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| 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:

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| https://eligenc.azurewebsites.net |

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

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| 1-)  A screenshot of a person  Description automatically generated with medium confidence  2-)  Graphical user interface, text, application, chat or text message  Description automatically generated |

## Day 1 Questions

### General Questions

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

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| Azure free domain |
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1. What is your domain name?

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| eligenc.azurewebsites.net |

### Networking Questions

1. What is the IP address of your webpage?

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| 20.49.104.36 |

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

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| Tappahannock, Virginia, East US |

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

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| Server: 8.8.8.8 Address: 8.8.8.8#53  Non-authoritative answer: eligenc.azurewebsites.net canonical name = waws-prod-blu-253.sip.azurewebsites.windows.net. waws-prod-blu-253.sip.azurewebsites.windows.net canonical name = waws-prod-blu-253-74a7.eastus.cloudapp.azure.com.  Name: waws-prod-blu-253-74a7.eastus.cloudapp.azure.com  Address: 20.49.104.36 |

### 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?

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| It was PHP 7.4.  It does! |

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

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| css and images are locating in /var/www/html/assets |

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

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| Yes, It does. |

## Day 2 Questions

### Cloud Questions

1. What is a cloud tenant?

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| It’s a reserved Azure AD service, and that an organization receives and owns once it signs up for a Azure. |

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

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| It’s important because policy determines whether a given security principal, a user, user group, application and it’s performing different operations on Key Vault secrets, certificates, and keys. |

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

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| Secrets: Provides secure storage of secrets, such as passwords and database. Certificate: Supports certificates, which are built on top of keys and secrets.  Keys: Managing keys of an Azure storage account for us. |

### Cryptography Questions

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

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| They are free, and suitable for internal network development, websites. Encryption and Decryption of the data is done with the same ciphers used by paid SSL certificates. |

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

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| It doesn’t provide sufficient protection to the data sent by a browser to the server. |

1. What is a wildcard certificate?

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| It secures our domain and an unlimited number of first-level subdomains(hosts). |

1. 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.

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| MS disabled SSL 3.0 in Azure Web application by default to protecting customers from the vulnerability. |

1. After completing the Day 2 activities, view your SSL certificate and answer the following questions:
   1. Is your browser returning an error for your SSL certificate? Why or why not?

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| No, it’s not returning an error for my SSL certificate because I already created Key Vault / certificate on my website and it called eligencPFX-cert. |

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

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| Activation Date: 11/09/2022  Expiration Date: 11/09/2023 |

* 1. Do you have an intermediate certificate? If so, what is it?

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| Yes, I do. I have a eligencPDX-cert. |

* 1. Do you have a root certificate? If so, what is it?

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| No, I do not. |

* 1. Does your browser have the root certificate in its root store?

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| Well, it trusted root certificate is necessary only if you are notified that the certificate of authority is not trusted on any machine. |

* 1. List one other root CA in your browser’s root store.

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| Microsoft Azure TLS Issuing CA 01 |

## Day 3 Questions

### Cloud Security Questions

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

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| Basicly, Front Door is non-regional service whereas Application Gateway is a regional service. It’s setup process is similar… |

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

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| 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. SSL offloading is boost the page load speed time. |

1. What OSI layer does a WAF work on?

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| Layer 7 |

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

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| SQL Injection Attack: Common Injection Testing Detected. |
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1. 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?

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| Absolutely it could impact by vulnerability because Front door secures our user experiences for our content and applications. |

1. 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?

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| Yes, definitely it blocks the visitors from Canada. Because let’s say I created geo-filtering, and select the Geo location as the Match type, and then select the country or regions I want to allow/block from my application. |

1. Include screenshots below to demonstrate that your web app has the following:
   1. Azure Front Door enabled

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| Graphical user interface, text, application  Description automatically generated |

* 1. A WAF custom rule

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| Graphical user interface, text, application, email  Description automatically generated |

## 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*](https://docs.google.com/document/d/1ZzC4oTJFdlkkeWuzuJAyVSqtDFbuAWilmwXg8PZgzMs/edit) *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*

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