WatchfulEye

**Senior Design Team Contract**

University of Cincinnati

College of Education, Criminal Justice and Human Services

School of Information Technology

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Josh Woodson

Matthew Johnson

Ryan Day

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# **Intent**

The following contract was written and agreed upon by Matthew Johnson, Blake Barr, Ryan Day, Isaiah Shim and Josh Woodson. The contract provides expectations, objectives, and results for developing WatchfulEye.

The contract is effective for all team members participating in IT5003C through the 2022-2023 academic year.

**Senior Design Team Contract**

**2022-2023**

**Project Name: WatchfulEye**

# **Project Summary:** An application to teach end users about the severity of knowing the basics of Cybersecurity. They will be able to create an account to see how phishing, hashing, and brute force tactics are deployed.

# **Problem Statement:** The average user doesn’t understand the importance of protecting themselves from threats. This applies to users in the workforce and those using the internet services for personal use. Cybersecurity threats have been becoming a bigger threat in recent years with the political changes and the threat of war with other countries. If we plan on protecting our assets in today's world, we must first educate to build a strong foundation.

# **Solution:** Our application provides an educational but interactive approach to Cybersecurity basics. The application provides examples of different threats that the average end user might face daily. Users will have the chance to view how hackers try to steal their information and how the more security they put in place the better secure their information will be.

# **Contact Information:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Team Member** | **Degree + Track**  **Track N/A for BSCyber** | **Email** | **Phone Number** |
| Blake Barr | BSIT – Software Dev | barrbm@mail.uc.edu | 513-444-8587 |
| Matthew Johnson | BS – Cybersecurity | [Johns8mt@mail.uc.edu](mailto:Johns8mt@mail.uc.edu) | 614-579-3519 |
| Ryan Day | BSIT – Cybersecurity | [dayrm@mail.uc.edu](mailto:dayrm@mail.uc.edu) | 937-344-0221 |
| Isaiah Shim | BS – Cybersecurity | [Shimid@mail.uc.edu](mailto:Shimid@mail.uc.edu) | 513-903-2956 |
| Joshua Woodson | BS – Cybersecurity | [woodsoju@mail.uc.edu](mailto:woodsoju@mail.uc.edu) | 614-446-3965 |

# **Project Source:**

Our project was inspired by our experience in the workforce. While working in our co-op or full-time jobs, we’ve come to notice the trend of basic consumers being targeted and not well informed of the dangers that lurk behind the screen. Basic consumers are only informed about the dangers from viruses but not about the dangers of hackers\scammers. Doing a quick Google search shows there’s a majority high level cybersecurity course but lacks the basic skills consumers should know to protect themselves. Our project team formed during the first class dedicated to finding a group. All five of us joined the same call and focused on getting to know each other, then focused on what we thought we could do for senior design. We discussed issues, and solutions for a few days and produced this idea. The requirement analysis was done by our whole team. We discussed and considered this was our best option for senior design and that it met the criteria.

# **Project Objectives/Goals:**

* Help individuals learn the importance of password complexity.
* Help individuals learn about phishing attempts.
* Help individuals learn how to protect themselves from cyberthreats.
* Help individuals learn how hackers/scammers operate.
* End goal, produce a working product that can be used by anyone.

Major Features (high level project goals) along with expected impact in a bulleted list.

* User makes account, account needs secure/strong password (with x,y,z requirements). Will educate users on password creation.
* Page/section about brute forcing passwords, user can enter any password and the tool will provide feedback with how long it will take to get in.
* Tool where someone can enter a password and have it encoded or decoded different methods available.
* Enter a hash value and it searches the web to see if it is known (malicious or not)

# **Team Members and Responsibilities:**

Software Developer: Blake Barr

* Responsible for technical architecture
* Responsible for setup and maintenance of server environment
* Responsible for software development

Designer: Ryan Day

* Responsible for creating the structure and layout of the site
* Responsible for implementing features and additions
* Responsible for testing and troubleshooting site features
* Assisting in software development

Research: Matthew Johnson

* Responsible for data input
* Responsible for information gathering
* Source Citations
* Design of presentation work
* Assisting in software development

UI/UX Design: Josh Woodson

* Responsible for Optimizing User Interface
* Responsible for Optimizing User experience to make being cyber smart easy to learn and understand
* Assisting in software development

Quality Assurance: Isaiah Shim

* Assists in testing application
* Identifying issues within the site, and research ways to fix these issues
* Assisting in software development

# **Project Scope:**

“Our team will develop a functional application that enables users to learn about the dangers of cyber threats in an interactive environment”

# **Quick Project Timeline:**

A rough estimate of your project timeline in a tabular format with the following fields:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task # | Task Name | Duration | Start Date | End Date |
| 1 | Planning / Research | 2 Weeks | 09/12/2022 | 09/26/2022 |
| 2 | Running Website (Overall Layout) | ~ 1 Months | 09/26/2022 | 10/26/2022 |
| 3 | Phishing simulation | ~ 1 Months | 10/26/2022 | 11/26/2022 |
| 4 | Password Cracker | ~ 1 Months | 11/26/2022 | 12/26/2022 |
| 5 | Login (Implement Strong Password Requirements) | ~ 1 Month | 01/26/2023 | 02/26/2023 |
| 5 | Finalization | ~ 6 weeks | 02/26/2023 | 4/11/2023 |

\*Within each task we will further research, develop, test, and fix the task. Due to this some timelines may change depending on the issues we run into.

\*These are 3 tasks/features we want to have, will implement more if we have time.

\*Finalization includes the final paper, presentation, any charts we may need, preparing and practicing for IT Expo. We will also be putting final changes to all our features listed to make sure everything runs smoothly, and our product is ready for IT Expo.

# **Technologies Used:**

We plan to use Microsoft Teams to hold meetings. We will design the application using Windows OS. To present our project and document information, we will use Microsoft Office applications such as Word and PowerPoint. For designing the application, we will use development environments such as Visual Studio and Visual Studio Code. For the technology stack, we will use HTML, CSS, JavaScript and C#. We will use ASP.NET as a framework, and MYSQL for data storage and querying.

# **Ethical Considerations:**

Recognize ethical dilemmas and use appropriate tools and strategies to make ethical decisions, apply ethical perspectives to managing your project and building the technology.

* When our team has conflict, we will resolve it peacefully. Although conflict is normal, we will eventually resolve it without causing any major frustration.
* We will not plagiarize other work. Our design will be original, not made from components that do not belong to us.
* Any form of constructive criticism will be used and applied to our application.
* We will work on a schedule throughout the course of the class. This will prevent us from creating something partially incomplete due to lack of time.

# **Team Rules:**

Use this section to highlight the collective values of the team members.

1. Plagiarism will not be tolerated. Any team member that plagiarizes will be subject to university policies and a team meeting will be called.
2. Each team member will stay current on their tasks to ensure the project milestones are met. If an event conflicts that will affect the completion of a deliverable, the team member will notify the other team members at least 24 hours in advance of the scheduled due date.
3. If a group member will be absent on class days or for an extended period, they will notify the other team members.
4. All team members are required to attend all scheduled meetings and provide updates to the team during the meeting. If a team member cannot make a scheduled meeting, they must notify all team members at least 2 hours in advance and provide an update via messenger or email.
5. All team members will review the oral presentation and final report.
6. All team members will respect the opinions and ideas of each team member, other students, and faculty.
7. All team members will produce quality work that leads to finishing the project.
8. All team members will ask for assistance when needed, and all team members will assist each other to get the project done.

# **Team Signatures:**

Signature: \_\_Matthew Johnson\_\_\_\_\_\_\_ Signature: \_\_\_\_\_Isaiah Shim\_\_\_\_\_\_\_

Date: 12/4/2021 Date: 12/4/2021

**Matthew Johnson** **Isaiah Shim**

Research and Quality Assurance Designer and Quality Assurance

Signature: \_\_\_\_Ryan Day \_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_Blake Barr\_\_\_\_\_\_\_\_

Date: 12/4/2021 Date: 12/4/2021 \_

**Ryan Day** **Blake Barr**

Designer Software Developer

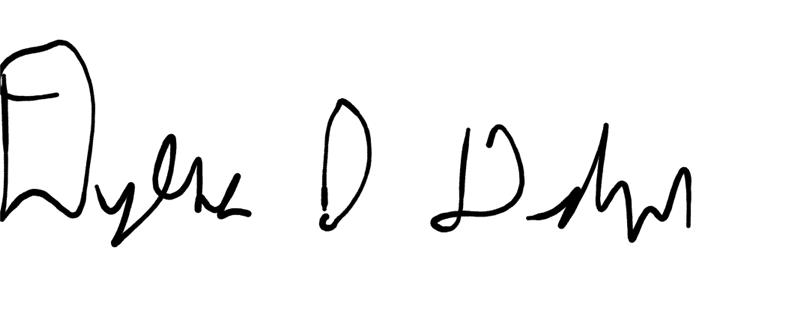
Signature: \_\_\_\_Joshua Woodson\_\_\_\_\_\_

Date: 12/4/2021

**Joshua Woodson**

UI and UX Experience

**Project Advisor Signature:**

Signature: \_\_\_\_\_

Date: \_10/19/2022\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# **References**