / Jan-Chris H.

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Introduction

Project Detail

As Saxion is gradually expanding and evolving, they want to be the best university in the Netherlands, preparing students for the working fields in the future. Saxion strives to render technologies into all professional profiles, while constantly adapting to the latest developments. The Saxion Education Model (SOM) is their first step to approach and materialize that goal. SOM is expected to develop an inspiring and future-proof education, that is distinctive and fits the issues of the future.

ACT is quite far along with the implementation of SOM, and now would like to closely examine their digital learning environment (Blackboard, Teams, Qualtrics, etc.) with the aim of creating a seamless integration between the SOM and the supporting digital learning environment. The academy is also keen to enhance the digital learning environment with learning analytics. The intelligent use of learning analytics will expand the opportunities for personalized learning for each student.

Project Goal

The final goal for this project is for the team to research and come up with a proposal for the described situation that is to the satisfaction of the client, which should include the following goals in mind:

- To develop a broad-based proposal for an ACT-wide digital learning environment.
- To provide “white paper” on how learning analytics can enhance personalized learning within ACT.
- To provide the client with a PoC (for at least one module) to demonstrate the important aspects of a digital learning experience.

Stakeholders

Client

Floor Weijman is a lecturer at Saxion ACT, who is also the client for this project.

Contact information

Name: Floor Weijman
Email: f.r.wijman@saxion.nl
Phone: +31 6 12 83 99 36

Project Mentor

Dick Heijink is a lecturer at Saxion ACT, who is also the mentor/coach for this project.

Contact information

Name: Dick Heijink
Email: j.d.heijink@saxion.nl

Project Team

DEV-A5-1 includes the following members, who are all currently enrolled at Saxion as ICT students:

Keith I.

Email: 487130@student.saxion.nl

Mykhailo Galenda

Email: 470934@student.saxion.nl

Sefanja Hoon

Email: 418136@student.saxion.nl

Jane Nguyen

Email: 479411@student.saxion.nl

Tuan Nguyen

Email: 479867@student.saxion.nl

Yang Cheng

Email: 474340@student.saxion.nl

Contents

User Stories

Code	Title	User Stories	Acceptance criteria	Priority
US1	Login	As a user, I want to have an account and be able to log in to mySaxion so that I know it is secured and no one will get my info	<ol style="list-style-type: none">1. Password and username are secured2. Verification process is done quickly	Must
US2	Login	As a user, I want to be identified my role and be navigated to students/teachers platform	<ol style="list-style-type: none">1. System identifies users as student or teacher by their usernames	Could
US3	Enroll	As a student, I want to enroll for the courses I will be taking, to be more specific, I want to find all the courses and register the one I want	<ol style="list-style-type: none">1. Students can find all course in their major2. Students can enroll themselves to the courses that they want3. After each enrollment, students will be able to see its information	Must
US4	Schedule	As a student, I want to check my schedule easily so that I will be able to manage my time and have better planning	<ol style="list-style-type: none">1. Schedule is one of the main features and is shown in main page2. Schedule is specific and arranged clearly	Must
US5	Schedule	As a student, I want to check time and date of upcoming exams and have a reminder for them so that I will not forget to attend any exams	<ol style="list-style-type: none">1. Exam schedule is clear and students can see date and time of the exams2. A reminder pops up when the exams are coming	Could
US6	Courses	As a student, I want to view the course information, instructions and slides so that I can self-study	<ol style="list-style-type: none">1. Course's info and working files are included in the course page	Must

		and catch up with the knowledge I missed	2. Announcements are updated for students	
US7	Courses	As a student, I want to take quizzes or sample tests before exams and get feedback from teachers so that I can know where I am at and if I can pass upcoming exams	<ol style="list-style-type: none"> 1. Sample tests are visible in course module 2. After taking the sample tests, students are given feedback from teacher 	Must
US8	Online class	As a student, I want to attend class online and see recordings of previous lessons so that I can catch up with the amount of knowledge and revise information	<ol style="list-style-type: none"> 1. Students can attend class through our BB 2. Recordings are saved after all online lessons and students can find them easily 	Could
US9	Tinder	As a student, I want to reach teachers and other students by their contacts when I have trouble or need help with assignments	<ol style="list-style-type: none"> 1. Users can find students or teacher by their names 2. Emails and phone numbers of teachers/students can be found 	Should
US10	Exams	As a student, I want to access exams/assignment information and have submission through the webapp so that I can submit my work and get graded	<ol style="list-style-type: none"> 1. Students can submit their work via the web app 2. Teachers can grade students through their submissions 	Should
US11	Results	As a student, I want to have a platform which stores all my grades and calculates my education credits	<ol style="list-style-type: none"> 1. Bison stores all grades and credits that a student has obtained 2. Students can access Bison directly through the webapp and see their grades and credits there 	Must
US12				
US13				

Home

Tab 2

Tab 3

Tab 4

SUBJECTS

Year 2

Q1

Q2

Q3

Q4

Compilers & Operating Systems

Development Tools

IT & Law

Project Networking

Title

Title

Title

Title

Title

SCHEDULE

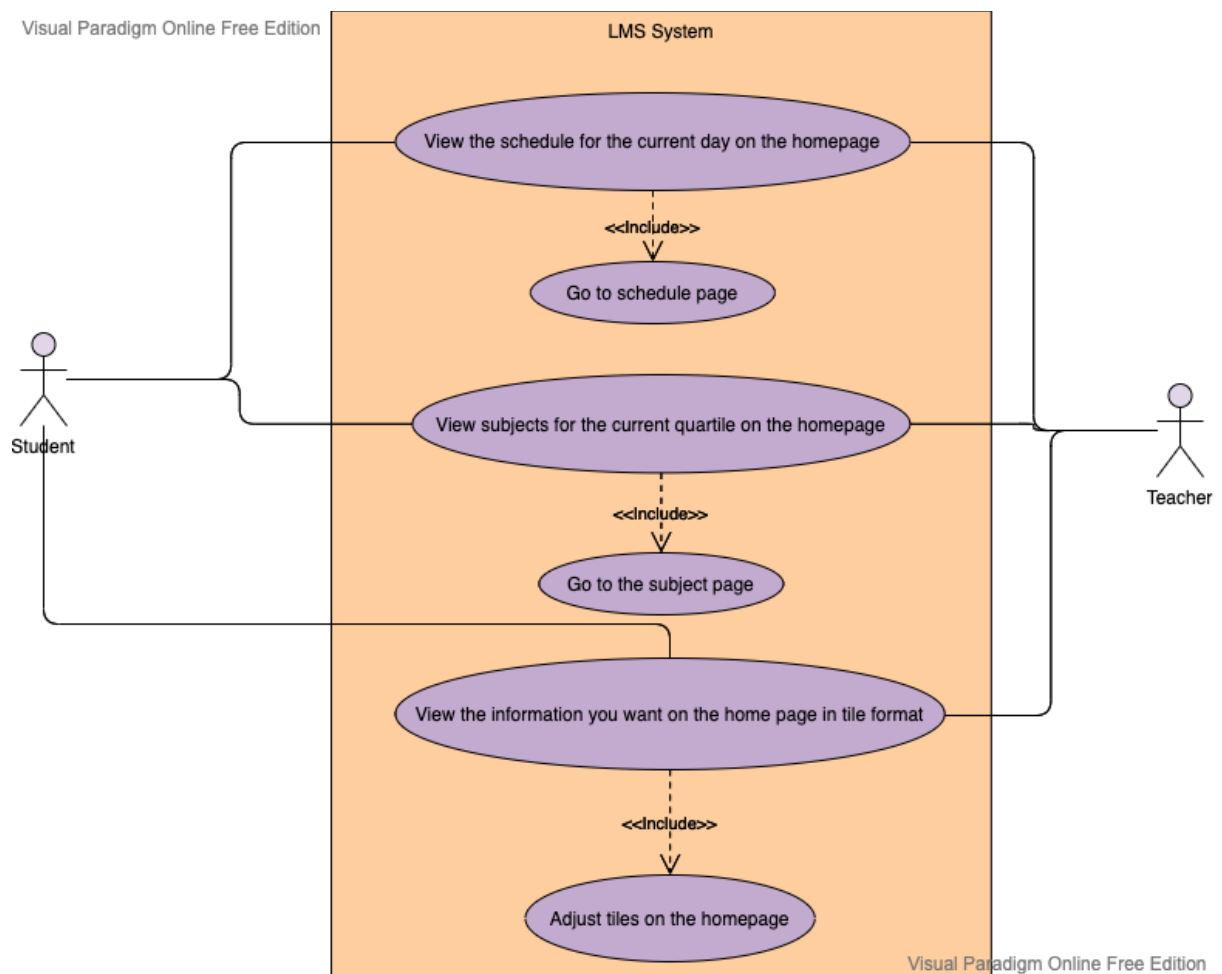
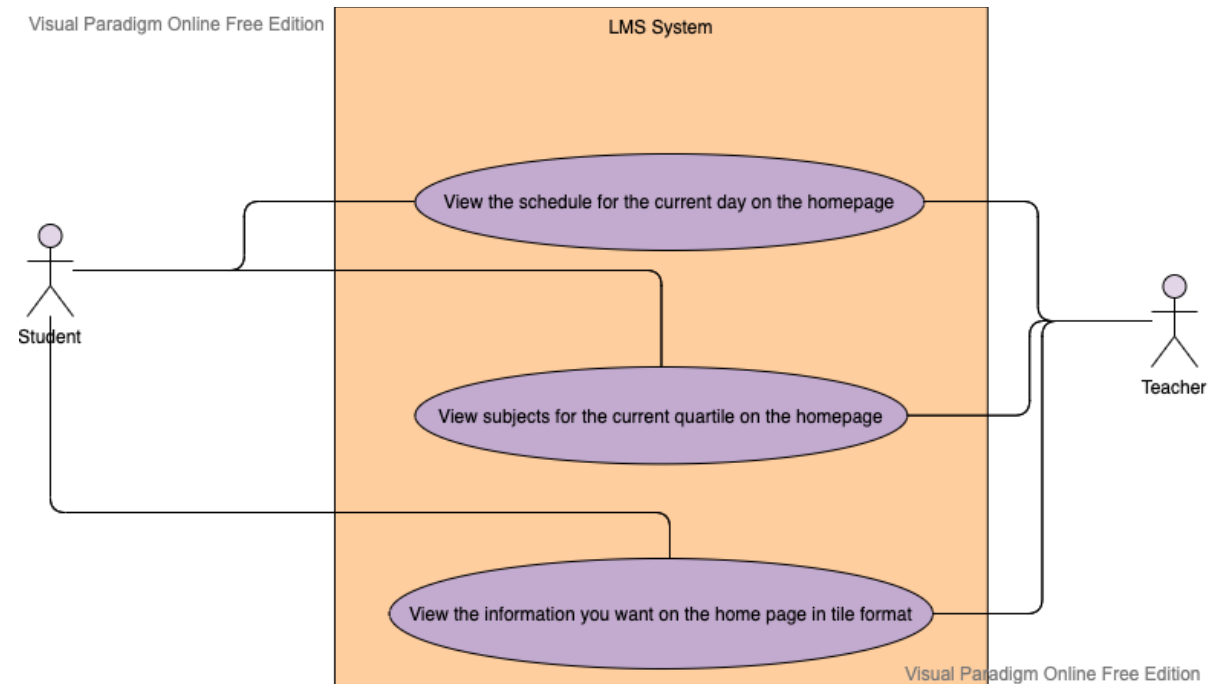
06/05/21

8:30 - 9:30	IT & Law
10:30 - 11:45	Meeting
12:00 - 12:45	Project
13:00 - 15:15	IT & Law
15:30 - 17:00	Development Tools

GO TO SCHEDULE PAGE

Use Cases

[link to edit](#)



Deliverables

We are going to deliver following items at the end of the project:

- Plan of Approach/Project Plan
- System Portfolio, contains:
 - Functional design
 - Technical design
- Project Portfolio, contains:
 - Code of Conduct
 - Scrum artifacts
- Personal reflections

Approach

Milestones

This project will last 8 weeks, and is divided into the following 4 sprints:

1. Plan of Approach – Duration: 2 weeks (W1-2)
 - Activities:
 - Brainstorm ideas
 - Research, choose, and install the necessary software
 - Setup meeting with the client
 - Setup Plan of Approach
 - Create survey to get a better knowledge of what is missing
 - Plan for upcoming sprint
 - Deliverables:
 - Plan of Approach
2. Sprint 1 – Duration: 2 weeks (W3-4)
 - Activities:
 -
 - Deliverables:
 - Retrospective report
 - All produced material
 - Plan of upcoming sprint
 - Timesheets
 - Account of individual work, first version
3. Sprint 2 – Duration: 2 weeks (W5-6)
 - Activities:
 - Deliverables:
 - Same as Sprint 1
 - Account of individual work, second version
4. Sprint 3 – Duration: 2 weeks (W7-8)
 - Activities:
 - Deliverables:

- Same as Sprint 1
- Account of individual work, final version

ICT Research Methods

After discussing among ourselves, we have chosen 14 cards in total from the CMD Methods Cards.

1. Field – 2 cards
 - a. Day in the life

We have chosen 'Day in the life card' because it is important to have insights of users experiencing the current system to pinpoint its strengths and weaknesses. With this project, there is plenty of room for us to come up with our own ideas to improve the current learning environment, this method would be highly valuable.

- Activities:
 - Navigate through Blackboard and note down their 'journey' throughout the website
 - Discuss notes among members
 - Determine the common problems
- Possible results:
 - Identified strengths and weaknesses of the current version



- b. Survey

In order to help improve the experience of users, it is important to listen to their feedbacks.

- Activities:

- Brainstorm for possible questions that is relevant to the issues (Preferably multiple-choice questions)
- Choose approximately 7 questions from the provided questions from members.
- Decide on which survey tool will be use
- Create and share the survey to the target group
- Analyze responses from the users
- Draw conclusion from the analytics

- Possible results:

- A survey consists of questions relevant to the project
- Responses from users
- Clearer insights of more important aspects that need improvements



2. Lab – 4 cards

a. A/B Testing

The process of comparing two version of a product (i.e., website) and evaluating the differences in performance is very important to our project. Any adjustments of the interface can create different effects on user's experience, but this is quite hard to detect in a usability test. With this method in place, it will help compare student's behavior between various software models.

- Activities:

- Observe and analyze the performance of the current version
- Identify which aspect will be the main goal for the test
- Analyze the data and come up with data-backed hypothesis
- Create a different variation from the current website
- Give one group the 'control' version and one group the 2nd variant
- Analyze the results from the test
- Apply the winning version

- Possible results:

- Thorough analysis of current performance
- A final preferred version of the website

b. Online Analysis

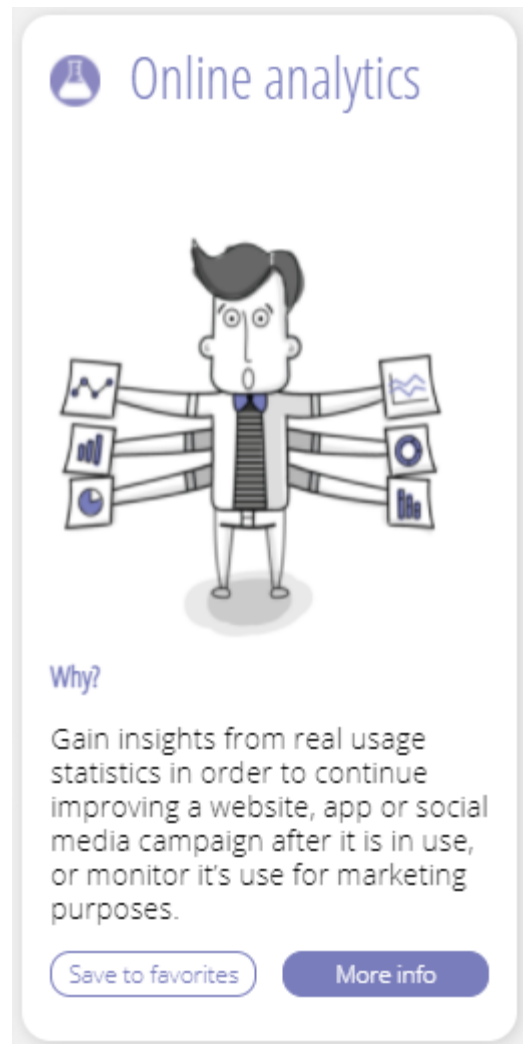


Smart data processing techniques are key to effectively improve the website, as we can gain insights from real usage statistics.

- Activities:
 - Define some goals of the analysis
 - Come up with an 'ideal' Blackboard journey from the very first to last steps
 - Observe the actual journey of a new Blackboard user
 - Compare the actuality to the ideal journey
 - Analyze the data/information gathered
 - Brainstorm for potential causes and solutions
- Possible results:
 - In depth knowledge of the problems
 - Clearer idea of what needs to be improved

c. Thinking Aloud

This method is accomplished by asking the users to say what they think while navigating through each sections of Blackboard. Thinking aloud gives a better



understanding of why choices were made, what went through their mind during a usability test.

- Activities:
 - Look for a manageable number of users
 - Ask users to navigate to a class module, etc.
 - Encourage the users to think out loud while performing the task
 - Listen for noteworthy thoughts/reasons from the users
- Possible results:
 - Understanding of user's behavior
 - User's opinions on the current product
 - Possible redesign recommendations



d. Usability Testing

In order to check if the final proof of concept meets the expected performance, employing usability tests would be the easiest way.

- Activities:

- Discuss to decide which testing methods is most suitable for the project
- Identify the main focus of the test
- Come up with questions for the users about the website
- Identify and gather the targeted audience
- Plan out scenarios and tasks for the users to perform
- Note down the relevant information for later use
- Analyze the collected data and draw conclusions

- Possible results:

- Determine whether or not problems exists and their severity
- Identify why the problems exist and possible solutions


3. Showroom – 1 card

- a. USP (Unique Selling Point)




USP refers to that one thing that sets you apart from the other competitors.

- Activities:
 - Discuss, from a student's perspective, what would be consider a unique selling point
 - Research on other LMS and what are their USPs
 - Decide on which should be our main focus/USPs for the project
 - Possible results:
 - Clearer knowledge of the competition
 - Identified the main focus of the project
4. Ideation – 3 cards
- a. Ideation



USP (Unique Selling Points)



Why?

In a competitive business situation you need to be able to identify and communicate clearly and concisely what it is that sets you apart.

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To encourage members to come up with ideas, the team will meet up on Teams and brainstorm, develop, and openly communicate ideas to each other. Feedbacks are welcome but avoid early criticism.

- Activities:
 - o Figure out what are the current problems with Blackboard
 - o Outline the goal(s) of the project
 - o Take turn to say ideas that come to mind
 - o Discuss which ideas are plausible for this project
- Possible results:
 - o Possible ideas that can meet the expectation of the client

b. Proof of Concept



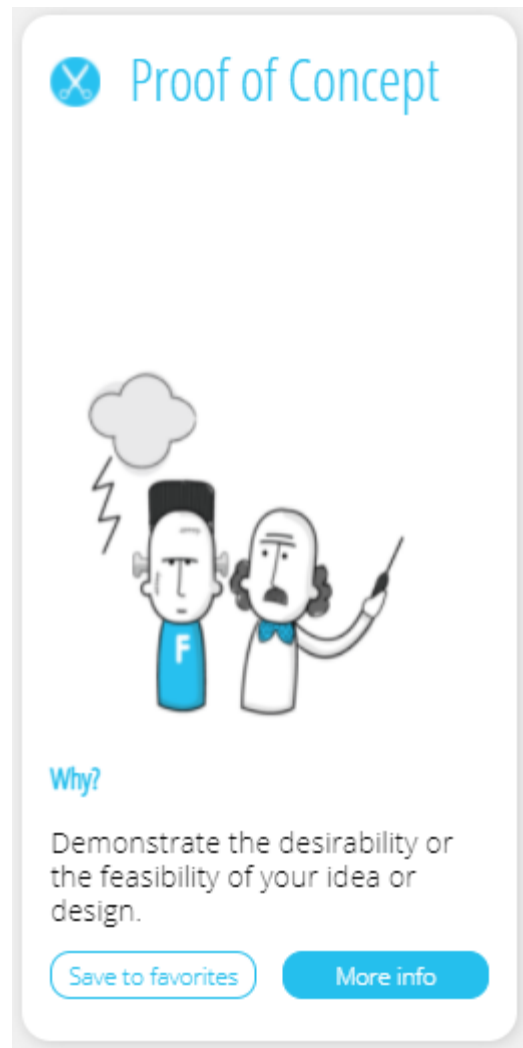
A Proof of Concept will be provided to show the client that the concept we proposed is actually possible to implement, and whether or not the product could be adopted by users.

- Activities:

- Prove that the proposed concept is indeed desired by users (Surveys, etc.)
- Identify a major problem user ran into
- Brainstorm and identify possible solutions for the previously identified problem
- Create a prototype based on the possible solutions
- Test to see if the prototype is working as expected

- Possible results:

- A 'blueprint' for the client to have an idea of their possible products
- c. Prototyping



Schedule Management

As agreed, all members will have daily stand-up meetings with each other and the project mentor on Teams at 12:30 PM (CEST). This meeting will be at least 30 minutes, during this time, the members will go over what they have achieved, if there are any obstacles that they need help with, discuss what would be the next step, etc.

If a member will be late or not able to attend the meeting, he/she must inform the involved participants beforehand.

Communication Management

Communication between involved parties for this project will be through 2 main platforms: Microsoft Teams and Discord, along with emails.

Code of Conduct

1. All members should deliver their part.
2. All members should finish all tasks that are assigned to them.
3. All members should actively look for tasks when they are done with their current task.
4. All members should attend daily meetings on Teams as agreed.
5. Under the circumstances that a member cannot attend a meeting, (if possible) they should inform the team in advance.

References

Appendix