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Welcome to the BioLogic Project

Project Overview

BioLogic is an educational tool designed to facilitate the teaching of scientific concepts to students. It enables students to answer questions by constructing answers using graphical Explanation Networks (ExNets), which consist of statements and logical connectors. This method enhances students' ability to express themselves clearly and precisely using grammatically correct English. Students can also validate the ExNets' meaning through an English language readout. A BioLogic Marking Assistant can expedite the grading process by identifying the similarity in a student's answer, which greatly reduces the workload on academics.

The key components of this project are the Editor.vue and Builder.vueflow tools. This project is an extension of a previous project where another team developed a BioLogic WebApp from a Python-based desktop application. The focus of semester 2's Project 1 is to improve and integrate these tools for use by students, tutors, and academics. The Editor.vue requires refinement, bug fixing, and feature additions, while the Builder.vueflow tool needs polishing and integration with the Editor.vue. The goal is to allow academics to create questions using Builder.vueflow, which can then be passed to Editor.vue for students to answer. Additionally, the Editor.vue is ideally capable of offering immediate feedback to students in a formative assessment mode. This feedback will be based on assessment information from the Builder.vueflow's rubric.

Team Members

This project is carried out by a team from the University of Melbourne's 2023 Semester 2 COMP90082 Software Project course, consisting of five students and a supervisor.

Team member name	Role	Email
Paul Calverley	Supervisor	paul.calverley@unimelb.edu.au
Yiyun Yang	Product Owner	yiyyang1@student.unimelb.edu.au
Steven Zhang	Scrum Master	stevenz1@student.unimelb.edu.au
Xingchen Han	Developer	xingchenh1@student.unimelb.edu.au
Jiuneng Zhang	Developer	jiunengz@student.unimelb.edu.au
Sihan Zhang	Developer	sihazhang1@student.unimelb.edu.au

Client

Client name	Project	Email
Mike Murray	BioLogic	murraym@unimelb.edu.au
Ping	BioLogic	ping.charoenwet@unimelb.edu.au

Tools for Project Management

Tool	Description	Links
Confluence	Document the details of the project and all created resources from Planning, Analysis and Design phases.	https://confluence.cis.unimelb.edu.au:8443/display/COMP900822023SM2BIBlueRing/Home
Trello	Visualise the project's progress and to estimate, prioritise and manage our tasks and sprints.	https://trello.com/b/b9bcSevn/bi-bluering
GitHub	Manage and modify the project's code and to generate releases that will be accessed by the clients.	https://github.com/COMP90082-2023-SM2/BI-Bluering
Slack	Instant messaging program used as the the primary communication channel.	

Recent space activity



Steven Zhang

[Sprint 2 Demonstration](#) updated less than a minute ago
• [view change](#)

[Cyber Security](#) updated 3 minutes ago • [view change](#)

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- [Xingchen HAN](#) (10 hours ago)
- [Yiyun YANG](#) (14 hours ago)
- [Jiuneng Zhang](#) (35 days ago)
- ...

[Ethical Considerations](#) updated 5 minutes ago • [view change](#)

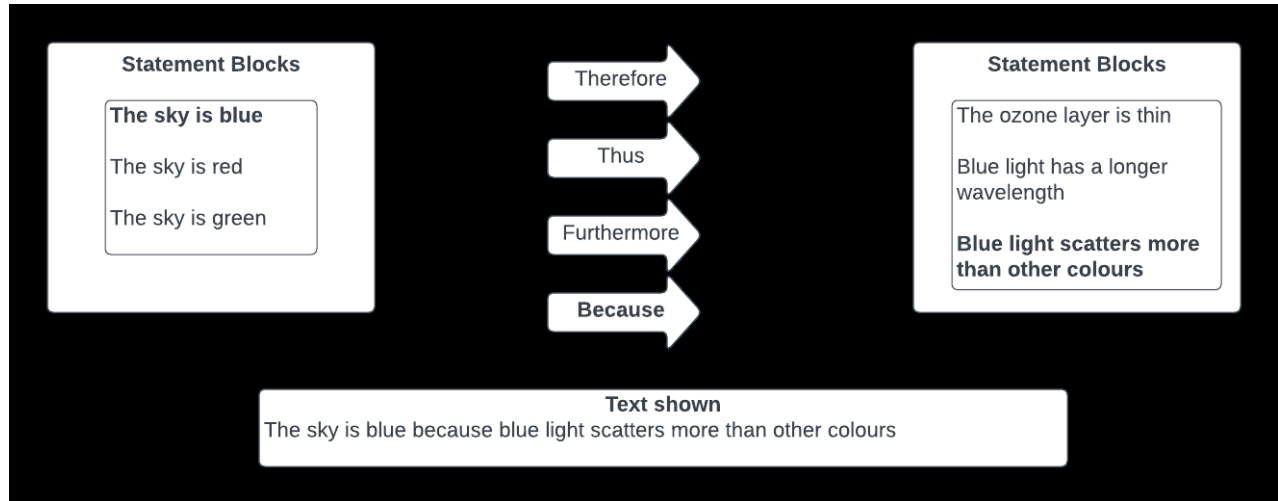
[Task Tracking](#) created 7 minutes ago

[Code Review](#) updated 39 minutes ago • [view change](#)

Project Background

Background Description

This project aims to further develop a web application that enhances student question answering and instructor assessment marking efficiency through the use of graphical Explanation Networks (ExNets). These networks consist of statement blocks and logical connectors, which can be combined to create coherent sentences. Statement blocks provide selectable statements for students' responses, while logical connectors, such as "furthermore" and "because", link these statements together. The below visual example helps illustrate the concept, highlighting multiple selectable statements within each block which are then connected by logical connectors. The bolded statements within each section specify the student's selections. As an example, a student might choose "The sky is blue" in the first block and "Because" as the logical connector, while the last block might contain "Blue light scatters more than other colours." This results in the sentence: "The sky is blue because blue light scatters more than other colours."



Moreover, the application features an English language readout to help students validate their answers' meaning. This involves identifying the chosen statements and connecting words to ensure coherence. Once answers are selected, students can utilise a drag-and-drop mechanism to arrange these components within the user interface. This removes the need for manual typing which not only enhances response efficiency, but also ensures readability with no spelling or grammar errors. The final completed statement is displayed in a text box which allows students to check and make sense of their constructed answer.

The holistic goal of the BioLogic project is to enhance the teaching of scientific concepts by providing students with a structured and efficient way to express their understanding of the content. The integration of the BioLogic Marking Assistant streamlines the marking process for assessors. Ultimately, this project aims to enhance the learning experience for students, the teaching experience for tutors, and the efficiency of academic assessment.

Motivation

After discussing with the client, the main motivation of this project is to focus on improving the web application's functionality by polishing certain aspects of the tool, debugging issues, and adding other helpful features. The client has confirmed the Builder is mostly finished and our team should focus on the Editor's features. Some of the main pain points of the application are bugs when dragging components, the collapsing of the overall statement is not smooth, students are running out of space in the user interface, and there's an oversall lack of user-friendliness within the tool. The Editor should also be able to talk to the server to construct answers and questions, while also incorporating feedback from the Grader. There's also room for additional features in terms of accessibility such that issues with colour blindness and limited mobility, as well as including an option for a light and dark mode. Additionally, features which are nice-to-haves include having an undo/redo function, as well as sound feedback when students are interacting with the tool to provide some reinforcement of a "clicky" feeling. The Editor has two main usages which are in tutorial and exam settings. In tutorials, the immediate feedback to students is very helpful for their learning, particularly when the tutor-to-student ratio is not substantial. For exams, this would greatly help markers be more efficient in assessing students' answers. Near the end of this project, our team will strive to work together with Team RedBack to ensure the Grader communicates to the Editor and also provides changes of the rubric to the builder.

Scope Outline

Ultimately, this project aims to achieve the below outlined goals:

1. Firstly, our highest priority is to improve the Web Editor (VueJS) so that it becomes a useable tool in tutorial settings. We aim to address graphical defects that interfere with the user experience, such as imprecise drag-and-drop of objects, and unexpected behaviours of elements when dropping them onto different areas. Ideally, Editor.vue would match the current Python version of the BioLogicEditor in terms of robustness, ease of use and features available.
2. Secondly, we aim to implement a new "Student Feedback" feature that can provide the student users with information about what is right and wrong in their current answer and display text-feedback provided by the tutor and academics. The actual feedback will be provided by the Grader. The Editor should be naïve about the rubric information that the Grader is using, such that the Grader might provide a "tick" or "mark" for a Statement and some text-feedback to display for a given Statement or Connector.

3. Thirdly, we will explore the integration options of the Web Editor to the backend server and the Grader. Furthermore, we will also review how to integrate the Editor into the university's Canvas system and provide guidelines for deploying the Editor in a big class of students.

Team Roles

The development team is responsible for designing the web application, its implementation, testing the application, and ensuring quality assurance. The development team works closely with the product owner, scrum master, and client to ensure that the requirements and needs of the client's project are met. The Product Owner's primary focus is on maximising the value delivered by the development team by clearly defining requirements, maintaining the backlog, and clarifying the tasks needing to be completed by the developers. The product owner is responsible for creating and managing the timeline of the project, as well as tracking the progress of the development team and making necessary adjustments if the team faces any challenges. The Scrum Master focuses on helping the whole team continuously improve and optimise their processes by removing road blocks that hinder the team's progress. They also help the team work cooperatively in order to create a productive and collaborative environment, which also leads to effective communication between team members and stakeholders. Both the Product Owner and Scrum Master work closely together to ensure the successful delivery of the project.

Do/Be/Feel and Goal Models

Do/Be/Feel

Student

DO:

- Click, drag and drop answers' components onto the application's interface which is user friendly
- Edit and rearrange the statements' components without any issues
- Read and review their final answers
- Spend less time on formatting answers and more time on understanding the concepts

BE:

- More more efficient in completing questions for tutorials and exams
- Less stressed and overwhelmed with ensuring correct spelling and grammar
- More engaged and interested in the concepts being taught

FEEL:

- Relieved to utilise a tool which makes answering questions easier, as well as receiving immediate feedback
- Empowered to take on more challenging questions and learning more complex concepts

Tutor

DO:

- Upload the answer key and student work to the application's interface
- Quickly provide students with feedback
- Use the tool to teach concepts to a larger number of students in a shorter period of time
- Create intellectually stimulating questions to challenge students appropriately

BE:

- More efficient in providing immediate feedback to students
- More capable in providing targeted feedback to help students improve

FEEL:

- Empowered to provide more timely and detailed feedback to students
- Satisfied to see students improve and succeed with the help of the tool

Marker

DO:

- Review and verify the automated marking results
- Quickly provide students with feedback and grades

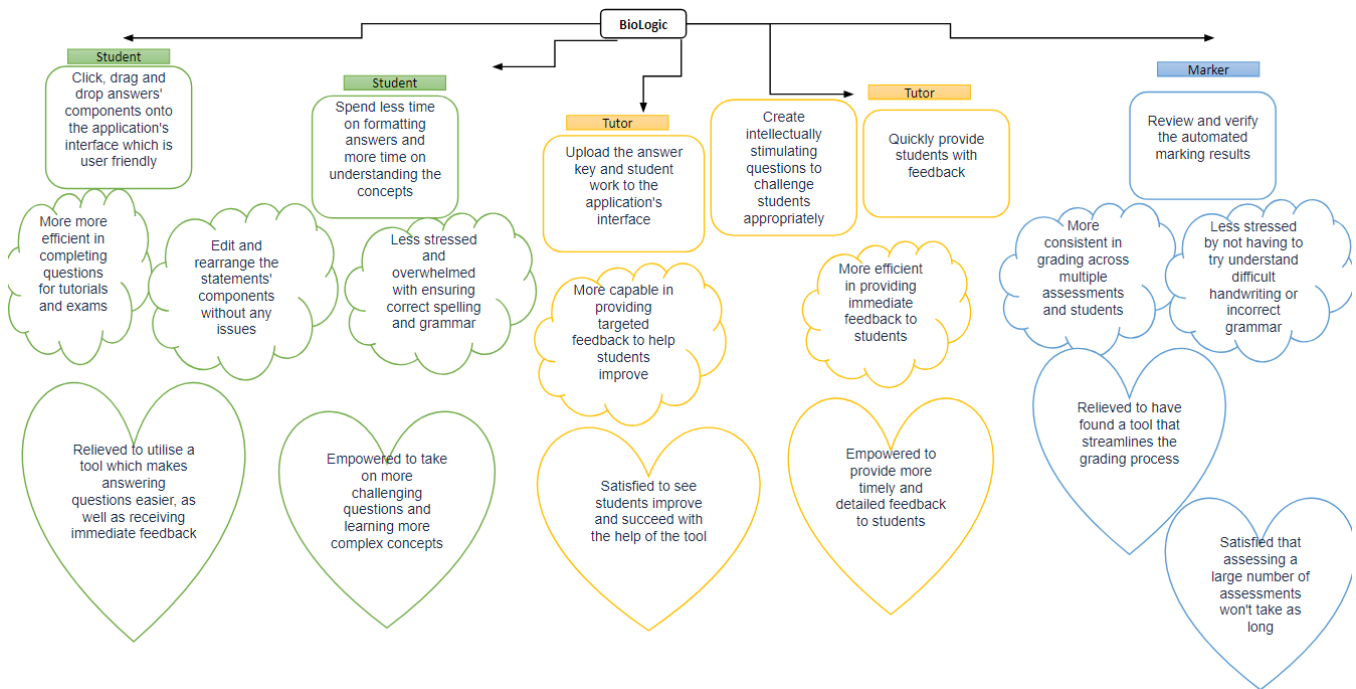
BE:

- More efficient in grading and providing feedback to students
- More consistent in grading across multiple assessments and students
- Less stressed by not having to try understand difficult handwriting or incorrect grammar

FEEL:

- Relieved to have found a tool that streamlines the grading process
- Satisfied that assessing a large number of assessments won't take as long

Goal Model



KEY

Personas

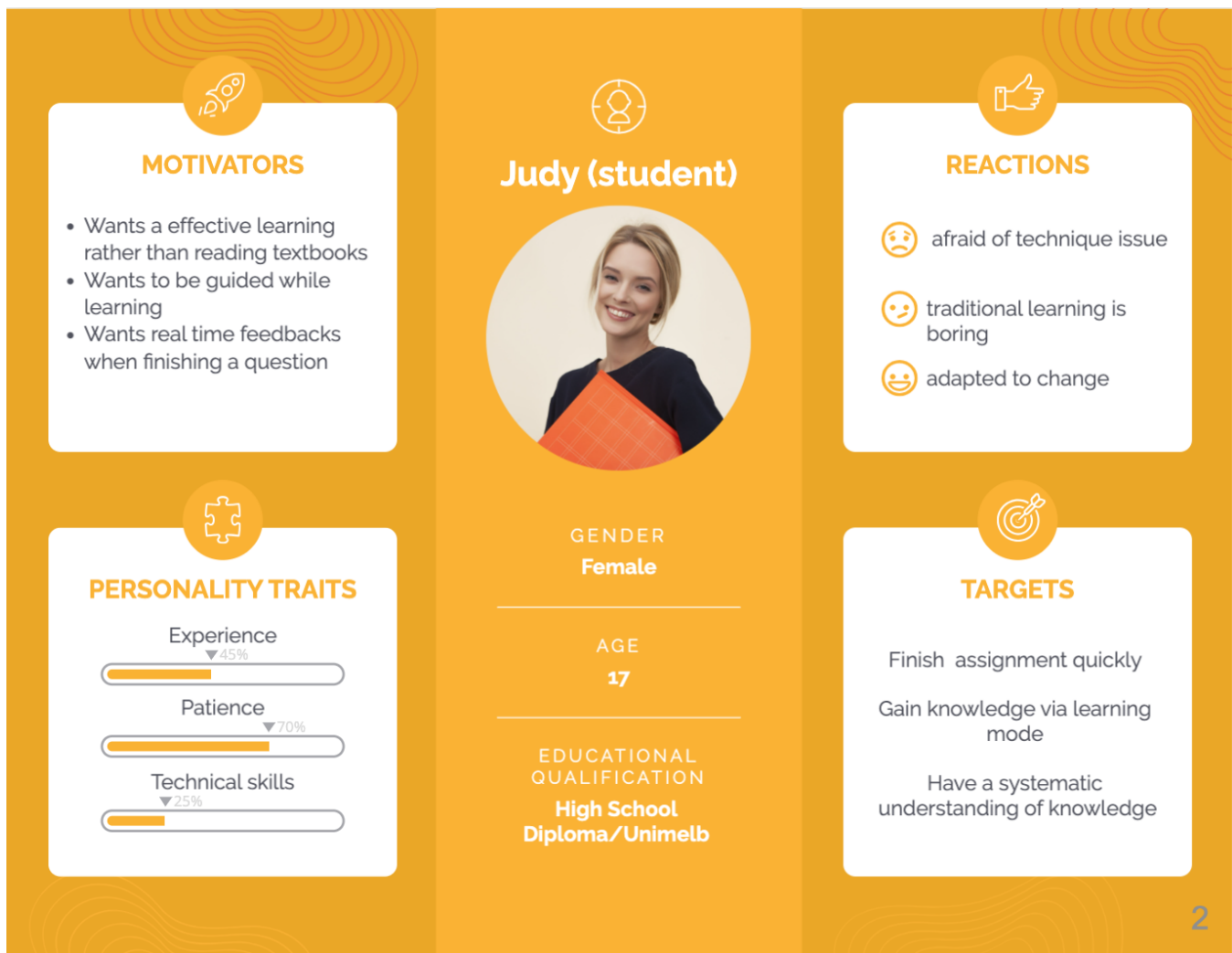
We considered potential customers in three perspectives, students, tutors and markers , they have different aspects to view the new programs, we made three personas to ensure we could have a better understanding for user portraits.

(Students and teachers are major users of the system, and there are two categories of teachers which showing concern in different aspects , tutors more caring about the teaching use of the system, which is the effectiveness of knowledge representation from system. markers are teachers who using system to mark answers from student and they shows more caring on the abilities of answer marking and feedback giving rather than knowledge teaching using the system)

Andy, who is the PhD student of Melbourne University and also works as a tutor in school, he is willing to work in Unimelb for future.



Judy, she is the second year student of unimelb, she is willing to get H1 so that she could apply scholarship.



John, he is in charge of marking students work and giving feedback, also he just had a baby so that he is willing to earn more for his family



MOTIVATORS

- Wants to provide personal feedback on marking
- Wants to marking assignment parallel to increase efficiency
- Wants the system to help him summarise performance of student



PERSONALITY TRAITS



John (marker)



GENDER
Male

AGE
25

EDUCATIONAL
QUALIFICATION
Diploma/Professional
Diploma/Graduate
Bachelor/Unimelb
Master/Unimelb



REACTIONS

- 🤖 new tech may increase his working complexity
- 😊 people can get their result quickly
- 😊 work might be finished early



TARGETS

Marking efficiently
More conversation convenience
More merit salary

Requirements

Summary of Requirements

This project aims to enhance the Web Editor (built with VueJS) to serve as an effective tool within tutorial settings. The primary objective is to align its performance, user-friendliness, and capabilities with the current Python version of the BioLogicEditor. This entails rectifying graphical anomalies that impede usability, such as addressing issues with imprecise drag-and-drop actions and unexpected behaviors of elements upon placement. Furthermore, the Web Editor should incorporate selected features from the Python version, such as the ability to present Student statements using radio-button formatting.

Additionally, a new "Student Feedback" feature should be implemented. This feature will furnish student users with real-time feedback on the correctness of their responses, along with textual guidance from the teacher. It's important to note that the actual feedback content will be provided by the Grader. The Editor itself should remain unaware of the rubric details employed by the Grader. For example, the Grader might provide positive and negative indicators for a Statement, as well as corresponding feedback text.

Furthermore, the project requires exploration of integration options for linking the web editor with the backend server and the grading system. The integration of the editor into a canvas system also needs to be considered, along with the development of deployment guidelines to facilitate its implementation in large student classes.

User Stories

Epic	User Story ID	User Stories	MosC ow Priority	Size Estimati on
Improve the Web Editor's usability	1.1	As a student, I want to have precise drag of objects on Editor so that I can precisely drag elements to different areas.	Shoul d Have	2
	1.2	As a student, I want to have the ability to drop connector from list of connectors onto existed statements on Answer Area on Editor so that I can merge statements with connectors immediately.	Shoul d Have	4
Align functionality of the Python version	2.1	As a student, I want to be able to view the selected statement in a radio-button format so that I could have a clear view of my answer.	Must Have	3
	2.2	As a student, I want to be able to view the selected statement in a one sentence format so that I could have a clear view of my answer.	Must Have	3
	2.3	As a student, I want to have a switch button in the statement box so that click the button and switch the format of the statement.	Must Have	2
Display the Student Feedback	3.1	As a student, I want to view immediate text-feedback besides my answer on Editor so that I can know what is right and wrong in the current answer.	Must Have	6
	3.2	As a student, I want to click the check button for my answer so that I can receive feed back to improve my answers.	Must Have	2
Product deployment	4.1	As a student/teacher, I want to receive comprehensive guidelines covering installation, configuration, and best practices.	Must Have	1

In-scope & Out-of-scope features

In-scope features

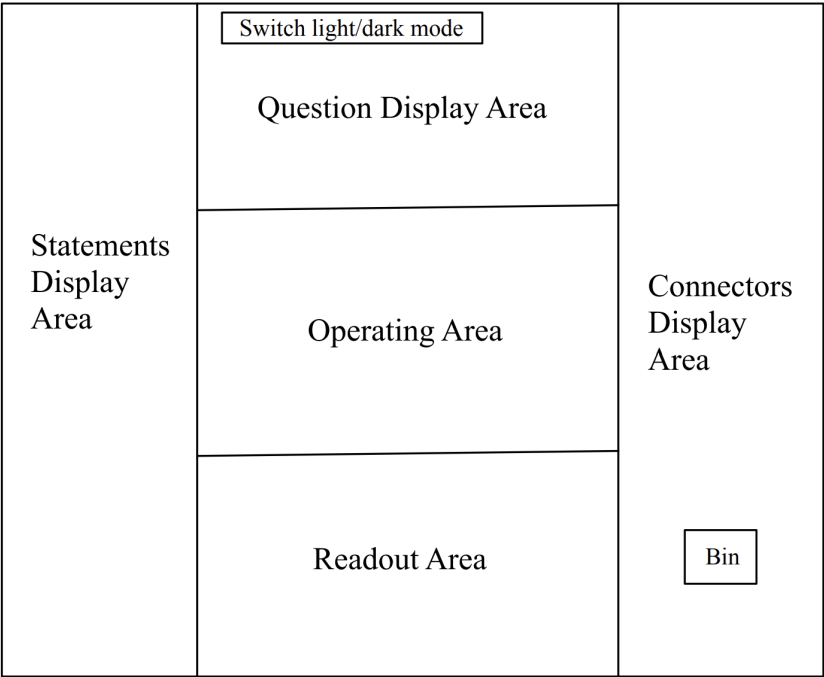
1. Web Editor Enhancement for Tutorial Settings:
 - Improving the Web Editor's usability to match the BioLogicEditor's Python version in terms of robustness, ease of use, and features.
 - Addressing graphical defects that hinder usability, such as refining drag-and-drop functionality and rectifying unexpected behaviors of elements.
2. Feature Incorporation from Python Version:
 - Implementing selected features from the Python version, such as presenting Student statements using a radio-button format.
3. Student Feedback Feature:
 - Developing a "Student Feedback" feature to provide real-time feedback to students about the correctness of their answers supplied by the Grader.
 - Ensuring the Web Editor remains unaware of specific rubric details used by the Grader.
4. Integration with Backend Server and Grader:
 - Exploring integration options for connecting the Web Editor with the backend server and the grading system.
5. Canvas System Integration:
 - Evaluating the integration of the Web Editor into a canvas system, ensuring compatibility and functionality.
6. Deployment Guidelines:
 - Providing guidelines for deploying the Web Editor in large student classes, assisting in successful implementation.

Out-of-Scope Features

1. Complete Feature Parity with Python Version:
 - Achieving complete feature parity with the BioLogicEditor's Python version may be beyond the scope of this project.
2. Advanced Grading Algorithm Development:
 - Developing complex grading algorithms that go beyond basic "tick" and "mark" indicators may not be included in this project.
3. Integration with Third-Party Tools:
 - Integrating the Web Editor with specific third-party tools or platforms beyond the backend server, grader, and canvas system is not within the current scope.
4. User Authentication and Security:
 - Addressing user authentication, authorization, and security measures for the Web Editor may not be covered in this project.
5. Extensive User Interface Overhaul:
 - Making extensive changes to the user interface design or structure of the Web Editor may be considered out of scope.
6. Scalability Testing:
 - Conducting extensive scalability testing for large-scale deployment might be considered out of scope for this project.

*'Out-of-scope features' are generated and reformed from ChatGPT.

Prototypes



Development Environment

Introduction

Welcome! This document provides instructions for setting up the project from scratch. It covers operating system and platform requirements, development tools and IDEs, programming languages and frameworks, as well as step-by-step instructions for setting up Vue and running the development server.

Prerequisites:

- **Operating System and Platform:** Supported platforms include Windows (Windows 10 and above), macOS (latest version), and Linux distributions (such as Ubuntu, Fedora, etc.).
- **Development Tools:** It is recommended to use an IDE or text editor suitable for Vue.js development, with Visual Studio Code being the recommended choice.
- **Web Browser Requirements:** Since Vue.js applications run in web browsers, make sure to list major supported web browsers such as Google Chrome, Microsoft Edge, etc.
- **Node.js Version:** Familiarity with the command-line interface for Node.js, with a version of 18 or higher.
- **Package Manager:** Ensure npm version 9 or higher. The contents of the GitHub repository will be utilized on your device.

Project Development Platform:

- **GitHub:** Used to host project code, collaborate on development, conduct code reviews and version control.

<https://github.com/COMP90082-2023-SM2/BI-Bluring>

Please adhere to the specified prerequisites and project collaboration platform setup for proper execution.

Setting up Vue and running the development server

Here are the steps for installing Vue:

1. Install Node.js:js relies on the Node.js runtime. If you haven't done so already, download and install the appropriate version of Node.js for your operating system from the official Node.js website.

2. Open the Command Terminal: On Windows, you can use Command Prompt or PowerShell. On macOS and Linux, use the Terminal.

3. Navigate to the Project Folder and Install Dependencies: Follow these steps to navigate to your project folder and install the necessary packages.

a. Use the following command to navigate to the project folder:

```
cd C:\Your\Project\Here
```

Replace the path with your actual project path.

b. Install the required packages.

```
npm install
```

c. Verify successful installation:

```
npm fund
```

This command will confirm the installation status of required packages.

4. Start the Development Server: Execute the following command in the project folder to launch the development server:

```
npm run serve
```

will start a local development server, allowing you to view your Vue application in a browser.

5. Open the project folder with an editor and edit the Vue components and application logic in the src directory.

Sprint 2 Demonstration

A short recorded video which demonstrates our development progress after Sprint 2.

https://www.youtube.com/watch?v=c99gLT0rCrQ&ab_channel=Carol

Task Tracking

Product Backlog

Team's Trello board can be found at: <https://trello.com/b/b9bcSevn/bi-bluering>

Our team decided to use a base unit measurement for size estimation which is equivalent to the task of implementing a functionality of allowing a "double click" interaction to result in some kind of change in behaviour on the user interface.

Task	Size Estimation
Add a button for feedback viewing	2
Fix the bug for drag	2
Fix the bug for drop	4
Display data for student feedback	6

Code Review

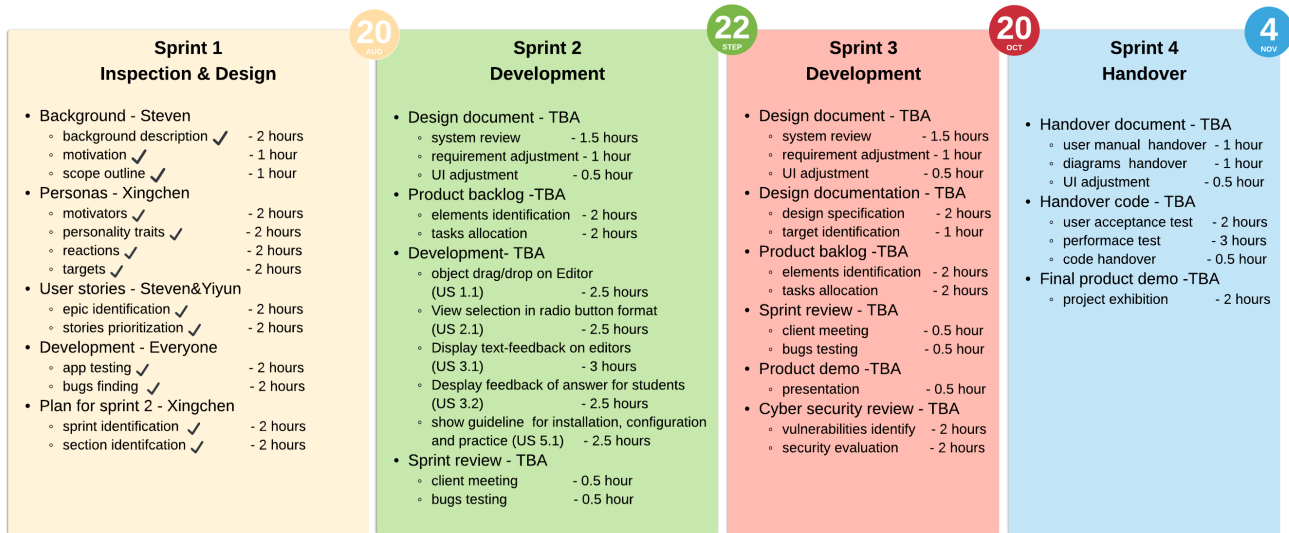
A completed peer-to-peer code review for Sprint 2 using the recommended COMP90082 template which details how our team completed the code review and the relevant issues identified.

Please see the below spreadsheet attached which is also available on our GitHub at: <https://github.com/COMP90082-2023-SM2/BI-Bluering/tree/main/docs>

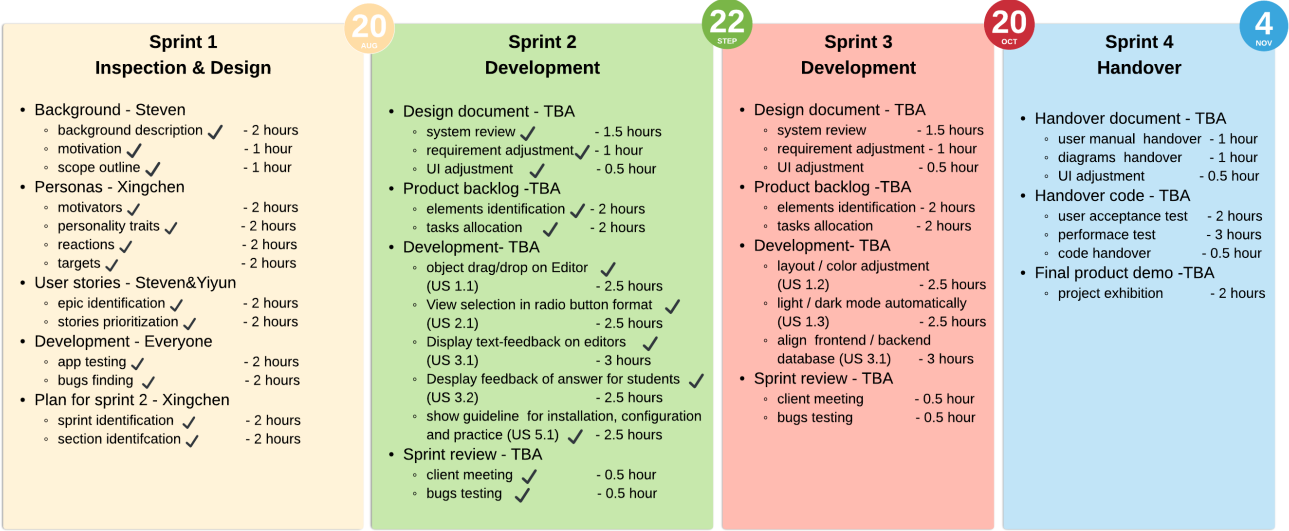


COMP90082_TMPLT...g Sprint 2.xlsx

Plan for next sprints



Plan for sprint 3



The development plan for sprint 3:

[Sprint 3] Prepare documentation with comprehensive guidelines covering installation, configuration, and best practices

[Sprint 3] Display data for student feedback

[Sprint 3] Fix the bug for drag/drop

[Sprint 3] Add a button for feed view

Ethical Considerations

There are many aspects of ethical consideration which need to be considered during the development process :

Ethical Considerations for the BioLogic Educational Tool Project

1. Privacy and Data Protection:

- As the BioLogic tool will collect students' responses and possibly personal information, it is vital to ensure that this data is stored securely and in compliance with data protection regulations. Access to student data should be limited only to authorized personnel.
- Consider the implications of data breaches. Steps should be taken to ensure encrypted storage and secure transmission of data.

2. Transparency in Grading:

- The BioLogic Marking Assistant's methodology for grading and identifying similarity in students' answers should be transparent. This will help in ensuring that students and academics have faith in the system's fairness.
- If there's any machine learning or algorithmic decision-making involved in grading, steps should be taken to ensure the algorithm's decisions can be explained and understood.

3. Bias and Fairness:

- Care should be taken to ensure the BioLogic tool does not inadvertently introduce or perpetuate biases. For example, the way it interprets language should not disadvantage any group of students based on linguistic or cultural backgrounds.

4. Accessibility:

- The tool should be accessible to all students, including those with disabilities. This may involve ensuring compatibility with screen readers, providing alternative input methods, or offering different modes of interaction.

5. Dependence on Technology:

- Over-reliance on the tool for grading could lead to an erosion of human judgment in educational assessment. It's important to ensure that there's a balance, and human oversight remains a part of the grading process.

6. Feedback Accuracy:

- Given that vue file aims to offer immediate feedback, it is crucial to ensure this feedback is accurate and constructive. Misleading feedback could hamper a student's learning process.

7. Intellectual Property:

- As this project is an extension of a previous one, ensure that there are clear understandings and agreements about the ownership and rights related to the software and any content produced.

8. Informed Consent:

- Before deploying the tool in a real-world classroom setting, both students and educators should be informed about how the tool works, its intended benefits, and any potential risks. They should provide their consent to use the tool, understanding these aspects fully.

By addressing these ethical considerations, the BioLogic project can uphold the highest standards of integrity and fairness, ensuring that the tool benefits students, educators, and the broader educational community.

Cyber Security

Cybersecurity is often a comprehensive issue, and it is crucial to incorporate cybersecurity considerations into projects that span multiple layers throughout the application (both front-end and back-end). This application would likely contain sensitive information from students and faculty for this project and would likely be deployed within the university's Canvas system. The network security issues we may need to consider mainly cover the following aspects to ensure the confidentiality, integrity, and availability of data:

Authentication and access control:

Ensure that only authorized users can access and use the application. Implement a firm password policy to prevent unauthorized access. Session storage is currently used to store the user's authorization status and keys. This keeps the user logged in during the browser session. Use conditional rendering only to display the login button if the user is not authorized to log in. A possible future direction is to consider using multi-factor authentication (MFA) to enhance security.

Data encryption:

For sensitive data stored in the database, such as passwords or tokens. If you must store some data on the front end, be careful when using Web Storage (localStorage or sessionStorage) and make sure the data is encrypted. Standard encryption algorithms, including symmetric encryption algorithms (such as AES) and asymmetric encryption algorithms (such as RSA), can be used to ensure that data is protected when stored.

Data Privacy and Protection:

Students' personal information and academic data need to be properly protected. Ensure that data is transmitted using an encrypted protocol, such as HTTPS, to prevent data from being stolen during transmission.

Possible cyber security issues and what should be done about them.

Input validation and defensive programming:

Protect against potential SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF) attacks. Validate and filter user-entered data to ensure it does not contain malicious code.

Vulnerability Management:

Regularly update the project's dependencies and components to patch known vulnerabilities. Conduct regular vulnerability scans and security assessments to promptly discover and repair potential vulnerabilities.

Monitor and respond:

To ensure network security, projects should establish a security monitoring system to detect abnormal behaviours and potential attacks promptly and develop emergency response plans to respond and recover when security incidents occur quickly. This ensures the stability of the system and the security of user data. These two measures will help detect and respond to potential threats early and reduce security risks.

These cyber security measures will help protect the program from potential cyber threats and vulnerabilities, ensuring that student data and privacy are appropriately protected.

The BioLogic tool utilises student answer data and questions data from academics, however the content is not highly sensitive as it just contains course material and de-identified student answers. However as this project progresses and later on when our team may work together with Team RedBack who works on the backend systems, we may need to be more careful in considering possibilities of data protection and access control.

Meeting notes

[Create meeting note](#)

Incomplete tasks from meetings

Task report

Looking good, no incomplete tasks.

All meeting notes

Title	Creator	Modified
2023-09-21 Sprint 2 Review meeting - Meeting notes	Steven Zhang	about an hour ago
2023-08-25 Sprint 2 Planning Team meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-09-08 Weekly supervisor meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-09-01 Weekly supervisor meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-08-28 Team meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-08-25 Weekly supervisor meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-08-23 Team meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-08-18 Weekly supervisor meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-09-15 Weekly supervisor meeting - Meeting notes	Steven Zhang	about 14 hours ago
2023-08-11 Weekly supervisor meeting - Meeting notes	Steven Zhang	18 Aug, 2023
2023-08-04 Weekly supervisor meeting - Meeting notes	Steven Zhang	18 Aug, 2023
2023-08-10 First client meeting with combined teams - Meeting notes	Steven Zhang	18 Aug, 2023
2023-08-13 Team meeting - Meeting notes	Steven Zhang	18 Aug, 2023
2023-08-17 Team meeting - Meeting notes	Steven Zhang	18 Aug, 2023

2023-08-04 Weekly supervisor meeting - Meeting notes

Date and Time

5:15pm Friday 04 Aug 2023 Week 2 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Goals

- First meeting with project supervisor Paul Calverley
- For the team members and supervisor to meet each other for the first time over Zoom.
- To understand the basics of the project and next steps required for the project.

Discussion items

Notes
Not much documentation available at the moment
Need to plan first meeting with him, continue on slack for now, end of week now, probably no response from him until monday
Client to send us a recording of the software and how it works
Previous semester group worked on this project, 2nd topic is more developing, 1st is more polishing and debugging,
<ul style="list-style-type: none">• Confluence workspace - no one has used before https://confluence.cis.unimelb.edu.au:8443/display/COMP900822023SM2BIBBlueRing/Home
Checklist provided by Lucy: need to get requirements from client to build up documentation for first sprint

Action items

- ☒ Paul will let the team know once the client responds on his availability.
- ☒ Meet with client next week, think about availability for next week
- ☒ Michael will be invited to the Slack workspace by Paul

2023-08-10 First client meeting with combined teams - Meeting notes

Date and Time

1pm Thursday 10 Aug 2023 Week 3 of Semester

Attendees

- Paul Calverley (Supervisor)
- Mike Murray (Client)
- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang
- Team RedBack

Goals

- Introductions of the team members and confirmation that team BlueRing will work on Project 1 and team RedBack on Project 2
- Clarify the project scope and objectives, intended outcomes, and expectations: Which aspects of the Editor.vue and Builder.vueflow require polishing? What features need to be added to Editor.vuer? Are we required to integrate all three tools as part of this project?
- How do we get access to the code repositories and instructions for how to set up our development environment?
- Our team members have been invited to join the GitLab project but we're unable to accept the invitation as the student email in GitLab is different from the invitation email. Can invitations be resent to our other student email addresses?
- When will the next meeting be, and what are the expectations for it? What are our main action points before the next meeting?

Discussion items

Meeting with Client

Talk about the roadmap of the project

We need to achieve a reasonable output and run

Builder is fairly finished, should focus on the editor features,

Bugs when you're dragging, better collapsing of the overall statement

Students are running out of space,

There is an undo/redo function, not a huge deal,

Need to be able to talk to the server, construct an answer/question from the server,

Make the editor user friendly

Incorporate feedback from the grader side of things

Two ways to use the editor, exam and tutorial, feedback in tutorial is very helpful,

Does python give audible sounds? Does web version have sounds? Students like the clicky feeling. Gives a bit of reinforcement, not a big deal. Open to what's a good UX/UI or not

accessibility : color blindness or limited mobility, change from light mode to dark mode,

The functionality is more important than aesthetics, it would take Michael too long to fix all the bugs,

Grab the Vuecode and put it in the grader shouldn't be too hard

Both teams will need to work together to make sure the grader communicates to the editor and provides changes of the rubric to the builder.

Michael just wants to run this in a web browser

2023-08-11 Weekly supervisor meeting - Meeting notes

Date

5:15pm Friday 11 Aug 2023 Week 3 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Steven Zhang

Discussion items

Designing user stories, write down the requirements,
Making prototype,
UI/UX
Deliverables
Inception stage:
Personas, user stories, requirements, UI design,
First run the program to identify the bugs,

"As a user of this app"

Zoom Chat

17:19:41 From Paul Calverley To Everyone:

Tasks

1. Define requirements and write user stories
2. UI design
3. Document the roles (SM and PO)
4. Learning frameworks
5. Personas
6. Dev environment setup
7. Plan for sprint 2
8. Design Confluence home page
9. Document the project background, goal and objectives, scope

Effort

8. 2 effort
9. 4 effort
3. 1 effort
10. Run the app to find bugs
6. 2 effort
10. 5 effort

Assigning responsibility

2023-08-13 Team meeting - Meeting notes

Date and Time

9pm Sunday 13 Aug 2023 Week 3 of Semester

Attendees

- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

Design Confluence home page 2hrs - Steven

1. Document the project background, goal and objectives, scope - 4hrs Steven

Document the roles (SM and PO) 1hr Steven

1. Dev environment setup - 2hrs Carol - Everyone
2. Run the app to find bugs Sihan - Everyone

Define requirements and write user stories - Jodie + Carol

UI design - Jodie + Carol

1. Personas - Stark
2. Plan for sprint 2 - Stark

Meeting minutes + notes - Steven

Learning frameworks - Everyone

Another team meeting on Thursday 17th Aug

2023-08-17 Team meeting - Meeting notes

Date and Time

5pm Thursday 17 Aug 2023 Week 4 of Semester

Attendees

- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

Carol to reach out to Ping to confirm login details for the program

Sihan to make page on confluence for development environment

Setting deadline for 12pm tmr to complete release tag

Clarify steps required for sprint 1 submission

2023-08-18 Weekly supervisor meeting - Meeting notes

Date

5:15pm Friday 18 Aug 2023 Week 4 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Sihan Zhang
- Steven Zhang

Discussion items

- Stand up meeting, what have we done? What do we need to do?
- Next step is sprint 2, start the development
- Yiyun reached out to Mike & Ping on how to login into the App
- Downloaded the code, set up the repo
- What are Ping's responsibilities? Where does her role start and end? Update client table, add role responsibility, advisory role,
- Add key to the goal model diagram so that it's clear what the symbols mean
- Ask the client to review and validate those personas? They should represent reality as much as possible.
- Can we please get Mike to review and accept the user stories?
- Confluence and Trello are project management tools, not needed to be included in the development environment, enough to include it on the homepage
- Try to structure confluence so it's easier for people to find
- Vue - how to learn or get started?
- <https://www.youtube.com/@WebDevSimplified/videos>
- Get Mike to review documentation: send github release zip file or just pdf, just want to get some feedback on the user stories particularly, note on confluence if client has reviewed or agreed on our documentation for quality assurance purposes

2023-08-23 Team meeting - Meeting notes

Date

9:30pm Wednesday 23 Aug 2023 Week 5 of Semester

Attendees

- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

- Send through the entire confluence PDF to Mike on Slack for feedback
- Update confluence page
- Clarify Ping's responsibility
- Carol asked Ping a lot of questions on how to open the WebApp
- Running the App and testing for bugs - Everyone to do
- ReadME page for background page not complete
- For sprint 2 plan, we need a design documentation

2023-08-25 Weekly supervisor meeting - Meeting notes

Date

5:15pm Friday 25 Aug 2023 Week 5 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

- What have we done this week?
- Pretty slow week for me, just been getting to know the languages, raised the user stories with Mike for validation
- Do we have documentation for how to set up the App on our own computers?
- Why are we installing python and vue versions?
- We still need the python version/backend version so we can confirm both the python and vue versions.
- Can we change the README file?
- Apart from these steps, need to do these steps instead,
- Document our learnings and frustrations,
- Are we supposed to modify the Python version? How do we open the Python version?
- We need to clarify the user stories we're looking to complete for Sprint 2
- Backlog items don't need to be there, don't need sprint review, we need user stories on the backlog, technical tasks that need to be done, we only track for development effort on the Trello board predominantly only user stories, client cares about the user stories and features which have been completed
- We should break up the user stories into smaller user stories and technical tasks
- Need to lock in a meeting with client, sprint review meeting with the client in 3 weeks time
- Need feedback for the next sprint and how to plan
- Most of the user stories are independent
- Should focus on must haves first
- Everyone needs to have development environment set up

2023-08-25 Sprint 2 Planning Team meeting - Meeting notes

Date

5:45pm Friday 25 Aug 2023 Week 5 of Semester

Attendees

- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

- Sprint planning
- User stories breakdown

Epic	User Story ID	User Stories	Breakdown of User Stories with more details	Mos Cow Priority
Improve the Web Editor's usability	1.1	As a student, I want to have precise drag and drop of objects on Editor so that I can drag and drop elements to different areas.	Sprint 2 (Steven - Drag, Carol - Drop) The black box when hovering over the statement still shows when dragging the actual statement Unexpected behaviour of elements when dropping onto different areas Imprecise drag and drop. In the web version, you can only put the statement into the connector box, but not the other way around.	Must Have
	1.2	As a student, I want to categorize different types of statements while suffering from color blindness so that I can build the answer correctly.	Leave this user story to the end as it's not a must-have	Should Have
	1.3	As a student, I want to switch between light mode and dark mode automatically and manually so that it is more comfortable and easier on the eyes.	Leave this user story to the end as it's not a must-have	Should Have
Align functionality of the Python version	2.1	As a student, I want to be able to view the selected statement in a radio-button format so that I could have a clear view of my answer.	Sprint 2 Converting the statements and connectors into a single box which displays the statement for easier readability. There are three different formats for the radio button. (Stark, Jodie)	Must Have
Display the Student Feedback	3.1	As a teacher, I want to display text-feedback on Editor so that the student can know what is right and wrong in their current answer.	The answer would be derived from the Grader so this user story will be focused on in the 3rd sprint. Editor will just display what the Grader has, including a tick/mark for the statement and feedback text for the statement. Can look into testing with test data initially. We can build the UI first (Sprint 2), then display the actual data. (Sihan)	Must Have
	3.2	As a student, I want to get feedback on answers while Tutorial setting so that I can know what's right and what's wrong.	The answer would be derived from the Grader so this user story will be focused on in the 3rd sprint.	Must Have
Integrate the editor into the backend server	4.1	As a teacher, I want to deploy the editor in a big class of students so that I can collect the answers within the class.	Will need to ask the client to clarify this aspect. Looks like this user story isn't included in the client's requirements so don't need to focus on this one at this stage.	Should Have
	4.2	As a student, I want to get the same question from the Canvas system so that I can complete the tutorial/exam successfully.	To align the frontend and backend and database. This is not a must-have.	Should Have

Product deployment	5.1	As a student/teacher, I want to receive comprehensive guidelines covering installation, configuration, and best practices.	<p>Sprint 2 (Everyone does a bit)</p> <p>Documentation for the users. To help students/teachers launch the webapp so they can use it.</p>	M ust Ha ve
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2023-08-28 Team meeting - Meeting notes

Date

11am Monday 28 Aug 2023 Week 6 of Semester

Attendees

- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

- Assigning tasks
- Reviewing Mike's
- Confirm when to have the sprint review meeting with client
- Sprint 2 due 22nd Sep

2023-09-01 Weekly supervisor meeting - Meeting notes

Date

5:15pm Friday 01 Sep 2023 Week 6 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

- Discuss feedback from Sprint 1 and what needs to be worked on and improved from Sprint 1
- Put user stories into the Trello Board, consider using checklist, include member names on the Trello tasks
- The task size estimation should be relative to other tasks, the simplest task should be 1 unit
- For sprint planning, a big task should be broken down into smaller individual user stories
- Risk discussion: Product risk, process risk(technology skills), project risk(requirements)
- Difference between risk and an issue: Issue is something we need to fix, risk is something we have to consider as it might occur, security risk, operation risk, these risks should be documented and tabulated on Confluence, how to assess project risks (impact).
- Cybersecurity review to come later in the project
- Deliverable Sprint 2 is due week 9, sprint review can be before the end of sprint 2. Could ask this question on EdDiscussion. Reach out to the client to confirm the date for sprint review.
- Think of the project like a game - Can we sprint to the end and achieve the desired product with the lowest number of bugs and defects?
- Blockers column to be included in the Kanban Board

2023-09-08 Weekly supervisor meeting - Meeting notes

Date

5:15pm Friday 08 Sep 2023 Week 7 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Sihan Zhang
- Steven Zhang

Discussion items

- More details for each Trello card
- Create folder for team management - Trello workflow: Once we have finished developing the task, please move it to Code Review then testing, then move it to Done.
- What process did you follow to produce those estimates? Did you estimate, get a majority vote? Document the process for producing those estimates.
- How do we document testing? Extra section for testing.
- ChatGPT prompt: "I'm a software developer, what should we include in our test plan?"
- Please document the design architecture - create a separate document for architecture, which is a blueprint for the whole project, system block diagram. What are the software components which make the application? Backend? APIs? How do the modules fit together? Ask client for architecture diagrams. Ask the other team as we're both responsible for different types of architecture.
- Create separate Slack channel for our team and supervisor - don't include the client
- There should be a testing framework for Vue.Js library, similar to React
- <https://testing-library.com/docs/vue-testing-library/intro/>

2023-09-15 Weekly supervisor meeting - Meeting notes

Date

5:15pm Friday 15 Sep 2023 Week 8 of Semester

Attendees

- Paul Calverley (Supervisor)
- Xingchen Han
- Yiyun Yang
- Sihan Zhang
- Steven Zhang

Discussion items

- Breakdown down the user story into subtasks
- Create checklists for each user story
- What is the actual behaviour of the bugs? Detail this into the Trello card.
- Talking through each Trello card and providing updates on progress.
- Send meeting invite to Mike Murray via Gmail & include the Zoom link
- Consider back to back meeting with the other RedBack team for Sprint Review
- Reach out to the other team members to arrange meeting time for Thurs 21st Sep 1pm

2023-09-21 Sprint 2 Review meeting - Meeting notes

Date

1pm Thursday 21 Sep 2023 Week 9 of Semester

Attendees

- Mike Murray (Client)
- Xingchen Han
- Yiyun Yang
- Jiuneng Zhang
- Sihan Zhang
- Steven Zhang

Discussion items

Sprint Review Meeting 21st Sep 2023

- Talk about what we've achieved
 - We've finished working on the student feedback UI, and radio button
 - Still working on fixing bugs with dragging and dropping, and the statement convertor button (collapse statement)
- Demonstrate student feedback on UI
- Ask client for feedback on UI
 - Feedback should be more fine grained
 - Client's original idea was to have an instant feedback response which presents a tick or cross and a brief feedback message
- Demonstrate the radio button
- Ask client for feedback for radio button
 - Any feedback on if the radio button is vertical or horizontal, is horizontal too long?
 - Academic can choose the options for the dropdown
- Demonstrate the collapse
 - Pop up menu and radio buttons all collapse
 - Not a single line, have line wrap with multiple lines
- Wants undo button first
- Clarify plan for sprint 3
 - Do we want a button for the statement convertor or is double clicking to convert fine?
 - Best to be consistent when it comes to UI interactivity
 - What other features from the Python version do you want us to implement? Or is what we have enough for Sprint 3?
 - The current plan is sufficient