CYBR 7910 Practicum Capstone Project Plan

CyberGuardian Solutions

March 20, 2024

## Overview

For this Practicum Capstone Group Project, our team, CyberGuardian Solutions, must complete a term-long cybersecurity project that encompasses most of what we learned throughout the Master’s Program, and apply it to a real-world scenario using a VM that mimics a private company server. In this case, we are a Cybersecurity consulting company hired by the small-business Caribbean-inspired steakhouse, Akwaaba. Akwaaba reportedly has three locations in the US including New York City, Atlanta, and Los Angeles. Our mission is to protect their web server, which primarily contains their e-commerce website. We must design a security policy, and then execute our security plan to ensure their website data and server are safe. To verify the effectiveness of our added security, another team will conduct penetration tests on our VM server. The entire project must be completed within a 7-week timeframe from start to end. To manage this project, we broke it down into 5 manageable milestones, based on the deliverables: Project Plan, Security Assessment and Policy, Security Implementation and Exploit Planning, Penetration Testing and Security Operations, and a final Presentation Summary. By performing real-world cybersecurity tasks such as security planning, vulnerability exploitation, and response to security breaches, we believe this project provides valuable practice for a real-world experience.

## Project Team

| **Roles** | **Name** | **Major Responsibilities** | **Contact (Email and/or Phone)** |
| --- | --- | --- | --- |
| Team lead / CISO | Richard Beiswanger | Project Plan & Presentation Lead | rbeiswan@students.kennesaw.edu |
| Cyber Analyst | Uju Anachebe | Phase 1 Lead, Author & Presenter | uanacheb@students.kennesaw.edu |
| Cyber Engineer | Masrura Tasnim | Phase 2 Lead, Author & Presenter | mtasnim1@students.kennesaw.edu |
| Penetration Tester | Gevorges Chemmala | Phase 3 Lead, Author & Presenter | gchemmal@students.kennesaw.edu |

## Major Milestones

1. Project Plan – By March 22, 2024
2. Phase 1 Report – By March 31, 2024
3. Phase 2 Report – By April 14, 2024
4. Phase 3 Report – By April 28, 2024
5. Presentation/Peer Evals – By April 28, 2024

## Major Deliverables Explained

1. Project Plan Submission - By end of Week 1, March 22, 2024

Lead by Richard Beiswanger, the first milestone is project planning, where we create a detailed project plan, including team roles, communication strategies, and a breakdown of the project deliverables into milestones, accompanied by a Gantt chart updated throughout the project.

1. Phase 1 Report (Set up Security Program) - By Week 3, March 31, 2024

Led by Uju Anachebe, Milestone 2 involves preparing and submitting a comprehensive report detailing our developed security program, including an information security policy, risk assessment, and a technical plan for protecting Akwaaba's web servers.

1. Phase 2 Report (Sec. Prog. Implementation & Exploitation Planning) - By Week 5, April 14, 2024

Led by Masrura Tasnim, for Milestone 3 we will provide a report showing how we implemented the security program, along with our plans for the vulnerability analysis / penetration testing of another team's VM.

1. Phase 3 Report (Vulnerability Exploitation & Security Operation) - By Week 7, April 28, 2024

Led by Gevorges Chemmala, at this milestone we report our findings from the vulnerability exploitation assessment of another team's server, delivering our results to the target while receiving a similar report from another team for self-reflection. We will also submit a record of the results from security operations while our server was penetration tested.

1. Final Project Submission & Presentation - By Week 7, April 28, 2024

Led by Richard Beiswanger, Milestone 5 is the final submission, a presentation briefly summarizing the results of all previous milestones. We will reflect on the security program's effectiveness and prepare a 10–15 minute recorded presentation. Included in this milestone is the Peer Evaluations, which must all be completed before the same deadline.

## Project Schedule and Tasks Planning

See the attached Gantt chart file for keeping track of the tasks and hours worked on the project.

We have scheduled tasks to complete each deliverable one week ahead of schedule, allowing room for delays along with time to work on new tasks for future deliverables. This also allows us to summarize our findings as we go to build the final presentation in a timely manner. We made this choice because multiple deliverables share a single deadline at the end of the project.

## Strategies for Team Collaboration

* The team is collaborating using daily Teams meetings and our KSU ID email. Below is contact information for each member with email and phone numbers so we can keep in touch, even when someone is offline:

1. Richard Beiswanger [rbeiswanger@students.kennesaw.edu](mailto:rbeiswanger@students.kennesaw.edu) 470-900-5245
2. Uju Anachebe [uanacheb@students.kennesaw.edu](mailto:uanacheb@students.kennesaw.edu) 404-966-0696
3. Masrura Tasnim [mtasnim1@students.kennesaw.edu](mailto:mtasnim1@students.kennesaw.edu) 214-892-5656
4. Gevorges Chemmala [gchemmal@students.kennesaw.edu](mailto:gchemmal@students.kennesaw.edu) 404-513-3032

* Collaboration Strategy: We have a rolling fixed daily meeting time of 6pm on Microsoft Teams, where we update each other on our progress and plan how to complete our tasks together. We have created folders in our Teams group where we share our project resources and collaborate on each report. Each team member has taken responsibility to lead one of each report / deliverable, where they take charge and ensure tasks for that deliverable are assigned and being met on schedule.