AWS Certified Data Engineer - Associate (DEA-C01)

Analytics:

Amazon Athena	Serverless, Interactive query service
Amazon EMR	Managed Hadoop framework
AWS Glue	Fully managed ETL (extract, transform, and load) service
AWS Glue DataBrew	Visual data preparation tool to clean and normalize data without writing any code
AWS Lake Formation	Build, secure, and manage your data lake
Amazon Kinesis Data Analytics	Get actionable insights from streaming data in real time
Amazon Kinesis Data Firehose	Prepare and load real-time data streams into data stores and analytics tools
Amazon Kinesis Data Streams	Collect data and make it available for processing and analysing in real time
Amazon MSK	Fully managed service for Apache Kafka
Amazon OpenSearch Service	Run and Scale OpenSearch and Elasticsearch Clusters
Amazon QuickSight	Fast, easy to use business analytics

Application Integration:

Amazon AppFlow	Integrates apps and automates data flows without code
Amazon EventBridge	Serverless event bus to decouple event producers and consumers
Amazon Managed Workflows for Apache Airflow	Run Apache Airflow without provisioning or managing servers
Amazon SNS	Managed message topics for Pub/Sub
Amazon SQS	Managed message queues
AWS Step Functions	Serverless function orchestrator

Cloud Financial Management:

AWS Budgets	Set custom budgets and receive alerts
AWS Cost Explorer	Visualize and explore your AWS costs and usage

Compute:

AWS Batch	Fully managed batch processing at any scale
Amazon EC2	Virtual servers in the cloud
AWS Lambda	Run code without thinking about servers

Compute (contd.):

AWS Serverless Application Model (AWS SAM)	Open-source framework to build serverless applications on AWS

Containers:

Amazon ECR	Fully-managed Docker container registry
Amazon ECS	Highly secure, reliable, and scalable way to run containers
Amazon EKS	Managed service to run Kubernetes on AWS

Database:

Amazon DocumentDB	Fully-managed MongoDB-compatible database service
Amazon DynamoDB	Managed NoSQL database
Amazon Keyspaces	Serverless Cassandra-compatible database
Amazon MemoryDB for Redis	Redis-compatible, durable, in-memory database service for ultra-fast performance
Amazon Neptune	Fast, reliable graph database built for the cloud
Amazon RDS	Managed relational database service
Amazon Redshift	Fully managed, petabyte-scale data warehouse service

Developer Tools:

AWS CLI	AWS Command Line Interface - Enables you to interact with AWS services using commands in your command-line shell
AWS Cloud9	A Cloud IDE for writing, running, and debugging code
AWS Cloud Development Kit (AWS CDK)	Open-source software development framework to define cloud application resources using familiar programming languages
AWS CodeBuild	Build and Test Code
AWS CodeCommit	Store Code in Private Git Repositories
AWS CodeDeploy	Automate Code Deployments
AWS CodePipeline	Release Software using Continuous Delivery

Front-end Web and Mobile:

Amazon API Gateway	Build, Deploy and Manage APIs

Machine Learning:

Amazon SageMaker	Build, train, and deploy machine learning models

Management and Governance:

AWS CloudFormation	Create and manage resources with templates
AWS CloudTrail	Track user activity and API usage
Amazon CloudWatch	Monitor resources and applications
Amazon CloudWatch Logs	Monitor resources and applications
AWS Config	Track resource inventory and changes
Amazon Managed Grafana	Fully managed Grafana service for interactive data visualizations and dashboarding
AWS Systems Manager	Centrally manage application and resource in hybrid environments
AWS Well-Architected Tool	Review your workloads against current AWS best practices

Migration and Transfer:

AWS Application Discovery Service (AWS ADS)	Discover on-premises application inventory and dependencies
AWS Application Migration Service (AWS MGN)	Simplify and accelerate migrations to AWS (next generation of CloudEndure Migration)
AWS Database Migration Service (AWS DMS)	Managed database migration service
AWS DataSync	Simplifies, automates, and accelerates moving data
AWS Schema Conversion Tool (AWS SCT)	Convert your existing database schema from one database engine to another
AWS Snow Family	A collection of physical devices that help migrate large amounts of data
AWS Transfer Family	Fully managed file transfer into and out of AWS over SFTP, FTPS and FTP

Networking and Content Delivery:

Amazon CloudFront	Global content delivery network
AWS PrivateLink	Establish private connectivity between VPCs and services hosted on AWS or on-premises, without exposing data to the internet
Amazon Route 53	Scalable DNS and Domain Name registration
Amazon VPC	Logically isolated virtual network

Security, Identity, and Compliance:

AWS IAM	Identity and access management for AWS resources
AWS KMS	Securely generate and manage AWS encryption keys
Amazon Macie	Automatically discover, classify, and protect sensitive data in AWS
AWS Secrets Manager	Rotate, manage, and retrieve secrets throughout their lifecycle
AWS Shield	Managed DDoS protection service
AWS WAF	Web application firewall to protect web applications from attacks

Storage:

AWS Backup	Centrally manages and automates backups across AWS service
Amazon EBS	Block storage for use with EC2 instances
Amazon EFS	Managed file storage for EC2
Amazon S3	Scalable object storage in the cloud
Amazon S3 Glacier	Archive storage in the cloud

Exam Level	Length	Cost	Questions
Associate	170 minutes	75 USD* (Beta)	85

Domain:	% of Exam
Domain 1: Data Ingestion and Transformation	34%
Domain 2: Data Store Management	26%
Domain 3: Data Operations and Support	22%
Domain 4: Data Security and Governance	18%

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Ashish Prajapati	26-Nov-2023

AWS services are grouped according to their primary functions. While some of these technologies will likely be covered more than others on the exam, the order and placement of them in this list is no indication of relative weight or importance.