Cybersecurity

Project 1 Technical Brief

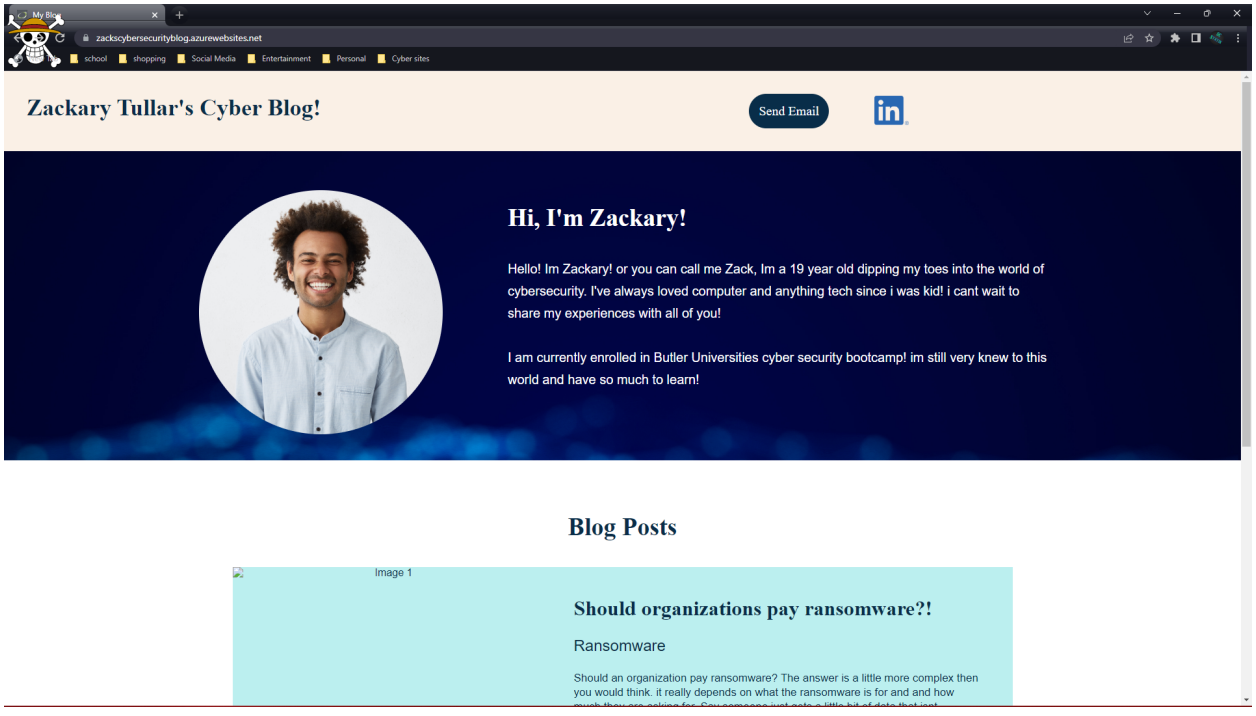
Make a copy of this document before you begin. Place your answers below each question. This completed document will be your deliverable for Project 1. Submit it through Canvas when you're finished with the project at the end of the week.

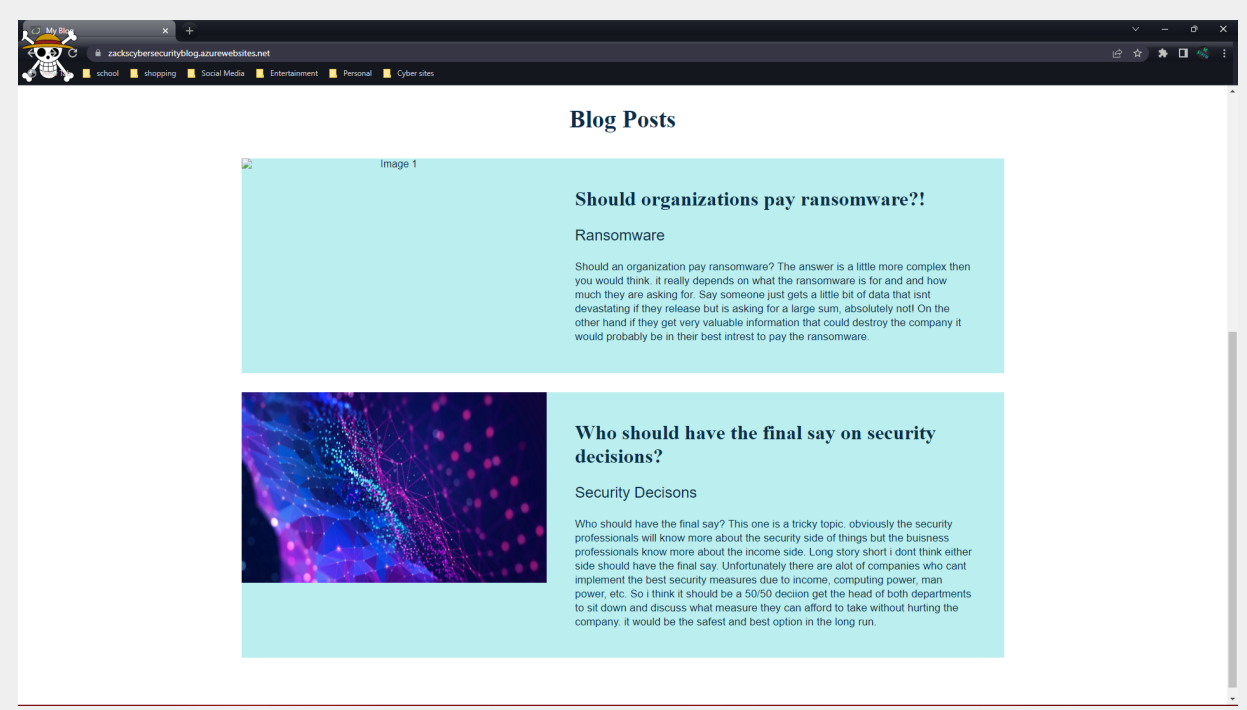
Your Web Application

Enter the URL for the web application that you created:

```
https://zackscybersecurityblog.azurewebsites.net/
```

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)?

```
Azure free domain
```

2. What is your domain name?

```
ZacksCyberSecurityBlog
```

Networking Questions

1. What is the IP address of your webpage?

```
20.118.56.8
```

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

```
Martinsville, Indiana United States
```

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

```
Server:  www.routerlogin.com
Address:  10.0.0.1

Non-authoritative answer:
Name:    waws-prod-dm1-313-e626.centralus.cloudapp.azure.com
Address:  20.118.56.8
Aliases:  zackscybersecurityblog.azurewebsites.net
          waws-prod-dm1-313.sip.azurewebsites.windows.net
```

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 7.3]
```

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

```
Inside assets has two directories css and images
```

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

```
This works with the front end providing images to the website
```

Day 2 Questions

Cloud Questions

1. What is a cloud tenant?

```
Cloud Tenant is the named subdomain assigned to Customer on the Platform.
```

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

```
It would be important so not just anybody can access it.
```

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

```
Keys are basically give you the access to whatever its for but without the
certificates you will only be able to see so little.
```

Cryptography Questions

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

```
They are fast and easy to use.
Flexible and customizable
Developers wont be dependent on others.
```

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

```
If compromised its a serious risk.
Security teams lack visibility and control over certificates
They cant be revoked by a ca
```

3. What is a wildcard certificate?

```
Its a public key certificate that can be used on multiple subdomains
```

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.

```
Because there was an industry-wide vulnerability in 3.0 called POODLE so
they disabled support for it.
```

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 the certificate is valid.
```

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

```
The certificate is valid from current-March 9th, 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?

```
No
```

    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.

```
Blizzard Battle.net Local Cert
```

Day 3 Questions

Cloud Security Questions

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

```
Azure Front door uses path based load balancing. Azure web application
gateway goes a little further within their virtual network. Their
functionality is similar with load balancing though.
```

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

```
SSL offloading is the process of removing the SSL based encryption from
incoming traffic that a web server receives to relieve it from decryption of
data. It lightens the load of the burden of encrypting and decrypting so it
wont be as compute intensive.
```

3. What OSI layer does a WAF work on?

```
It works on OSI layer 7.
```

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

```
SQL injection is a code injection technique used to attack data-driven
applications, in which malicious SQL statements are inserted into an entry
field for execution.
```

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?

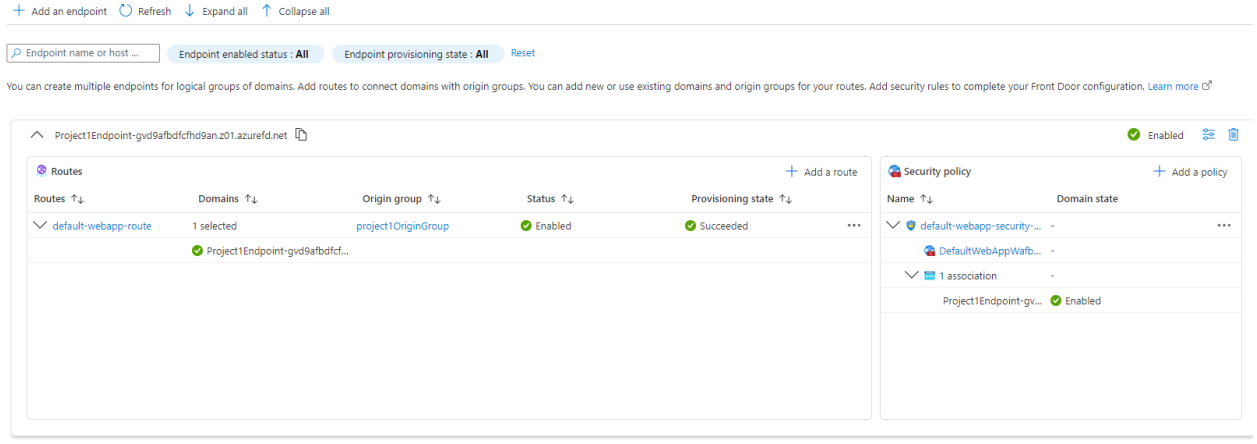
```
Yes it could be impacted by this vulnerability. They could easily Steal all
the data i may have stored on the website. By entering malicious commands
into web forums because its unsecured
```

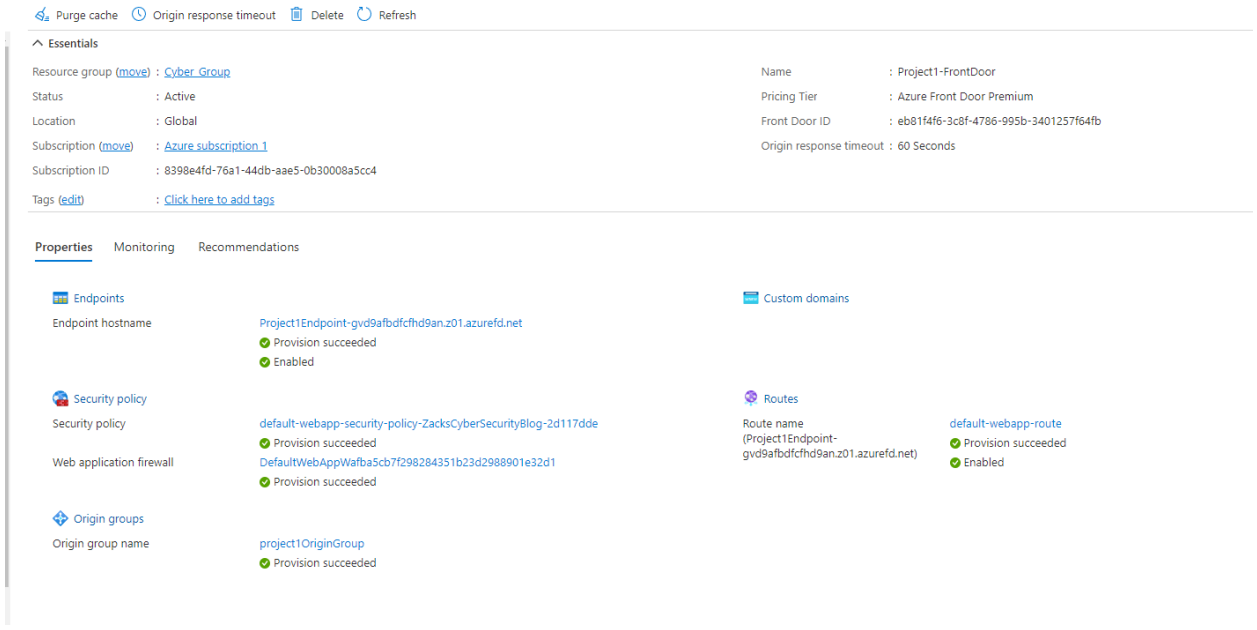
6. Hypothetically, say that you create a custom WAF rule to block all traffic from Canada. Does that mean that anyone who resides in Canada would not be able to access your website? Why or why not?

```
No. People could easily get around the WAF rule using a proxy or a VPN
changing the location they are trying to access it from.
```

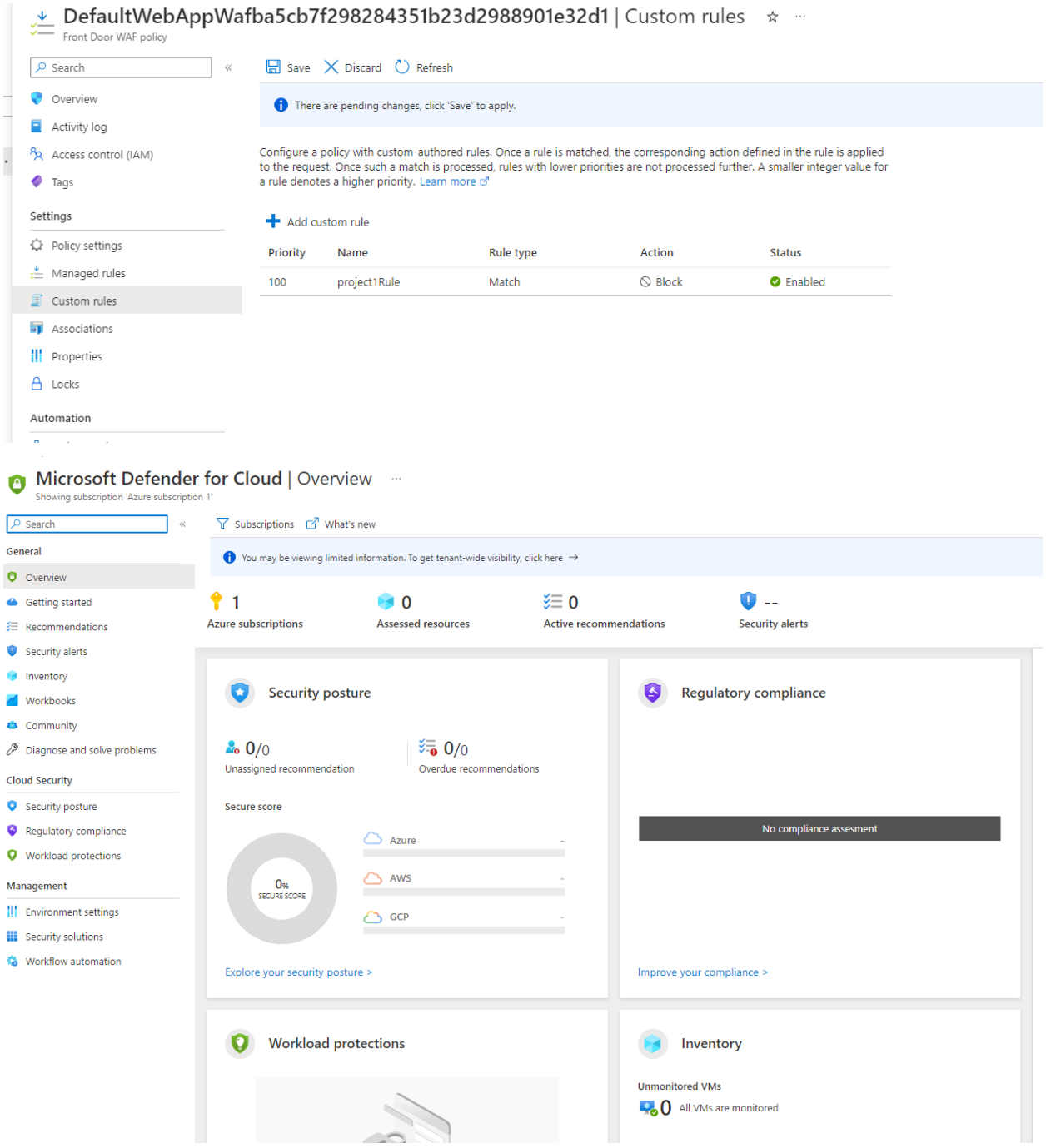
7. Include screenshots below to demonstrate that your web app has the following:

   a. Azure Front Door enabled





   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.*

YES