Organizing People for Successful Collaboration on GitHub

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About Me

- Academic Background
  - University of Bristol – Computer Science (2021, MSc)
  - National Yang-Ming University – Genome Sciences (2017, MRes)
  - National Chung Hsing University – Biotechnoloy (2015, BSc)
- Application Engineer at Allxon (09/2023 – 10/2024)
  - Establish partnerships with ngrok and portainer.io
  - Advocate and support Allxon Octo SDK
  - Pre-sale demo and post-sale technical support for Allxon solutions
  - Prepare demo and training materials for members, customers, and partners
  - Research on Nvidia Jetson series technology (BSP update, OTA deploy, JPS)

Philosophy of Collaboration on GitHub

- Key activities in collaboration:
    - Communication
    - Contribution
    - Administration
- Key entities for managing collaboration:
    - Individuals
    - Organizations
        - Enable shared **ownership** and **administration** of repositories
        - Example: System and Service Team
    - Teams
        - Groups of users within an organization
        - Example: AE Team, Engineering Team

About Repositories

- GitHub's core services center around repository functionalities

- Repositories are used to manage work and collaborate effectively:
    - **Issues**: Track bugs, tasks, and discussions
    - **Wiki**: Share documentation or project resources
    - **Discussions**: Facilitate team conversations

- Public vs. Private Repositories:
    - **Public**: Accessible to everyone on the internet
    - **Private**: Accessible only to you, invited collaborators, or organization members
    - Permissions and visibility settings apply to the entire repository, including code, issues, and the wiki

About Organizations

- Organizations are shared accounts where **multiple members** can collaborate

- Users can belong to multiple organizations

- Permissions are assigned based on roles:
  - **Owner**: Full control over the organization
  - **Member**: Limited access based on assigned permissions
  - **Outside Collaborator**: Access to specific repositories without membership

- **Teams**: Sub-groups of members within an organization
  - Control repository access levels (admin, read, or write)
  - Enable organization members to notify the entire team efficiently

How to Collaborate with External Collabrators

- **Join an organization as members**
  - Collaborators are added to the orgnization (teams)
  - Permissions can be adjusted for all repositories a team has access to
  - Ideal for long-term collaborators requiring access to multiple repositories
- **Join repositories as outside collaborators**
  - Collaborators are added to specific repositories
  - Have no visibility into the broader organization or other repositories
  - Best for temporary or repository-specific access

Let's see a demo on GitHub! ✌️