Database Services

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### Amazon Relational Database Service (RDS)

RDS is a service that makes it easy to launch and manage relational databases.

###### Features:

1. Supports popular database engines.
2. Offers high availability and fault tolerance using multi-AZ deployment.
3. AWS manages the database with automatic software patching, automated backups, operating system maintenance, and more.
4. Launch read replicas across Regions in order to provide enhanced performance and durability.

### Amazon Aurora

Aurora is a relational database compatible with MySQL and PostgreSQL that was created by AWS.

###### Features:

1. Supports MySQL and PostgreSQL database engines.
2. 5x faster than normal MySQL and 3x faster than normal PostgreSQL.
3. Scales automatically while providing durability and high availability.
4. Managed by RDS.

### Amazon DynamoDB

DynamoDB is a fully managed NoSQL key-value and document database.

###### Features:

1. NoSQL key-value database.
2. Fully managed and serverless.
3. Non-relational.
4. Scales automatically to massive workloads with fast performance.

### Amazon DocumentDB

DocumentDB is a fully managed document database that supports MongoDB.

###### Features:

1. Document Database.
2. MongoDB compatible.
3. Fully managed and serverless.
4. Non-relational.

### Amazon ElastiCache

ElastiCache is a fully managed in-memory datastore compatible with Redis or Memcached.

###### Features:

1. In-memory datastore.
2. Data can be lost.
3. Compatible with Redis or Memcached engines.
4. Offers high performance and low latency.

### Amazon Neptune

Neptune is a fully managed graph database that supports highly connected datasets.

###### Features:

1. Graph database service.
2. Supports highly connected datasets like social media networks.
3. Fully managed and serverless.
4. Fast and reliable.

### Important for exam:

1. RDS is only for relational databases. Don’t forget the supported databases engines:
   1. Amazon Aurora
   2. PostgreSQL
   3. MySQL
   4. MariaDB
   5. Oracle Database
   6. SQL server.
2. Going into the exam don’t forget DynamoDB is a NoSQL database.
3. Don’t forget Aurora only supports PostgreSQL and MySQL.
4. Keep in mind that ElastiCache is an in-memory datastore.
5. Don’t forget Neptune helps you create social media graphs.
6. Keep in mind that DocumentDB supports MongoDB.