Introduction

- Oracle Database is a multi-model database management system produced and marketed by Oracle Corporation.
- It is a database commonly used for running online transaction processing, data warehousing and mixed database workloads.
- Originally developed in 1977 by Lawrence Ellison and other developers, Oracle DB is one of the most trusted and widely-used relational database engines.
- The system is built around a relational database framework in which data objects may be directly accessed by users (or an application front end) through structured query language (SQL)
- Oracle is a fully scalable relational database architecture and is often used by global enterprises, which manage and process data across wide and local area networks.
- The Oracle database has its own network component to allow communications across networks.

Why Oracle went NoSQL?

- Oracle Autonomous NoSQL Database Cloud is a fully managed NoSQL database cloud service for today's most demanding applications that require low latency responses, flexible data models, and elastic scaling for dynamic workloads.

- Oracle NoSQL Database provides single-master, multi-replica database replication.

- "Elasticity" refers to dynamic online expansion of the deployed cluster. One can add more storage nodes to increase the capacity, performance, reliability, or all of the above.

- Oracle NoSQL Database provides ACID compliant transactions for full create, read, update and delete (CRUD) operations, with adjustable durability and consistency transactional guarantees.

- Oracle NoSQL Database is configurable to be either C/P or A/P in CAP. In particular, if writes are configured to be performed synchronously to all replicas, it is C/P in CAP i.e. a partition or node failure causes the system to be unavailable for writes. If replication is performed asynchronously, and reads are configured to be served from any replica, it is A/P in CAP i.e. the system is always available, but there is no guarantee of consistency.

- Oracle NoSQL Database includes support for Java, C, Python, C#, REST APIs. These simple APIs allow the application developer to perform CRUD operations on Oracle NoSQL Database.