GITHUB ORGANIZATIONS

- sindhu

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NAME	DATE	REVISION	DESCRIPTION
Sindhu	18-04-2023	V.01	Initial Draft

1 Introduction

GitHub is a service provided by Microsoft that many software developers use for source code storage, management, sharing, and version control. It has become stable in the software and IT field. Not only does it help independent developers, but also companies in creating robust repositories with efficient processes in place. Keep reading to learn the basics and how to set up GitHub repositories and organizations for your business.

2 Goals Of Implementation

Basically, we can manage multiple projects with many teams and organizations. For example, an organization may have .NET projects, Java projects, Open Source projects, Database projects. So, you can create multiple projects in one organization and distribute them with multiple teams.

- Easier visibility over progress
- Simpler access to resources between members
- Clear documentation on updates and resources
- Proper version control to maintain code integrity and prevent conflict between developer commits
- Manageable code repository
- Quality Control & Governance

2.1 GitHub Organization

An organization in GitHub is meant to centralize all your group/business's resources and isolate them from the outside.

Member: Members can see all other members and can be granted access to repositories. They can create teams and repositories.

Owner: Owners have full administrative rights to the organization and have complete access to all repositories and teams.

At the moment you are the Owner and the only one who can access the newly created organization. You can check this by navigating to the People section in the GitHub's navigation bar. The members list shows each member and their access level. Owners have full access to teams, repositories and settings of the organization. Of course we want to work with colleagues. We are now looking at how we can add our colleagues to the organization and what access rights we can give them. To add a new member, navigate to the People section, enter the invitee's email or GitHub handle and click Invite Member.

When you look at the People section there is an entry named Outside collaborators under the Organization permissions. So, what is an Outside collaborator?

Outside Collaborators:

An Outside collaborator is a person who isn't explicitly a member of your organization, but who has Read, or Admin permissions to one or more repositories of your organization. This is useful when, for example, we are working with partner companies on a project but don't want partners

to have organization-level access. Partners cannot view members of the organization and cannot create repositories. We only give partners access to selected repositories. We will look at how to give Outside collaborators access to repositories later.

As an organization Owner, we can manage Members' privileges. Navigate to the organization's Settings section in the GitHub's navigation bar and click Manage privileges.

2.2 Github Repository

A repository contains all of your project's files and each file's revision history. You can restrict who has access to a repository by choosing the repository's visibility. For user-owned repositories, you can give other people collaborator access so that they can collaborate on your project. If a repository is owned by an organization, you can give organization members access permissions to collaborate on your repository.

With GitHub Free for personal accounts and organizations, you can work with unlimited collaborators on unlimited public repositories with a full feature set, or unlimited private repositories with a limited feature set. To get advanced tooling for private repositories, you can upgrade to GitHub Pro, GitHub Team, or GitHub Enterprise Cloud.

You can restrict who has access to a repository by choosing a repository's visibility: public or private. Organization owners always have access to every repository created in an organization.

- Public repositories are accessible to everyone on the internet.
- Private repositories are only accessible to you, people you explicitly share access with, and, for organization repositories, certain organization members

3 Github Limitations

Difficult To Use For Beginners:

GitHub is a very powerful tool and so it is hard to get the hang of as a beginner. New users can find the many different options and ways of doing things in GitHub confusing and overwhelming. In particular, many people struggle with GitHub's many unintuitive commands and the inconsistency between commands and arguments in the software.

Security Level:

There is still presence of some insecurity and risk in GitHub software. This is due to the reason that it is cloud-based. This is why some developers and clients only help prefer to work on their own internal security. You can use Git, as a matter of consideration due to the software policy.

Pricing Policy:

GitHub have features restricted only on the domains of SaaS transaction wall. If you have a large group of members, this can be expensive. Yet those who already have a IT group, their servers are better performing with their Git system. It is due to expenses and productivity. Yet a new start-up may face significant challenges. It may be due to day-by-day Git's pricing has improved.

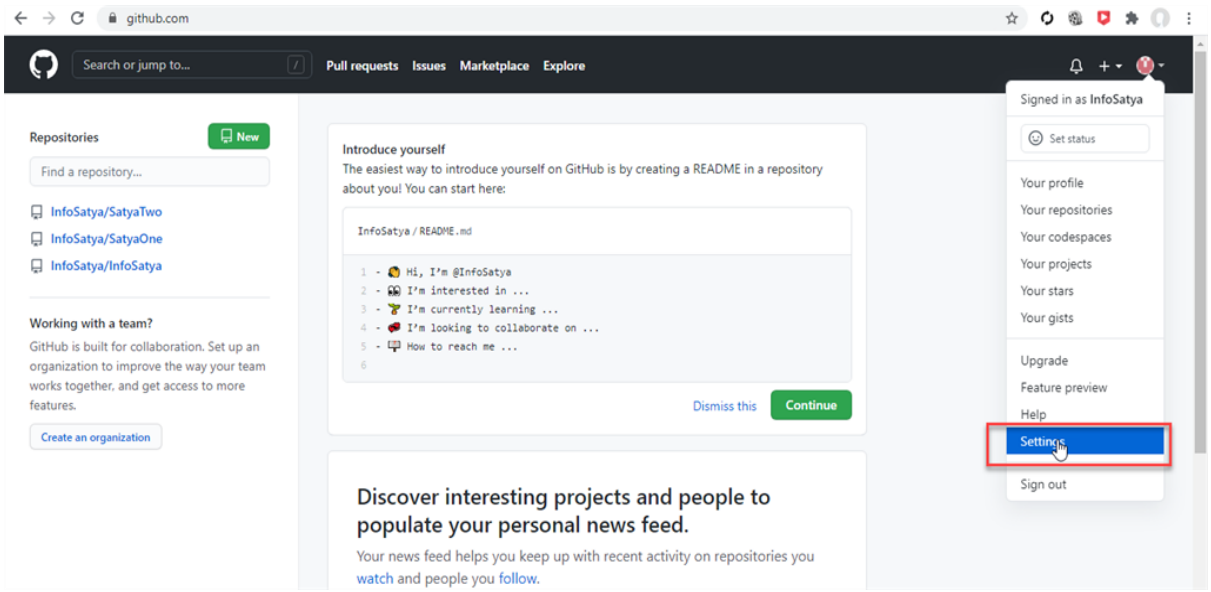
4 TESTING

Let’s go through how to set up a GitHub Organization.

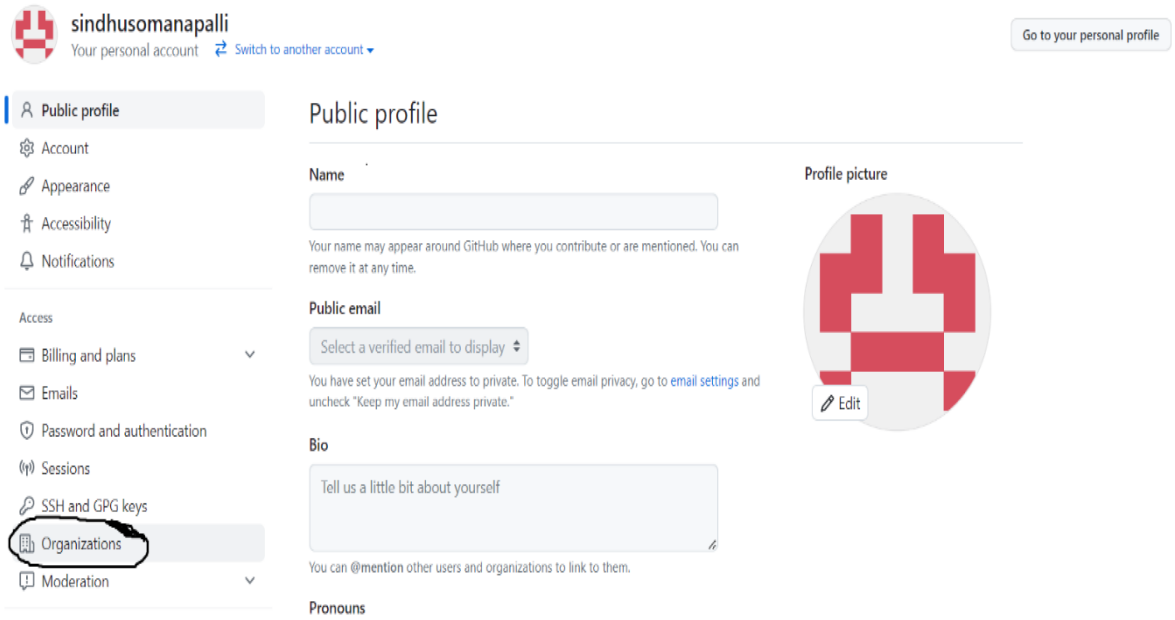
- Log in to your GitHub account
- On the top right of the webpage, click on your GitHub account icon

GITHUB ORGANIZATION CREATION:

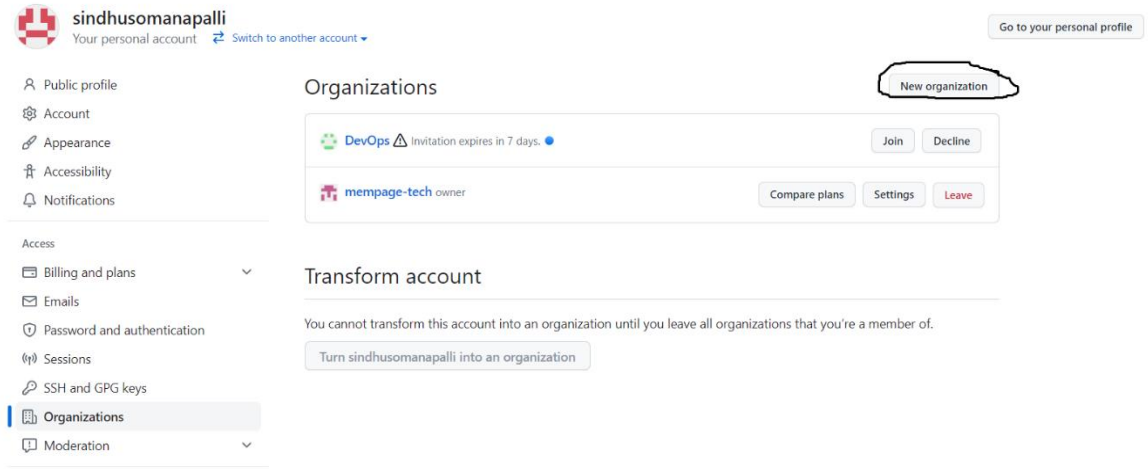
Go to Settings as shown below,



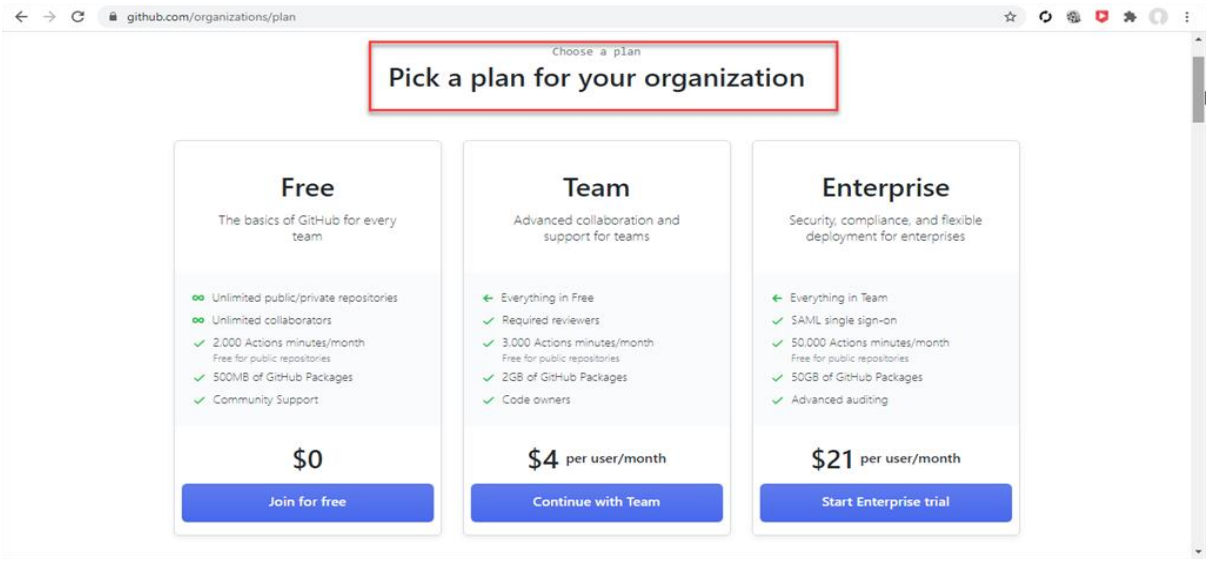
Go to Organizations as shown below.



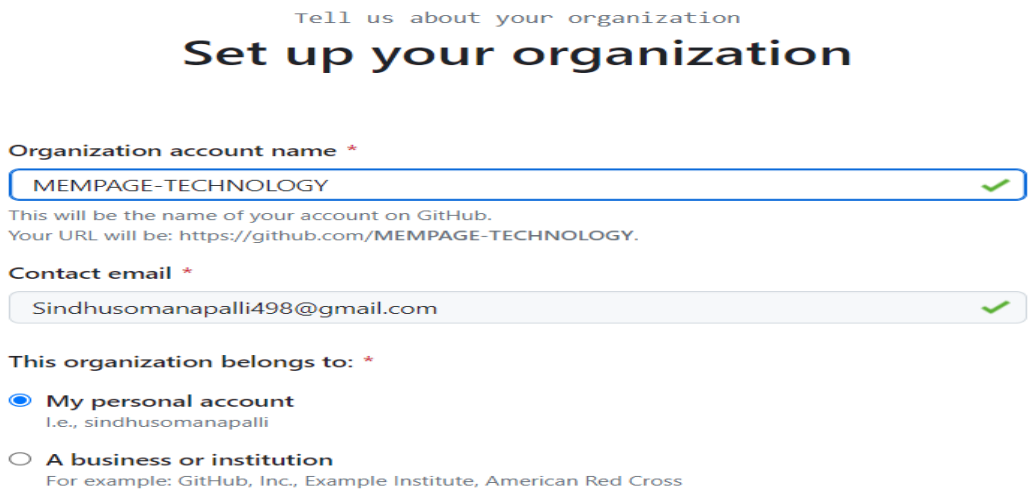
Click on New organization as shown below.



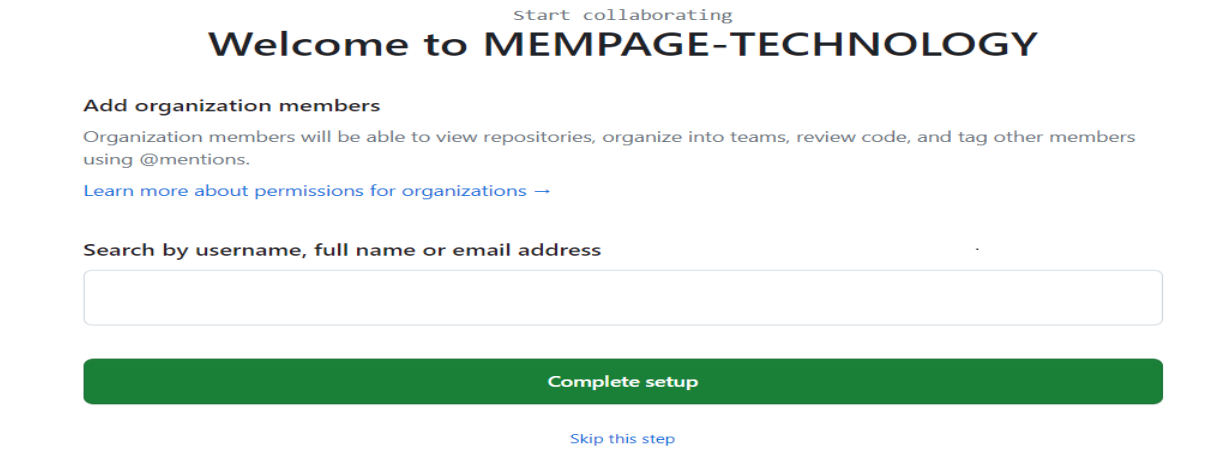
Pick a plan for your organization as shown below.



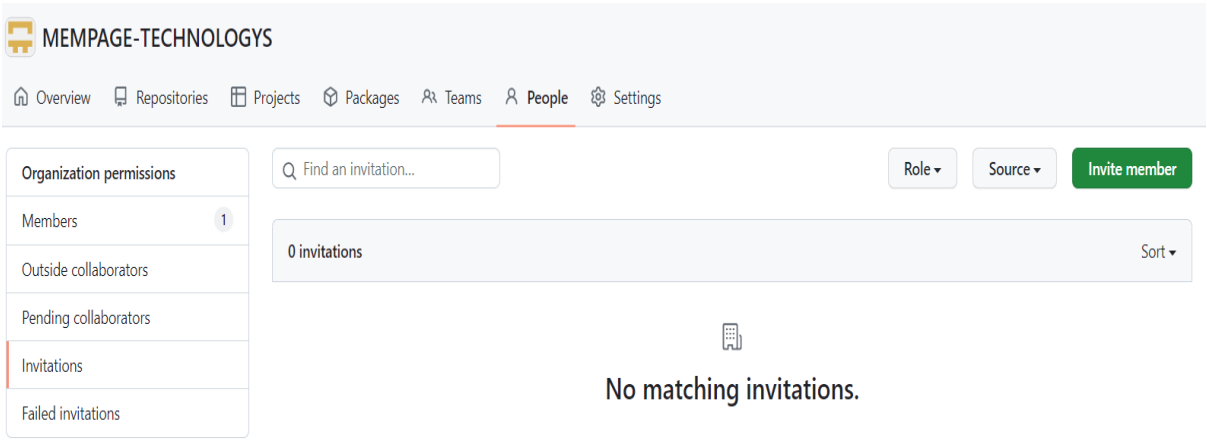
Set up your organization as shown below.



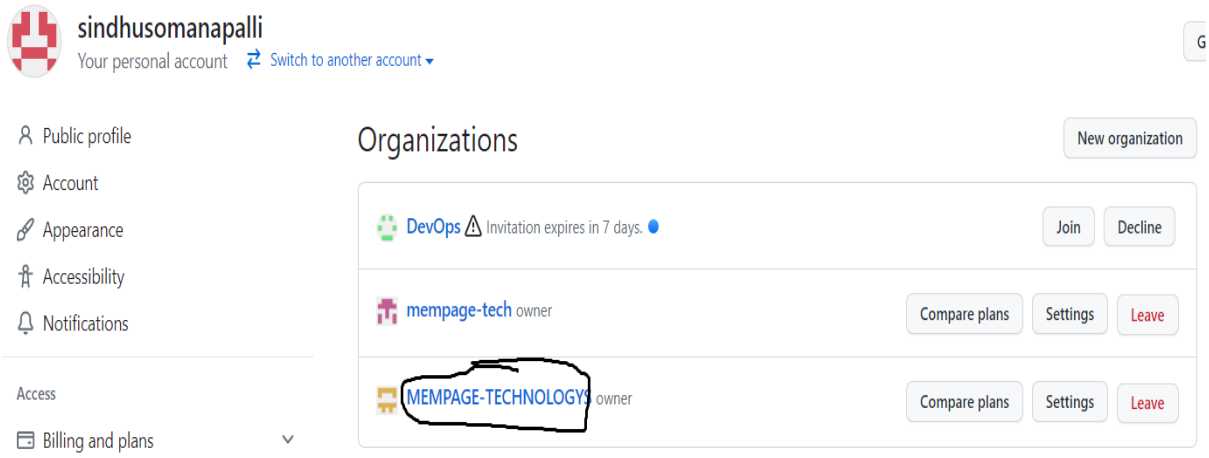
Complete the setup as shown below.



GitHub new organization created as shown below.

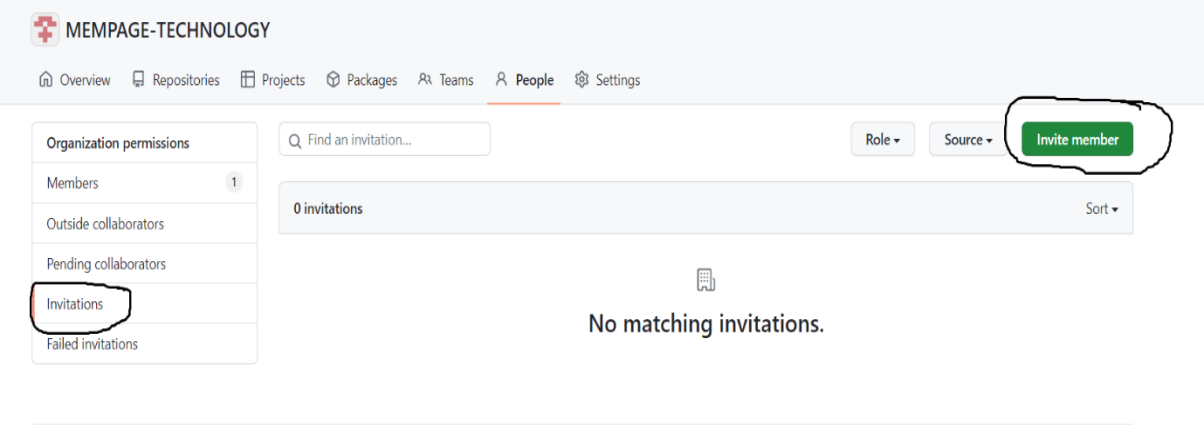


Check GitHub new organization as shown below.

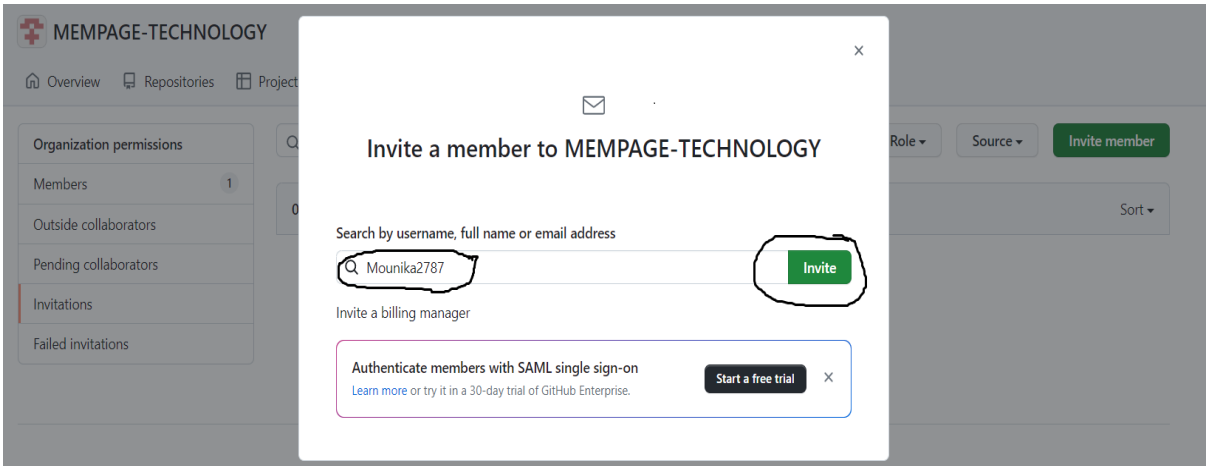


GITHUB ORGANIZATION MEMBER CREATION:

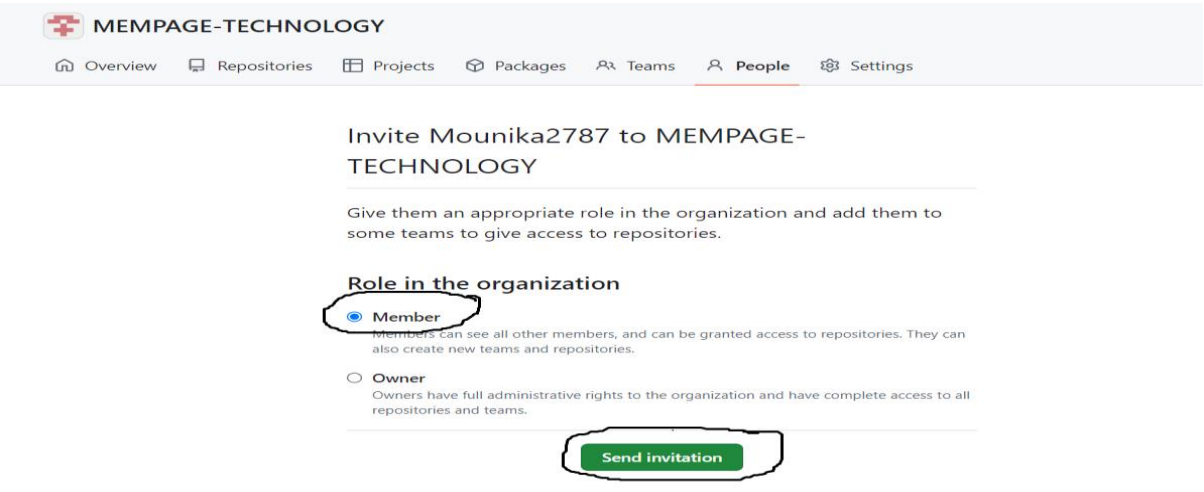
Invite A Member To Organization As Shown In Below.



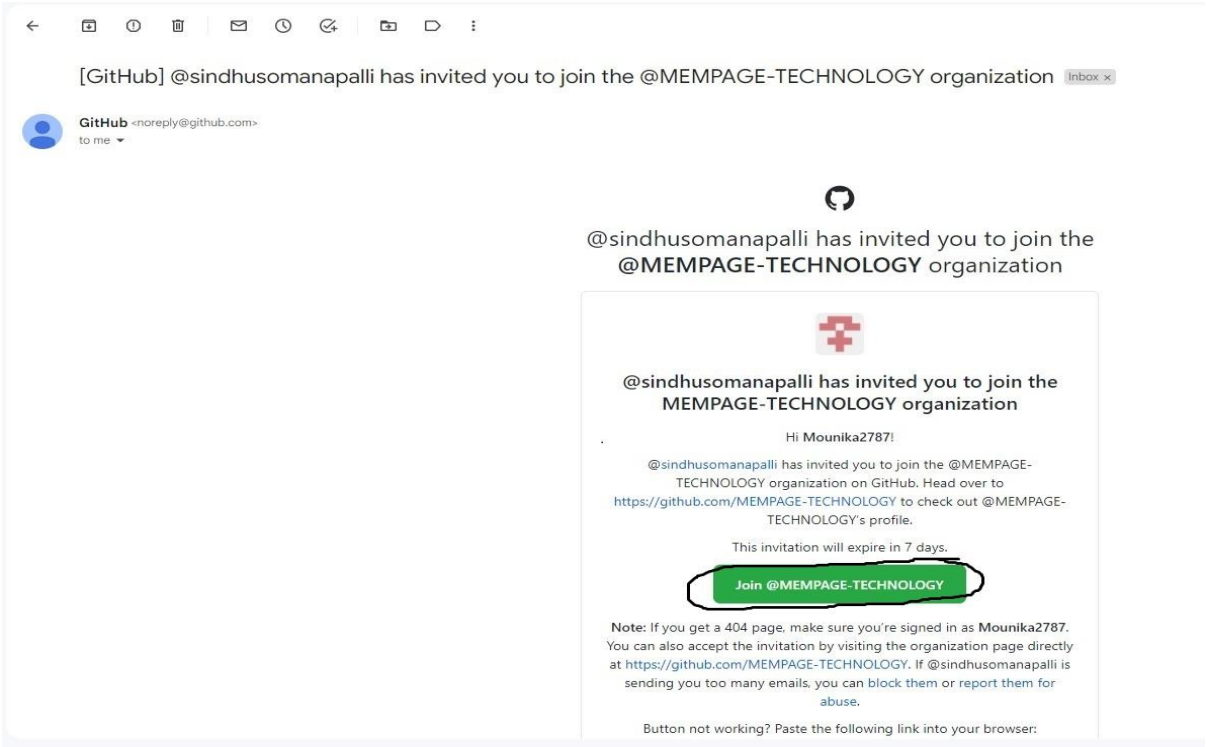
Enter The Members Username And Invite Them Into Organization As Shown In Below.



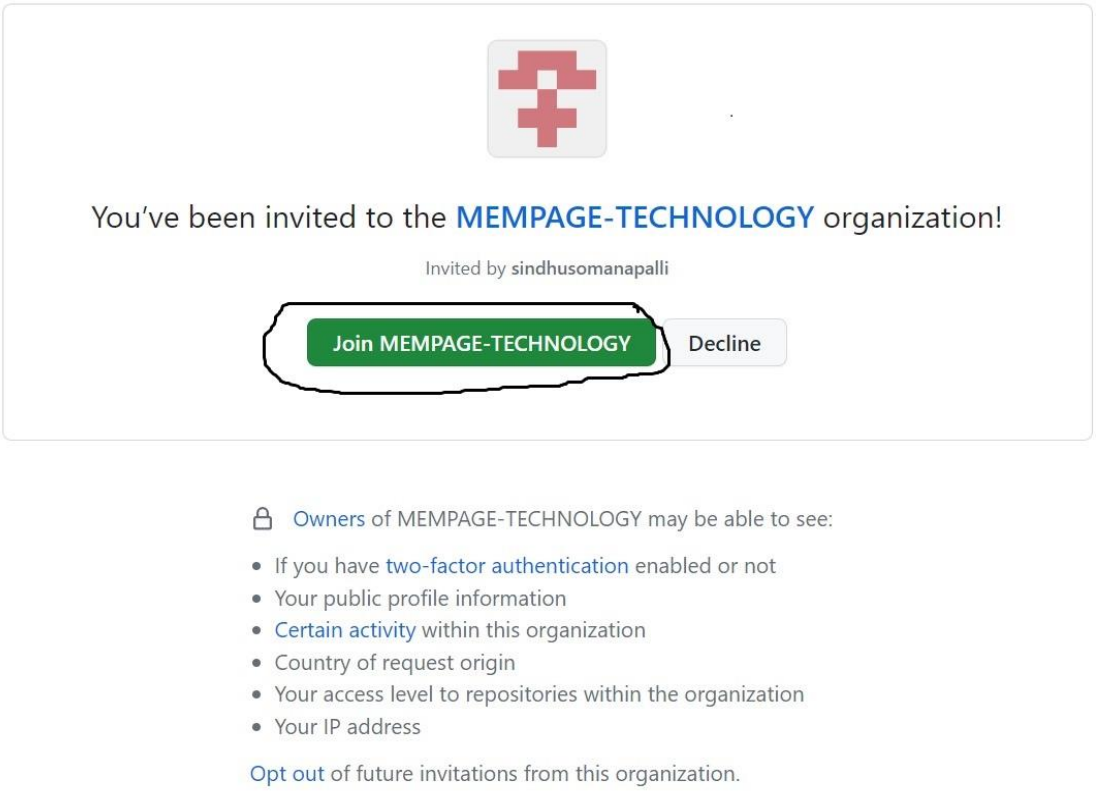
Mention Members Role In The Organigation As Shown In Below.



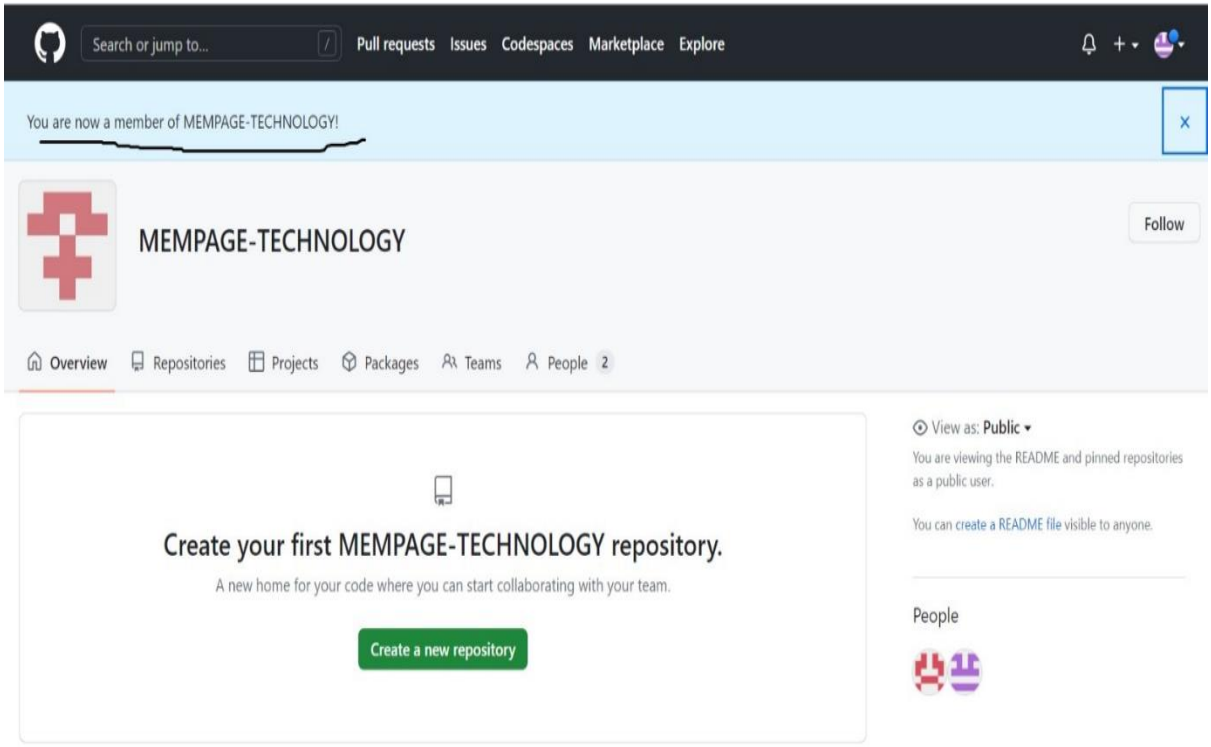
Send mail invitation to join GitHub organization as shown below.



The invited user will join GitHub organization as shown below.

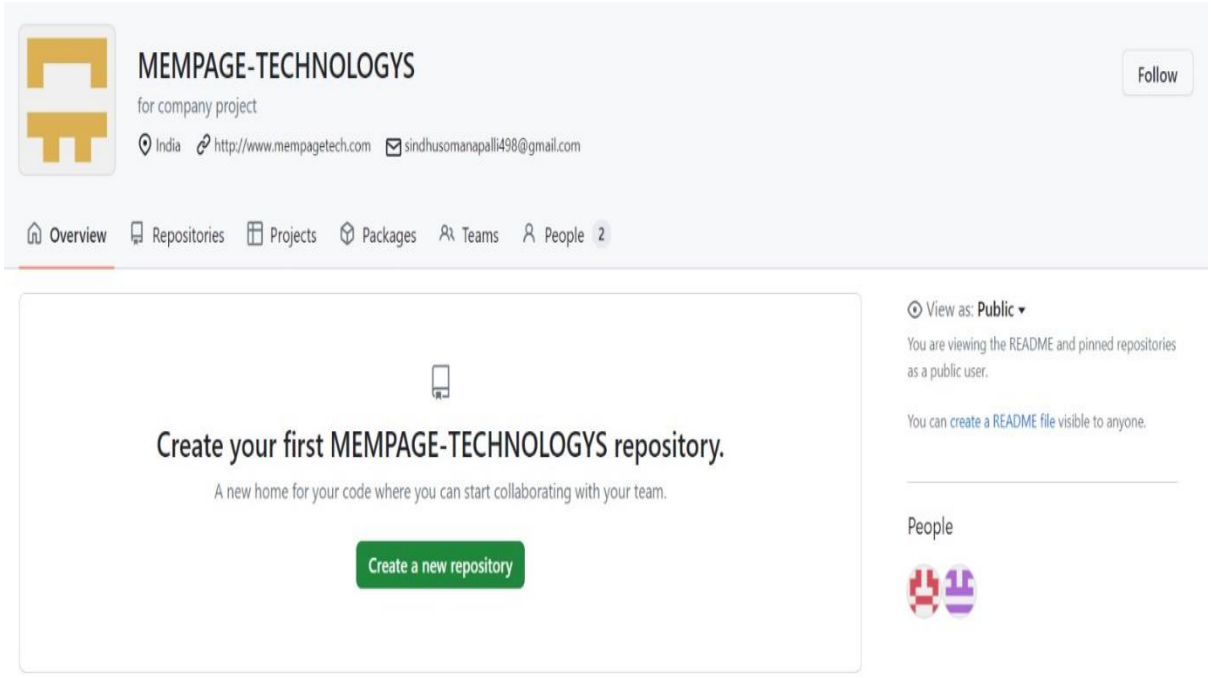


After joining GitHub organization the interface is as shown below.



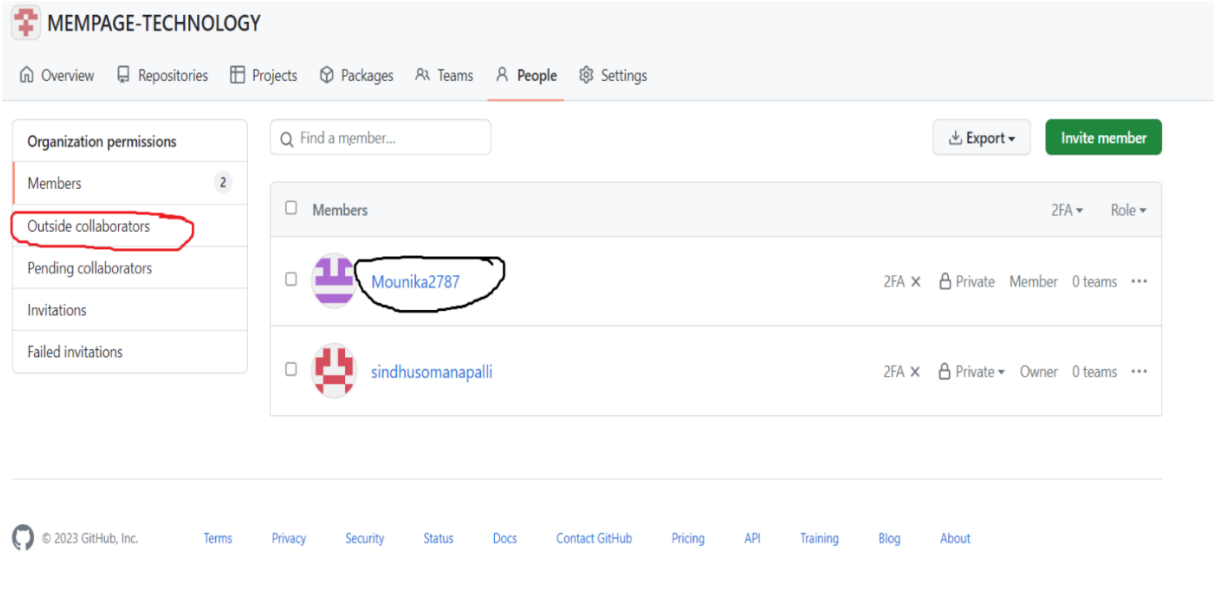
Member is not possible to change settings of the organisation. Therefore the Settings section in the GitHub's navigation bar is not displayed.

For member, the Settings option is not there as shown below.



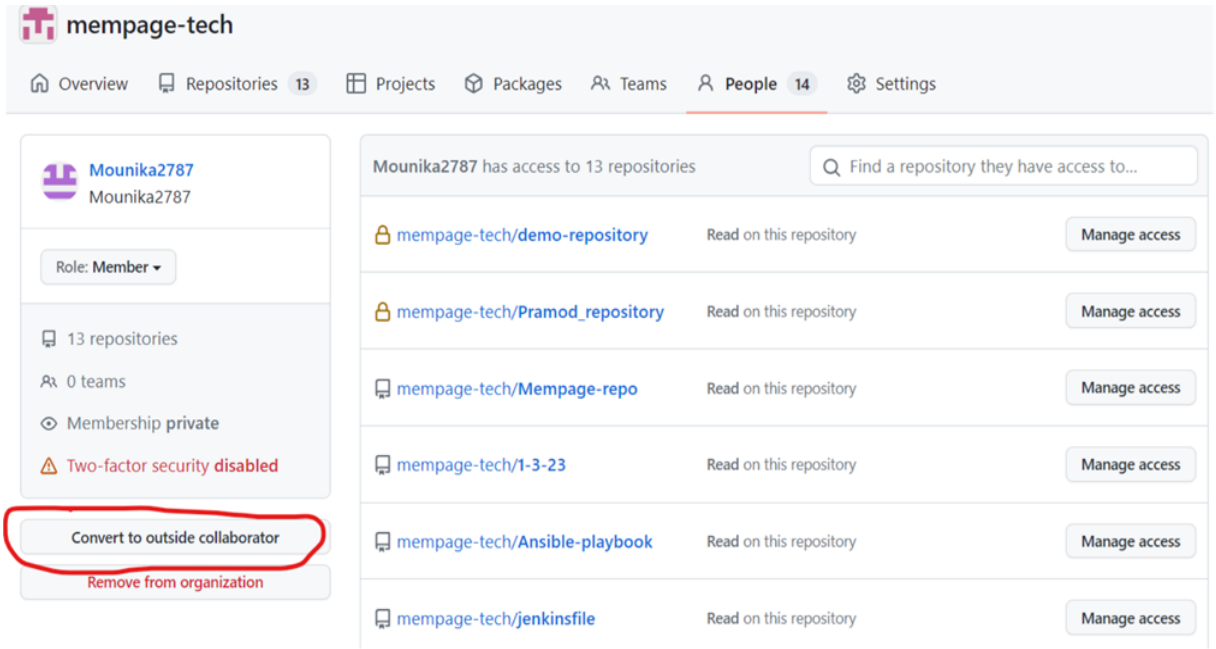
Check the number of members of GitHub organization after login of GitHub organization shown below.

Now there is no outside collaborators so convert one member to outside collaborators.

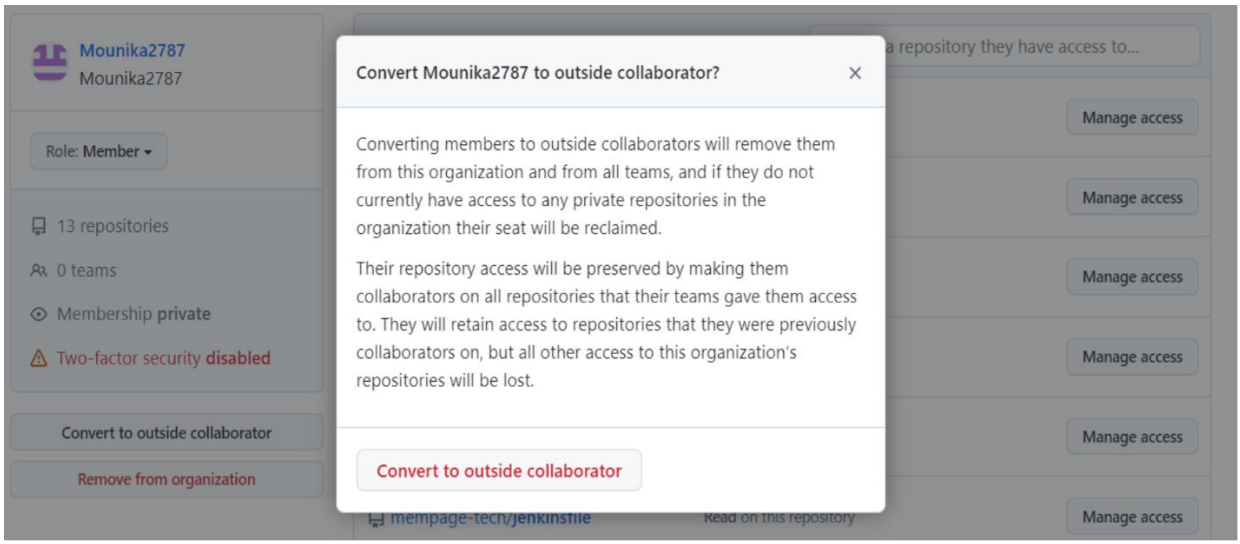


Here sindhusomanapalli is the owner of GitHub organization and mounika2787 is the invited member of GitHub organization. MEMPAGE_TECHNOLOGY is the name of the GitHub organization.

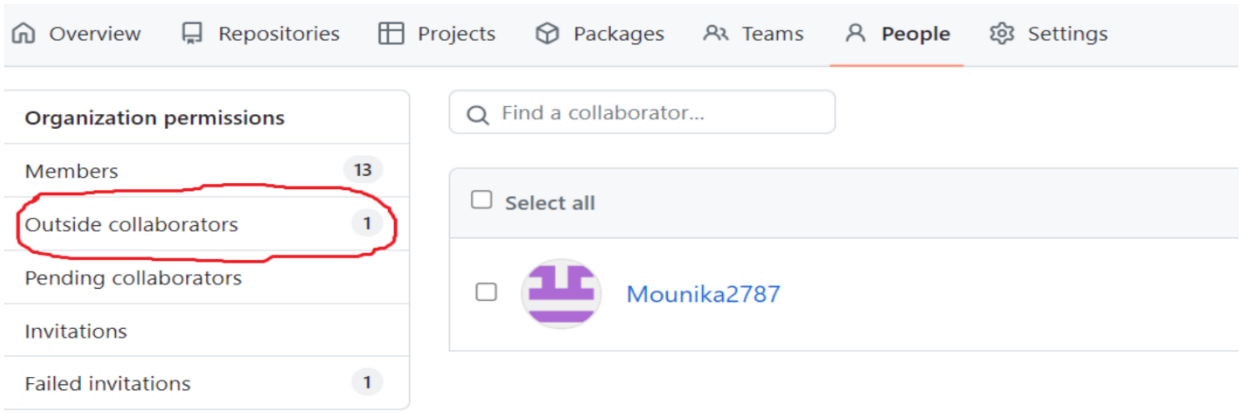
Click on organization member. Here we have a option called convert to outside collaborator as shown in below.



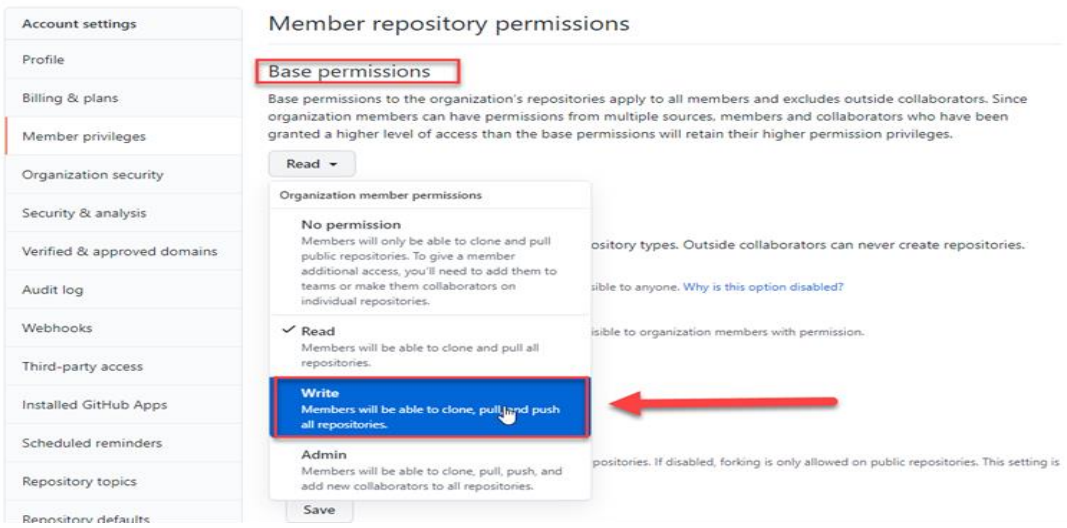
Choose the option convert outside collaborator as shown in below.



The outside collaborator is successfully added to organization as shown in below.

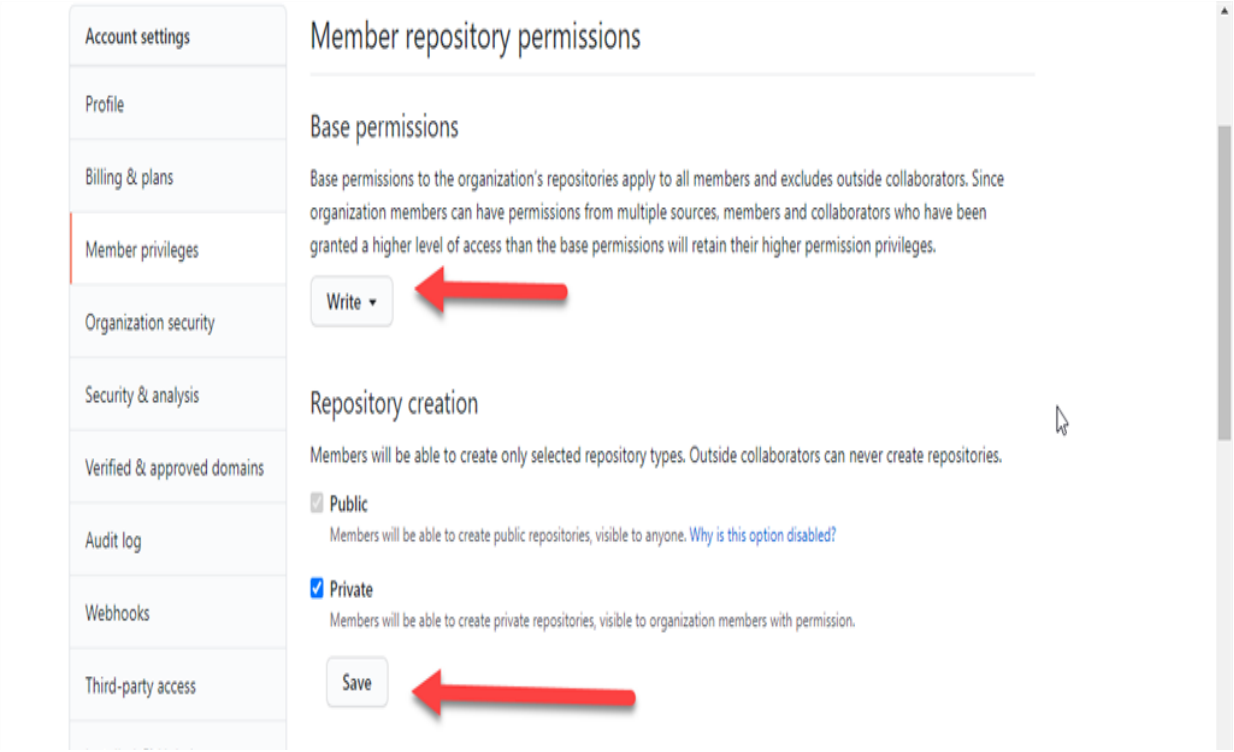


Configure Base repository permission in member privileges as shown below.



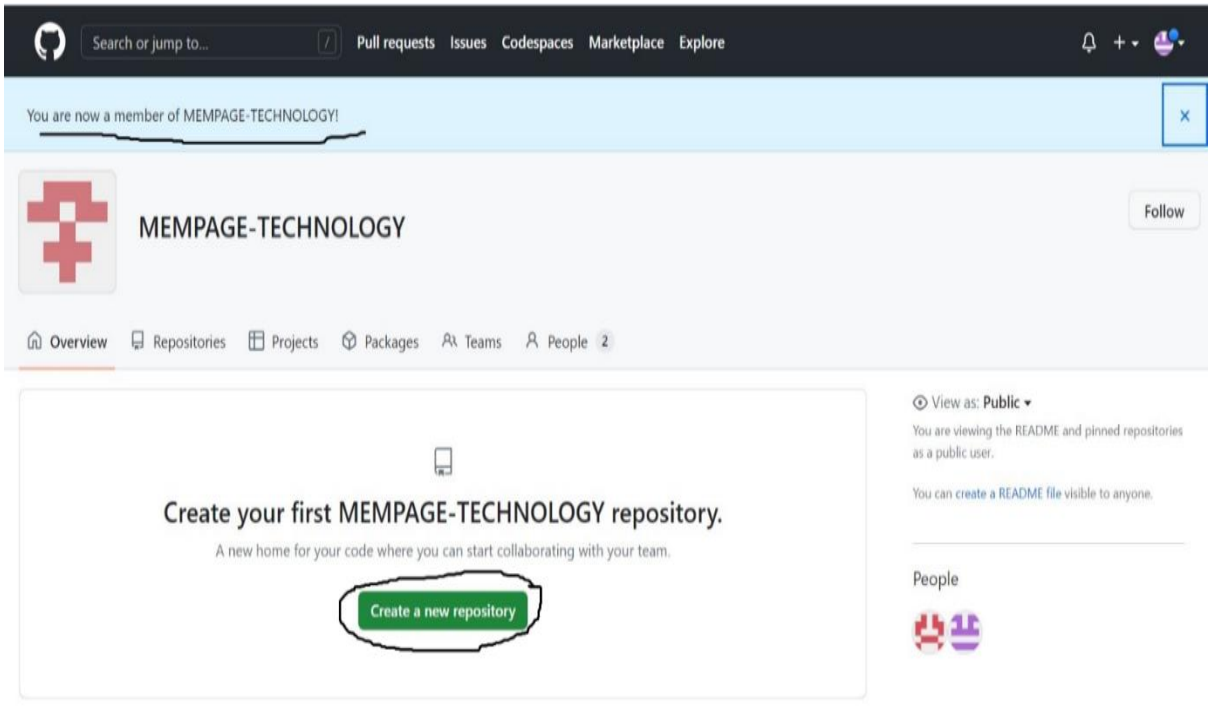
There are two ways to give someone more access than the Base permission allows.

Here member of this GitHub organization can clone, pull and push all repositories.
Then other option will remain unchanged as shown below.

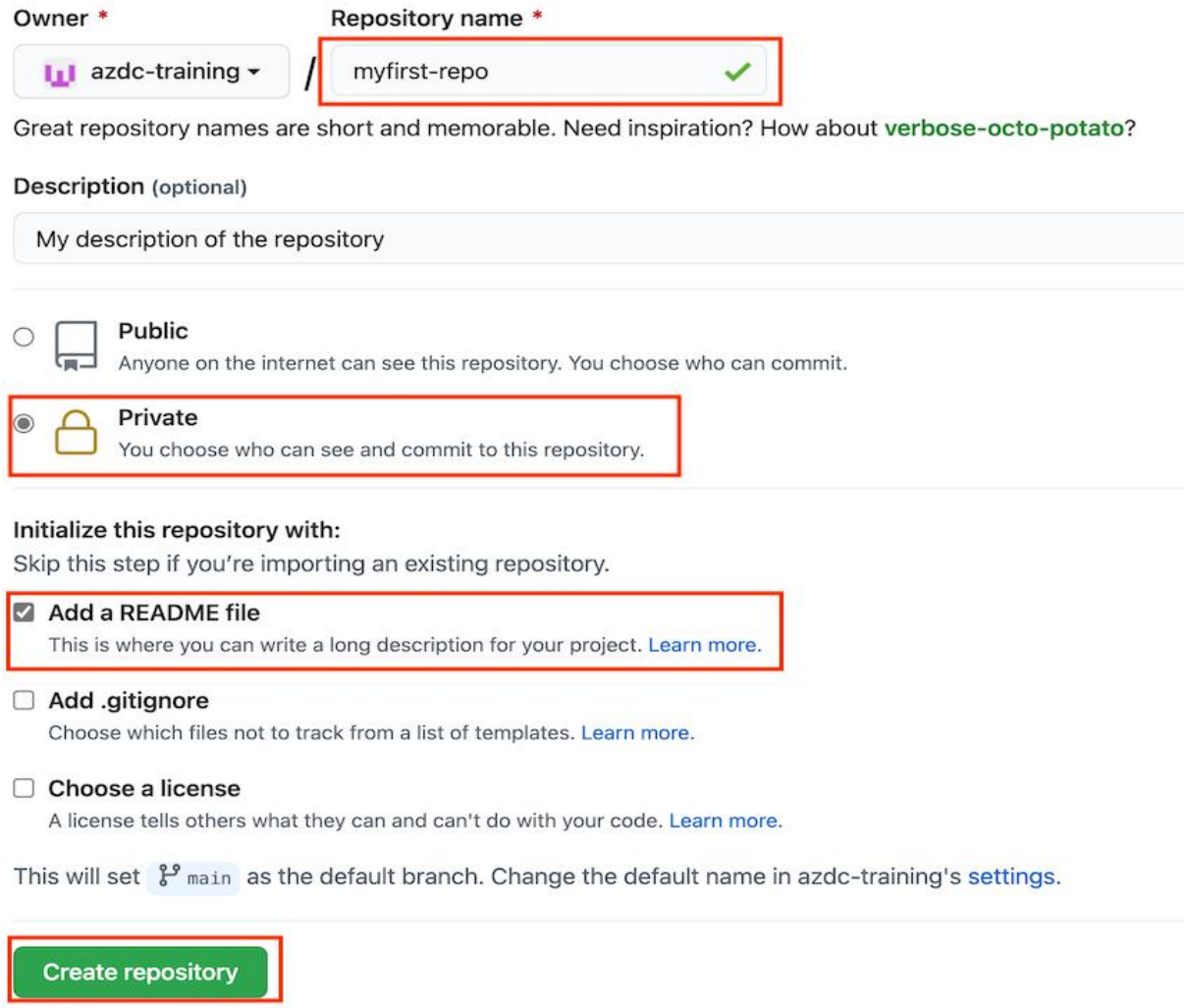


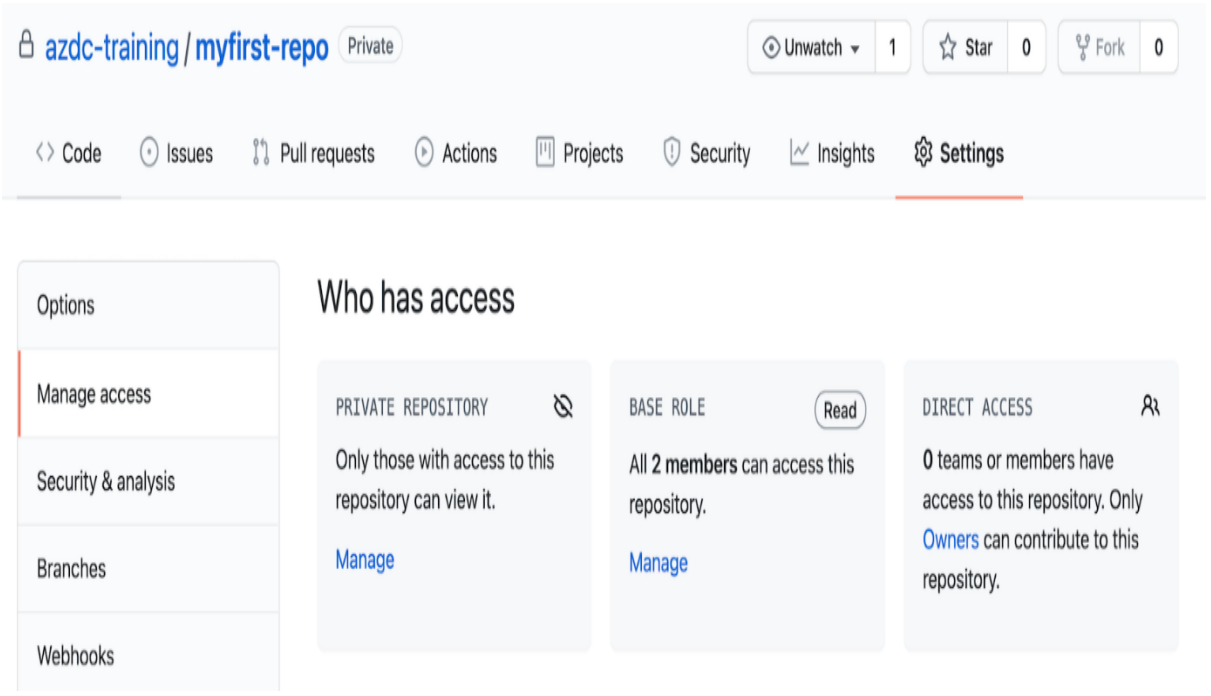
GITHUB REPOSITORY CREATION:

Create Repository As Shown In Below



Click the *Create a new repository* button to create the repository.





We can rename and delete this organization under Profile section as shown below.