

Assignment 1: Innovation & Project Management

Changemakers: Creativity and Value Creation (ACCA5033)

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1. Task 1: Ideation and innovation

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1.1. Q.1: Innovation

The author was tasked to summarize some of the areas from Unit 1 Topic 1. The second sub section, The Onward March of Technology mentions the Kondratieff Waves. Kondratieff thinks that innovation drives growth in the society before the spike of the innovation cause goes back to normal. Five of the Kondratieff waves have happened, it says the sixth wave has started. The some of the innovation of the sixth wave are AI, Cloud Computing, Quantum Technology and Biotechnology.

In the third sub section called Creativity and You, one of the topics it talks about is that the term creativity is not just about being artistic it could also mean anything that needs innovation for developing new products. Creativity is also mentioned as a muscle which should be strengthened and not something your born with. Also in this sub section it talks about why creativity is important. Ken Robinson says in a Ted Talk that we are born with creativity, but schools do not prioritize creative courses, so our creativity weakens instead. Creativity is about doing thing that might not work or feels wrong, but if you keep going it might come to a better solution than what worked first time and you will learn a lot from doing things that do not work. [1]

1.2. Q.2: Ideation

1.2.1. Project Title

A Game to Help Cub Scouts Earn Their Digital Citizen Badge

1.2.2. Aim

To research and develop a game that will help Cub Scouts to earn their Digital Citizen badge in a more engaging way.

1.2.3. Objectives

- Research what the Cubs need to do to earn their Digital Citizen badge and research how to validate a password.
- Design what is the game going to cover, how it's going to cover it.
- Develop the game and the password validation in unity and c#.
- User-test the game with the Cub Scouts when they are doing the Digital Citizen badge and get their feedback.
- Evaluate the Cub Scouts feedback with the aim of the project to check if the project was successful.

1.2.4. Description

Cub Scouts (ages of 8 to 10) can earn a badge about being a Digital Citizen. This project will help the Cubs earn this badge in a more engaging way during one of the Cub meetings. This game should allow the Cubs to create a password that is secure, the game should check the password to make sure it is up to standard.

1.3. Q.3: Research

The author has researched and found some useful courses to help them complete their project.

- The lesson Code Solution: Password validator in the course Java Essential Training: Syntax and Structure [2] will be helpful for the author because it will give the author ideas on how to validate a password using code.
- The chapter C# Strings in the course Learning C# [3] will be useful for the author because it will show how to validate strings using the syntax of C# as the author is going to be using C# to create this project.
- The YouTube video How to Get User Input and Validate It Using Unity [4] will be useful to the author because it shows the author what type of objects and syntax that Unity has to help solve the problem of a password validator.

2. Task 2: Project Management

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2.1. Q.1: Project Scope

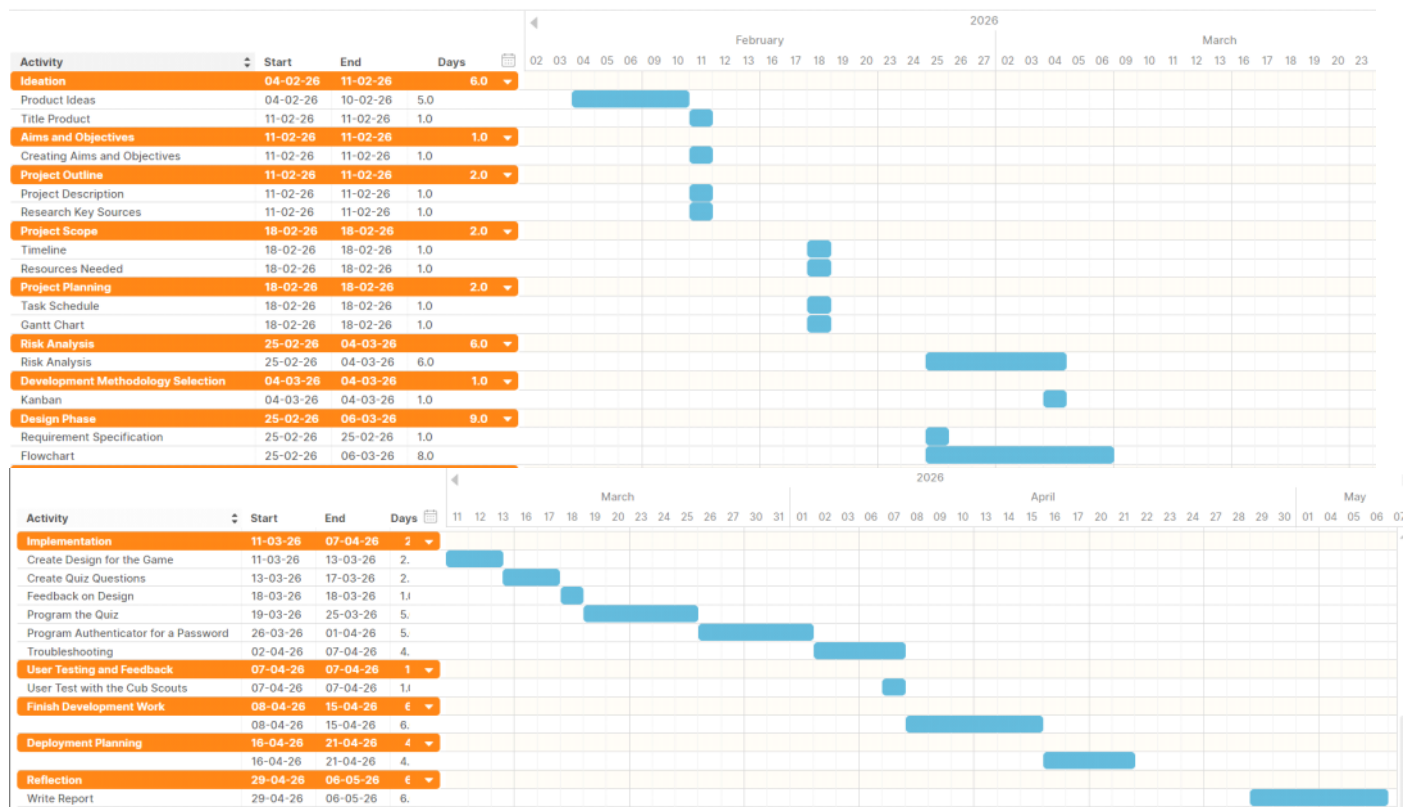
To create a game to help Cub Scouts earn the Digital Citizen badge in a fun and engaging way. This will be done through a quiz and a way for the Cubs to create a secure password for themselves. This project will need a computer or laptop with unity and C# installed on to it.

Timeline : 18/02/2026 – 01/05/2026

2.1.1. Task Schedule

Tasks	Start Date	End date
Ideation	04/02/2026	11/02/2026
Aims and Objectives	11/02/2026	11/02/2026
Project Outline: Description and key sources	11/02/2026	11/02/2026
Project Scope: Timeline and Resources	18/02/2026	18/02/2026
Project Planning: Task Schedule and Gantt Chart	18/02/2026	18/02/2026
Risk Analysis	25/02/2026	04/03/2026
Development Methodology Selection	04/02/2026	04/03/2026
Design Phase	25/02/2026	06/03/2026
Implementation	11/03/2026	07/04/2026
User Testing and Feedback	07/04/2026	07/04/2026
Finish Development Work	08/04/2026	15/04/2026
Deployment Planning	16/04/2026	21/04/2026
Reflection	30/05/2026	06/05/2026

2.2. Q.2: Gantt Chart



2.3. Q.3: Risk Analysis

Risk Index	Risk	Impact	Contingencies
1	Hardware Failure and Loss of Data	High	The project will be backed up onto to the OneDrive and a USB.
2	Running out of Time	Medium	A Gantt chart will be used and updated so to stay on track with the project.
3	Scope Creep	Medium	Requirements Specification list will be created so the author will focus on the higher priority tasks first.
4	Not Being Able to User Test	Low	As Cub Scouts only meet once a week there is change the author would not be able to user test. But Gantt chart and a Requirements Specification list will be used to keep the author on track.
5	Age Appropriate	Medium	The author will check with fellow Cub Scout Leaders to check if the questions will not be too difficult or too easy for 8 to 10 year olds.

3. Task 3: Project Development Method and Design Work

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3.1. Q.1: Development Method

The development method that the author is going to use is Kanban. This method is a visual and easy way to track what stages the tasks of a bigger project are at. This can be done in three tables which tasks can be moved between the tables. First table would be a list of tasks that need to be completed, second would be tasks that are in progress and finally the last table would be completed tasks. Using Kanban will help keep the author on track with what tasks that they are currently working on and what tasks that they have not started. The author is going to use a tool called Trello which will allow the author to create a Kanban board. The reason why the author chose to use Trello is because it is easy to use, it's appropriate for any sized team which is important as the author is working alone and Trello has a free plan which the author can use to create a Kanban board.

3.2. Q.2: Design Work

3.2.1. Requirements Specification List

Functional Requirements (Fr):

Fr-1	Answer Buttons
High	Buttons for multiple answer questions with the answer displayed on them.

Fr-2	Next Question Button
High	The button will allow the user to go to the next question. The button should be displayed with NFr-2.

Fr-3	Entering Password
High	Text box for the user to enter a password.

Fr-4	Submit Password
High	There should be a button for the user to submit their passwords for it to be checked.

Fr-5	Reset Program
High	There should have a button to reset the program to the start.

Fr-6	Clear Password
High	There should have a button to clear the passwords.

NFr-7	Show Hidden Password Button
Medium	If the text box hides the passwords the user should be able to unhide them if they want.

Fr-8	Re-enter Password Text Box
Medium	Text box for the user to re-enter their password.

NFr-9	Show Password Button
Medium	Once the password has been check and accepted there should be a button to show their password so they can write the password down.

Fr-10	Start Button
Low	If there is a start menu there should be a button to start the quiz.

Fr-11	Quit Button
Low	It is not that necessarily to have a quit button should be a button to quit the quiz.

Non-Functional Requirements (NFr):

NFr-1	Questions
High	Text to display the questions.

NFr-2	Answer for Questions
High	It should display if the user got the answer correct or not and display the current answer if the user got the question wrong.

NFr-3	Check Password
High	The program should be able to check the password and make sure it is up to standard. Like, 8 or more characters, at least 1 lower case, 1 upper case and 1 special character. If not clear password and allow user to enter a new password.

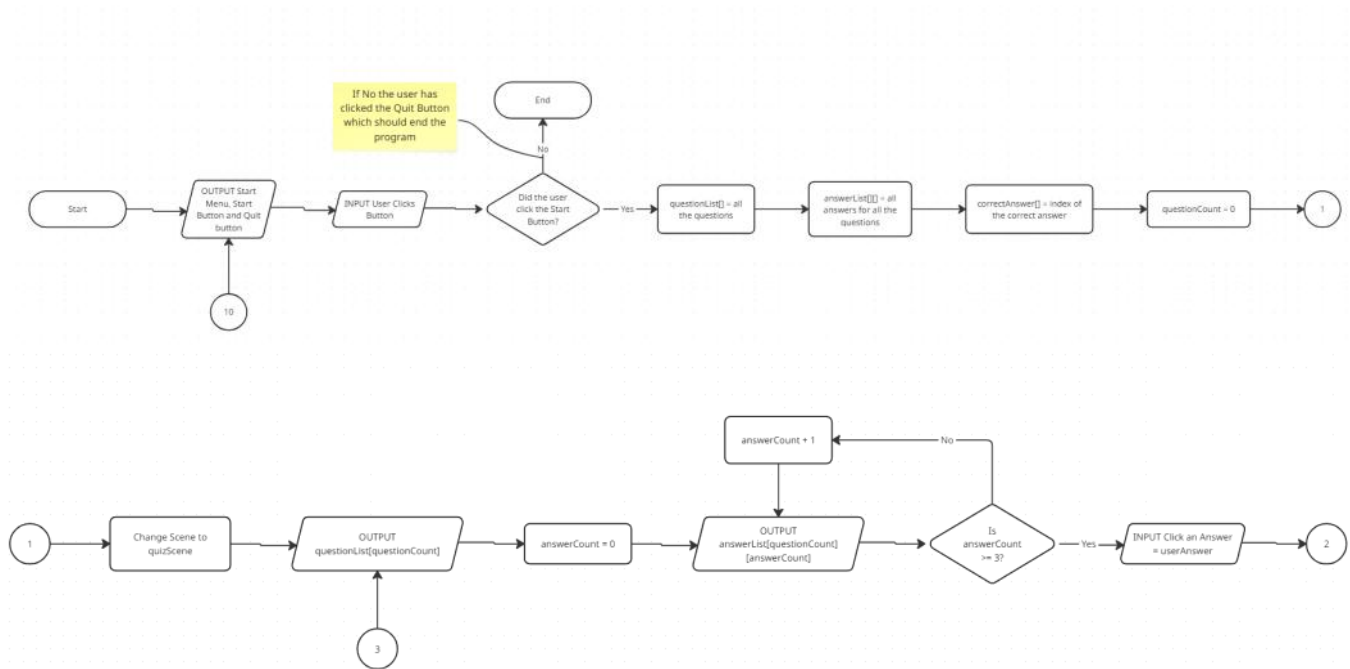
NFr-4	Hide Password
Medium	The text box that the user enters the password in could hide the passwords.

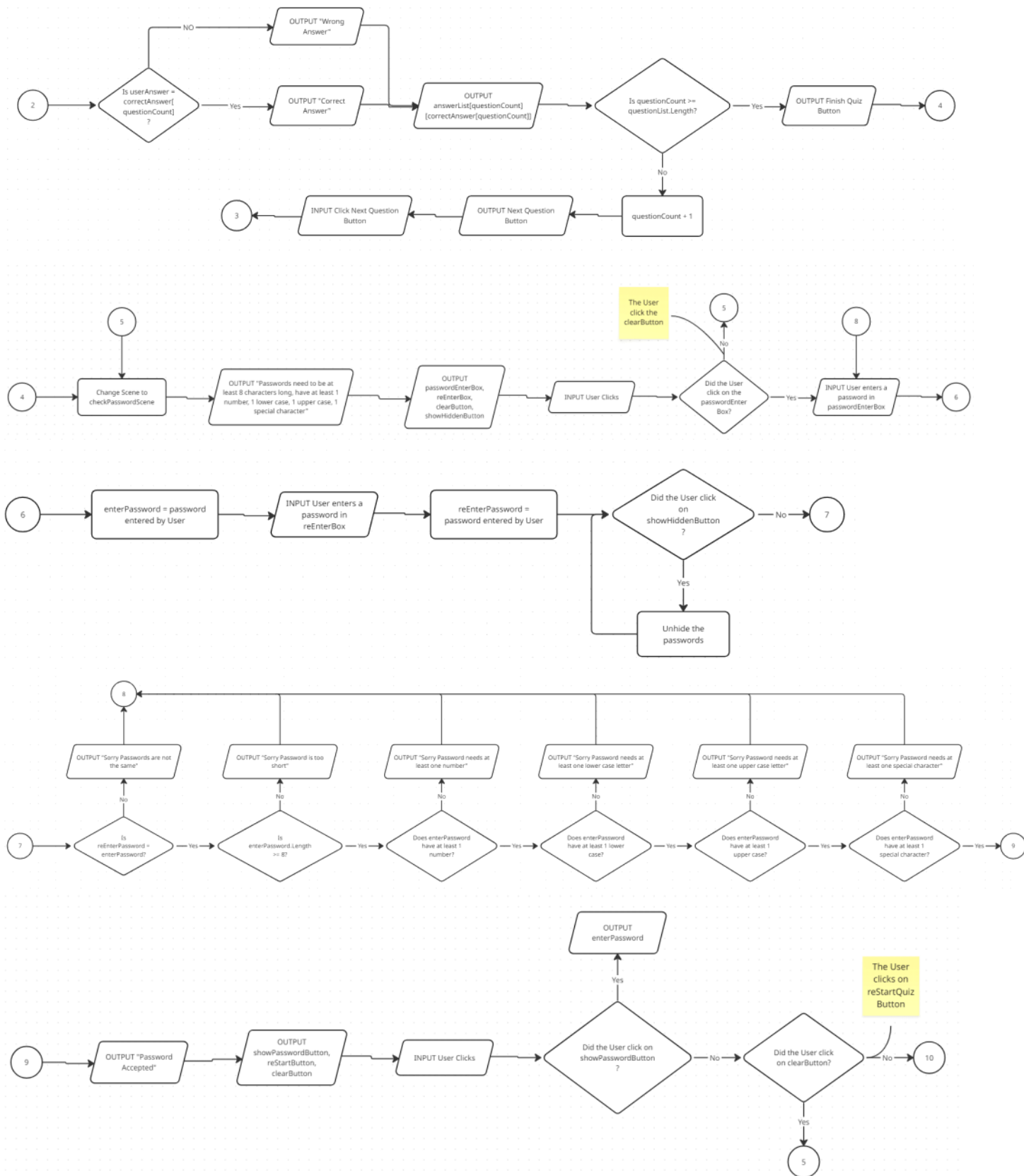
NFr-5	Check Passwords are the Same
Medium	If add a re-enter text box, the program should check if both passwords are the same before NFr-3. If not the same, do not clear the passwords and allow user to make changes to the passwords.

NFr-6	Start Menu
Low	There can be a start menu.

NFr-7	Randomize the Order of Questions
Might Not Do / Not Needed	Randomize the order of the question this is not really needed.

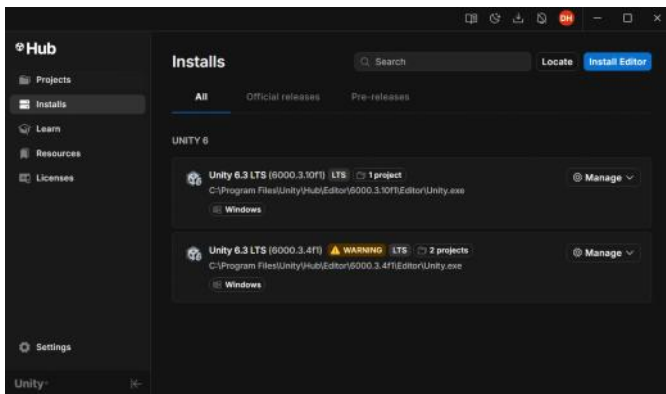
3.2.2. Flowchart



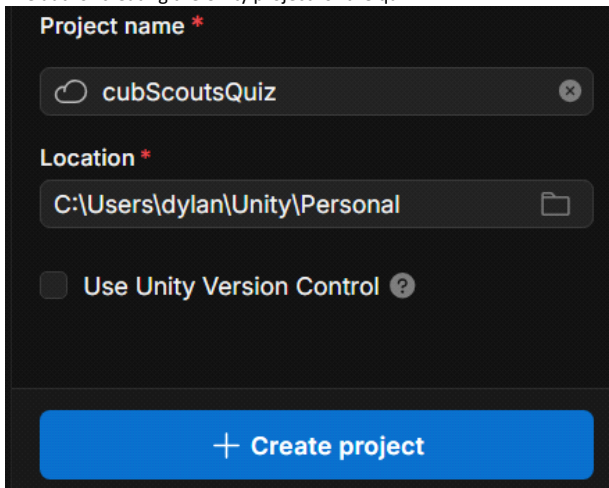


3.3. Q.3: Initial Practical Implementation

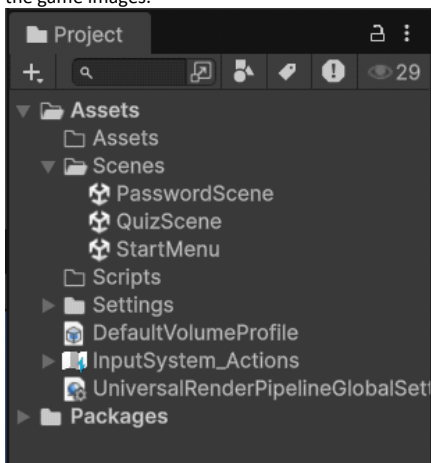
Before starting their project the author had to install a new editor for Unity as the past editors they used have new security issues that have been found. Screenshot below is the finished install of the new Unity editor.



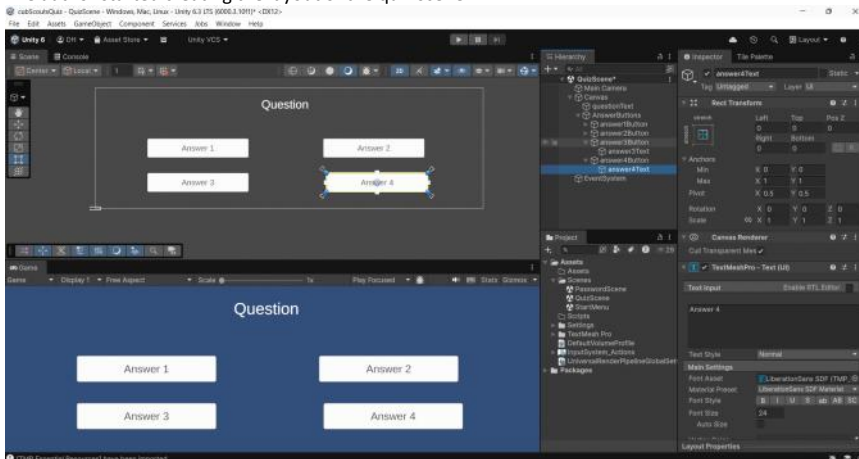
The author creating the Unity project for the quiz.



The author created all the scenes for the game and created the Scripts and the second Assets files. The Scripts file will have all the code scripts stored in it and the Assets file the author created will store all the game images.



The author started creating the layout of the quiz scene.



References

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- [1] UWTSD. "1.1 How Innovation Shapes the World." 2026. Accessed: Feb 6 2026. [Online]. Available: <https://moodle.uwtsd.ac.uk/course/section.php?id=150156>
- [2] A. Jones. "Java Essential Training: Syntax and Structure, Code Solution: Password validator." LinkedIn Learning. Sep 3, 2024. Accessed: Mar 8 2026. [Online]. Available: <https://www.linkedin.com/learning/java-essential-training-syntax-and-structure-16025610/code-solution-password-validator?resume=false&u=77966930>
- [3] J. Marini. "Learning C#, String operations." LinkedIn Learning. Sep 14, 2023. Accessed: Mar 8 2026. [Online]. Available: <https://www.linkedin.com/learning/learning-c-sharp-8581491/string-operations?contextUrn=urn%3Ali%3AlearningCollection%3A7434900154144690176&u=77966930>
- [4] M. O'Didliy. "How to Get User Input and Validate It Using Unity." YouTube. Jun 6, 2023. Accessed: Mar 8 2026. [Online]. Available: [How to Get User Input and Validate It Using Unity](#)
- [5] M. Wong. "What is Kanban Board Software, Its Benefits, & more." Accessed: Mar 9 2026. [Online]. Available: <https://www.planview.com/resources/articles/kanban-board-software-for-development-teams-a-buyers-guide/>

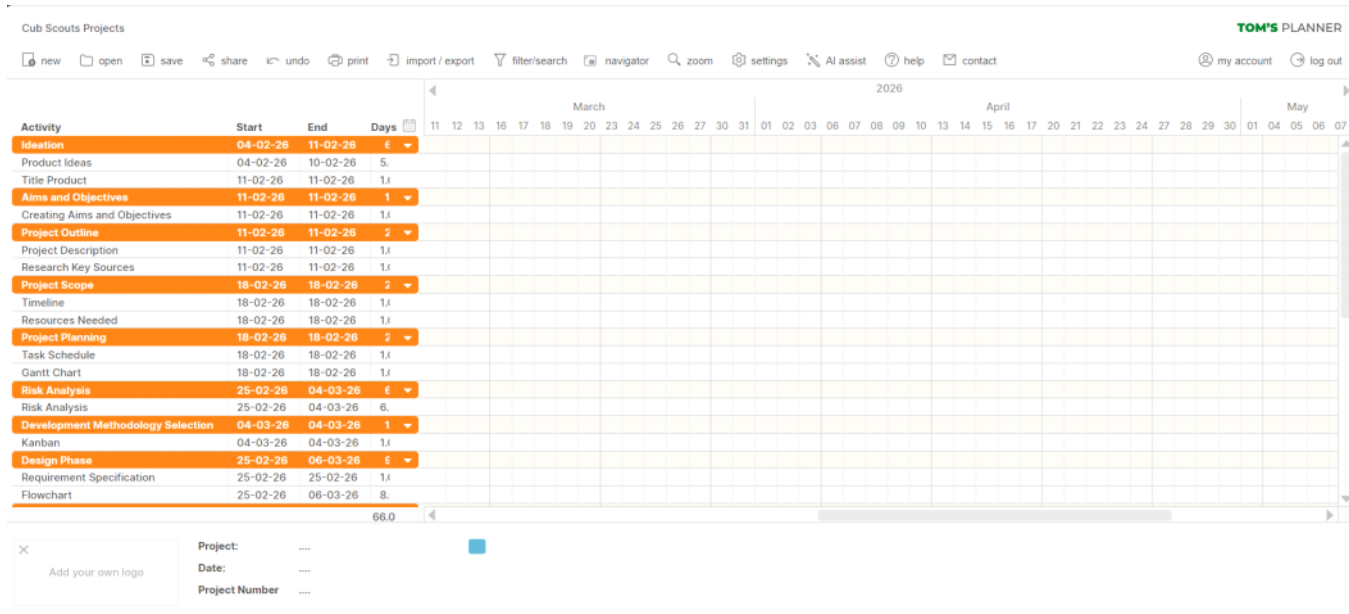
Appendices

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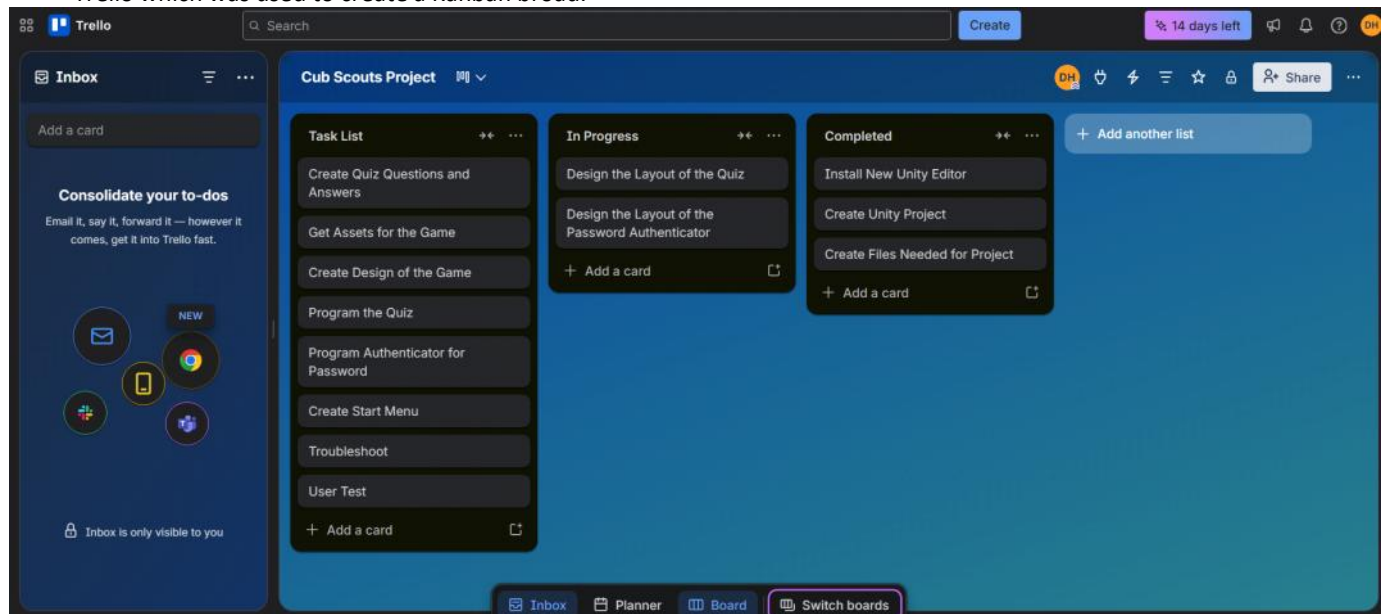
Project Management Tools

The project management tools the author used for this project are:

- Tom's Planner which was used to create a Gantt chart.



- Trello which was used to create a Kanban board.



Engagement with Courses

The author has started looking at the courses or videos that they found in Task 1 Q.3: Research. Below are screenshot of the lessons that the author has start watching. The first screen shot is from [2], the second is from [4].

