

@devopschallengehub



## *Explain message retention period in SQS from Devops perspective?*

- **Message Retention Period** = How long SQS keeps a message in the queue if **no one** deletes it.
- By default → **4 days**.
- Can be set between **1 minute and 14 days**.
- After this time, the message is **automatically deleted** by SQS, even if nobody processed it.

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### 🔑 Difference from Visibility Timeout

- **Visibility Timeout** → Temporary hiding after a consumer picks the message. (Seconds/Minutes scale)
- **Message Retention Period** → Maximum lifetime of a message in the queue. (Days scale)

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### 💻 DevOps Use Case Example

#### Scenario: Build Job Queue

- You send CI/CD build jobs into an SQS queue.
- If no worker picks them up within **4 days**, they expire and are lost.
- If your DevOps policy requires jobs to remain for **1 week**, you set retention to **7 days**.

Another example:

- A monitoring pipeline sends logs to SQS.
- If logs aren't consumed in time, they become **stale**. You might set retention to **1 day** because old logs aren't useful.



Queue Retention = 3 Days

Day 1: Message A arrives → [A]

Day 2: Still in queue → [A]  
Day 3: Still in queue → [A]  
Day 4: Expired, auto-delete  
Queue = []

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## DevOps Engineer Perspective

- Must tune **retention period** based on system SLAs:
  - **Longer retention** = safer but costs more storage.
  - **Shorter retention** = cheaper but risk of message loss if consumers fail.
- In production, always combine with **CloudWatch alarms** to check if messages are piling up.
- Use **DLQ (Dead Letter Queue)** for messages that can't be processed instead of letting them expire silently.

In short:

**Message Retention Period = The maximum time (1 min – 14 days) that SQS will keep a message if it's not deleted. After that, the message is gone forever.**

**What is the default Message Retention Period in Amazon SQS?**

- a) 1 day
- b) 4 days
- c) 7 days
- d) 14 days

✅ **Answer: b) 4 days**

**What is the maximum time you can configure for SQS Message Retention Period?**

- a) 24 hours
- b) 7 days
- c) 14 days
- d) 30 days

✅ **Answer: c) 14 days**

**Which of the following BEST describes the difference between Visibility Timeout and Message Retention Period?**

- a) Visibility Timeout = Days scale, Retention Period = Minutes scale
- b) Visibility Timeout = How long a message stays in the queue, Retention Period = Temporary hiding
- c) Visibility Timeout = Temporary hiding after a message is picked up, Retention Period = Maximum lifetime of a message in the queue
- d) Both are the same

✅ **Answer: c) Visibility Timeout = Temporary hiding after a message is picked up, Retention Period = Maximum lifetime of a message in the queue**