

Interactive Web Application for Cybersecurity Learning

Milestone 2 Overview



Milestone 2 Matrix



Milestone 2 Tasks Discussion



Milestone 3 Matrix



Milestone 3 Task Discussion

Milestone 2

Completed Tasks

Task	Completion %	Anthony	Matthew	Brice	Ben	To Do:
Research, plan, and begin implementing more game development ideas	85%	25%	25%	25%	10%	Finish game planning details and begin implementing
Create a survey and gather user feedback	75%	25%	50%	0%	0%	Send out to more people and compile results
Implement, test, improve & demo: Game 1(Malware Maze)	80%	10%	70%	0%	0%	Finish prettifying (add transitions and sound effects)

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Milestone 2 Task Discussion



Research

Game 2: Master the Password

- Researched password creation, security tips, brute force techniques.
- Concept -
 - The player is an explorer in the medieval era, where passwords are used to reach the next area; with the goal of reaching the castle.
 - o Each area teaches a new security concept that strengthens the player's password.
 - The final challenge is to reach the castle, requiring an ultra-strong password.

Game 2: TBD

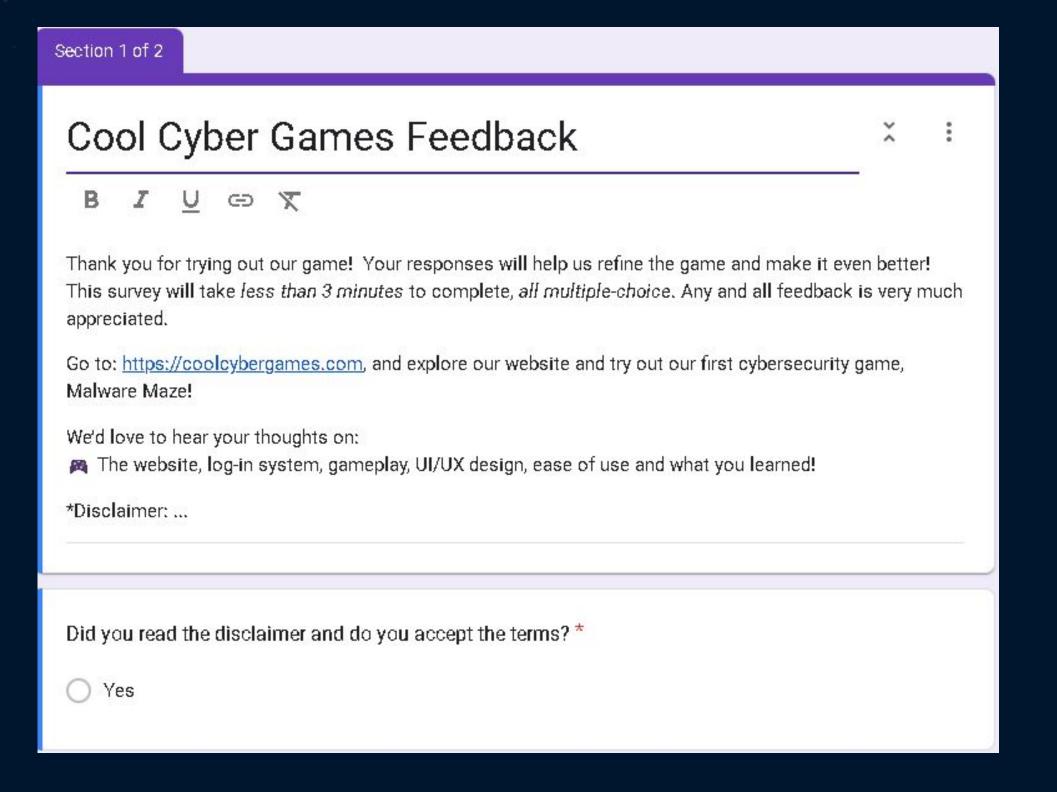
- Researched reverse engineering basics, interactive x86 simulations, and the basics of binary exploitation.
- Concept Interactive x86 simulation, inspired by Human Resource Machine teaching and gameplay

Game 3: TBD

- Researched web elements (HTML,CSS,JS)
- Concept Game for web elements TBD



→ https://forms.gle/9t3MbB7JUE462qsp6





Feedback



- 26F (Pre-Med student) (6/10) Enjoyed the game and concept a lot. Add HUD, condense learning screen
- **49F (Healthcare worker) (1/10)** Found the game very informative as a beginner. Needs more feedback on wrong answers (explanations), and clearer hints on what to do next. Suggests adding text message/phone call phishing scenarios.
- **20M (Unemployed) (5/10)** Learned more than expected. Suggests class-based cosmetics (Knight, Mage, etc.), hidden Easter eggs, and lifelines to eliminate wrong answers. Wants click-through dialogue for slower readers.
- **51M** (Land-Surveyor) (3/10) Prefers smaller learning chunks with more mini-bosses to test knowledge gradually. Wants a final boss fight, animations (ex. ghosts in maze), and a heart-based system (lose all, restart). Suggests password security and Frogger-style phishing mini-games.
- 44F (Healthcare worker) (7/10) Likes email scenarios with "choose all that apply." Wants wrong answers to show why they are incorrect. Suggests making the learning screen visually appealing with a theme.
- **54M (IT/Networking specialist) (9.5/10)** Likes phishing tips and sees value in using this for client education. Suggests adding hover-over link previews, clue-based rooms (like *Among Us*), and preventing repeat questions on terminals. Suggests a Jenga-style cybersecurity game.



Game Improvements

Malware Maze -

- ■1. Improved Learning Hub
- ■2. Improved game UI and HUD
- ■3. Added more sound effects and smooth transitions
- ■4. Improved game dialogue and feedback system
- 5. Added score tracking and lives



Milestone 3 Tasks

Task	Anthony	Matthew	Brice	Ben
Enhance website UI further	X	X	-	-
Finish API connections for the game 1	X	X	-	-
Distribute and collect survey results	X	X	X	X
Implement Test Demo Game 2	X	-	-	-
Implement Test Demo Game 3	-	-	X	-
Implement Test Demo Game 4	_	<u>-</u>	_	X

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Milestone 3 Task Discussion



- Enhance Website UI Refine the website UI. Key focus areas include player dashboard with progress tracking, game filters, and continue developing our theme.
- Distribute and collect survey results Father feedback on game usability, engagement, and learning effectiveness to refine future content
- Finish API connections for Game: Malware Maze Enable progress and score tracking, and authentication
- Complete and Polish: Malware Maze refining gameplay, UI improvements, adding missing mechanics and playtesting all elements.
- Implement Test Demo Game 2 Development will begin on Game 2, focusing on core mechanics and interactive components.

 A functional test demo will be created for feedback and iteration.
- Implement Test Demo Game 3 Development will begin on Game 3, focusing on core mechanics and interactive components.

 A functional test demo will be created for feedback and iteration.
- Implement Test Demo Game 4 Development will begin on Game 4, focusing on core mechanics and interactive components.

 A functional test demo will be created for feedback and iteration.





Thank you!

Any Questions?

