

ASSIGNMENT NO - 1

04/05 ✓

Q1 Use S3 bucket & host video streaming.

→ Step 1: Set up Amazon S3 bucket.

- i) Will search for S3 on service section, click on create bucket. This will direct you to the bucket creation page. Here, give a name.
- ii) After creating bucket, add video to this. Click on name, this will redirect to objects.
- iii) Select mp4 file & upload it.
- iv) This will start uploading process.

Step 2: Set up CloudFront

- i) Search for CloudFront on services table. Open it in a new tab.
- ii) On left pane, under security click on origin.
- iii) Go back to distribution & create on distribution.
- iv) In origin field - select the S3 bucket where video is uploaded.

Under origin access, select legacy access identifiers. Click on yes, update bucket policy, create the distribution. This will deploy it.

Step 3: Accessing the hosted video:

- i) Once the distribution is deployed, copy name.
- ii) Go to video in bucket when it is uploaded. Click on its name.
- iii) On your address bar, use link.

Thus we have deployed a video on an S3 bucket using a CDM CloudFlare.



Q2 Discuss BMW & Hotstar case studies using AWS

→ BMW & Hotstar case studies is a renowned global automotive, beverage AWS to drive its digital transformation & enhances its operational efficiency. It utilizes AWS to power its connected drive, platform, offering real-time updates, navigation & remote diagnostics by processing vast amount of vehicle sensor data. AWS services like SageMaker & AWS IoT enable BMW to perform Adv DA.

Hotstar, a leading Indian streaming platform relies on AWS to manage massive traffic, particularly during live events. Using AWS scalable infrastructure, Hotstar ensures seamless content delivery to millions of concurrent viewers through services like Amazon CloudFront, Amazon S3 & EC2. AWS pay-as-you-go model optimizes costs by scaling resources according to demand. The global CDN provided by AWS ensures low latency & high performance delivery quality.



Q3 Why kubernetes & advantage & disadvantage of kubernetes. Explain how adidas use kubernetes.

→ kubernetes is a open source container orchestration platform that automates the deployment, scaling & management of applications.

Advantages : 1) Automation : It deploys, scaling & management of application.

2) Portability : Runs on various environment including public clouds, private & premise.

3) scalability : Easily scale application horizontally to meet increasing demands.

4) self Healing :- Detects & replace failed containers with high availability.

Disadvantages :-

1) Complexity : Can be complex to set up & manage.

2) learning curve : Require time & efforts.

3) Initial setup : The setup can be time consuming & may require specialized knowledge.

How adidas uses kubernetes

→ Adidas leverages kubernetes to enhance its application scalable & reliable. It ensures efficient load balancing, automated scaling & seamless application updates. It allows adidas to manage its containerized with high availability & optimized performance.



Q4 what are Nagios & explain how Nagios are used in E-services.

→ Nagios is a robust & versatile open source monitoring tool designed to overcome & manage IT infrastructure. It primarily focuses on monitoring systems, networks & infrastructure providing comprehensive insights into the performance & health of servers, applications, services & network protocols. Nagios operates by periodically checking the status of various resources through plugins, which can be customized to suit specific monitoring needs. When it detects issues or protocol problems, Nagios alerts administrators through notifications, enabling timely interventions to prevent downtime & ensure system reliability. In the context of E-services, it plays a critical role by ensuring continuous availability & optimal performance of online services & applications. It relies heavily on consistent uptime. It detects issues like server overloads, network outages or application failures, enhances user experiences, maintains the trust & reliability essential for platform.