2CS702 - Big Data Analytics

Practical 10

Aim:- Case study: Use following platforms for solving any big data analytic problem of your choice. (1) Amazon web services (2) Microsoft Azure, (3) Google App engine.

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Amazon Web Services:-

Amazon Web Services provides a broad and fully integrated portfolio of cloud computing services to help you build, secure, and deploy your big data applications. With AWS, there's no hardware to procure, and no infrastructure to maintain and scale, so you can focus your resources on uncovering new insights. With new capabilities and features added constantly, you'll always be able to leverage the latest technologies without making long-term investment commitments. Platform include functionalities:-

- Immediate Availability
- Broad & Deep Capabilities
- Trusted and Secure
- Hundreds of partners & Solution

Microsoft Azure:-

Azure HDInsight is a managed, open-source, analytics, and cloud-based service from Microsoft that provides customers broader analytics capabilities for big data - this helps organizations process large quantities of streaming or historical data. In includes:-

- Synapse Analytics
- Databricks
- HDInsight
- Data Factory
- Lake Analytics

Google App Engine:-

Bigtable is a fully-managed NoSQL database service built to provide high performance for big data workloads. Bigtable runs on a low-latency storage stack,

supports the open-source HBase API, and is available globally. The service is ideal for time-series, financial, marketing, graph data, and IoT. It powers core Google services, including Analytics, Search, G mail, and Maps. Services it includes:-

- ONTAP
- BI Engine
- Google Cloud Data Fusion
- Google Cloud Composer
- Google Cloud Dataproc

Service	Google App Engine	AWS	Azure
App Modernization	Build, test and deploy on Google Cloud serverless CI/CD platform	AWS CodeBuild, AWS CodeDeploy, AWS CodePipeline	Azure DevOps, Github Enterprise
Compute	Train and run machine learning models faster than before	Amazon Elastic Compute Cloud(EC2) P3	GPU Optimized VMs
Containers	Secured and managed Kubernetes Service with four-way autoscalling and multi-cluster support	Amazon Elastic Kubernetes Service (EKS), Amazon Elastic Container Service(ECS)	Azure Kubernetes Service(AKS)
Data Analytic	Explore, share and visualize your company's data so that you can make better business decisions	Amazon QuickSight	Microsoft Power BI
Database	FireStore	Amazon DocumentDB, AWS DynamoDB, AWS AppSync	Azure Cosmos DB