



# Cybersecurity

## Project 1 Technical Brief

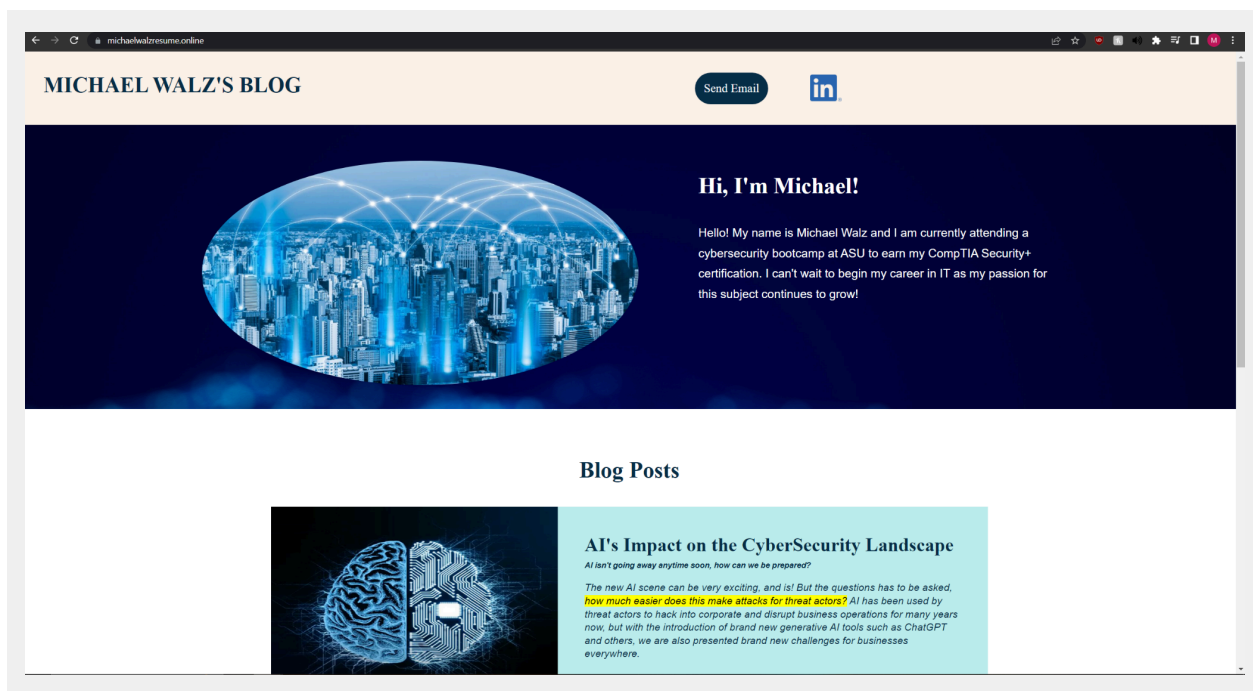
Make a copy of this document before you begin. Place your answers below each question. This completed document will be your deliverable for Project 1. Submit it through Canvas when you're finished with the project at the end of the week.

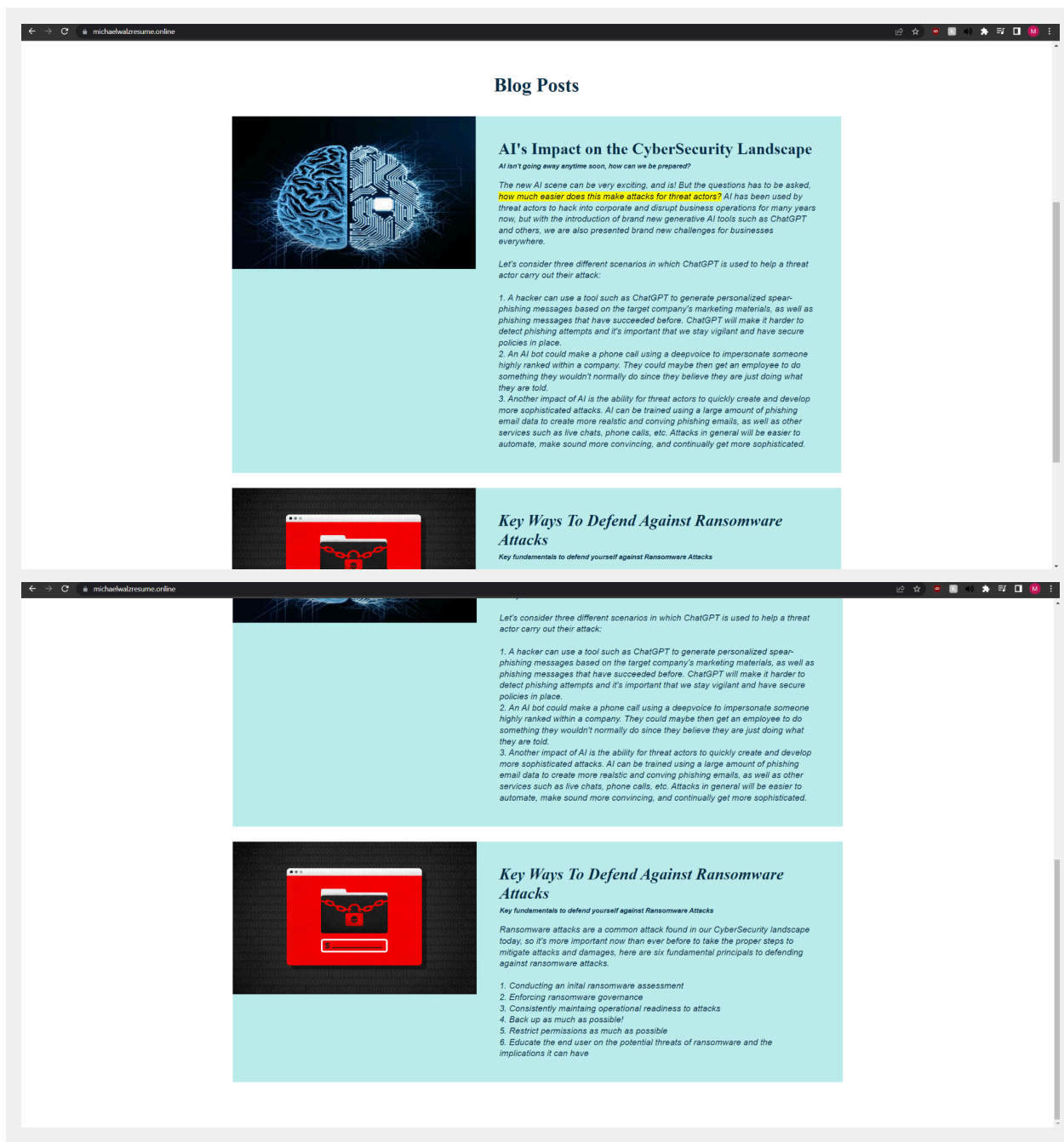
### Your Web Application

Enter the URL for the web application that you created:

`http://Michaelwalzresume.online`

Paste screenshots of your website created (Be sure to include your blog posts):





## Day 1 Questions

### General Questions

1. What option did you select for your domain (Azure free domain, GoDaddy domain)?

GoDaddy

2. What is your domain name?

michaelwalzresume.online

## Networking Questions

1. What is the IP address of your webpage?

20.211.64.15

2. What is the location (city, state, country) of your IP address?

Sydney, New South Wales, AU

3. Run a DNS lookup on your website. What does the NS record show?

Ns63.domaincontrol.com TTL 3600  
Ns64.domaincontrol.com ttl 3600

## Web Development Questions

1. When creating your web app, you selected a runtime stack. What was it? Does it work on the front end or the back end?

PHP 8.0 / Back end

2. Inside the `/var/www/html` directory, there was another directory called assets. Explain what was inside that directory.

Inside the assets directory were images and links that are used on the website.

3. Consider your response to the above question. Does this work with the front end or back end?

Front end

## Day 2 Questions

### Cloud Questions

1. What is a cloud tenant?

A cloud tenant refers to the sharing of computing resources either in a public or private environment, that is isolated from users and kept private.

2. Why would an access policy be important on a key vault?

There is important information stored inside key vaults such as certificates, keys, and passwords so it would pose a big risk to not have an access policy in place.

3. Within the key vault, what are the differences between keys, secrets, and certificates?

Certificates are used to ensure trust in communication between parties, while secrets refer to sensitive information that needs to be stored securely and keys are used to encrypt/decrypt data.

### Cryptography Questions

1. What are the advantages of a self-signed certificate?

Cost, easy and quick to create, and you have control over the certificate.

2. What are the disadvantages of a self-signed certificate?

Lack of trust from browsers since it's not a certificate from a trusted CA, and requires more management to stay secure.

### 3. What is a wildcard certificate?

A wildcard certificate refers to a single certificate that is used to secure multiple domain hosts pertaining to the same domain base.

### 4. When binding a certificate to your website, Azure only provides TLS versions 1.0, 1.1, and 1.2. Explain why SSL 3.0 isn't provided.

SSL 3.0 has vulnerabilities and is not trusted

### 5. After completing the Day 2 activities, view your SSL certificate and answer the following questions:

- a. Is your browser returning an error for your SSL certificate? Why or why not?

No because we got a trusted SSL certificate from Azure

- b. What is the validity of your certificate (date range)?

Thursday, June 1st 2023 - Saturday, December 2nd 2023

- c. Do you have an intermediate certificate? If so, what is it?

No

- d. Do you have a root certificate? If so, what is it?

Yes, DigiCert Global Root CA

- e. Does your browser have the root certificate in its root store?

Yes

- f. List one other root CA in your browser's root store.

Amazon Root CA 3, O=Amazon, C=US

## Day 3 Questions

### Cloud Security Questions

1. What are the similarities and differences between Azure Web Application Gateway and Azure Front Door?

Azure Web Application is better used to protect within a single region, while Azure Front Door is more worldwide and better for protecting multiple cloud environments in different regions. Azure Front Door is also easier to set up.

2. A feature of the Web Application Gateway and Front Door is "SSL Offloading." What is SSL offloading? What are its benefits?

SSL offloading terminates the TLS connection, decrypts traffic at Azure Front Door, and re-encrypts that traffic before forwarding it to its origin.

3. What OSI layer does a WAF work on?

Layer 7

4. Select one of the WAF managed rules (e.g., directory traversal, SQL injection, etc.), and define it.

SQL injection Attack - Malicious SQL statements are injected into an entry field to attack data-driven applications.

5. Consider the rule that you selected. Could your website (as it is currently designed) be impacted by this vulnerability if Front Door wasn't enabled? Why or why not?

No because the WAF managed rules would block any malicious SQL code

6. Hypothetically, say that you create a custom WAF rule to block all traffic from Canada. Does that mean that anyone who resides in Canada would not be able to access your website? Why or why not?

No, because this could easily be diverted by using a VPN and getting an IP address from another country since the WAF is blocking IP addresses originating in Canada but not other countries.

7. Include screenshots below to demonstrate that your web app has the following:

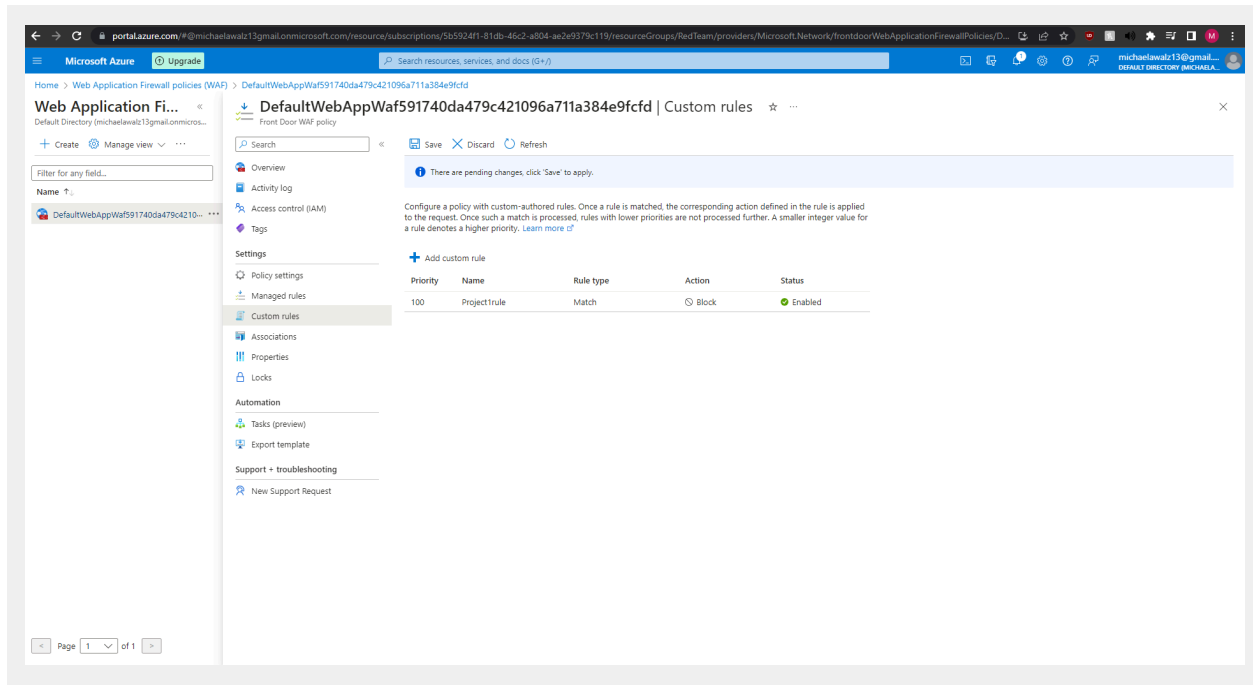
- a. Azure Front Door enabled

The screenshot shows the Azure Front Door configuration page in the Azure portal. The page title is "Azure Front Door" and it includes a description of the service. A green checkmark indicates that Azure Front Door is enabled for the web app. Below this, a table lists the configuration details:

Name	Type	Endpoint name	Origin group name
project1-frontdoor	Azure Front Door Premium	Project1-FD-dsdb03encd0ff9ha.z01...	Red-Team

At the bottom of the page, there are "Add" and "Close" buttons.

- b. A WAF custom rule



## Disclaimer on Future Charges

Please type “**YES**” after one of the following options:

- ***Maintaining website after project conclusion:*** *I am aware that I am responsible for any charges that I incur by maintaining my website. I have reviewed the [guidance](#) for minimizing costs and monitoring Azure charges.*
- ***Disabling website after project conclusion:*** *I am aware that I am responsible for deleting all of my project resources as soon as I have gathered all of my web application screen shots and completed this document.*