ADVANCE DEVOPS

Assignent 1

01. Use 53 bucket and host Video Streaming

> Do use Amazon 53 bucket for video straning, we need to use 53 loukets as a container and cloudfront as a Content Delivery Network (CDN).

Step 1: Dot up Amazon S3 bucket 1) Cearch for 53 on the services section. Click on it, then

click on create bucket. This coil direct you to the bucket creation page Hore, give a name to you bucket

It is better to bock all public acces so that unauthorized people do not use the video. Maintaining the other options

as default, click on croste bucket.

2) The bucket has been knowled. Abow we need to add our video in this bucket for that, click on the name of the bucket This will redirect you to the object screen which show the object of your bucket click on Upload. Here, select add files. An MP4 Extension file is needed

ar we need to host a video. Select upload.

Step 2: Dot up Leand Front.

i) As the video is being uploaded Dearch for Cloud Front on the sources trab and open it in a new tab.

2) On In left pare, under socurity, you will find origin access. Click on it, then click on identities ! Click on

create origin access identity.

	(10)
	I tompiled
	Now go back to Distributions on the left pane and click
2)	on Create a coordinant distribution. Here in origin field, Solect the S3 bucket where video is
	exploaded Under origin access, Delot Logacy access
	identifies. Deloct the identity you have created.
	Under bucket policy, select Yes, cydate bucket policy.
	Create Distribution.
	total 52 nogent git tote: 1902
	Step 3: Accessing the hosted video.
15	to all of word transfer the sout stores no skills
9	Once the distribution is deployed, copy the
).	domain name of your distribution.
5.)	Now go to 53 bucket and click on its Name.
	Find the Roy, copy that
	to support we doubt that the last both
3)	combine the Domain name of the distribution and
	The key of the video to make your final link of the video that is streamed:
551	the video that is streamed:
	A Little of the state of the st
-	<domain distribution="" name="" of="">/<key of="" video=""></key></domain>
	100 / 1 / 100 / 10
	and hours and Army belonders and a below extended to
	that was a wet party has dott misutes it the the
AG	we fort this work chaired work, wrong total At . This to
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Ø5]	Discuss BMW and Hot Stan Case studies using AWS.
\rightarrow	BMW Case Study
1	and processive transmission and and the holoson motited
• 3	Challenge:
	Brown needed to process and analyze data from over 14 million
	connected vehicles to enhance customer experience and
	improve vehicle performance.
	allowing of ships out Allow 200 nogoma bagility -
	Dolution:
800	Implemented AWS I OT come to securely connect and Manage
6,	vehicle data Streams
	Used Amazon S3 to stone massive amounts of vehicle temperary data
	Loveraged Amazon Kinesis for real time data processing & analytics.
	Employed Amazon Sage Maker for daveloping ML models to predict
	maintenance noeds.
No.	I don Thout?
0	Long-terna Impact:
	Brow's cloud trased approach allowed them to release
	new features 80% faster than before.
_	The company was able to offer personalized services like
	usage based insurance and romate diagnostics.
_	BMW reported a significant improvement in customer Dervice
2,0,19	satisfaction due la proactine maintenance alorts 4 personalized Dervi
	That stop much star at Wichelman Net 100 Xening
-	Drecific Traident and Results:
-	In 2019, BMW launched its BMW Cardata Platform,
	powered by AWS.
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	The second secon
\rightarrow	Hotstar Lase Dhudy 12 to 1 t
	Challenge:
•	Challenge:
	Hotston reeded to handle massive concurrent viewcuship
	during live cricket events, particularly the Indian
	Premier Lague (IPL).
	TO ALBERTA OF ALMOTAIN SANDARY OF
•	Dolution:
- 1	Utilized Amazon EC2 with Auto Scaling to dynamically
	Simplemented Amazon Cloudpoint for global content delivery.
	Used Amazon Dynamodo for low latercy data access and caching.
11	deveraged Aux Lambda for serveders compute function.
	The same of the sound of the sound of the same of the
4.1	Long Tram Smart: the transfer of the state o
_	little sometil a 30% reduction in inpatrictine costs.
_	The Matterns ability to rando massive & and so
	un on growth in User engagement.
_	Votoba became India's Largest promium streaming propount
	with over 300 Million Adire Users by 2020.
	of section of the old of the contract of
•	Specific Doublent and Results:
1.5	During the 2019 IPL Final:
STRANK T-	Hotelan achieved a so cond breaking 18.6 million concurrent triences.
-	Achieved 33.93%. availability rate during peak load.
-	They had a microscruicos architecture with over 150 servicos running on Amazon ECS (Epstic Container Servico).
	runing on mingor 2-3 ccas is about a
(F-45-10)	FOR EDUCATIONAL USE

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(03)	lity Kubernetes and advantages and disadvantages of
	Kubernetes Explain Low Adidas usos Kubernetes.
100000	Wall from the poly of the ocof ething of telest -
\rightarrow	Kubernetes is an open Dource Container orchestration
	platform that automates the deployment, scaling, and
	management of containerized application.
Francis	The said Alay on the carlain bour total TAD
	Advantages:
D	Dealability: Easily scale applications up on down
<u>\$</u>	Dolf Healing: Automatically rostants failed containors.
3)	Loud Balancing: Distributes notwork thatfic.
40)	Automated trallouts and trallbacks: Dimplifies explotes
5)	Decrot and configuration management: Documely manager information.
	The state of the s
	Di sadvantages: my my har sally the sally seems dear
)	Complexity: Stop learning curve:
2)	Resource Intersive: Requires significant computational resources
3)	Docurity Challenges: Require careful configuration to ensure security. Networking Complexity: lan be challenging to set up and troubleshoot.
4)	Networking Complexity: lan be challenging to set up and troubleshoot.
	The state of the s
#-	Adidas migrated from monolithic architecture to microservicos.
-	Adopted Kubernetes for container orchestration.
5/9 WILL	Implemented on Google Cloud Platform (GCP).
	ALLA LE COUNT DE LA
	Used Kubernetes Engine (GKE) for managed Kubernetes clusters.
-	Implemented Istio for sorruice mesh capabilities.
-	Utilized Prometheus and avalance for monitoring and
	observability.
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•	Key Results:
-	Reduced Deployment time from 3-4 hours to 10-15 minutes
-	Dealed to handle Too order per becond during island
	Friday solas: Solas and the total and the solar dist
-2	no graters trangalab all of motion to the months of
	mothering angineration de transporm
Q4J	What are Nagios and explain how Nagios are used in E-sorvicos?
	i mest how ha
→ Þ	Donn Nagios is an open-source monitoring system that
	help conjunizations identify and resolve IT infrastruture
	problems before they appect critical buiness processes:
	How Is Nagion used in E-services:
- dans	of market formed the grand white of their trends to
1)	Derver Monitoring:
	Tracks sower health, uptime and performance
_	Alext administrators to potential issue.
	Commence Proposition of the Deposit of Manual States of the Commence of the Co
2)	Notwork Monitoring:
too	Monitors Natural devices and bandwidth usage.
-	delps identify bottlerecks or failures.
A	marine of antististics statistisms mare palacetes with A H
3	Application Monitoring:
-	Check the status and performance of web applications, databases etc.
	Ensure Dorvices are running correctly.
	and second of the second of th
4)	Bana tina Cala ta Dan to an all Maria
	Reporting: Generates reports on system availability a performance.
	Re inclose the Next To the
	By implementing Nagios, providers can manage their infrastructure.
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