| Cybersecurity |
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| 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://bertsapp.azurewebsites.net |
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Paste screenshots of your website created (Be sure to include your blog posts):

|  |
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## Day 1 Questions

### General Questions

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

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

| https://bertsapp.azurewebsites.net |
| --- |

### Networking Questions

1. What is the IP address of your webpage?

| 20.40.202.32 |
| --- |

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

| Oklahoma city, Oklahoma USA |
| --- |

### 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?

| Azure front end app docker image container |
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1. Inside the /var/www/html directory, there was another directory called assets. Explain what was inside that directory.

| CSS Sprites are a collection of images that are combined into a single file that an HTML document can access. |
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1. Consider your response to the above question. Does this work with the front end or back end?

| Front end image |
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## Day 2 Questions

### Cloud Questions

1. What is a cloud tenant?

| a computing architecture based off the cloud and allows users to share computing resources in a private cloud or public. |
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1. Why would an access policy be important on a key vault?

| An access policy that determines whether a given security principal is namely a user, user group, or an application that can perform different operations on key vault secrets, keys, and certificates. |
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1. Within the key vault, what are the differences between keys, secrets, and certificates?

| Azure Key Vault enables users to store and use cryptographic keys within the Microsoft Azure environment. Azure Key Vault supports multiple key types and algorithms and enables the use of hardware security modules. |
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### Cryptography Questions

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

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

| They don't really provide trust value, mostly useless in in establishing identity assurance |
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1. What is a wildcard certificate?

| a public key certificate which can be used with multiple subdomains of a domain |
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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.

| A hacker can downgrade the protocol |
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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?

| No azure free domain auto generates one |
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* 1. What is the validity of your certificate (date range)?

| Issued On Monday, March 14, 2022 at 1:39:55 PM  Expires On Thursday, March 9, 2023 at 12:39:55 |
| --- |

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

| Yes TSL |
| --- |

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

| Yes public key:  20.169.31.224 ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIPoWbCl1GMARoXOEBd1KLlRkcpgZSU0c4PYKFgKzyY1v |
| --- |

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

| Yes it does |
| --- |

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

| PKCS #1 SHA-384 With RSA Encryption |
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## Day 3 Questions

### Cloud Security Questions

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

| The difference is that the front door is a non regional service and the application gateway is a regional service. |
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1. A feature of the Web Application Gateway and Front Door is “SSL Offloading.” What is SSL offloading? What are its benefits?

| SSL offloading relieves a web server of the processing burden of encrypting and decrypting traffic sent via SSL |
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1. What OSI layer does a WAF work on?

| Layer 7 defense |
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1. Select one of the WAF managed rules (e.g., directory traversal, SQL injection, etc.), and define it.

| SQL injection is a code injection technique |
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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?

| Set input validations |
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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?

| The only way they could reach my website would be thru a VPN or Proxies and change the Geo location of their IP |
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1. Include screenshots below to demonstrate that your web app has the following:
   1. Azure Front Door enabled

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* 1. A WAF custom rule

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## 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. YES*
* ***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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