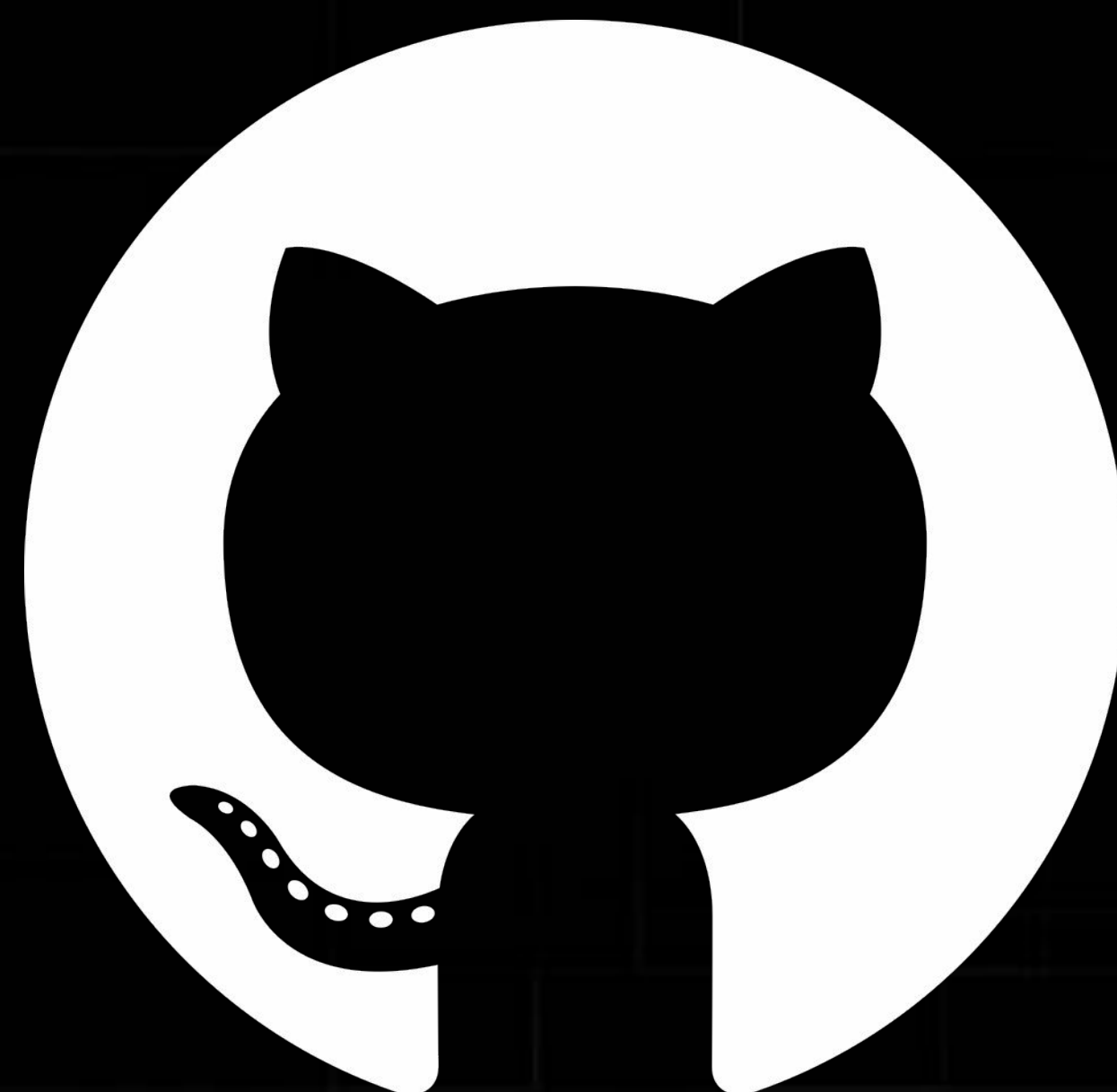


Satellite

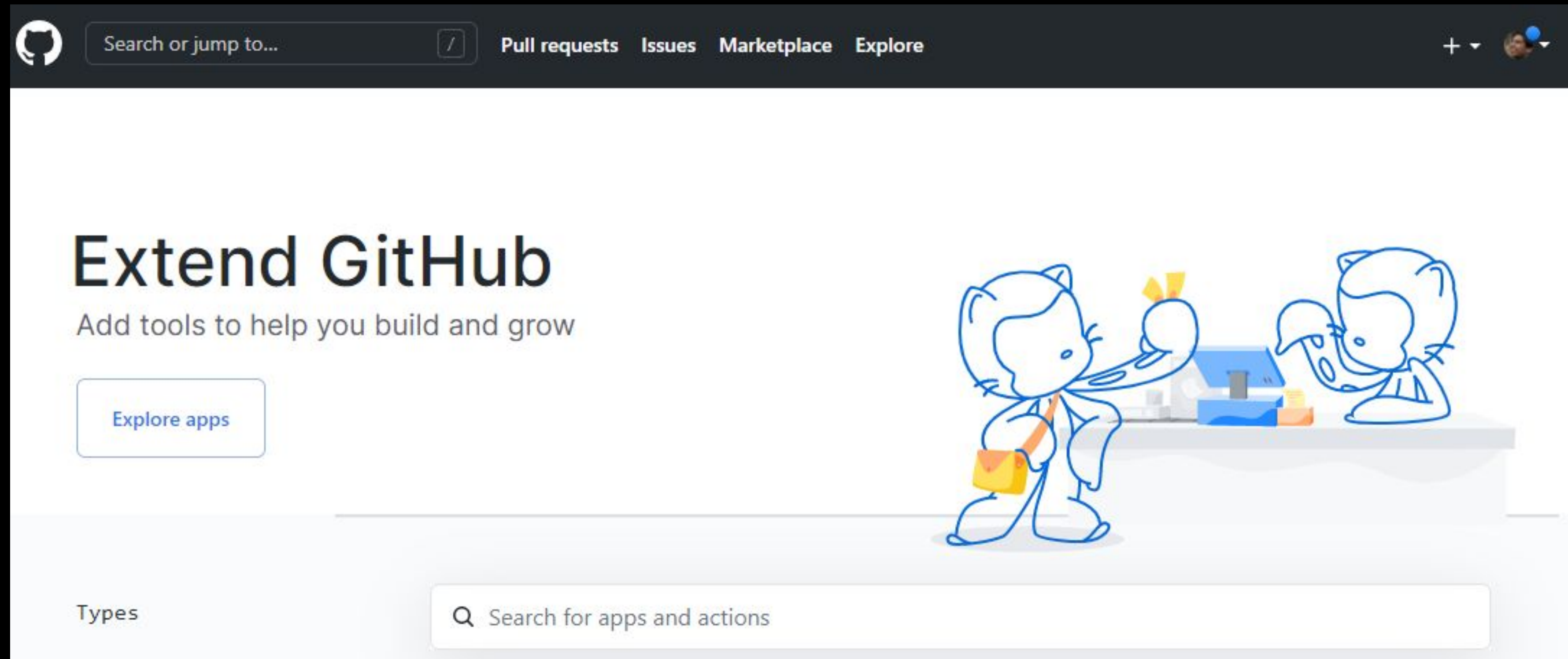
INDIA 2021



Create and share your own **GitHub Apps and Actions**



Shashank Bansal
Director, Product Management
@shashban



Global impact of your solutions

Brand

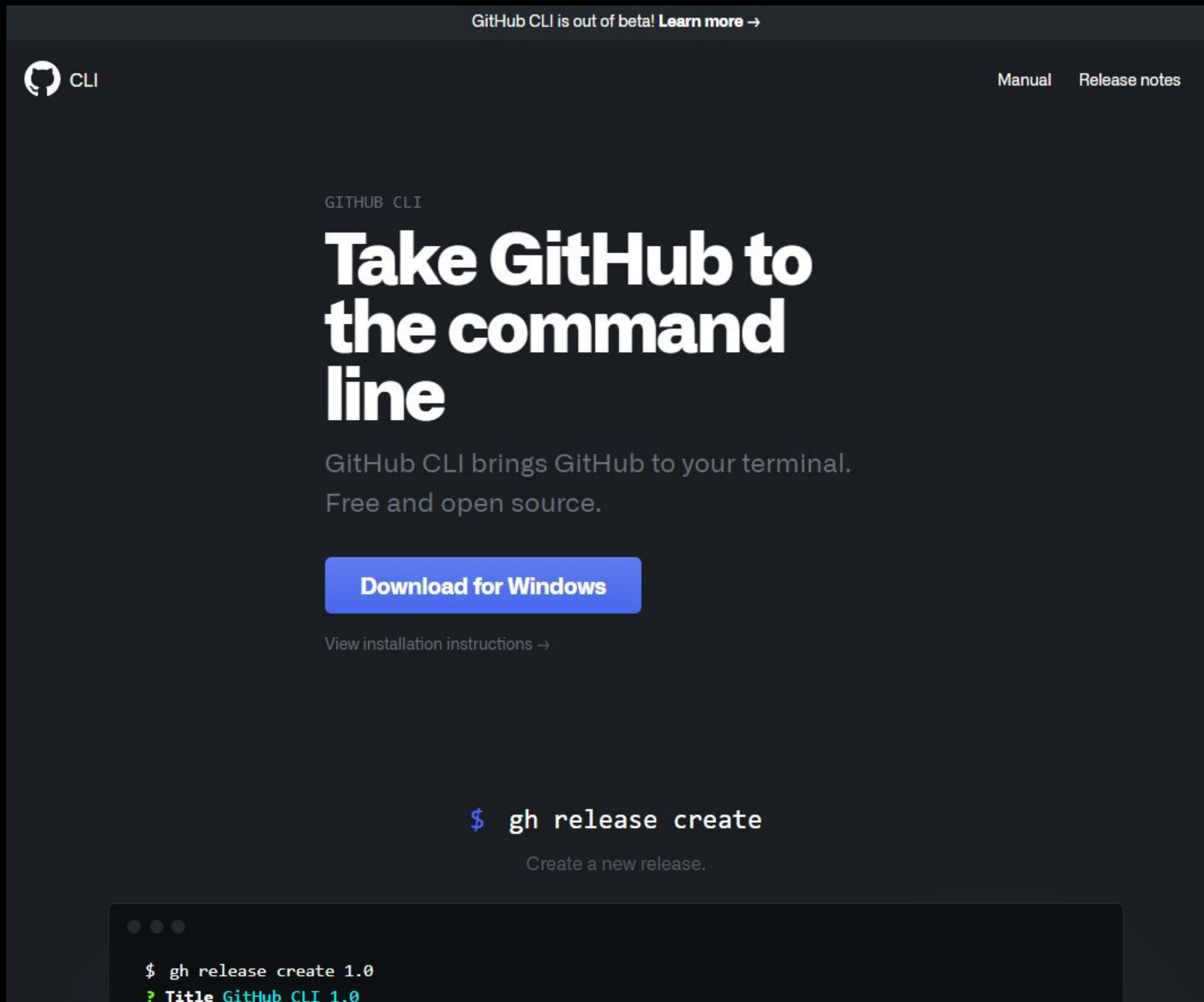
Value

Business

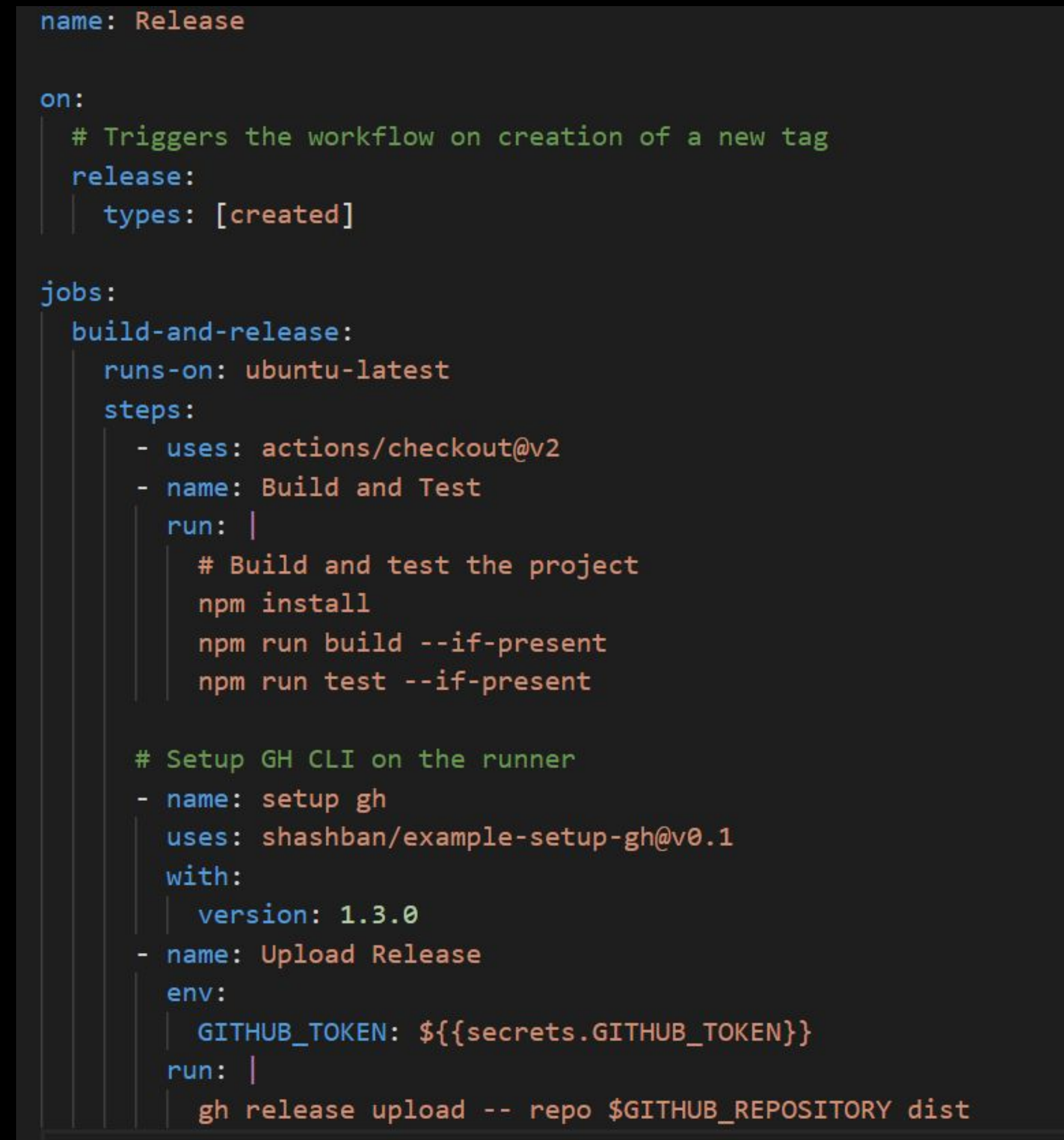


Let's Build Something

Build artifacts and upload on creation of a Release



<https://cli.github.com>



Sketch out the workflow

```
name: Release
```

```
on:
```

```
  # Triggers the workflow on creation of a new release
```

```
  release:
```

```
    types: [created]
```

```
jobs:
```

```
  build-and-release:
```

```
    runs-on: ubuntu-latest
```

```
    steps:
```

```
      - uses: actions/checkout@v2
```

```
      - name: Build and Test
```

```
        run: |
```

```
          # Build and test the project
```

```
          npm install
```

```
          npm run build --if-present
```

```
          npm run test --if-present
```

```
      # Setup GH CLI on the runner
```

```
      - name: setup gh
```

```
        uses: shashban/example-setup-gh@v0.1
```

```
        with:
```

```
          version: 1.3.0
```

```
      - name: Upload Release
```

```
        env:
```

```
          GITHUB_TOKEN: ${secrets.GITHUB_TOKEN}
```

```
        run: |
```

```
          gh release upload -- repo $GITHUB_REPOSITORY dist
```



```
name: Release
```

```
on:
```

```
  # Triggers the workflow on creation of a new release
```

```
  release:
```

```
    types: [created]
```

```
jobs:
```

```
  build-and-release:
```

```
    runs-on: ubuntu-latest
```

```
    steps:
```

```
      - uses: actions/checkout@v2
```

```
      - name: Build and Test
```

```
        run: |
```

```
          # Build and test the project
```

```
          npm install
```

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          npm run build --if-present
```

```
          npm run test --if-present
```

```
  # Setup GH CLI on the runner
```

```
    - name: setup gh
```

```
      uses: shashban/example-setup-gh@v0.1
```

```
      with:
```

```
        version: 1.3.0
```

```
    - name: Upload Release
```

```
      env:
```

```
        GITHUB_TOKEN: ${secrets.GITHUB_TOKEN}
```

```
      run: |
```

```
        gh release upload -- repo $GITHUB_REPOSITORY dist
```

```
name: Release

on:
  # Triggers the workflow on creation of a new release
  release:
    types: [created]

jobs:
  build-and-release:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v2
      - name: Build and Test
        run: |
          # Build and test the project
          npm install
          npm run build --if-present
          npm run test --if-present

      # Setup GH CLI on the runner
      - name: setup gh
        uses: shashban/example-setup-gh@v0.1
        with:
          version: 1.3.0
      - name: Upload Release
        env:
          GITHUB_TOKEN: ${secrets.GITHUB_TOKEN}
        run: |
          gh release upload -- repo $GITHUB_REPOSITORY dist
```

Owner /
Repo

Tag

```
# Setup GH CLI on the runner  
- name: setup gh  
  uses: shashban/example-setup-gh@v0.1  
  with:  
    version: 1.3.0
```

Input



We did it !!!!

- Created an action ``setup-gh``
- It works cross-platform, and uses community tooling, minimizing the amount of code we need to maintain
- Contributed to the community



Your integration journey with GitHub



Plan



Build



Release



Plan



GitHub App



OAuth App



GitHub Action

(this is what we just built)



GitHub App

Access and operate on GitHub
resources autonomously as a
“bot”.

You maintain and operate on your
compute.

PROBOT

A framework for
building GitHub Apps

<https://probot.github.io>



PROBOT

GitHub Apps to automate
and improve your workflow

Use pre-built apps to extend GitHub,
and easily build and share your own.

Explore

Check out these hosted apps that extend your project on GitHub.
They're all open source and free to use on any project.

Pull
Keep your forks up-to-date.

↓ 10832 ☆ 2498



Delete merged branch
No more manually deleting merged
branches, this lovely app does it for you.

↓ 2214 ☆ 256



Developer Certificate of Origin
Enforce the DCO on Pull Requests

↓ 1403 ☆ 188



Creating a GitHub App - Demo Days

GitHub Apps

Steve Winton, Partner Engineer, explains why someone might want to build a GitHub app, then builds one from scratch. Create 3rd party integrations to GitHub via the API and allow them to act autonomously on protected resources. Using the example of OAuth, walk through GitHub Enterprise Server and learn how to build then manage administration, monitoring and installations.

Once you've built your app, consider partnering with GitHub.

Video: [Demo Days - Creating a GitHub App](#)

Demo Days - Creating a GitHub App





GitHub App

Access and operate on GitHub resources autonomously as a “bot”.

You maintain and operate on your compute.



OAuth app

Access and operate on GitHub resources on behalf of a user.

You maintain and operate on your compute.





GitHub App

Access and operate on GitHub resources autonomously as a “bot”.

You maintain and operate on your compute.



OAuth app

Access and operate on GitHub resources on behalf of a user.

You maintain and operate on your compute.



GitHub action

Expose a discrete unit of work that executes “headlessly” in the context of developer workflows.

You maintain, we operate on our compute / the customer’s compute.



GitHub App



OAuth app



GitHub action

Which one is right for you



GitHub action

Solution can run completely on GitHub Runners
Communicate over API/ via a CLI

Solution runs “headlessly” with no UI

Solution is “stateless” and without data storage

Needs fixed permissions
Executed with workflows in any repo

Needs chaining with other executions



GitHub Apps

Solution needs processing beyond GitHub Runners
Service hosted by you outside GitHub

Solution requires user interaction

Solution needs to persist data

Needs fine grained, dynamic permissions
Scoped to a repo/ installation

Standalone



Build

Building Blocks



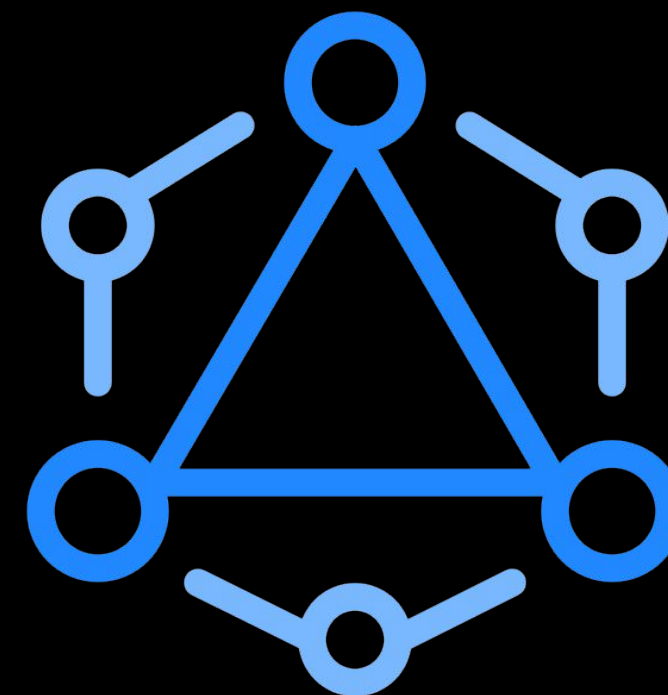
Docs

<https://docs.github.com>



SDKs

<https://octokit.github.io>



APIs



Webhooks



Partner with GitHub

Grow your business with GitHub. Whether you're building solutions that integrate with GitHub or services that help customers reach their full potential, get the resources and technical support you need.

Apply



Services and Channel Partners

Consult. Resell. Grow.

Partner with GitHub to expand your team's capabilities, and become a trusted advisor for your

Learn more



Technology Partners

Build. Integrate. Extend.

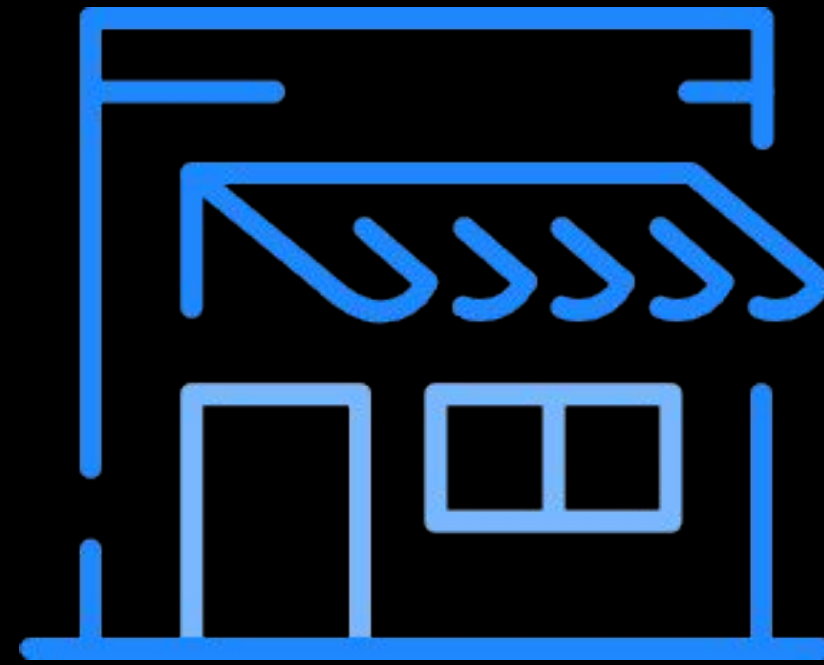
Transform the way software is built, deployed, and maintained. Partner with us to deliver innovative user

Learn more

<https://partner.github.com>



Release



The Marketplace

Window to the world for your tools

Apps

Build on your workflow with apps that integrate with GitHub.

402 results filtered by Apps x

Actions

An entirely new way to automate your development workflow.

7629 results filtered by Actions x

<https://github.com/marketplace>

Publisher Verification


You can request publisher verification for your organization. A  badge will be added to your apps published in the marketplace, recognizing that apps and other published materials were created by you.

[Learn more about publisher verification.](#)

Checklist

- ✓

Profile details
Valid profile picture, display name, location and email

Edit profile
- | | | | |
|---|--------------------------|-----------|-----------------|
|  | Display name | Location | Email |
| | Octo Organization | Octoverse | mona@github.com |
- ✓

Two-factor authentication enabled

Edit Security
- **Verified Domain**
You need to have a verified domain to confirm the organization's identity.

Review

Request Verification

You can request for verification once all above items are checked.

Self Serve Verification

[Applying for publisher verification for your organization - GitHub Docs](#)

