PagerDuty
University

Postmortem Workshop (PM100)

Why create postmortems?

During incident response, the team is 100% focused on restoring service. They cannot (and should not) be wasting time and mental energy thinking about how to do something optimally or performing a deep dive on what caused the incident. That's why postmortems are essential. They provide a peacetime opportunity to reflect once the issue is no longer impacting users.

Who is responsible for the postmortem?

- Designate a single owner
- Can be someone who:
    - Took a leadership role during the incident
    - Performed a task that led to stabilizing the service
    - Was the primary on-call responder for the most heavily affected service
    - Manually triggered the incident to initiate incident response

The report. Helpful questions:

Is this an isolated incident or part of a trend?

Was there a specific bug, a failure in a class of problem we anticipated, or did it uncover a class of issue we did not architecturally anticipate?

Was there work the team chose not to do in the past that contributed to this incident?

Research if there were any similar or related incidents in the past. Does this incident demonstrate larger trend in your system?

Will this class of issue get worse or more likely as you continue to grow and scale the use of the service?

Blameless is hard. Here are some of the most common biases and how to avoid them:

Fundamental Attribution Error: Fundamental attribution error is the tendency to believe that what people do reflects their character rather than their circumstances.

Combat: Intentionally focus the analysis on *situational causes* rather than *discrete actions* individuals took.

Confirmation Bias: Confirmation bias is the tendency to favor information that reinforces existing beliefs. When presented with ambiguous information, we tend to interpret it in a way that supports our existing assumptions.

Combat: Invite someone from another team to ask any and all questions that come to their mind. This will help surface lines of inquiry the team has internalized or learned to take for granted

Hindsight Bias: Hindsight bias is a type of memory distortion where we recall events to form a judgment. Knowing the outcome, it is easy to see the event as being predictable despite there having been little or no objective basis for predicting it.

Combat: Start your timeline analysis at a point before the incident and work your way forward instead of backward from resolution

Negativity Bias: Negative bias occurs when people are more likely to attribute negative outcomes to the intentions of another person than neutral and positive outcomes. This also explains our tendency to blame individuals' characters to explain a major incident.

Combat: Reframe incidents as learning opportunities and remember to describe what was handled well in your response to help balance perspective.

Tips to Practice Blamelessness

- Ask "what" and "how" questions rather than "who" or "why"
- Consider multiple and diverse perspectives
- Avoid using individual names

PagerDuty University

For any questions, contact PagerDuty University at pdu@pagerduty.com

FOLLOW UP ACTIONS

Actionable

- Phrase each action item as a sentence starting with a verb
- The action should result in a useful outcome

Specific

- Define each action item's scope as narrowly as possible
- Make it clear what is in and out of scope

Bounded

- Word each action item to indicate how to tell when it is finished
- Avoid open-ended or ongoing tasks

EXAMPLES

Poorly Worded	Better
Investigate monitoring for this scenario.	Actionable: Add alerting for all cases where this service returns >1% errors.
Fix the issue that caused the damage.	Specific: Handle invalid postal code in user address form input safely.
Make sure engineer checks that database schema can be parsed before updating.	Bounded: Add automated presubmit check for schema changes.

DO'S AND DONT'S

- Make sure timeline is an accurate representation of events
- Define technical lingo for newcomers
- Separate what happened from how to fix it
- Discuss how incident fits into health and resiliency of services

- Don't use the word "outage" unless it really was an outage
- Don't change details to make things "look better"
- Don't name and shame
- Avoid the concept of "human error"

Open Source Guides & Framework
response.pagerduty.com | postmortems.pagerduty.com

PagerDuty University

For any questions, contact PagerDuty University at pdu@pagerduty.com