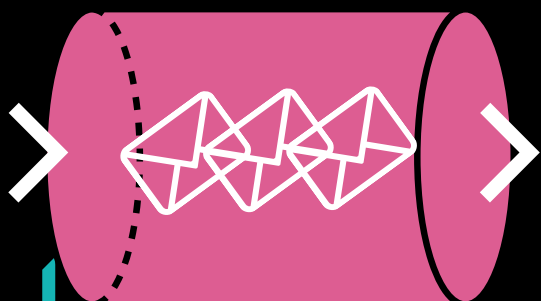# Message Queue
TECHNOLOGIES

5

You Must know!

Apache Kafka

"

A distributed streaming platform that handles high-volume, fault-tolerant, and real-time data streams, ensuring scalable and efficient message processing.

Messaging Protocols:

- Kafka Protocol (Custom binary over TCP)

"

RabbitMQ

"

A popular open-source message broker that supports multiple messaging protocols, providing reliable message delivery and flexible routing options.

Messaging Protocols:

- AMQP, MQTT, and STOMP

"

Amazon SQS

"

A fully-managed message queuing service by AWS, providing scalable, reliable, and cost-effective messaging for distributed systems.

Messaging Protocols:

- HTTP and HTTPS

ActiveMQ

An open-source message broker that implements the Java Message Service (JMS) standard, supporting various communication patterns and protocols.

Messaging Protocols:

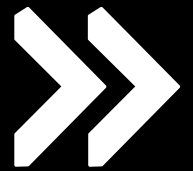- AMQP, OpenWire, STOMP, MQTT, and WebSocket

Redis **Streams**

"

A feature of Redis that introduces stream data structures, allowing multiple consumers to process real-time data in a fault-tolerant and scalable manner.

Messaging Protocols:

- No distinct protocol; uses stream data structures leveraging Redis Protocol

"

Message Queue Technology	Protocols Supported	Scalability	Fault Tolerance	Use Case	Programming Languages Supported
Apache Kafka	Custom Kafka protocol	Extremely scalable	Distributed, fault-tolerant	Real-time streaming, event-driven architectures	Java, Scala, Python, Go, and more
RabbitMQ	AMQP, MQTT, STOMP	Highly scalable	Replication, message persistence	General-purpose messaging	Erlang, Java, .NET, Python, Ruby, and more
Amazon SQS	HTTP/HTTPS	Highly scalable	Replication, data durability	Cloud-based messaging, decoupling components	Any language with HTTP/REST support
ActiveMQ	AMQP, OpenWire, MQTT, STOMP, WebSocket	Scalable	Clustering, failover support	Enterprise messaging, JMS integration	Java, .NET, C++, Python, Ruby, and more
Redis Streams	No distinct protocol; Uses Redis protocol	Scalable	Persistence, replication	Real-time data processing, event-driven systems	Any language with Redis client support

#CodeCravings

By IBAtulAnand