Experiment report: Key Value DataBases

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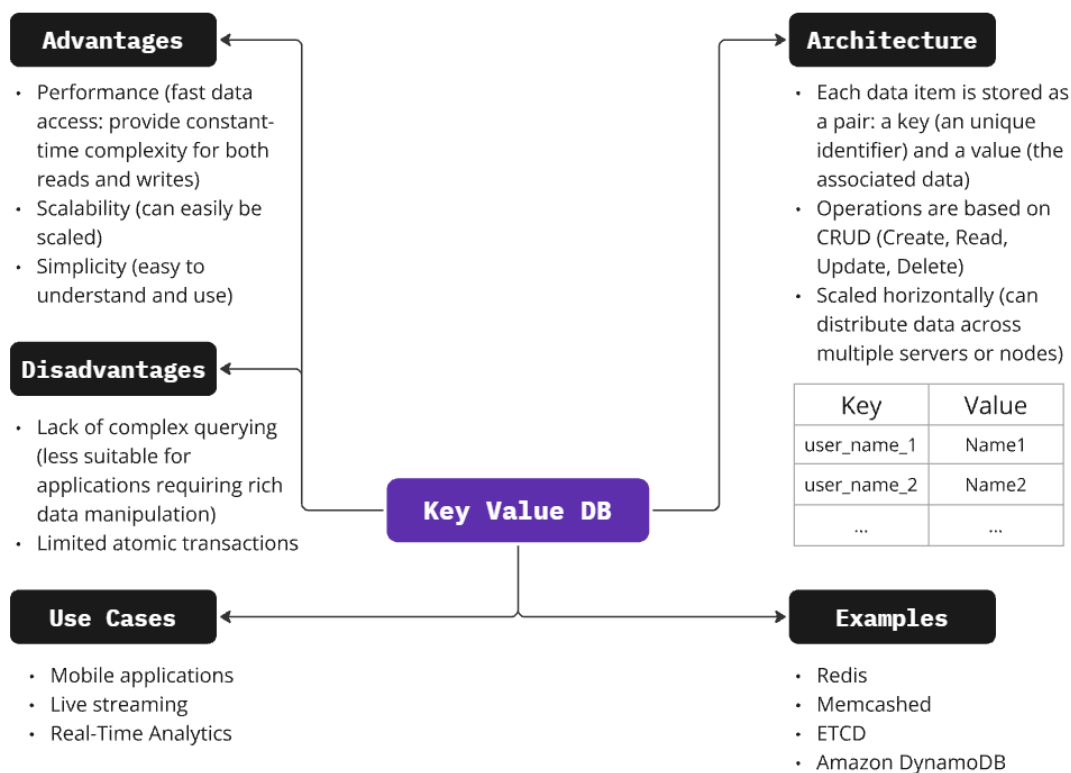Date: **September 2024**

Summary

Key-value databases are a type of NoSQL database designed to store, retrieve, and manage data as key-value pairs.

This report shows the MindMap of KeyValue DB and the use of the Redis DataBase. Redis (Remote Dictionary Server) is an open-source, in-memory key-value store that supports a wide variety of data structures, including strings, lists, sets, hashes, and more. Redis is known for its high performance, rich feature set, and versatility, making it suitable for a range of use cases, from simple caching to complex data streaming. Redis operates primarily in memory, with the ability to persist data to disk for durability.

MindMap

Code

Here is the Python code, where I checked basic operations using Redis DataBase.

```python
1  import redis
2
3  r = redis.Redis(
4  host='localhost',
5  port=6379
6  )
7
8  r.set(1, 'meow') #create
9  r.set(1, 'woof') #create
10 r.set(2, 'test2') #create
11
12 value = r.get(1)
13 print(value) #read
14 r.delete(2) #delete
15 value2 = r.get(2) #not storing anymore
16 print(value2)
```

Code Execution