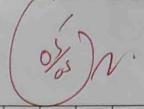
Name! Snehal A. Patil class: DISA ROLL NO:39



## ASSIGNMENT NO: 1

Q. 1 Use s3 bucket and host video streaming. Give proper each and every step for this in Short but all the steps.

Ans: Step 1: create an S3 bucket

I. Sign in to AWS management console

2. Navigate to s3:

- In AWS Management Console, selects3.

3. Create a Bucket.

- Click on create bucket

- Enter ce unique bucket name.

Step 2: Upload Video to 83 bucket!

1. Open your Bucket by clicking on bucket
name your created.

2. Uplosed Files.

- Click on upload.

- Drag and drop your tiles and click uplead.

3. Bet Permissions:

- For Public access under permissions, check Grant Public read access.

Step 3: Create a Cloud Front Distribution

1. Navigate to cloud Front from aws console.

2. Click on create distribution. - choose web as delivery method.

3. Consigure the distribution! - origin Domain name: select Your &3 bucket - Viewer protocol Policy! Choose Redirect HTTP +OHTTPS Forsecure access - Cache Behaviour settings: Configure Caching - Click create distribution. Step 4: Configure CloudFront for secure Access: 1. create an origin occess Identity (OAT)
- In cloud Front origin console, go to
distribution settings. - Under origins and origin group, click Edit.

- create a new origin access Identity.

2. Update 83 bucket policy.

- Go to your 83 bucket. - Click on permission & then bucket Policy. - Add to policy to grant access to OAI. Step 5: Access the video through cloud Front 1. Get the cloud Front URL - In CloudFront Console, Go to your distribution. + Copy the Domain Name. 2. Use the UPL.

- use this UPL in your web application

to stream the video.

FOR EDUCATIONAL USE

Sundaram

9: 2 Discuss BMW and Hot Star case studies using AWS. Ans! BMW Case Study: Overview: BMW leverages AWS to enhance its digital transformation, focusing on innovation in Connected vehicles and improving operational efficiency. Key points: I. Data Analytics! • BMW uses AWS for big data analytics, enabling real-time processing of vehicle data. This allows for predictive maintenance and improved customer 6 Service. 2. Cloud Infrastructure: · By migrating to Aws, BMW benefits from Scalable and Hexible Cloud infrastructure reducing 17 costs and enhancing agility. 3. Connected vehicles: · AWS Supports BMW's connected car initiatives, allowing for Seamless integration Sundaram FOR EDUCATIONAL USE

of Services like navigation, entertainment, and remote diagnostics.

4- Security and Compliance:

• Aws provides robust security measures

that help BMW maintain Compliance with

automotive industry standards.

Hot Star Case study: Overview: Hot Star, a popular streaming Service in Asia, utilizes Alws to deliver high-quality Content to million of users.

Key Points:

I. Scalability:

· During peak events (like sports finals), Hot Oster scales its infrastructure dynamically with AWS Services to handle massive spikes in user traffic.

2. Content Delivery: • The use of Amazon CloudFront enhances the delivery of streaming Content globally, ensuring low latency and high

3. Machine Learning:

• Hot Star employs AWS machine learning

Services to Personalize user experiences and optimize Content recommendations.

4. Cost Management:

• By using Aws's Pay-as-you-go model,

Hot Star manages operational costs effectively, aligning expenses with user

Conclusion:

Conclusion:

Both BMW and that Star demonstrate how

AWS Can drive innovation and operational

efficiency in different industries. BMW

focuses on enhancing connected vehicle

experiences and data management, while

Hot Star emphasizes scalability and content

delivery for a Superior Streaming experience. Their successful integration of AWS highlights the platform's versatility and robustness in meeting diverse business needs.

9.3 Why Kubernetes and advantages and disadvantages and disadvantages Kubernetes Ans! Kubernetes is an open-source container orche-Stration platform designed to automate deploying scaling and managing Containerized applications Advantages of kubernetes! I. Scalability: Automatically adviests resources based on demand 2. Portability: Consistent performance across cloud and on-premises environments. 3. High Availability: Self-heals and ensures 4. Load Balancing: Distributes traffic effectively. Disadvantage Of Kubernetes: 1. Complexity: Steep learning curve and setup time. 2. Resource Intensive: Requires significant computing resources. 3. Operational Overhead: Needs Continuous management and monitoring.
4. Networking Challenges: Complicated Configurations
Can be tricky to un trouble shoot. FOR EDUCATIONAL USE (Sundaram)

## How Adidas Uses Kubernetes:

Adiolas uses kubernetes to scale their eCommerce Platform globally. It allows them
fo manage microservices exticiently. By
adopting a microservices architecture with
kubernetes, Adiolas Can handle high-traptic
events like product launches with ease
through auto-scaling, ensuring reliable
parformance kubernetes also supports their
Continuous Integration/Continuous Deployment
(c1/cD) pipelines, allowing for faster updates
and feature vollouts coithout downtime.
Its Self-healing Capabilities ensure minimal
Service distructions, of the platform's flexibility
allows Adidas to implement a multi-cloud
Strategy, optimizing their intrastructure
across Various cloud providers.

9.4 What are Nagios and explain how Nagios are used in E-services?

Ans: Nagios is an open-source monitoring tool used to oversee Systems, networks, R services. It helps detect issues by Continuously monitoring resources like servers, applications, and network devices. When problems occur, Nagios sends alterts to administrators, enabling quick certion to

prevent douontime or performance degradation Key Features of Nagios: 1. Monitoring of Network Services! Nagios monitors Uservices Such as HTTP, FTP, SMTP, etc. 2. Monitoring of Host resources , CPV usage Udisk space, etc., cen be tracke For servers and network devices. 3. Alerting System: When critical thresholds are reached, Nagios sends alerts via email, sms, 4. Web Interface: It offers a web-based interface for viewing system statuses, 1095, + trends. 5. Scalability: It can be used to monitor both Small & Trange infrastructures, thanks to its Architecture

How Nagios is used in E-services:

2. Uptime Monitoring: It monitors the availability OF e-services, ensuring that websites, Payment gateways, to other critical components remain operational.

2. Performance Monitoring! Nagios tracks the performance of server resources, databases, and networks, ensuring that service are delivered efficiently to users.



- 3. Incident Detection: It there is a system failure, service outage or performance degradation, Nagios instantly detects the issue & alterts the 17 team to take Corrective action.
- 4. Security Monitoring: Nagios Can track suspicious activities, detect unauthorized access, & monitor the health of Security systems, helping in Safeguarding e-services from cyber threats.
- 5. Capacity Planning. By monitoring resource usage trends l'over time, Nagios helps in planning upgrades or resource allocation to avoid slowdowns or outages.