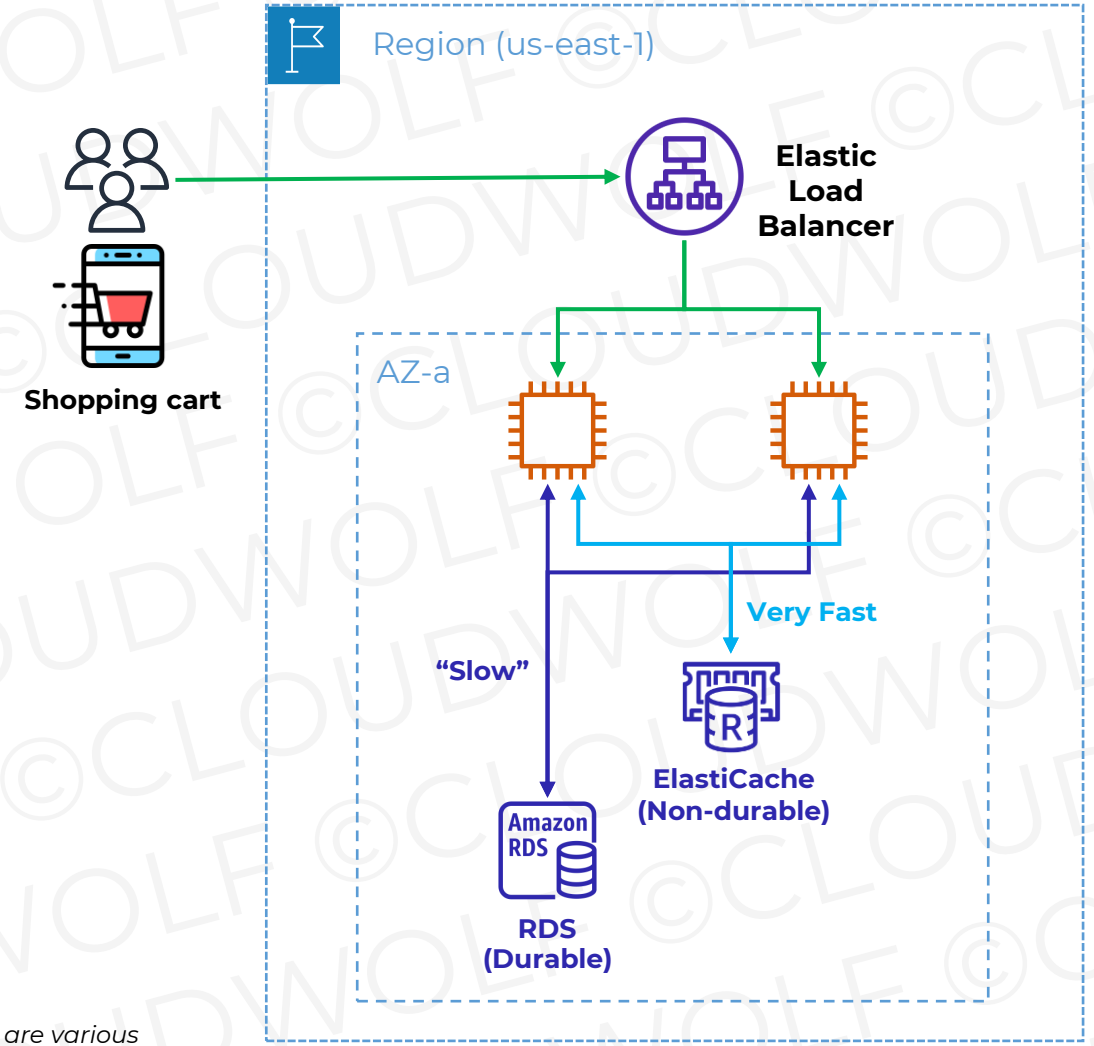
ELASTICACHE

Amazon ElastiCache:

- A fully-managed service that makes it easy to **deploy and run an in-memory cache in the cloud**
- Supports popular open-source in-memory data stores such as Redis and Memcached
- **Manages data in-memory** which is much faster than traditional databases such as RDS
- **Improves the performance and reduces the latency** of your applications by storing frequently accessed data in the cache
- Caching enables **microsecond latency** and reduces pressure on your backend databases
- It can be used as a primary datastore **(in-memory database)** when data durability is not required (e.g. user session store)
- ElastiCache is **not serverless – you need to provision instances** for it
- ElastiCache offers a variety of features such as automatic backup and restore, multi-AZ redundancy, and automatic failover, which ensure the durability and availability of your cache data
- With ElastiCache, you **pay only for what you use** with no minimum fee. You are charged hourly based on the number of nodes, node type, and pricing model you select
- Use-cases include: leaderboards, session stores, real-time analytics, chat messaging and streaming



Advanced notes: ElastiCache is a non-relational database which uses key-value store. Additionally, there are various caching strategies such as write-through and lazy loading, however it's not require to know them for this exam.