

Cybersecurity Exploration Game

CyberExplorers

<https://github.com/thejduman/UrbanHitchcock-CapstoneDungeon>

Julian Urban (jdu1@hood.edu), Brian Hitchcock (bkh3@hood.edu)

WEEK 9 (APR 24-APR 30)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1) Julian and Brian worked together on the inventory system. Julian was following a tutorial but ran into a bug. Because the tutorial was a lot more complicated than we needed, we thought it would be better to refactor the inventory system by following a simpler tutorial. Brian worked on this but then ran into a bug. Julian then decided to follow the tutorial himself to see if the bug would replicate and it did not. Right now, the inventory system works using a dialogue prompt that gives user feedback on item collection. It then will add the item to the player's inventory. (Julian: 5 hr 50 min, Brian: 6 hr 38 min)
- 2) Brian refactored the dialogue system to allow scripts to be attached to dialogue responses. This is useful because it can provide user feedback when the user interacts with objects rather than having no feedback at all. (2 hr 24 min)
- 3) Julian started formulating questions for the quiz game. He first started brainstorming the topics that would be covered in the game. He then found some Quizlet sets that contain questions that would work for the quiz game. The next step is to put these questions into .csv files, which should take very little time. (3 hr 7 min)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

No problems to report

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1) Brian will improve the UI of the inventory. He will attach it to the pause menu and create a description field where the journal message will be displayed. He will also make the UI look nicer in general.
- 2) Julian will put the questions he found into CSV files. This will not take very long.
- 3) Julian will use sketches created by Brian to design the game world. Assets have already been picked out and will be implemented in this process.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (9 hr 13 min), **Hitchcock:** (9 hr 2 min) ...

Total Weekly Team effort: 18 hr 15 min

WEEK 8 (APR 17-APR 23)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1)** Brian fixed the issue with the UI not displaying the answers properly for the questions in the quiz game. He also made it so that the database clears after each time the quiz game is run so that it can load the csv file again. The database is working as intended in the quiz game. (50 min)
- 2)** Julian finished implementing the UI for the journal inventory. The UI can be accessed through the pause menu. Items are displayed in a grid format and their positions can be changed. Scripts were created to control the behavior of the UI. (4 hr)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

No problems to report

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1)** Julian will implement the backend of the journal inventory system. This will include the logic for managing the items in the inventory on the backend.
- 2)** Brian will find assets for the game's art and design environments for the player to explore

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (4 hrs), **Hitchcock:** (50 min) ...

Total Weekly Team effort: 4 hours 50 minutes

WEEK 7 (APR 10-APR 16)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1) Julian and Brian worked together on the integration of the database with the quiz game. Brian proceeded to work on this individually and was able to make Unity pull questions from the database and display them within the game UI. (Together: 2hr, Brian individually: 3hr 24 min, total 5 hr 24 min)
- 2) Julian has started working on the UI for the journal inventory system. He has created a panel that contains images of items and a scrollbar the user can use to scroll through their items. (1 hr 43 min)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

- 1) In the quiz game, the button UI for the answers are not changing with the questions. Instead, only one question's answers are shown when questions are switched. However, the correct answer is set to the button it is intended to be on. Brian has used print statements to make sure all the answers are being read into the array correctly and has determined that they are. Brian is planning on modifying the SetAnswers method as he believes this is the source of the error. Brian believes this issue will have no impact on the project schedule.
- 2) The scrollbar is currently not working in the inventory UI. The scrollbar snaps to the top of the page when the user attempts to scroll. Julian has tried verifying that all the settings on the related game objects have been set correctly and believes that they are. Julian believes the root cause of the issue is the horizontal layout group component since the issue started after this was added to the game. Julian believes this issue will have little to no impact on the project schedule.

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1) Brian will continue working on the integration of the database with the quiz game.
- 2) Once Brian fixes all issues with the quiz game, he will work on finding assets for the game's art and design environments for the player to explore.
- 3) Julian will continue working on the journal inventory system.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (3 hr 26 min), **Hitchcock:** (5 hr 32 min) ...

Total Weekly Team effort: 8 hr 58 min

WEEK 6 (APR 3-APR 9)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1)** Brian fixed the collision issue. The issue was caused by the radius on the circle colliders not being set properly. (10 min)
- 2)** Julian and Brian worked together to attempt to integrate the database with the quiz game. This task was not fully completed because we had issues figuring out how the implementation would work. We decided to load the data from the database into an array so it is easier to work with in Unity while also saving memory. (1 hr 20 min)
- 3)** Brian started working on the journal feature. He created an object with dialogue that will disappear from the game world and be added to the player's inventory after the dialogue is read. (3 hr 15 min)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

- 1)** Brian is having an issue where the journal page item disappears from the game world but does not appear in the player's inventory. So far, he has looked at some tutorials to see if he has the inventory implemented correctly. Brian anticipates that this issue will be fixed by next week and will have little to no impact on the project schedule.

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1)** Brian and Julian will continue to work together on integrating the SQLite database with the quiz game.
- 2)** Brian will continue working on the journal feature and fixing the inventory bug. If he has time, he will also try to implement a database to store the journal entries.
- 3)** Julian will work on beginning to formulate actual cybersecurity questions for the quiz game.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (2 hr 10 min), **Hitchcock:** (4 hr 35 min) ...

Total Weekly Team effort: 6 hr 25 min

WEEK 5 (MAR 27-APR 2)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

1) Julian implemented a basic driver program for the SQLite database that will hold the questions for the quiz game. The driver program can create the table, add new items to the table, and print the table to the console.

(1 hr 31 min)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

No problems to report at this time.

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

1) Julian will work on reading data into the database from a .csv file.

2) Brian will start working on the journal entry feature.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (2 hr 7 min), **Hitchcock:** (0 hrs) ...

Total Weekly Team effort: 2 hr 7 min

WEEK 4 (MAR 20-MAR 26)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1) Julian created a confirmation dialog that will appear whenever a question in the quiz game is answered. This dialog box will tell the user if they answered the question correctly or incorrectly and has a button the user can click to go to the next question. (1 hr 12 min)
- 2) Julian implemented object interactions. When the player gets near an object that is interactable, the user can press the E key to trigger a text box. (1 hr 2 min)
- 3) Julian merged Brian's code with Julian's code. This process ended up taking longer than expected due to difficulties with Git. A lot of files, such as temporary files and cached assets, were being tracked with Git and should not have been. This was causing a lot of merge conflicts when attempting to merge Brian's code with Julian's code. Julian resolved the issue by creating a .gitignore file in all branches and resetting the git indexes to only have the necessary files. (3 hr 36 min)
- 4) Brian connected pathways to allow scene transitions between the main menu and the game. He also created a pathway to the main menu inside of the pause menu. He also enabled the functionality to quit the game. (30 min)
- 5) Julian created an object that when interacted with by pressing the E key launches the quiz game. (1 hr)
- 6) Julian created a working Windows build of the game for use in the midterm project presentation (15 min)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

- 1) Collision checking on the player object is no longer working. The player object can pass through the interactable bird object. This started to happen after the interaction feature was implemented. Julian verified this by rolling back to a version of the project before the interaction feature was implemented. Nothing has been attempted to fix this issue because there are other steps that need to be taken to prepare for the midterm presentation. Brian will attempt to fix this issue. This issue should not have a major impact on the project schedule.

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1) Brian will start working on the journal entry feature.
- 2) Julian will work on figuring out how to store the questions for the quiz game in an SQLite database.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (8 hr 35 min), **Hitchcock:** (30 min) ...

Total Weekly Team effort: 9 hr 5 min

WEEK 3 (FEB 27-MAR 5)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1) Julian fixed the bug in the quiz game where the correct answer was not being recognized correctly. The issue was that the index of the correct answer was not being assigned correctly.
- 2) Julian implemented score tracking in the quiz game. A count of the number of questions answered correct and incorrect is visible to the user.
- 3) Julian started to research how to use a database with Unity. He thinks that SQLite might be the most practical database to use for storing the questions for the quiz game. He found some resources on how to integrate SQLite with Unity.
- 4) Brian began to make a flexible template in order to insert text prompts and dialogue into the game. It is currently unfinished at the time of creating this document but so far, there is a way to store the text data, proceed along the text prompts with a click of the space bar, and the ability to select options on the text prompt with a click.
- 5) Brian has also begun research into pulling data from a database for the text prompts, specifically dialogue as currently they're using inserted strings within the Unity Engine.

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

- 1) As it stands, an issue arose when Brian made the error of creating a new Canvas for the text prompt feature, which in turn made button clicks unable to work since it wasn't tied to the Event System. Brian is working on said issue, and understands how to fix it, however, he also stated that given the amount of time it took to find the issue, it will take some time to properly move everything. It shouldn't severely affect the time schedule, but it would cause a delay.

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1) Brian Plans to finish the text prompt and dialogue templates as when the structure is completed, the insertion and attachment of text and prompts to objects will be simplified. Similarly they intend to create more objects within the program to house these things.
- 2) Brian also intends to start working on the Journal Entry feature previously mentioned to where the player will be able to store and access information after finding and interacting with such within the program.
- 3) Julian will begin working on the data management for the game by creating a functional build and testing if it's possible to save and load data regarding currently progressed actions.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (1 hr 45 min), **Hitchcock:** (3 hrs 18 mins) ...

Total Weekly Team effort: 5 hours and 3 minutes

WEEK 1 (FEB 13-FEB 20)

A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

- 1) Julian worked on researching how to implement the quiz game. He found a tutorial on how to create a multiple-choice quiz game. We decided to not use a database to store the questions; instead, we will store them in an array. (1 hr 42 min)
- 2) Brian started to create objects within Unity that the player can interact with. Once completed, these objects will open a text prompt on the screen when the player stands next to it and presses a button on the keyboard. (1 hr)

B. Problems/Issues

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

- 1) The implementation of the objects in the game currently does not have collision checking and does not cause a text prompt to appear. Brian is working on this problem. Brian has been looking at tutorials online to figure out how to solve these issues. This issue should not cause any deviation from the project schedule.

C. Next week's planned work

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

- 1) Brian plans to solve the object implementation issue mentioned in part B. He plans to implement the text box that will appear when the user presses a certain key on their keyboard when standing near the object.
- 2) Brian will work on implementing the menu UI. A menu will be created that will have buttons for the major features of the game. This menu will appear when a certain key is pressed. The buttons in the menu will not be operational at this point as the features they link to have not been implemented yet.
- 3) Julian will work on implementing the multiple-choice quiz game. A question will appear and there will be 4 options a user can click on. The game will check if the answer is correct or incorrect and print this to the console.

D. Time log

Total Number of Hours worked on the project this week per team member.

Urban: (1 hr 42 min), **Hitchcock:** (1 hr) ...

Total Weekly Team effort: 2 hr 42 min