When a consumer processes a message successfully in Apache Kafka, it sends an acknowledgment (ack) to the Kafka broker to commit the offset for that message. This acknowledgment is sent as part of the consumer group management protocol and indicates to the broker that the message has been successfully processed and can be considered as consumed.

The acknowledgment sent by the consumer typically includes the following information:

1. Consumer Group ID: Identifies the consumer group to which the consumer belongs.
2. Topic: The topic from which the message was consumed.
3. Partition: The partition within the topic from which the message was consumed.
4. Offset: The offset of the message within the partition that has been successfully processed.
5. Metadata: Additional metadata that may be needed for the acknowledgment process, such as the consumer ID or any custom information required by the consumer group coordinator.

This acknowledgment process allows Kafka to maintain the current offset for each consumer group, ensuring that messages are not reprocessed if a consumer restarts or fails.