| Cybersecurity |
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| Project 1 Review Questions |

Make a copy of this document before you begin. Place your answers below   
each question.

## Day 1 Questions

### General Questions

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

| I decided to use the Azure free domain for my project |
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1. What is your domain name?

| marcsecproject1 |
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### Networking Questions

1. What is the IP address of your webpage?

| 51.104.28.77 |
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1. What is the location (city, state, country) of your IP address?

| London, England United kingdom |
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1. Run a DNS lookup on your website. What does the NS record show?

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### 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.7.4 hypertext preprocessor is a server side language that operates in the backend to provide for the web browser. |
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1. Inside the /var/www/html directory, there was another directory called assets. Explain what was inside that directory.

| The style.css file is used for the visual design of the webpage things like fonts, animations and color |
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1. Consider your response to the above question. Does this work with the front end or backend?

| This is a frontend process and is used to style the webpage on the client side. |
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## Day 2 Questions

### Cloud Questions

1. What is a cloud tenant?

| a way that multiple or individuals can share resources publicly or privately. Similar to how a single tenant or group of tenants rent a room is how data is rented out in a cloud infrastructure isolating that data so that it is not viewed by others. |
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1. Why would an access policy be important on a key vault?

| It will Prevent any unauthorized access to a person except the user. |
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1. Within the key vault, what are the differences between keys, secrets, and certificates?

| Secrets store data and passwords, cryptographic keys are represented as json which store and encrypt both a public and private key, certificates are an electronic endorsement provided by a trusted authorizing agent. |
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### Cryptography Questions

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

| They are free and have the same level of security if used within one private organization. |
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1. What are the disadvantages of a self-signed certificate?

| There is no way to tell if a certificate is valid or not for an external source. |
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1. What is a wildcard certificate?

| A wild card will specify a certificate for the domain and subdomains |
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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.

| SSL version 3.0 is not used because of a massive vulnerability within named poodle. |
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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, because the certificate is valid and signed by the Certifying Authority if it was not an error would be present. |
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* 1. What is the validity of your certificate (date range)?

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

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

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

| yes it is stored inside the browser under trusted root certification authority. |
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* 1. List one other root CA in your browser’s root store.

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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?

| Front door is a non-regional service provided while Azure web application is regional both residing in layer 7 of the osi model. |
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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 provides a web server reliefby eliminating the encryption/decryption process that occurs with SSl reducing the workload. |
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1. What OSI layer does a WAF work on?

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

| [HTTP Header Injection Attack via payload: This will inject a malicious payload directly into The hosts header HTML an example of this would be cross site scripting |
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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?

| In its current configuration with WAF rules applied it would not be vulnerable in part because header injection is being protected with a rule created within the managed Rules tab of Frontdoor. If Frontdoor was not active then yes it would be exposed as long as an attacker can gain the credentials they would be able to inject into the header. |
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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?

| Yes, if traffic is blocked for Canada and a Canadian IP attempts to access the website will not be authorized if someone is using a VPN though, it could bypass that rule and access the site. |
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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 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 the project has been graded.* ***yes***

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