Fortify Project

SRS Documentation

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## Company Introduction

Hardhat Enterprise is an enterprise formed by students with the aim to design tools to be used assisting white hat operations. They provide students with the opportunity to build-up on their skills, broadening their knowledge, networking and producing useful deliverables.

Currently Hardhat is conducting five interrelated project which all contributes to the goals of the company. Every deliverable developed through each project will be open-sourced and used by anyone. The Hardhat Enterprise aims to creating outcomes which are beneficial to the public through the improvement of existing tools or filling a market need that is not met yet.

The five projects are:

##### Fortify

Creates a platform to connect cyber security volunteers with small organisations in strengthening their security systems

##### Nasa Protocol Exploit

Attempts to find vulnerabilities and create exploits with protocols used by NASA

##### Breaking CAPTCHA

Develops machine learning AI and computer vision model to solve CAPTCHA problems

##### AppAttack

Penetration testing on apps made by Deakin University

##### Penetration Testing GUI

Research, design, develop, and implement software that aids the process of enumeration and exploitation of remote systems

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## Project Description

### Purpose

The aim of the Fortify project is to create a platform to connect cyber security volunteers – students, graduates, and self-taught professionals – with small organisations that do not have the resources to hire a cyber security team in strengthening their security systems. This platform will provide volunteers with the opportunity to work on real life projects and apply their skills and knowledge, while gaining the soft skills needed in working environments. The website will also open up opportunities for future cyber security professionals and clients to connect and expand their networking landscape. Fortify also fulfills the goals of Hardhat Enterprise filling the gaps in the market, through the raising of employability for students who struggles to find jobs due to their lack of experiences. The projects conducted will be useful in their portfolio enhance, thus increasing their employability rate. Through this project, Hardhat Enterprise can also emphasise on the importance of cyber security in all business and organisation, no matter big or small.

### Intended Audience and Use

As this project will be undergone over several trimesters, this document serves as a guide to future employees working on the Fortify project. This documentation will be saved on the Fortify cloud folder, where all related members of the project will be able to access it and gain an insight to the website’s purpose, plans, designs, features, and requirements. The document will also be available to the director of Hardhat Enterprise. Future employees can seek out this document to seek out a start to where we left of this trimester. Once completed this document may also be accessible to the AppAttack team for analysing for possible vulnerabilities.

### Scope

The outcome of this project is to create a website where volunteer cyber security professionals and students can connect with small businesses or organisations in assisting them in their security assessment and management. Through this platform, small organisations will be matched up to a compatible volunteer who will assist them in the security concerns of their businesses. Through this interaction, small organisation will gain an insight to the importance of cyber security management and provide them with a head start to the security plans on their businesses.

The UI/UX of the website will be simple – with easy to read fonts and light colours – to make it easier on the eyes of all users that explores the website. The website will also include all necessary information regarding the website with its aims, purposes, and roles. In addition, organisations may also get to know their volunteers through the information listed on the volunteer’s profile page, providing them with the assurance of knowing who they are working with.

When volunteers and organisations sign up, they will be required to complete a survey to rank their knowledge and security level. The information later would be used by the matchmaking tool in assisting to find the compatibility between a volunteer and organisation to find the best possible match to achieve the targeted goals. The information provided by each organisation is given to the volunteers in assisting them in their assessment.

## Overall Description

### User Needs

The Fortify website will provide opportunities for students who struggle to find jobs without experiences, as it provides volunteer students, graduates and self-learned cyber security professionals the opportunity to apply their knowledges and skills through the participation of real life projects with clients. This website will also act as a networking platform, where they will be able to connect with others who are in a similar position as them.

Another aim of this website is to assist small businesses or organisation who are unable to employ specialist due to the high costs. Organisations can seek out assistance through this website which will provide them with all sorts of cyber security needs necessary for an organisation.

### Assumptions and Dependencies

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## Website Features ad Requirements

### External Interfaces

#### Clear Information

#### UI/UX Design

The website is designed in a simple layout which makes it more user-friendly and is constructed from HTML, CSS and JavaScript. Fonts used are easy to read – sans-serif – as it will be more straight forward and easier to catch for users. We avoid using complicated and rustic fonts to keep the website clean and more utilized. This way, it will help users understand the information and contents provided more easily. For the colour used, we stick to the colours that are used on the website prototype—which is green and dark blue. By using two colours only for the design, it keeps the website looking neater and cleaner. For the font colours, we decided to go for neutral colours to avoid the website looking complicated. With these colour choices, it enhances the website appearance to look more colour coordinated and ensure readability for users while also keeping it simple, modern, and eye-catching. We made our structure straightforward, with navigation bar at the top of each page to provide easier navigation for users to search for contents or pages they would like to explore further.

#### Self-Assessment Survey

In the process of sign-up, organisations and volunteers are required to complete a self-assessment survey to determine the level of security implemented by their organisation and skills each individual holds.

The questions ask targets regarding their knowledge, capability and skills in:

* Application Control
* Patch Application
* Configure Microsoft Macro Settings
* User Web Application Hardening
* Restrictions and Privileges
* Patch Operating Systems
* MFA
* Backups
* Penetration Testing
* Cyber Security Policies, Strategies and Awareness
* Producing Compliance Reports
* Ransomware Attacks
* Compromised Websites, Accounts and Systems
* Data Loss and Theft
* Malware and Viruses

The self-assessment survey targeted on the organisations requires respondents to assess their organisation’s cyber security level by ranking each technical control from a maturity level 0 to 3. In addition, organisation also have to rank their skills and their capability in responding to cyber situations. From the rankings, a volunteer from Fortify will assess each category and set a Fortify confirmed maturity level. The overall results will be the basis of the cyber security assessment to build on a precise security plan targeting the organisation.

During the sign up, volunteers also have to complete a survey ranking their skills from a maturity level of 0 to 3. Similar to the self-assessment survey on the organisation, a senior Fortify volunteer would have to assess their skills on a general level before they are official accepted as an employee.

We have tried to simplify the questions so that beginners who lack technical understanding can comprehend each statement, but there may be some unavoidable technical terms that they may not understand. If so, a respondents may ask for assistance from a volunteer.

### System Features

#### Login and Sign Up

#### Matchmaking tools

### Non Functional Requirements