



# Let CodeCommit work for you

What features are you missing?



# Did you ever used GitHub or GitLab?



Thumb Up

Yes, I did use GitHub or GitLab before



Thumb Down

No, I did not use GitHub or GitLab before

# Did you ever used CodeCommit?



Thumb Up

Yes, I did use CodeCommit before



Thumb Down

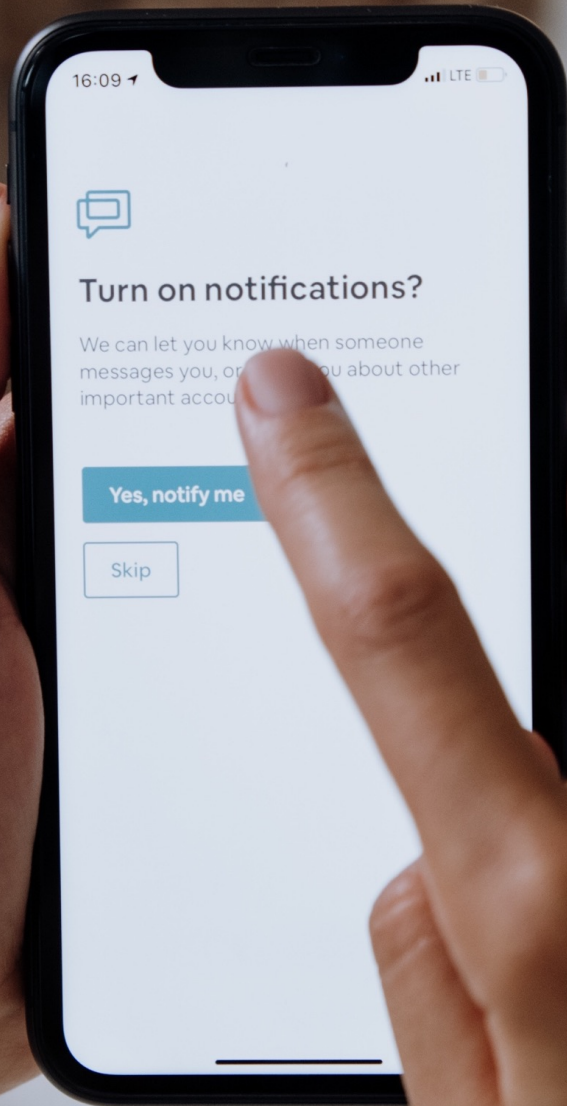
No, I did not use CodeCommit before

# What did you miss?

Talk to your neighbor.

Discuss what you are missing in CodeCommit





## Notifications

I really missed notifications

**You create a pull request!**

How do you request someone to review?

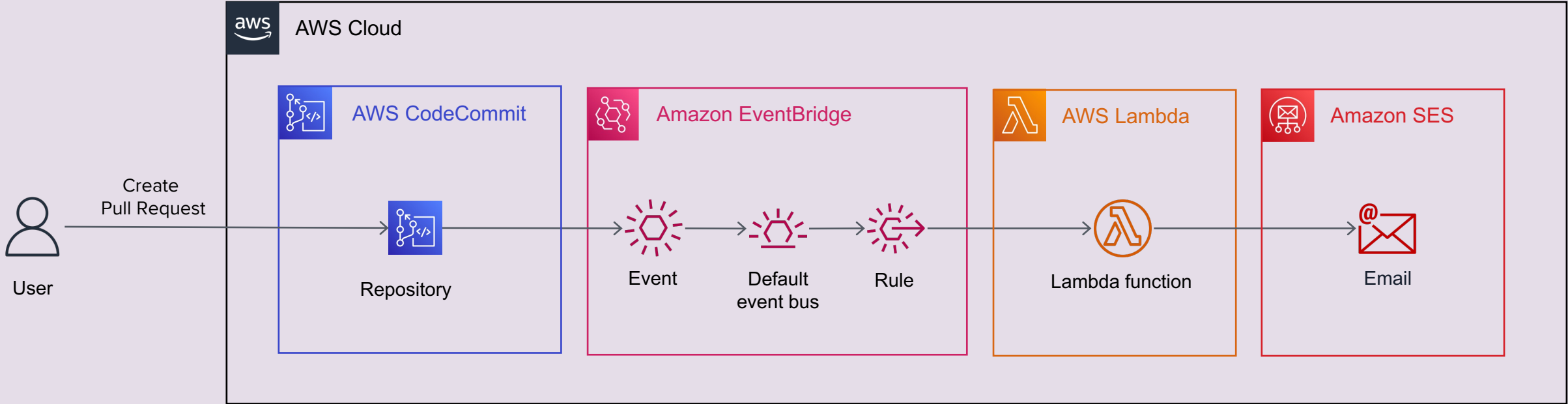
**Your pull request gets approved!**

How will you know that?

**Are there open pull requests?**

How do I know that there are open pull requests?

```
source: ["aws.codecommit"]
detail:
  event: ["pullRequestCreated"]
  destinationReference: ["refs/heads/main"]
```



```
{
  "version": "0",
  "id": "d929f7c1-5e5c-c301-b585-d2b4d8aea7a7",
  "detail-type": "CodeCommit Pull Request State Change",
  "source": "aws.codecommit",
  "account": "111122223333",
  "time": "2022-09-23T14:28:16Z",
  "region": "eu-west-1",
  "resources": [
    "arn:aws:codecommit:eu-west-1:111122223333:my-repository"
  ],
  "detail": {
    "author": "arn:aws:sts::111122223333:assumed-role/Developer/john.doe@xebia.com",
    "callerUserArn": "arn:aws:sts::111122223333:assumed-role/Developer/john.doe@xebia.com",
    "creationDate": "Fri Sep 23 14:28:05 UTC 2022",
    "destinationCommit": "68fa0e37f8fa9c30d86efbe4f1b1d60ab99b2d41",
    "destinationReference": "refs/heads/main",
    "event": "pullRequestCreated",
    "isMerged": "False",
    "lastModifiedDate": "Fri Sep 23 14:28:05 UTC 2022",
    "notificationBody": "A pull request event occurred in the following AWS CodeCommit repository: [TRUNCATED]",
    "revisionId": "e6b08feca87491275975315807c742374b3339cb61878a3c88b556b72e2dc25e",
    "sourceCommit": "9a6659bb6601009c3677be92a0582595fe24bc5e",
    "sourceReference": "refs/heads/docs/describe-plan",
    "title": "docs: describe the initial plan"
  }
}
```

```
source: ["aws.codecommit"]
detail:
  event: ["pullRequestCreated"]
  destinationReference: ["refs/heads/main"]
```

# Who knows CloudFormation?



Thumb Up

Yes, I know what it is!



Thumb Down

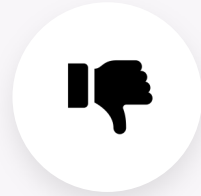
No, I don't know what it is!

# Serverless Application Model or SAM?



Thumb Up

Yes, I know what it is!



Thumb Down

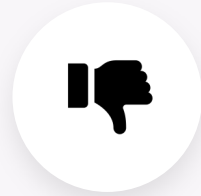
No, I don't know what it is!

# AWS Lambda Powertools



Thumb Up

Yes, I know what it is!



Thumb Down

No, I don't know what it is!

```

  ▾ src/pull_request
  ▾ function
    • __init__.py
    • event.py
    ☰ requirements.txt
    ◆ .gitignore
    M Makefile
    ☰ poetry.lock
    ⚙️ pyproject.toml
    ⓘ README.md
    ⚙️ samconfig.toml
    ! template.yml

```

```

AWSTemplateFormatVersion: '2010-09-09'
Transform: AWS::Serverless-2016-10-31
Description: >
  CodeCommit Automation
Globals:
  Function:
    Timeout: 10
    Environment:
      Variables:
        POWERTOOLS_SERVICE_NAME: codecommit-automation
        LOG_LEVEL: INFO

```

```

Resources:

  PullRequestFunction:
    Type: AWS::Serverless::Function
    Properties:
      CodeUri: src/pull_request
      Handler: function.handler
      Runtime: python3.9
      Architectures: ["arm64"]
      Events:
        EventRule:
          Type: EventBridgeRule
          Properties:
            Pattern:
              source: ["aws.codecommit"]
              detail:
                event: ["pullRequestCreated"]
                destinationReference: ["refs/heads/main"]

```

```

aws-lambda-powertools==1.29.2
aws-lambda-powertools[pydantic]==1.29.2

```

```
from typing import List
from aws_lambda_powertools.utilities.parser import BaseModel, root_validator
```

```
class PullRequestEvent(BaseModel):
    __supported_events = ["pullRequestCreated"]
    author: str
    callerUserArn: str
    creationDate: str
    destinationCommit: str
    destinationReference: str
    event: str
    isMerged: str
    lastModifiedDate: str
    mergeOption: Optional[str]
    notificationBody: str
    revisionId: str
    sourceCommit: str
    sourceReference: str
    title: str
```

```
@root_validator
def validate_event(cls, values):
    event = values.get("event", "")

    if event not in cls.__supported_events:
        raise ValueError(f"The {event} event is not supported!")

    return values
```

```
from aws_lambda_powertools import Logger
from aws_lambda_powertools.utilities.typing import LambdaContext
from aws_lambda_powertools.utilities.parser import event_parser, envelopes

from .event import PullRequestEvent
```

```
logger = Logger()
```

```
@event_parser(model=PullRequestEvent, envelope=envelopes.EventBridgeEnvelope)
def handler(event: PullRequestEvent, context: LambdaContext) -> None:
    logger.info(f"{event.event} detected, by: {event.callerUserArn}")
    logger.info(event.notificationBody)
```

Invoking function.handler (python3.9)

Skip pulling image and use local one: public.ecr.aws/sam/emulation-python3.9:rapid-1

Mounting /Users/jorisconijn/workspace/binx/my-repository/.aws-sam/build/PullRequestEvent

START RequestId: bb0fa509-8431-475a-9313-8cd1785cbfea Version: \$LATEST

{"level":"INFO","location":"handler:14","message":"pullRequestMergeStatusUpdated detected"}

{"level":"INFO","location":"handler:15","message":"A pull request event occurred in the repository"}

END RequestId: bb0fa509-8431-475a-9313-8cd1785cbfea

REPORT RequestId: bb0fa509-8431-475a-9313-8cd1785cbfea

Init Duration: 0.15



## Creating a pull request

How do you create a pull request?

### Using the console?

When using the console, you need to be logged in with the correct role.

### Using the console?

Select the correct repository

### Using the console?

Select the select the branch

### Using the console?

Type in a title and description

github.com

# pull-request-codecommit

License MIT Maintained yes release V0.4.3 Continuous Integration passing codecov 100%

This tool makes it easy to create pull requests for AWS CodeCommit. It relies on the [Conventional Commits](#) standard. It looks at the git commits between the current and the destination branch. Then it tries to create a pull request with this information as input.

## Installation

You can install the `pull-request-codecommit` tool by running the following command:

```
pip install pull-request-codecommit
```

You can update an existing installation with the following command:

```
pip install --upgrade pull-request-codecommit
```

### Installation in venv

Typically, you would want to run your dependencies isolated. You can install `[pull-request-codecommit][pull-request-codecommit]` in a `venv` using the following commands:

```
python -m venv .venv
source .venv/bin/activate
pip install pull-request-codecommit
```

You need to add the `.venv/bin/` path to your system `PATH`. This is needed for the `git pr` commands to function.

## Configuration

Languages

- Python 97.3%
- Makefile 2.7%

```
git pr
~/workspace/binx/my-repository % feat/initial-implementation ± git pr
Remote: codecommit::eu-west-1://developer@my-repository
Region: eu-west-1
Profile: developer
Repo: my-repository
Branch: feat/initial-implementation
```

```
git pr
feat: initial implementation

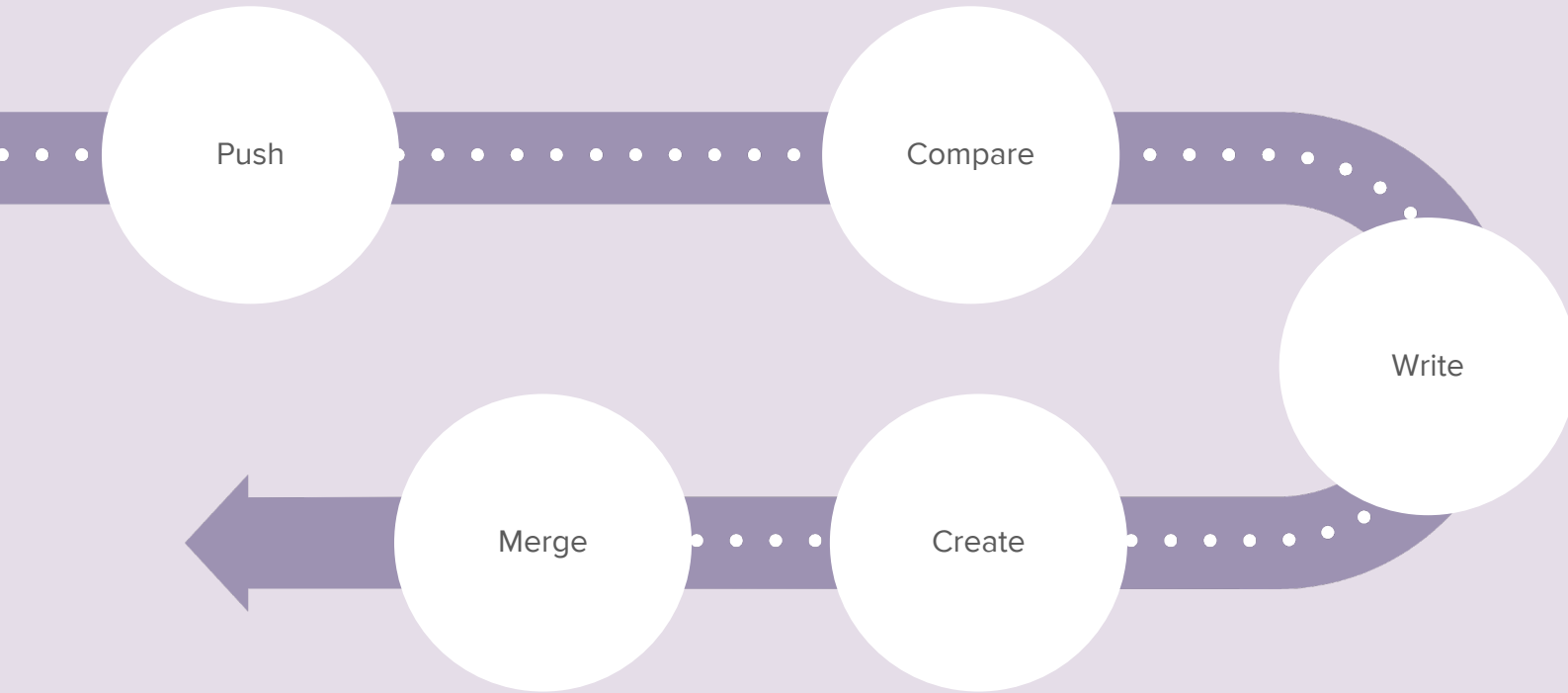
Initial implementation on how to react on CodeCommit events.
This example shows how you can create a pull request using the cli tools you already know!
```

```
jorisconijn@nr18:~/workspace/binx/my-repository
~/workspace/binx/my-repository % feat/initial-implementation ± git pr
Remote: codecommit::eu-west-1://developer@my-repository
Region: eu-west-1
Profile: developer
Repo: my-repository
Branch: feat/initial-implementation

Please review/approve: https://eu-west-1.console.aws.amazon.com/codesuite/codecommit/repositories/my-repository/pull-requests/5/details?region=eu-west-1

feat: initial implementation
Initial implementation on how to react on CodeCommit events.
This example shows how you can create a pull request using the cli tools you already know!
```

# pull-request-codecommit





## Open pull requests

What pull requests are open?

**We could have multiple repositories**

**Each repository could have multiple pull requests**

**Collect the information of each pull request**

# AWS Step Functions



Thumb Up

Yes, I know what it is!



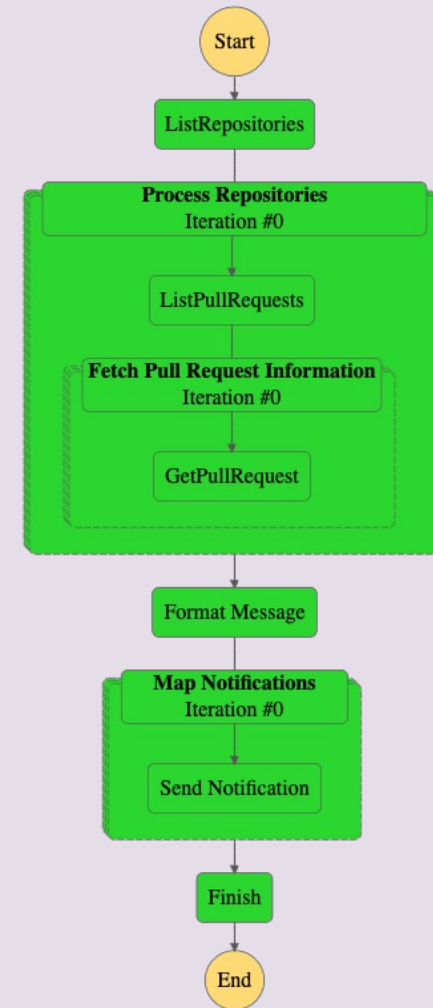
Thumb Down

No, I don't know what it is!

```
"ListRepositories": {
  "Type": "Task",
  "Next": "Process Repositories",
  "Parameters": {
    "Order": "ascending",
    "SortBy": "repositoryName"
  },
  "Resource": "arn:aws:states:::aws-sdk:codecommit:listRepositories"
}
```

```
"ListPullRequests": {
  "Type": "Task",
  "Resource": "arn:aws:states:::aws-sdk:codecommit:listPullRequests",
  "Parameters": {
    "RepositoryName.$": "$.MessageDetails.RepositoryName",
    "PullRequestStatus": "OPEN"
  },
  "Next": "Fetch Pull Request Information"
}
```

```
"GetPullRequest": {
  "Type": "Task",
  "Resource": "arn:aws:states:::aws-sdk:codecommit:getPullRequest",
  "Parameters": {
    "PullRequestId.$": "$.PullRequestId"
  },
  "End": true
}
```





## Conclusion

It's not about CodeCommit

**Its about recognizing a problem!**

**Finding an event that you could use as a trigger!**

**Automate the wanted result!**



# Thank You

Joris Conijn