**Progress Evaluation: Milestone 4**

**Project:** Cool Cyber Games: Interactive Platform for Teaching Cybersecurity

**Team Members**:

Matthew Goembel - mgoembel2022@my.fit.edu

Anthony Clayton - aclayton2023@my.fit.edu

Ludendorf Brice - lbrice2018@my.fit.edu

Ben Allerton - ballerton2020@my.fit.edu

**Faculty Advisor**: Sneha Sudhakaran, ssudhakaran@fit.edu

**Client**: Sneha Sudhakaran | College of Engineering and Science: Department of Electrical Engineering and Computer Science

**Progress of current Milestone (progress matrix)**

| Task | Completion % | Anthony | Matthew | Brice | Ben | To Do: |
| --- | --- | --- | --- | --- | --- | --- |
| Implement, test & demo *Game: Master the Password* | 90% | 10% | 0% | 0% | 0% | Finish final game mechanics, polish, test |
| Implement, test & demo *Game: File Detective* | 60% | 0% | 0% | 100% |  | Finish game logic, finish game mechanics , polish, test |
| Implement, test & demo *Game: Web Quest* | 40% | 0% | 100% | 0% | 0% | Finish game logic, finish game mechanics , polish, test |
| Implement & test Backend→FrontendGame connection for Malware Maze  | 90% | 10% | 90% | 0% | 0% | Implement & test Backend→FrontendGame connection for Malware Maze  |
| Implement, test & demo Frontend user dashboard and leaderboard | 90% | 0% | 100% | 0% | 0% | Implement, test & demo Frontend user dashboard and leaderboard |
| Plan, Design & Start execution:*New* *Game: AI Annihilator* | 100% | 0% | 100% | 0% | 0% | Start the execution and development stage Create physical game view, logic and mechanics Connect game statistics to backend and test |

**Discussion of each accomplished task (and obstacles) for the current Milestone:**

* **Task 1:** Game was overhauled from Milestone 3. This new approach meets client expectations in showing players what a file is and ways they can detect a “bad” file.
* **Task 2:** Game was further polished to allow for a new level that showcases how a well developed password is theoretically impossible to crack
* **Task 3:** Game was overhauled with new assets and game mechanics to allow for an original artistic approach. This new approach will teach web security in a fun and easy way.
	+ New Assets were developed and implemented.
	+ Quiz questions were developed to reinforce learning
	+ Game mechanics were brainstormed and implemented to showcase bad practices
* **Task 4:**
	+ Implemented secure REST endpoints: /api/score, /api/achievement/unlock, /api/leaderboard, /api/me.
	+ Normalized Mongo data models for Users, GameResults, and Achievements.
	+ Game integration (Godot/JS):
	+ Established session-based Google OAuth authentication.
	+ Verified end-to-end: game sends → API saves → DB updates → dashboard/leaderboard displays.
* **Task 5:**
	+ Dashboard: shows total points, unlocked/locked badges, recent runs
	+ Leaderboard: global ranking by total points, avatar + name + score.
* **Task 6: New Game – AI Annihilator**
	+ Concept: Player battles a hacker-bot through teaching cards + scenarios + multiple-choice challenges.
	+ Learning outcomes: spotting prompt injection, avoiding data leaks, safer prompting habits, how their information can be used
	+ Mechanics: correct answers reduce boss HP; wrong answers remove player lives.
	+ Backend hooks (gameKey: ai\_annihilator) already planned for score and achievement tracking.

**Discussion of contribution of each team member to the current Milestone:**

* **Matthew Goembal:** Developed user dashboard, leaderboard, and backend integration (Malware Maze + DB sync). Designed and started AI Annihilator.
* **Anthony Clayton:** Was responsible for finishing development of Master the Password. Also responsible for managing the database and helping other team members sync progress where progress was synced.
* **Ludendorf Brice:** Was responsible for the development of File Detector.
* **Ben Allerton:** Was responsible for the development of Web Quest

**Plan for the next Milestone (5)**

| Task | Anthony | Matthew | Ben | Brice |
| --- | --- | --- | --- | --- |
| Make Poster | 25% | 25% | 25% | 25% |
| Finish game: Master the password w/ backend & website sync | 100% | - | - | - |
| Finish game: File Detective w/ backend & website sync | - | - | 100% | - |
| Finish game: Web Quest w/ backend & website sync | - | - | - | 100% |
| Enhance to dashboard, leaderboard, games, and profile tabs | - | 100% | - | - |
| Finish game: AI Annihilator w/ backend & website sync | - | 100% | - | - |

**Task 1: Poster Development**

* All team members contribute equally (25% each).
* Create a professional showcase poster summarizing project goals, technical stack, games, and backend/website features.

**Task 2: Master the Password – Backend & Website Sync (Anthony)**

* Final polish to mechanics and visuals.
* Verify backend scoring and achievements update dashboard/leaderboard correctly.
* Conduct final playtests and bug fixes.

**Task 3: File Detective – Backend & Website Sync (Brice)**

* Complete integration with backend for score submission and achievement unlocks.
* Polish gameplay mechanics and assets
* Add refinements to user experience.

**Task 4: Web Quest – Backend & Website Sync (Ben)**

* Finish backend connection for progress tracking and leaderboard scoring.
* Refine quiz mechanics and visuals
* Add refinements to user experience and polish accordingly

**Task 5: Dashboard, Leaderboard, and Profile Enhancements (Matthew)**

* Improve visuals (badges, progress bars, hover effects, profile details).
* Optimize data fetch calls for speed and consistency.
* Ensure dashboard/leaderboard are fully synced with all current games.

**Task 6: AI Annihilator – Backend & Website Sync (Matthew)**

* Build out full game logic (encounters, scenarios, multiple-choice challenges).
* Connect scoring and achievement unlocks to backend.
* Test dashboard/leaderboard integration to confirm new game data flows correctly.

**Date(s) of meeting(s) with Client during the current milestone:**

* *See Faculty Advisor Date(s) below*

**Client feedback on the current milestone**

* *See Faculty Advisor Feedback below*

**Date(s) of meeting(s) with Faculty Advisor during the current milestone: …**

* 9/3/25
* 9/10/25
* 9/24/25

**Faculty Advisor feedback on each task for the current Milestone**

**Games:** Pleased with creative direction and polish; requested more simplicity for users and feedback loops for players.

**Backend/Website:** Satisfied that the dashboard and leaderboard are now live and functional.

**AI Anihilator:** Encouraged the pivot to AI safety as an innovative, relevant topic.

1. Task 1: Satisfied with current progress
2. Task 2: Satisfied with current progress
3. Task 3: Satisfied with current progress
4. Task 4: Satisfied with current progress
5. Task 5: Satisfied with current progress

Faculty Advisor Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_

**-----------------------------------------------------------------------------------------------------------------------**

**Evaluation by Faculty Advisor**

* + Faculty Advisor: detach and return this page to Dr. Chan (HC 209) or email the scores to pkc@cs.fit.edu

Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

| Matthew | 0 | 1 | 2 | 3 | 4 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anthony | 0 | 1 | 2 | 3 | 4 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 |
| Ben | 0 | 1 | 2 | 3 | 4 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 |
| Brice | 0 | 1 | 2 | 3 | 4 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 |

* + Facutly Advisor Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Date: \_\_\_\_\_\_\_\_\_\_