

GitHub Stats Workflow Documentation

Documentation: GitHub Stats Workflow

This guide explains how to set up and run a GitHub Action workflow that generates custom GitHub stats as an SVG badge using Python.

Prerequisites

1. GitHub Account
 - Ensure you have a GitHub account.
2. Personal Access Token
 - Generate a token with repo and read:user permissions:
 - Go to GitHub > Settings > Developer Settings > Personal Access Tokens > Tokens (Classic)
 - Click Generate new token, copy and save it.
3. Repository Setup
 - Create or use an existing GitHub repository.

Project Structure

```
.github/  
  workflows/  
    update-github-stats.yml # GitHub Actions workflow  
assets/  
  github-stats.svg        # Output SVG file  
generate_stats.py         # Python script to fetch and render stats
```

Files Overview

1. generate_stats.py
 - Fetches contribution data from GitHub GraphQL API.
 - Calculates total contributions, current streak, and longest streak.
 - Renders this information into an SVG file (assets/github-stats.svg).

Key Configurations:

- USERNAME: Set your GitHub username in the script.
- TOKEN: Retrieved securely from GitHub Actions Secrets.

2. .github/workflows/update-github-stats.yml
 - Defines an automated GitHub Action that runs the script.

Example Workflow:

(See full documentation in repository)

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Setup Steps

1 Add Files to Repository

- Place generate_stats.py in the root.
- Create folder .github/workflows/ and place update-github-stats.yml inside.
- Create an assets/ folder to store the generated SVG file.

2 Configure Secrets

1. Go to your repository on GitHub.
2. Navigate to Settings > Secrets and variables > Actions > New repository secret.
3. Add a new secret:
 - Name: GH_TOKEN
 - Value: Your personal access token.

3 Update Python Script

- Set your username in generate_stats.py:
USERNAME = "your-github-username"

4 Commit and Push

- Commit all files to the repository.
- Push changes to GitHub.

5 Trigger Workflow

- The workflow runs automatically every day.
- You can also trigger it manually from the Actions tab in GitHub.

Output

- The script generates assets/github-stats.svg.
- This can be embedded in your README.md like this:
![GitHub Stats](assets/github-stats.svg)

Example Badge

My GitHub Stats

Total Contributions: XXXX

Current Streak: XX days

Longest Streak: XX days