Engineer

Runbook

a tested set of steps for a repeatable operating task

What it is

A runbook is a set of tested instructions for carrying out an operating task. It describes when someone should use it, what they need before starting, how to perform the work and how to recognize the result. An operator may follow it by hand, or it may explain a procedure that automation runs. The task might be a planned certificate renewal, a routine restore test or returning a service to a known configuration after a change.

The AWS Well-Architected Framework recommends runbooks for procedures and describes a different kind of guide for investigation. Its documents use *runbook* for the steps of a repeatable task and *playbook* for investigating an issue. Teams use these words differently, so the more useful question is what the document expects the reader to know. If an operator already knows what operation is needed, the instructions can run from a known starting condition to a defined result. If the operator still needs to decide which fault has occurred, the document needs observations and decision points before directing them to a procedure.

A runbook can be short while still being complete. It names the relevant system and the environment, the access needed, the person or team responsible, the checks that must pass before changing anything and the evidence that shows completion. It should also say when to pause or escalate. A command that completes and a service that meets its expected behavior are two kinds of evidence. The instructions explain how to obtain the relevant one at each step.

Use the concept in a decision

Put “What is a runbook?” to work in a real decision. We can help relate the concept to the system you are building or buying. Handovers, runbooks and manuals that let your own staff operate the system without ringing whoever built it.

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Test the assumptions behind the term

Use the explanation and linked work to frame questions for your project. We can examine the assumptions with you before a tool is chosen. One infrastructure plan for 14 departments — 14 research departments on one infrastructure plan

One infrastructure plan for 14 departments Get in touch →

Why it matters

During an interruption, the person available may be familiar with the application but new to the particular tool used for recovery. A useful runbook reduces the work of reconstructing a procedure from memory. The reader can check the system they are about to change and can see what an expected result looks like before pressing ahead. That is especially valuable in a team that rotates on-call duty or relies on several departments to make a recovery happen.

Writing instructions also exposes where the process depends on hidden knowledge. An operator may say that a copy is ready as soon as a job finishes. Someone rehearsing the procedure may discover that the next tool expects a separate permission or that a successful report omits failed records. The published procedure can make this distinction clear. It can also show which parts the team can automate and which parts need a human judgment about the current situation.

The document’s value depends on how it is maintained. A short note beside the system can become outdated after a dependency or role changes. The team can keep the runbook with the code or configuration that defines the procedure, put a responsible owner on it and revise both together when appropriate. Rehearsal by another person reveals assumptions the author is likely to miss. The rehearsal is also an opportunity to verify that the result can be recognized when the usual dashboards or network path are unavailable.

What it looks like in practice

Consider a runbook for periodically proving that a backup of a reporting database can be restored. It starts by naming the report database, the isolated environment and the account approved to read the backup and create the test database. It instructs the reader to confirm the source and the age of the selected backup. It also asks them to check that no live application is pointed at the target. The operator records the exact backup and marks the time before starting the restore.

The next step directs the operator to the supported restore tool and tells them where its output is logged. When the restore ends, the runbook requires more than a completion message. The reader runs a known report, compares a small set of expected values and checks the date of the newest restored record. Missing records, an unexpected source or a failed report require a pause and a contact named in the instructions. A successful exercise records elapsed time and leaves no temporary copy or access behind after the planned cleanup.

A second reader then rehearses the procedure with a backup intentionally older than the expected range in the test environment. A good runbook makes the mismatch apparent before the restore starts, and the person knows what evidence to retain. After the exercise, the owner corrects unclear steps and adds the observed duration to the latest rehearsal record. People working against a recovery time objective can use that duration as evidence about this exercise and its conditions.

Engineer's case on backups that have actually been restored documents restore-test work and its concerns. It gives a concrete reason to look at restoration rather than a backup's successful completion alone. The reporting database checklist in this article is an illustrative runbook, with its own sample conditions and outcomes.

Where it goes wrong

The steps assume the normal environment is working. If the main dashboard or identity service is unavailable, the operator still needs to locate the procedure and verify prerequisites. Rehearse how people retrieve the instructions and obtain the permitted access under degraded conditions.

The text says what to click and omits the result. A changed interface can make a screenshot hard to follow. State what the operation should affect and show a recognizable outcome. Include limits that tell the operator to stop, such as a different resource name or data outside the expected range.

Every situation uses the same procedure. If different symptoms have several plausible causes, first establish the condition that makes the runbook applicable. An investigation can assemble the evidence for that decision. The runbook then carries out an identified task.

The procedure is never tested by anyone else. A second operator can surface missing permissions, unexplained terms and steps that silently rely on values from the author's machine. Give that person a safe scenario and ask them to record where they had to infer what to do.

Further reading

- AWS guidance on runbooks — ready-to-use procedures, responsible ownership and keeping instructions current.
- AWS guidance on playbooks — investigation instructions and the decision to invoke a procedure.
- Google SRE on emergency response — learning from incidents and practicing response before an emergency.

Glossary

Choose for your actual constraints

Bring the decision, the people affected and the options already considered. We can make the tradeoffs explicit and leave a documented recommendation.

See what it costs Get in touch →

Make the terminology practical

Ask how "What is a runbook?" applies to your organisation. A concrete example from your current system is enough to start the discussion.

Explore our services

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Contact card

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