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DISA/66

Adv. Devops Assignment 1

Using S3 Bucket Video Streaming

- a) Create an S3 bucket
Sign in to aws and select create bucket, enter appropriate name and choose region and for Block Public Access for this bucket, keep default settings. Choose Create Bucket.
- b) Upload a video to the S3 Bucket.
To upload a file to the bucket open the created bucket and on objects tab, choose upload, then select files and folders and Add Files. Select open and locate file then choose Upload.
- c) Create a CloudFront origin access identity
To create a cloud front OAI, sign in to the AWS Management Console, under the Security Section, choose Origin access. Under the identities tab, choose Create origin access identity. Choose create.
- d) Create a cloudfront distribution.
To use cloud front to serve and distribute the video in your S3 Bucket, you must create a CloudFront distribution.
- e) Access the S3 video through the CloudFront distribution with the custom domain name.
We can access this video through that custom URL created and SSL certificate for safety and security is also assigned.

Q.2] BMW and Hotstar on AWS Services.

→ On 15 Nov, 2023 when India was playing against New Zealand at the World Cup semifinal match in Wankhede Stadium in Mumbai more than 5 crore people were watching the match on Hotstar apps on global level. AWS serves as the primary hosting provider for Disney. It relies on AWS as the backbone of their hosting, and provide details about the infrastructure, including the use of AWS instance during high impact events. It offers a scalable and reliable cloud computing platform, and allow Disney to manage their infrastructure based on demand.

One of the best known names in the automotive industry, BMW Group has been providing premium driving experiences of millions of customers since 1916. Always at the forefront of innovation, it has now developed a groundbreaking In-Console Cloud Assistance solution in collaboration with AWS. Part of the company's infrastructure optimization program, the ICCA is empowering BMW Group DevOps with generative AI to boost performance and efficiency. With access to large language models (LLM) and with data encrypted in transit and at rest - BMW Group can securely deliver high-quality connected mobility solutions.

Kubernetes and how industries use it.

Kubernetes, commonly referred to as K8's, is like a manager for your computer programs. Imagine you have a bunch of different programs running on your computer. They need to work together, and sometimes you want to run more copies of a program when things get busy. This can be hard to do manually, like trying to juggle a lot of balls at once. Adidas is a globally renowned sportswear and athletic footwear company headquartered in Germany. Founded in 1949, it offers a wide range of sports-related products, collaborates with subsidiary brands like Reebok, focuses on innovation in athletic footwear technology, and maintains a strong global presence. Adidas is committed to sustainability and social responsibility.

Adidas stated "we started from the developer point of view," and looked for ways to shorten the time it took to get a project up and running and into the Adidas infrastructure, says Senior Director of Platform Engineering Fernando Cornago. They found the solution with containerization, agile development, continuous delivery, and a cloud native platform that includes Kubernetes and Prometheus.

Q-4] What are Nagios and use in E-services.

→ Nagios is an Open Source IT system monitoring tool. It was designed to run on the Linux OS and can monitor devices running Linux, Windows and Unix OSes. Nagios software runs periodic checks on critical parameters of application, network server resources. Nagios can monitor memory use, disk use and microprocessor load, as well as the number of currently running processes.

Bitnetix with Nagios in an IT consulting organization which is into networking, datacenter, monitoring and Voice over IP, through their offerings, they make small business look big. Their solution help you managing customer relationships in a better way by increasing more engagement and improving their satisfaction. They say they are in business of communication, hence communication right message to their customers at right time is very important for them.