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PROJECT 1

CLUSTER PROJECT1 ASSIGNMENT: You will schedule a 1-hour session with your cluster and the Instructors to present your solution (diagram & FINAL working PRODUCT)

The NAS Financial Group is currently running its workloads on premise and would like to migrate some applications to the AWS cloud platform.

They hire CloudSpace Consulting engineers (who will all work from home) to design, implement and manage a solution that will meet the following requirements:

1.) The NAS Financial Group AWS account should be accessible and managed by the following groups:

- * CloudSpace Engineers Cluster_Name [They should have full admin access except billing to the NAS accounts]

- * NAS Financial Group Security Team [They should have full admin access with billing included to the NAS Financial Group accounts]

- * NAS Financial Group Operations Team [They should only have full admin access to deploy ONLY in the us-east-1 region and should NOT be able to launch in any other region]

2.) Build a publicly available Dynamic, HA and Secured website:

- * Because of PCI compliance all traffic from users to the website should be encrypted.

- * The site should be Highly available and fault tolerant.

- * Because of GDPR compliance only USA customers should be able to access the dynamic website, but users in Europe and other continent should land on a static website that display "Sorry you are not in a country authorized to access this web page"

- * The website should be able to self-heal and adapt to the volume of traffic from customers.



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- * For disaster recovery, the application tier & the database tier should be backed up in a different location.

- * There should be at least 2 monitoring systems in place to notify us in case the website site is down:

1. Use any AWS native solutions to be notified when there is a failure with the website

- * The management of the web server should only be done by CloudSpace engineers using the most secured methods as per AWS best practices.

3.) Build a Dynamic application that is not publicly accessible (intranet).

- * Make sure the server hosting the intranet has the ability to download and update packages on the internet.

- * Users within the company should access the application through HTTP

4.) NAS Financial Group recently hired an AUDITING company named N2G Auditing to provide visibility and auditing to the NAS internal application.

- * N2G Auditing should only have access to NAS Financial internal (intranet) application through its web interface using HTTP and the underline database from their own AWS account.

- * Recommend an AWS service when N2G auditing can have a centralized way of reviewing if NAS Financial Group is following AWS best practices (Cost Optimization, Performance, Security, Fault Tolerance). Their console access should only grant them full access to that service and NOTHING else.

5.) Storage

NAS Financial Group stores files of customers information. That information contains PII and should be encrypted at rest. The files are regularly access for 30 days and then need to be archived and records kept for 5 years.

- * Recommend a storage solution that will help NAS meet these requirements