

GitHub Organization: Step-by-Step Guide

What Is a GitHub Organization?

A GitHub Organization is a shared workspace that allows multiple collaborators or teams to manage and work on multiple repositories together. It provides centralized control, role-based permissions, and collaboration tools for software development.

Why Use an Organization?

- Centralized management of repositories and teams.
- Role-based access control (owners, members, teams).
- Easier collaboration with multiple developers.
- Centralized billing and security settings.

1. Creating a GitHub Organization

- 1 Go to: <https://github.com/organizations/new>
- 2 Select **Create a free organization** or **Enterprise**.
- 3 Enter organization name and contact email.
- 4 Choose a plan (Free / Team / Enterprise Cloud).
- 5 Click **Next** and optionally add members.
- 6 Your organization is now created ■

2. Adding and Managing Members

You can invite or remove members from your organization as needed.

- 1 Go to your organization's homepage → **People**.
- 2 Click **Invite member**.
- 3 Enter GitHub username or email.
- 4 Choose a role: **Owner** or **Member**.
- 5 Click **Send invitation**.

To remove a member: Go to the People tab → click the three dots (■) next to a member → Remove from organization.

3. Creating Teams

Teams help manage permissions for groups of users easily.

- 1 Go to your organization → **Teams** → **New team**.
- 2 Enter team name and description.
- 3 Add members and assign repository access levels (Read, Write, Admin, etc.).

Repository Access Levels

Access Level	Description
Read	View code and issues, clone repository.
Write	Push commits, manage issues and pull requests.
Maintain	Manage repository settings without full admin rights.
Admin	Full control over repository and settings.

4. Creating and Managing Repositories

- 1 Go to your organization → **Repositories** → **New**.
- 2 Select the organization as the owner.
- 3 Name your repository and choose visibility (Public or Private).
- 4 Optionally initialize with a README file.
- 5 Click **Create repository**.

5. Organization Roles

Role	Permissions
Owner	Full access to settings, members, billing, and repositories.
Member	Access to assigned repositories or teams only.
Billing Manager	Manages billing and invoices only.
Outside Collaborator	Access to specific repositories but not full organization.

6. Best Practices

- Use teams to manage permissions instead of individuals.
- Enable two-factor authentication (2FA) for all members.
- Set branch protection rules to enforce code reviews.
- Store sensitive information in GitHub Secrets.
- Regularly review members and permissions.
- Backup critical repositories periodically.

7. Example: A Team Setup

Organization: my-company

Teams: frontend, backend, devops

Repositories: frontend-app, api-server, infra-scripts

Permissions:

- frontend → Write access to frontend-app
- backend → Write access to api-server
- devops → Admin access to all repositories