

## AWS Database Types & Keywords

Database Type	Key Words / Clues	Exam Focus / Example
<b>Amazon RDS (Relational Database Service)</b>	"Relational", "SQL", "managed database", "structured data", "multi-AZ for high availability", "backups managed by AWS"	MySQL, PostgreSQL, Oracle, SQL Server
<b>Amazon Aurora</b>	"High performance relational DB", "MySQL/PostgreSQL compatible", "auto-scaling storage", "up to 5x faster than standard RDS"	For high-performance relational workloads
<b>Amazon DynamoDB</b>	"NoSQL", "key-value or document database", "fully managed", "serverless", "millisecond latency", "scales automatically"	For fast, high-scale, unstructured data
<b>Amazon Redshift</b>	"Data warehouse", "analytics", "large-scale data", "columnar storage", "OLAP"	For reporting, BI, analytics
<b>Amazon DocumentDB</b>	"Managed MongoDB-compatible database", "NoSQL document database"	Document-based workloads, JSON storage
<b>Amazon ElastiCache</b>	"In-memory caching", "Redis / Memcached", "low-latency access", "speed up applications"	For caching, session storage, quick read/write
<b>Amazon Neptune</b>	"Graph database", "relationships between data", "highly connected datasets", "triple store"	Social networks, recommendation engines, fraud detection
<b>Amazon QLDB</b>	"Immutable ledger", "central trusted authority", "cryptographically verifiable"	Financial, auditing, ledger-type apps
<b>Amazon Timestream</b>	"Time-series data", "IoT / sensor data", "fast ingestion & analytics"	Metrics, IoT, logs
<b>Amazon Keyspaces</b>	"Apache Cassandra-compatible", "managed NoSQL wide-column DB"	Scalable, distributed NoSQL apps

## AWS Analytics Services & Keywords

Service	Type / Focus	Key Keywords / Clues	Use Case / Example
<b>Amazon Redshift</b>	Data Warehouse	"Structured data", "OLAP", "BI reports", "petabyte-scale", "columnar storage"	Analytics on relational/structured data; BI dashboards
<b>Amazon Athena</b>	Serverless Query	"Query S3 data", "ad hoc SQL", "serverless", "pay per query"	Query structured/unstructured data directly in S3 without moving it
<b>Amazon EMR</b>	Big Data / Data Processing	"Hadoop", "Spark", "Presto", "batch processing", "data lakes"	Transform & process massive datasets; ETL pipelines
<b>AWS Glue</b>	ETL / Data Catalog	"Extract, transform, load", "serverless", "data preparation", "catalog", "schema"	Prepare and catalog data for analytics or machine learning
<b>Amazon Kinesis Data Streams</b>	Real-Time Streaming	"Real-time data", "streaming analytics", "IoT", "clickstream"	Capture and process streaming data in real time
<b>Amazon Kinesis Data Firehose</b>	Streaming Ingestion	"Stream to S3/Redshift/Elasticsearch", "delivery pipeline", "real-time streaming"	Real-time delivery of streaming data to AWS destinations
<b>Amazon Kinesis Data Analytics</b>	Streaming Analytics	"SQL-based streaming queries", "real-time analysis"	Real-time analytics on streaming data without managing servers
<b>Amazon QuickSight</b>	BI / Visualization	"Dashboards", "visualizations", "interactive charts", "business intelligence"	Visualize and share insights from AWS data sources
<b>AWS Data Pipeline</b>	Batch Workflow / ETL	"Automate data movement", "schedule workflows", "data transformation"	Move and transform data between AWS services or on-premises

Service	Type / Focus	Key Keywords / Clues	Use Case / Example
<b>AWS Lake Formation</b>	Data Lake Management	“Centralized data lake”, “security & governance”, “catalog”	Build secure, governed data lakes for analytics
<b>AWS Database Migration Service (DMS)</b>	Migration	“Migrate database”, “minimal downtime”, “homogeneous / heterogeneous migration”	Move on-premises or cloud databases into AWS for analytics pipelines

## AWS Database Migration – Exam Keywords

### AWS Database Migration Service (AWS DMS)

- **Keywords / Clues:**
  - “Migrate databases with minimal downtime”
  - “Continuous replication”
  - “Heterogeneous migration (Oracle → Aurora, SQL Server → MySQL)”
  - “Schema conversion + live migration”
- **Use case:** Migrating on-premises or cloud DBs to AWS, supports both homogeneous and heterogeneous.

### AWS Schema Conversion Tool (SCT)

- **Keywords / Clues:**
  - “Schema translation”, “converting database engines”
  - “Oracle → PostgreSQL”, “SQL Server → Aurora”
- **Use case:** Used *with DMS* when migrating between different DB engines.

## Snow Family Services & Exam Keywords

### AWS Snowcone (smallest)

- **Keywords / Clues:**
  - “Small device” (rugged, portable)

- “Edge computing”, “IoT”, “disconnected / limited network”
- “Up to 8 TB usable storage”
- “Battery or vehicle powered”
- Use case: Small-scale edge computing & offline data collection.

### **AWS Snowball Edge (mid-size)**

Two types:

1. Snowball Edge Storage Optimized
    - “80 TB+ storage”, “large dataset transfer”
    - “Offline migration to AWS”
  2. Snowball Edge Compute Optimized
    - “Edge computing + GPU”, “run EC2 instances / Lambda at the edge”
    - “Remote locations, disconnected environments”
- Keywords: “Petabyte-scale migration”, “edge compute in remote site”, “data collection without internet”.

### **AWS Snowmobile (largest)**

- Keywords / Clues:
  - “Exabyte-scale”, “45-foot shipping container”, “semi-truck”
  - “Migrate an entire data center”
  - “Extremely large data transfer”
- Use case: When data is too massive for Snowball or internet transfer.

### **AWS DataSync**

- **Keywords / Clues:**
  - “Automated data transfer”, “sync on-premises storage to AWS”, “NFS / SMB”
  - “Large files, object storage, block storage”
- **Use case:** File system migration (not relational databases).

## **AWS Transfer Family**

- **Keywords / Clues:**
  - “SFTP, FTPS, FTP transfer into S3”
- **Use case:** Managed file transfers into AWS, not databases.