

Apache Pulsar Developer Certification Training (StreamNative)

OEM: Apache • Duration: 3 Days (24 hrs) • Code: SN-PULSAR-L1

COURSE MODULES & TOPICS

Module 1: Introduction & Course Overview

- Course objectives and grading criteria (8 quizzes + 1 coding exam)
- Passing requirements: 80% per quiz; 75% overall; 80% on coding exam
- 4-day cluster access for hands-on coding exam (Java)

Module 2: Producing Messages

- Producer basics, send flow and architecture
- Topic migration, back pressure management
- Best practices for partitioned topics
- Asynchronous publishing and delayed messages
- DynamicProducerFactory / LRU caching patterns

Module 3: Consuming Messages

- Consumer basics, receive flow and architecture
- Subscription types: exclusive, failover, shared, key-shared
- Message flow control and keyed messages

Module 4: Acknowledging Messages

- Message retention, TTL, and backlog quotas
- Batch, cumulative, and individual acknowledgement strategies
- Negative acknowledgements (nack) and dead letter policies

Module 5: Delivering Messages

- Fanout, queueing, and streaming delivery patterns
- Exclusive, failover, shared, and key-shared subscription modes

Module 6: Managing Data with Pulsar Schema

- Schema types and introduction
- Schema evolution and schema management lifecycle

Module 7: Reading Messages (Reader API)

- Reader API usage and code examples
- Reader interface vs. consumer interface — when to use each

Module 8: TableView Key-Value Map

- TableView introduction and implementation
- TableView use cases and code examples

Module 9: Securing Pulsar

- Default security configuration
- Authentication mechanisms (JWT, TLS)
- ACLs, roles, and authorization policies

Module 10: Coding Examination (Hands-On)

- Asynchronous publishing and reads
- DynamicProducerFactory or LRU caching implementation
- Delayed messages and topic partitioning
- Shared and key-shared subscriptions with keyed messages
- TableView, negative and individual acknowledgements
- Reader interface and Java Admin APIs