

# Project 2 Report

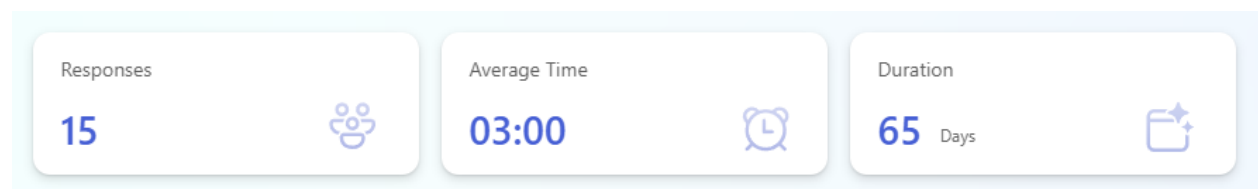
## Introduction

The VLE user interface I designed is intended for college/university-level education, for both lecturers and students. It is a place for lecturers to make assignment, upload notes and give feedback. My goal while designing was to streamline these aspects of the interface make it intuitive and quickly navigable for any lecturer. For students it is a place to get assignment information, see important dates, find lecture notes, find useful course specific tools and get feedback/grading on their work.

To achieve a great design, it was first important to research existing VLE and their users. I decided to base my research on Blackboard the VLE that we use in SETU Carlow.

## Initial Findings

I first carried out surveys on the existing VLE (blackboard) that students and teachers are using. I mainly focused on asking users about the existing tools and features, and also about any features they would like to see. I did this so I can greatly simplify the user experience, cutting unnecessary or underused tools/features. I gave teachers unique questions that apply more towards their experience of uploading, editing and tracking assignments, and giving feedback to students. This was done so I can find the weakness and strengths in the steps to making and marking an assignment. The most useful data to me was the text response where users can go into detail, and I can learn about the specific things they like and dislike.



I had a sample size of 12 students and 3 lecturers that completed the survey. Here is one of the samples that influenced the design of the interface:

1. Do you consent to participate in this survey? - Answer: Yes

## Demographic

2. What is your role in the university? - Answer: Teacher

3. How long have you been using blackboard? - Answer: 4+ years

4.How often do you use Blackboard? - Answer: Monthly

5.How would you rate the user interface (UI) of Blackboard? - Answer: 1/5

6.Give a reason for your rating of Blackboards UI

It is particularly clunky

7.How easy is it to find course materials on Blackboard? - Answer: 1/5

8.How often do you use the stream tab in Blackboard? - Answer: Never

9.How often do you use the calendar view in Blackboard? - Answer: Never

10.Do you know how to see your marks in Blackboard? - Answer: No

### Usability (for teachers)

11.How easy do you find uploading new assignments? - Answer: 1/5

12.Give a reason for your rating

I only ever need to use Blackboard for TurnItIn assignments, which is an addon or a plugin. I had to configure one this morning and I don't think I did it right!

13.Do you find it easy to customise and edit assignments? - Answer: Yes

14.Is there any part of uploading and review assignments that you find frustrating or confusing?

See the above answer. The editing of assignments once they are created is ok, but configuring where they are displayed on the module page is very hard to manage.

15.How easy do you find reviewing submissions? - Answer: 2/5

16.How easy to you find give student feedback - Answer: 2/5

17.Write any other thoughts you have on blackboard here

### Satisfaction

18.How satisfied are you with Blackboard as a virtual learning environment?

- Answer: 1/5

19.What feature(s) do you find the most useful? - Answer: emailing all enrolled learners

20.What feature(s) do you find the least useful or most difficult to use?

- Answer: the configuration of the home page and the constant switching between lecturer view and learner view to know for sure what visitors will see.

21.If any what feature(s) would like to be added or updated?

- Answer: The export and import of a module to simplify content from year to year.

This lecturer rate Blackboard UI with the lowest score 1/5, They have issues with its layout and find it a pain to use “It is particularly clunky”. Blackboard can come off as very clunky because of clutter and poor visual hierarchy, this is most apparent in the side nav which has way too many unimportant options and forces the user to glance up and down looking for the section they want. I aimed to improve this hierarchy by moving the most important things to a top nav home, announcements, calendar and grades these are what user found the most useful overall this should reduce cognitive load and increase navigability. I also removed the stream tab, profile tab and tools tab, tools like Turnitin are now integrated into submission upload.

This user also doesn't find reviewing and giving feedback that easy only giving these aspects 2/5, in my design the assignment page for your most recently viewed course is the landing page this makes reviewing and submitted work 2 clicks away. When reviewing work a lecturer can sort students based on submission date, name, or whether they have already provided feedback so they can quickly access the student they want even in larger class groups.

I also added new features like and export an upload button on the assignment and notes creation page so lecturers can use the structure from previous years and made lecturer and student views far easier to tell apart. This is just the decisions I made based on this user, but I also considered other user's preferences, some of which were much fonder of Blackboards design and layout.

These are the main features that some of the other Lecturers and students are looking for. I got this data by looking at user responses and I picked out ones that were mentioned by more than one person or that I thought would be a good addition.

Top 7 Features that Lecturers would like in their VLE:

- Calendar to be updated to include student events across campus
- easy way to email all students
- Distinct difference between lecture and teacher view and easy to move between
- Import and export module layout and content to streamline work for lectures through years
- Improve configuration of assignment page
- Improve hand ins, add file size and feedback
- Useful tools like Turnitin

Top 6 Features/elements that students are looking for:

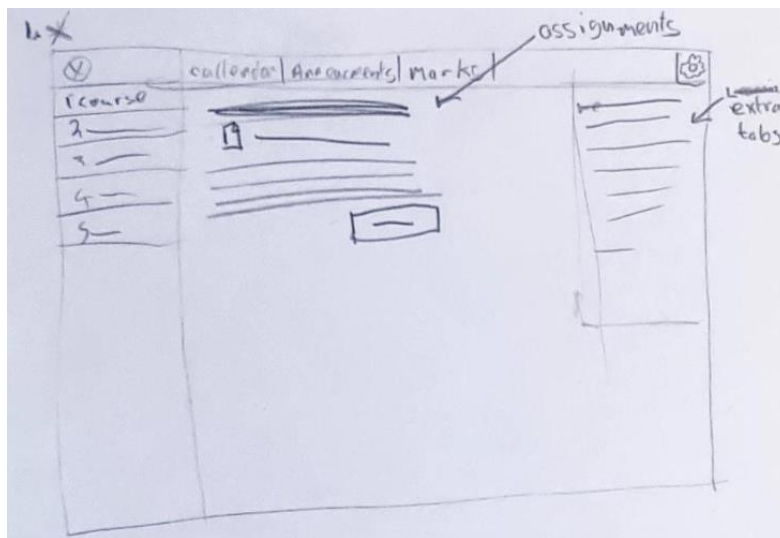
- Calendar view

- View work, assignments and learning resources from previous years
- No distracting unnecessary pictures
- Shortcuts to class material on home page
- Easy access to past papers
- Way to hide modules to reduce clutter

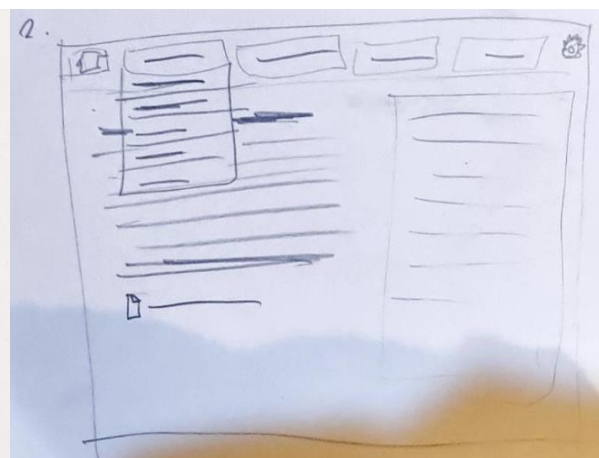
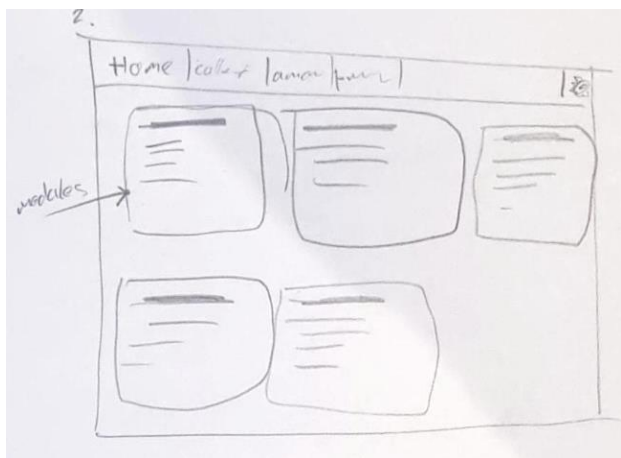
## Design & Development

I start off by doing rough wireframes loosely laying out menus and hierarchies on paper. I tried 3 layouts and then went forward with the one I liked best.

### Chosen Design:

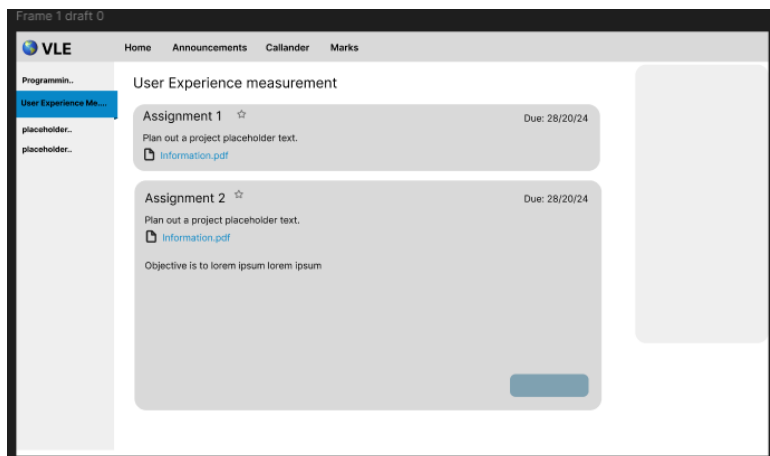


### Alternates:

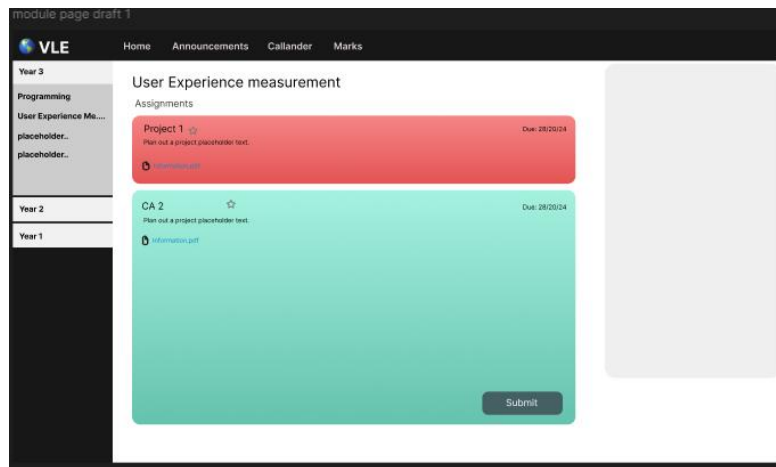


My first layout worked best so I decided to do some basic mock-ups in Figma, trying to find the best colour scheme, and figure out the specifics of the design

Here is my first Figma mock up, I liked the idea of incorporating blue into design because blue gives the user a feeling of trust and professionalism, I also wanted to keep the colour simple mostly using greys but this lead to design blend into much and made things difficult to tell apart at a glance. I also established the main design language at this step like curved box for assignments, and boxes for top and side navigation making them visually distinct.



In this draft I experiment more with colour, I coloured assignments based on their due date green meaning you have a lot of time, yellow meaning close to due and red meaning passed due. Alot of students said they would like to see their work from previous years, so I added each ear to the side navs and then added drop downs for each subject giving students an archive of previous learning material and assignments. I changed the top nav colour, so it contrasts far more and doesn't blend in with the assignments page so much. Also, in top nav I used the gestalt principal of proximity to separate the logo from the other nav elements, so the user doesn't accidentally click it.

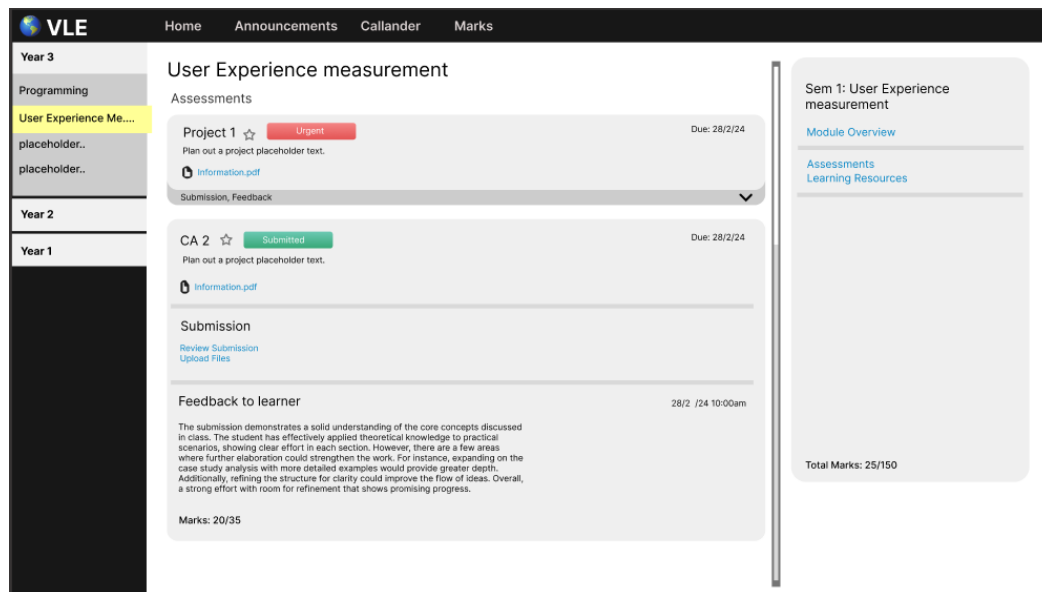


## Final Versions:

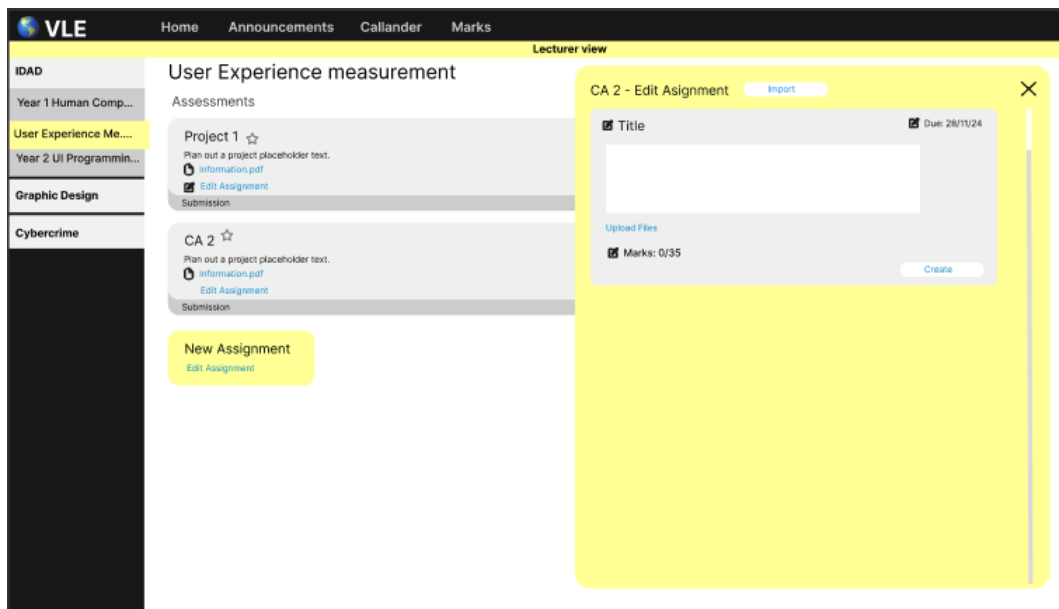
Here are the login pages one for students and one for lecturers, I made sure to keep design simple and used the curved box motif from assignment page, this indicated to user what the main content of the page they need to interact with is before they even login.



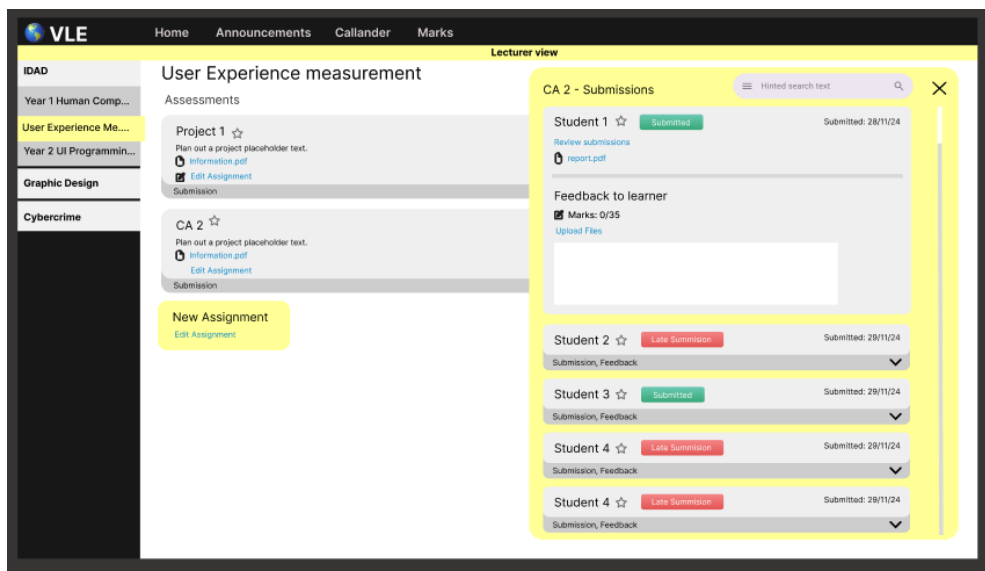
Here is the version I used for testing, instead of colouring the whole assignment based on due date I made small tags instead, making it far more professional looking. User where look for a way to pin things they to there main page, since my assignment page is the main page I just added a favourite button so they can pin the assignments they often access or notes for the notes page.



Wireframe of lecturer view, The side nav is changed for lecturer so it shows course and then in the dropdown shows their class for each year they did teach that course. They also have the ability to import and export modules and assignments so they can keep consistency between year and reduce their workload. I used a pale-yellow below the nav to clearly indicate that is for lecturers so when they swap between views, they won't get confused.




I wanted to make the experience feel really close and compact, everything should feel two clicks away, that's why I decided to use this window system on the right this allows the user to quickly mark one submission and give feedback then change to another assignment instantly. Some lectures wanted an ability to send video feedback which can now be done with the file upload button



A lot of users especially found the calendar useful so I made sure to implement it. The calendar is automatically filled based on the due dates of your assignment for lecturers it links right to the review submissions. Other college events are also shown on the calendar





HomeAnnouncementsCalendarMarks

IDAD

Graphic Design

Cybercrime

Lecturer view

week viewmonth view

Project 1 IDAD  
Review submissions


1234567

1234567

1234567

1234567

1234567



HomeAnnouncementsCalendarMarks

IDAD

Graphic Design

Cybercrime

Lecturer view

week viewmonth view

9:00 am10:00 am11:00 am12:00 am1:00 pm2:00 pm3:00 pm4:00 pm>

Mon

Project 1 IDAD  
Review submissions

Tue

Project 2  
Review submissions

Wed

Thur

Project 2  
Review submissions

Fri

Sat

Sun

Logo:

I kept the logo very simple just using an emoji of the earth and VLE (virtual learning environment) I think the colours work quite well it's simple but modern.



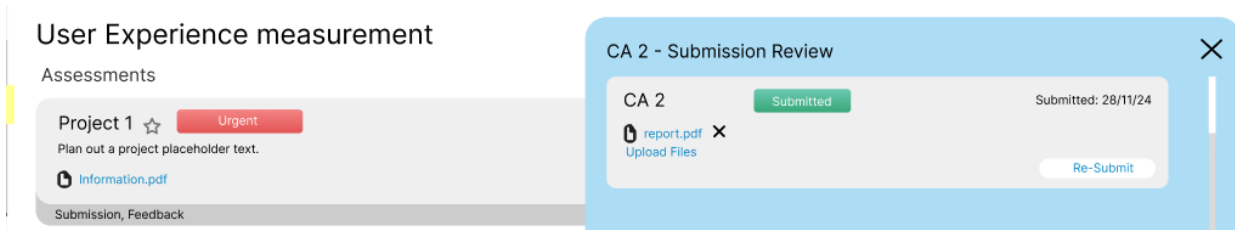
### Colour Scheme:

First, I thought a simple grey scale colour scheme would work with splashes of blue I didn't want my UI to come out looking childish or overly playful if I did students and lectures would take it seriously and would feel it be out of place, but because of the number of sections on each page it is hard to make things distinguishable with so few colours. I made sure to strike a balance between these two.

I decided to use a pale yellow and blue to accent certain elements like when a lecturer is reviewing assignments, I used yellow because it mimics a yellow highlighter like how a teacher would highlight and write feedback on a paper assignment.

I used the pale blue mostly in the student view again invoking the feeling trust and calmness while you are submitting your work.

I used shades of grey to separate assignments from the background.



### Fonts/typography:

I mainly used the basic Figma inter font which I thought already worked, and felt professional. I used a bold version for the side nav so I could keep the text small and fit more while also making the course titles stand out.

I coloured most clickable text blue which is an easily identifiable standard , I coloured sub heading with grey to give them less presence.

Link to Figma project: <https://www.figma.com/proto/gbVMleZDShAlkHxHYnnVOA/VLE-wireframe?node-id=0-1&t=tRYGliwd6M5qk46y-1>

## Testing and Results

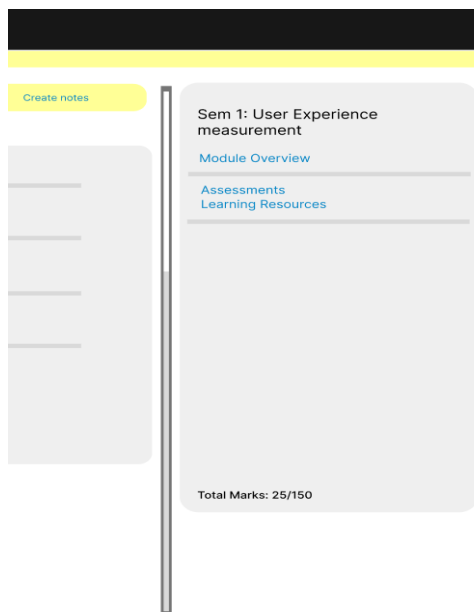
Once I complete my designs I used Figma to make a prototype that users could test. I made all the main navigation buttons go to the correct page/section. I tested from a lecturers POV user where given either task 1 or 2:

Task 1: you are a lecturer make a new assignment for students

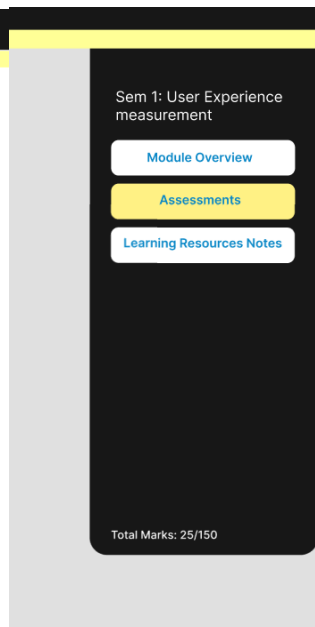
Task 2: you are a lecturer add/upload new learning resources or notes

I gained a lot of insight from testing, looking at the interface myself, the options seemed obvious, but after watching users test it and repeatedly make the same errors, it was clear they were not. Users really struggled with uploading notes and find the notes tab “Class page was a bit confusing to find the learning resources”. I think this was because of its visual similarity to the rest of the page and lack of contrast. It was also located on the left middle of the screen which in the one of last places the eye scans. I revised this after.

**Old:**



**Revised:**



I increase the contrast between this side nav and the background to indicate its importance I also enlarged the buttons and gave them more space, so they are more obvious.

Many users found that the colours blend in too much “Confusing because a lot of the things blend together (same color no icons)“, ” Unclear menu/hard to distinguish from other stuff” I tried to avoid this issue, but I think I need to use even more colour. Improving the side navigation above also helped address this.

## Results overview:

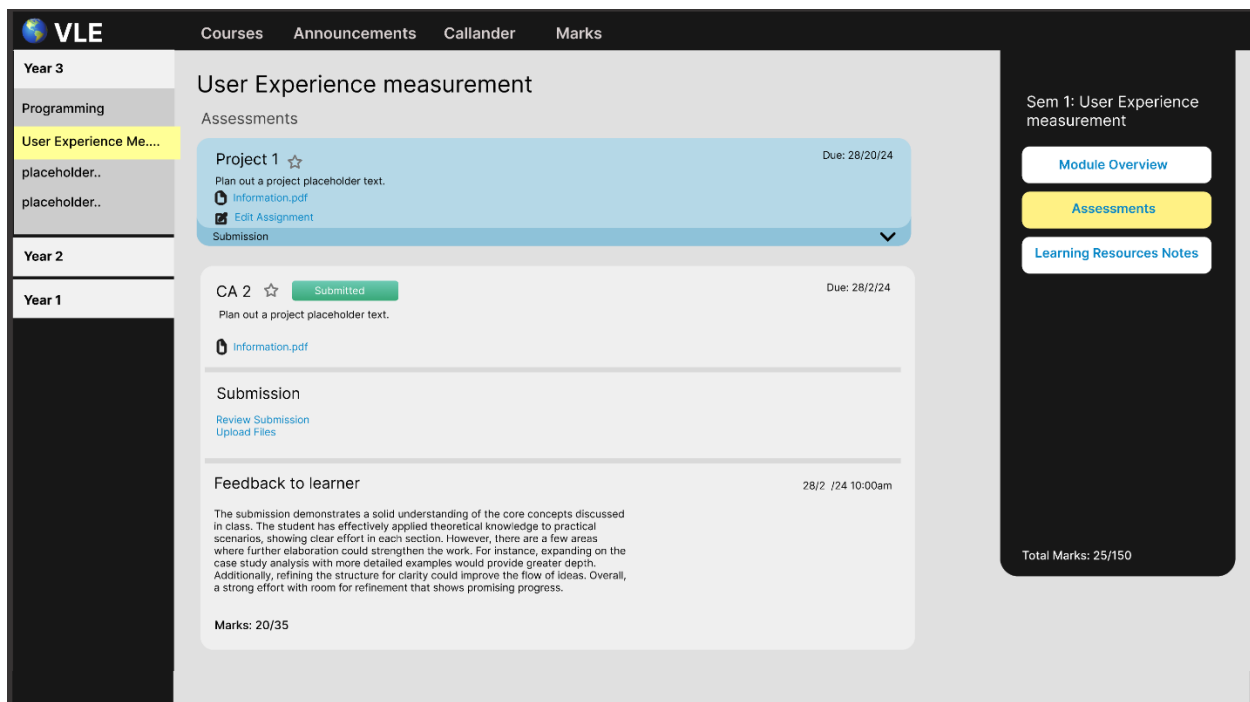
### Task 1

- Completion time: 1:03
- Errors made: 1

### Task 2

- Average completion time: 41 seconds
- Average errors made: 4.25

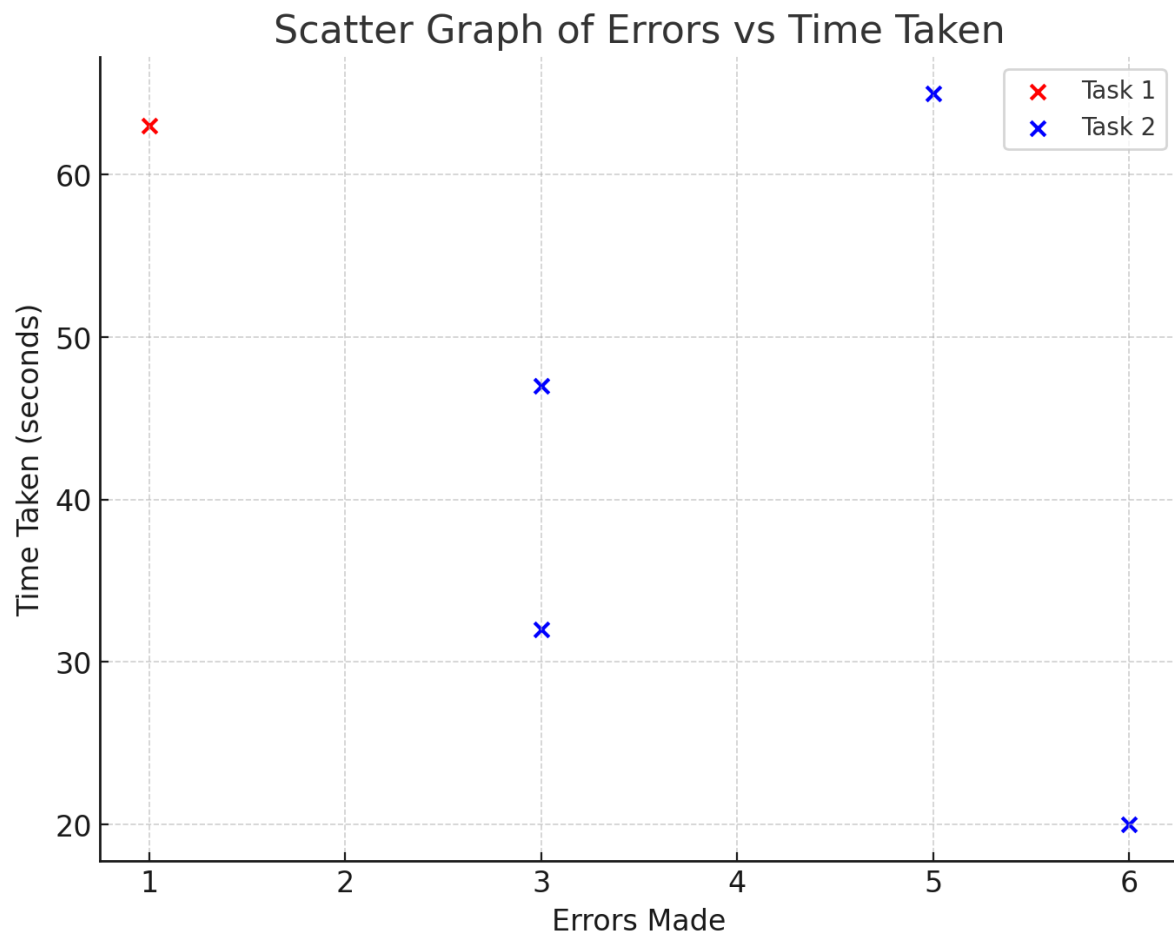
Here are some more of the revisions I did after testing:



I darkened the background and added a splash of colour to the assignments, now all the sections are visually distinct but are still cohesive.

Here is some visualisations of the data from my user tests.

## Scatter Graph



## Standard Deviation

### Task 1:

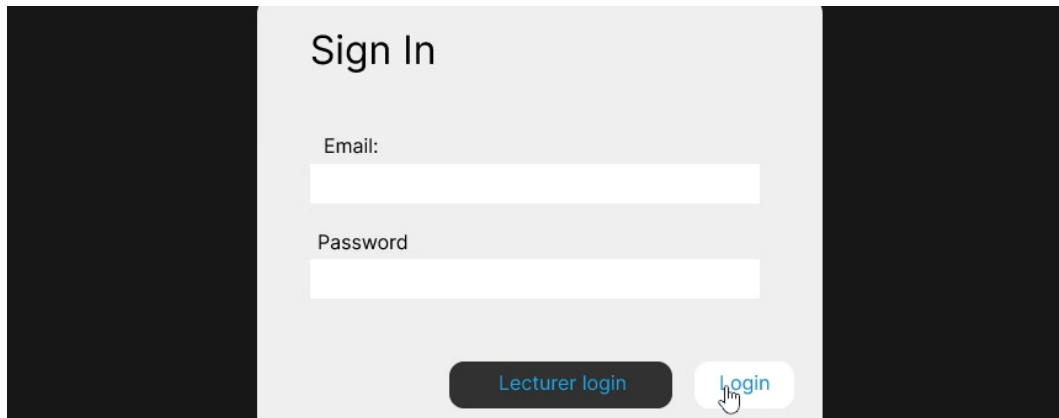
- not enough data

### Task 2:

- **Errors made:** 1.30
- **Time taken:** 16.84 seconds

## Observations and Analysis

It is clear from the data the user struggled far more with task 2, however the user that was assigned to task 1 took nearly the longest this because they clicked the student login button by mistake, and I had no way have easily returning. This was because of the contrast between the lecture login button and its background and that it wasn't clear what you were signing into.



I revised this and made to different login pages and made the button easier to tell apart, I also added different titles and changed the background for more contrast. This makes it far less like a user will make an error like this



Another observation from the data is how people interact with UIs in various different ways some people like user 2 who had the most errors but completed the task fastest, like to click on the any option they think will complete the task and do it in a rush, While user 5 who took the longest and made the second most errors really struggled because they kept picking option that lead to parts of the interface that weren't complete.

On average all user struggled with task 2 but in different ways, hopefully with some adjustments these issues can easily be solved as I think my design has some merit especially has task 1 was easily done and only took 3 clicks. This what the user assigned to task 1 had to say, "Set up was navigable", "User interface was good", "It was very clear on how to make new assignment".

## Summary of changes

Following the testing phase, several key changes were made to address the issues identified. The side navigation was revised to include increased contrast, larger buttons, and more spacing to enhance visibility and usability. The background was darkened, and additional colour accents were introduced to ensure distinct separation between sections, addressing feedback about elements blending together. The login interface was redesigned with separate pages for lecturers and students, along with clear labels and contrasting backgrounds to prevent errors and improve navigation.

Additionally, the placement of the 'Notes' tab was adjusted for better visibility, and its design was refined with higher contrast and enlarged buttons to make it more intuitive. These changes directly responded to user difficulties, reducing task errors and completion times, while improving overall satisfaction and ease of use.

## Discussion & Conclusion

I found getting user feedback and survey extremely insightful, the initial survey gave me a clear vision and allowed me to plan out the structure and design based on user needs.

Looking ahead, the design has significant potential for further refinement and real-world application. By leveraging additional user feedback and iterative testing. I would love to Implement this design in an actual academic environment, even more valuable insights into its usability and effectiveness at bigger scales, offering opportunities to optimise features and ensure it remains an intuitive, accessible, and efficient.