Key aspects of Redis:

- 1. In-memory data storage: Redis primarily operates as an in-memory data store, offering high-speed read and write operations 15.
- 2. Data structures: Redis supports various data structures like strings, hashes, lists, sets, sorted sets, bitmaps, and geospatial indexes 135.
- 3. Persistence: Redis can persist data to disk for durability 135.
- 4. Scalability and reliability: Redis offers features like replication, Redis Sentinel, and Redis Cluster for high availability and horizontal scaling 13.
- 5. Performance: Redis is known for its exceptional speed and efficiency, making it suitable for caching, session storage, and real-time analytics13.
- 6. Open-source: Redis is an open-source project, though its licensing has changed over time 125.
- 7. Versatility: Redis can be used as a database, cache, and message broker13.

Regarding Redis's original release and creator:

Redis was originally released in 2009 by Italian developer Salvatore Sanfilippo, also known as "Antirez" 4. Sanfilippo created Redis as a labor of love, and it quickly gained popularity in the developer community.

It's worth noting that while Sanfilippo was the original creator, the project has since undergone significant changes in terms of ownership and management. In 2015, Sanfilippo joined Redis Labs (now Redis Ltd.), which became the official sponsor of the open-source project. Sanfilippo stepped down as Redis's lead maintainer in June 2020, leaving the project in the hands of Redis Labs 24

Redis (Remote Dictionary Server) is an open-source, in-memory data structure store, used as a database, cache, message broker, and streaming engine. Here are its key aspects:

• In-Memory Data Store:

- Redis primarily stores data in RAM, which makes it extremely fast.
- It also offers persistence options to save data to disk for recovery.

Data Structures:

- Redis supports a wide variety of data structures, including strings, hashes, lists, sets, sorted sets, bitmaps, and hyperloglogs.
- This versatility allows it to handle diverse use cases.

Key-Value Store:

o At its core, Redis is a key-value store, where data is accessed using unique keys.

This simple model contributes to its speed and efficiency.

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• Pub/Sub Messaging:

 Redis supports publish/subscribe messaging, enabling real-time communication between applications.

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Transactions:

Redis provides transaction capabilities to ensure atomicity of operations.

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Lua Scripting:

 Redis allows you to execute Lua scripts on the server, enabling complex operations and custom logic.

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Persistence:

- Redis offers two persistence options:
 - RDB (Redis Database): Snapshots of the data at specified intervals.

■ AOF (Append Only File): Logs every write operation.

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Clustering:

• Redis supports clustering to scale horizontally and improve availability.

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Release and Creator:

- Redis was originally released in 2009.
- It was created by **Salvatore Sanfilippo** (also known as antirez).