DevOps

Week 08 Murtaza Munawar Fazal

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Release Approvals

- Continuous Delivery is all about delivering on-demand. But it's only the technical part of the Continuous Delivery process.
- It's all about how you can technically install the software on an environment, but it doesn't say anything about the process that needs to be in place for a release.
- Release approvals don't control how but control if you want to deliver multiple times a day.
- Manual approvals also suit a significant need. Organizations that start with Continuous Delivery often lack a certain amount of trust.
- They don't dare to release without manual approval. After a while, when they find that the approval doesn't add value and the release always succeeds, the manual approval is often replaced by an automatic check.

Release Approvals

- While DevOps is all about automation, manual approvals are still helpful. There are many scenarios where they're needed. For example, a product owner might want to sign out a release before it moves to production.
- Or the scrum team wants to make sure that no new software is deployed to the test environment before someone signs off on it because they might need to find an appropriate time if it's constantly in use.

Release Gates

- Release gates give you more control over the start and completion of the deployment pipeline.
- They're often set up as pre-deployment and post-deployment conditions.
- In many organizations, there are so-called dependency meetings.
- Think of downtime of a database server or an update of an API.
- It takes much time and effort, and the only thing needed is a signal if the release can continue.

Release Gates

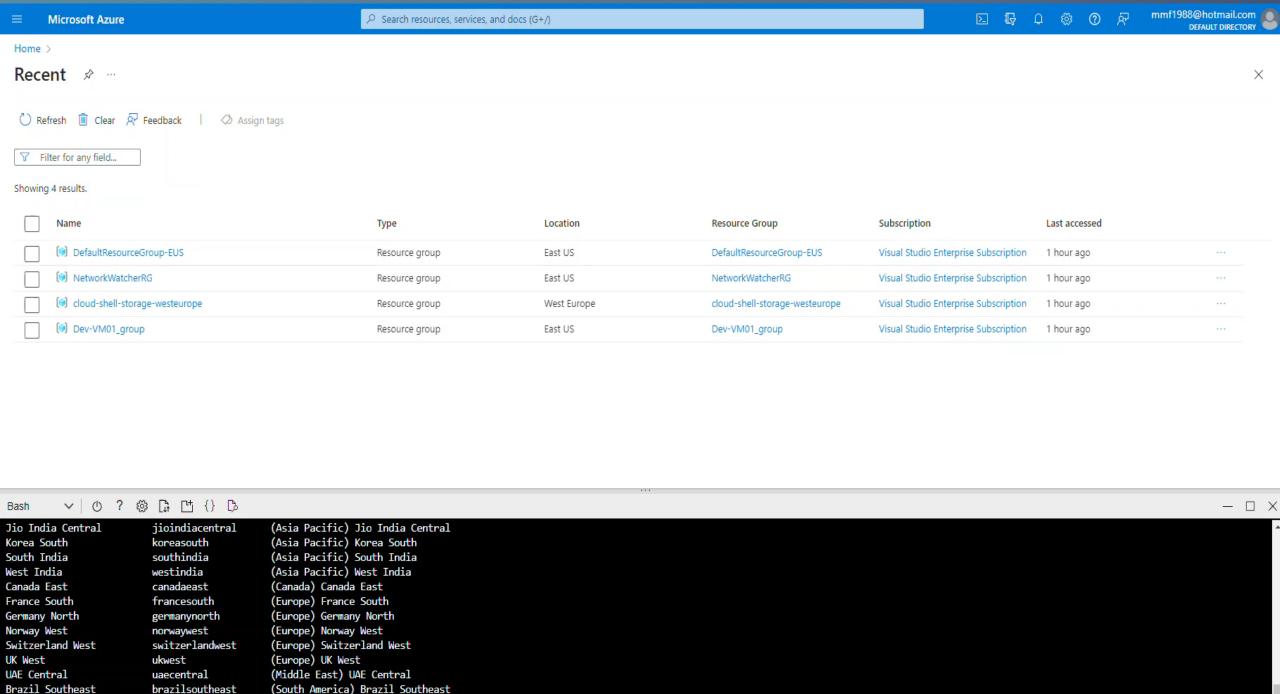
- Instead of having a meeting, you can create a mechanism where people press a button on a form when the release can't advance.
- When the release starts, it checks the state of the gate by calling an API. If the "gate" is open, we can continue. Otherwise, we'll stop the release.
- By using scripts and APIs, you can create your release gates instead of manual approval. Or at least extending your manual approval.

Release Gates - Examples

- · Incident and issues management. For example, ensure that deployment only occurs if no bugs exist.
- Notify users such as legal approval departments, auditors, or IT managers about a deployment by integrating with approval collaboration systems such as Microsoft Teams or Slack and waiting for the approval to complete.
- Quality validation. Query metrics from tests on the build artifacts such as pass rate or code coverage and only deploy within required thresholds.
- Security scan on artifacts. Ensure security scans such as anti-virus checking, code signing, and policy checking for build artifacts have been completed.
- User experience relative to baseline. Using product telemetry, ensure the user experience hasn't regressed from the baseline state.
- Change management. Wait for change management procedures in a system such as ServiceNow complete before the deployment occurs.
- Infrastructure health. Execute monitoring and validate the infrastructure against compliance rules after deployment or wait for proper resource use and a positive security report.

Demo

Controlling Deployments using Classic Release Gates



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