



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://liansecurityresume.azurewebsites.net/>

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

LIAN CHANCAY'S CYBER BLOG

Send Email



Hi, I'm Lian!

My name is Lian Chancay from Venezuela, i'm currently accomplishing a cybersecurity certificate at the University of Utah, i hope to make meaningful contributions to the field of



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Blog Posts



Inventors of the modern cryptography? Who are they?

Turing Award

Name after Alan M. Turing who invented the Tunny encoding machine in world war II, Whitfield Diffie and Martin E. Hellman invented the Public-key-cryptography, by that contribution they won the 2015 ACM Turing Award, also known as the Nobel Prize of Computing, which include the top prize of \$1 million.



Public-Key-Cryptography

How is it works?

Also known as asymmetric encryption, allows the encryption of data by exchanging public keys and decrypt the data using a secret private key, each party has a pair of keys, private and public, and required a sender and a recipient, using GPG, a free command tool used to the creation of encryption and decryption.

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?

liansecurityresume.azurewebsites.net

Networking Questions

1. What is the IP address of your webpage?

20.211.64.21

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

Australia East

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

```
australiaeast.cloudapp.azure.com
  primary name server = ns1-06.azure-dns.com
  responsible mail addr = msnhst.microsoft.com
  serial    = 10001
  refresh   = 900 (15 mins)
  retry     = 300 (5 mins)
  expire    = 604800 (7 days)
  default TTL = 60 (1 min)
```

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?

Is a combination of software that also works together and supports the execution of an application or a service, including HTML and it works on the

front-end servers.

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

Css and images

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

Both are front-end

Day 2 Questions

Cloud Questions

1. What is a cloud tenant?

A cloud tenant could be a company, a group of users or just any user that is a customer who pays or also can subscribe for any user services from a cloud computing

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

It's important because it can control who can have access and also manage certificates, keys, key vaults and secrets.

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

Certificates: Support certificates to validate authenticity to secure communication for HTTPS.

Secrets: Any information you want to secure such as connection strings, passwords, etc., and are managed within the key vault.

Keys: Can be used for encryption, decryption and also to create digital

signatures.

Cryptography Questions

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

Is free, has a quick setup and don't need to go through all the process to obtain a certificate, you can have all control over it, and it's fast.

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

Is not as secure as doing it with a third-party CA and can have a high compromise of data, and also doesn't have any validation from the CA, extended validation EV or wildcard certificates.

3. What is a wildcard certificate?

Is a type of SSL and TLS certificate used to secure hosts, wildcards use asterisk that allows and secure it to be used for multiple sub domains and also saves time and money.

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.

It does not provide SSL 3.0 because it has vulnerabilities such as the poodle attacks, and the versions 1.0, 1.1 and 1.2 are more secure on public HTTPS endpoints.

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?

It's not giving any error because I did TLS

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

Valid from: 06/27/2024 7:31:58 pm
Valid until: 06/27/2025 7:31:58 pm

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.

Globalsign root CA, microsoft azure RSA TLS issuing CA 07

Day 3 Questions

Cloud Security Questions

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

The web application gateway is a regional server and the azure front door is a global server and both are in the layer 7 that works with HTTP and HTTPS.

2. What is SSL offloading? What are its benefits?

Is a network technique or processes that is used to remove the SSL-encryption from any incoming traffic or for encrypting traffic with SSL, has a faster processing of requests at the end of the web application and also can improve network performance and security.

3. What OSI layer does a WAF work on?

Work on layer 7: Application.

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

Is a type of web application attack that uses SQL code intended to manipulate queries to access or modify data in the database.

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?

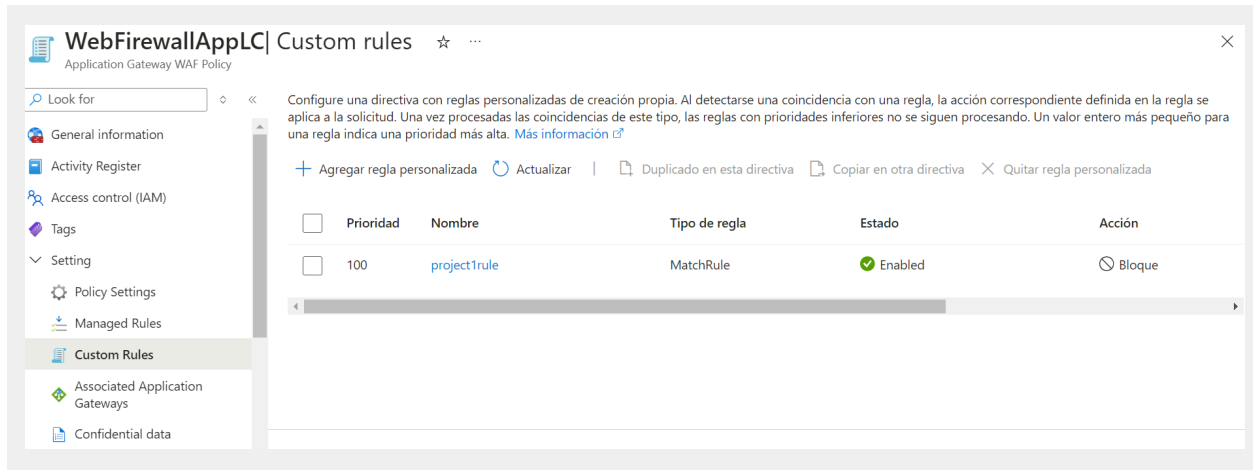
Yes, because then it would be vulnerable to an attack like that and also my web application that i have created is from azure and azure has a web application firewall that protects against SQL attacks, so if it is not enabled my web secure is weak.

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?

If I block all traffic from Canada nobody with IP from Canada would be able to access my website because of the rule I "created" and it would be really helpful to secure my website from any malicious threat from Canada.

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

- a. 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.***
- ***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.***