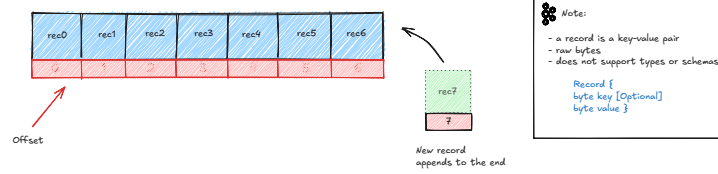


The Log

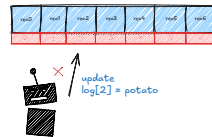
The log is an immutable sequence of records that grows only by append new events to the end.

Every record in the log is associated with an increasing number called offset that denotes its order



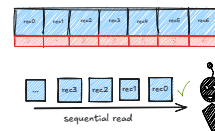
Core Properties of a log

Immutable



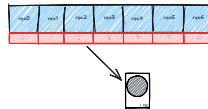
- Once write, data never changes
- We don't edit or delete the past, helps us guarantee integrity

Ordered



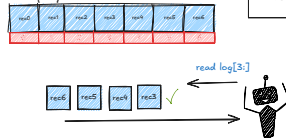
- Records follows a sequence
- Consumers will read them in the exact same order they were produced

Durable



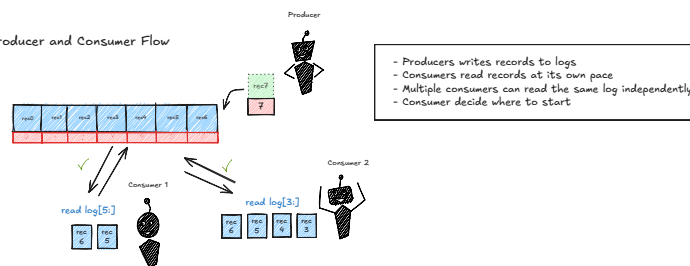
- Persisted and replicated on disk

Replayable



- Consumers can re-read from any offset

Producer and Consumer Flow



- Producers writes records to logs
- Consumers read records at its own pace
- Multiple consumers can read the same log independently
- Consumer decide where to start