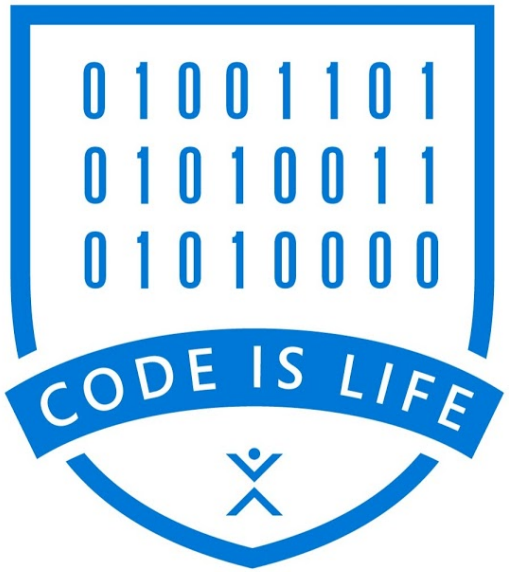
Microsoft Student Partners

Git & GitHub



Atharva Khedkar & Vinit Bansal

Microsoft Student Partners

AGENDA

- What were the issues before Git came into existence?
- How to install Git?
- Introduction to Git
- Collaborate with GitHub
- Contribute with GitHub

What is Version Control?

A version-control system is a program or set of programs that tracks changes to a collection on files.

It allows you to:

- Revert selected files back to a previous state
- Compare changes over the time
- Recover older versions

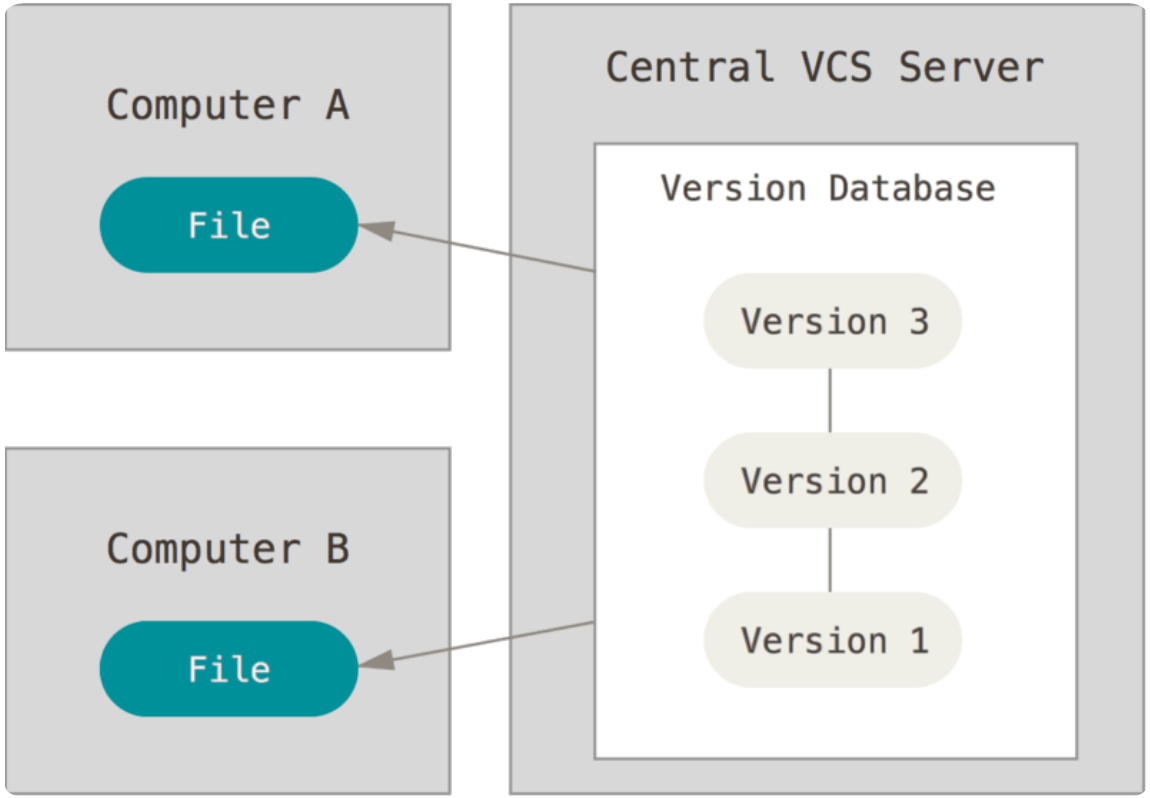
Types of Version-Control Systems

Centralized

Distributed

git

Centralized VCS

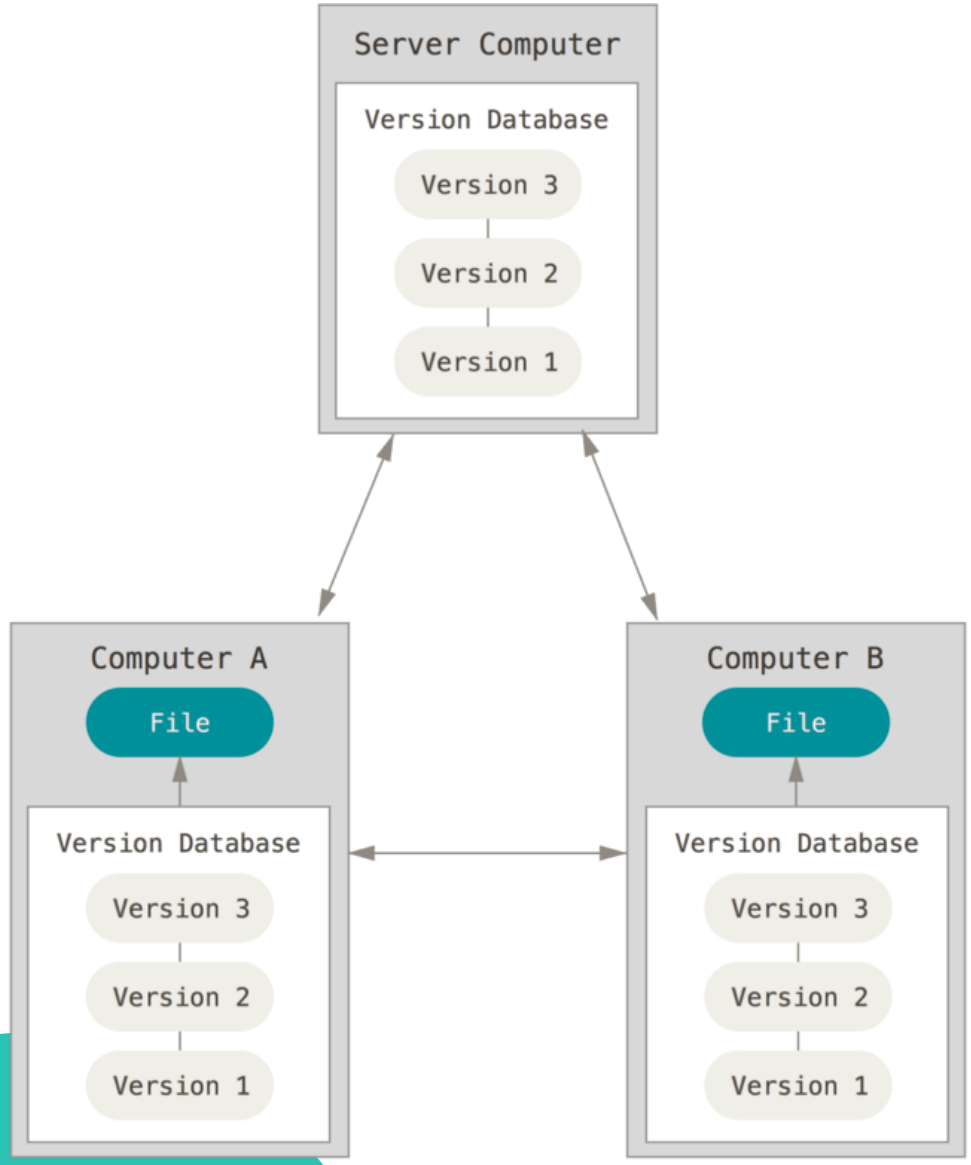


Centralized Version Systems are based on the idea that there is a single “central” copy of your project somewhere (probably on a server), and programmers will commit their changes to the central copy.

Popular Centralized VCSs

1. SVN
2. CVS
3. Perforce

- SVN is the most popular Centralized Version Control System.
- SVN can also work with GitHub.



Distributed VCS

Distributed Version Systems are based on the idea that there is a two copies of your project, one on a server and other client, and programmers will commit their changes to the local and then the central copy.

Popular Distributed VCSs

1. GIT
2. Mercurial
3. Bazaar

- Git is the most popular Distributed Version Control System and has became an industry standard.

What were the issues before Git came into existence?

- Untraceable previous updates
- Difficulty in collaboration
- Keeping live code and under development code in separate places and difficulty in merging those.

git

How to install Git?

https://git-scm.com/

Introduction to git

Git configuration on Local Machine:

- git config user.name “<Username>”
- git config user.email “<Email id>”

Introduction to git

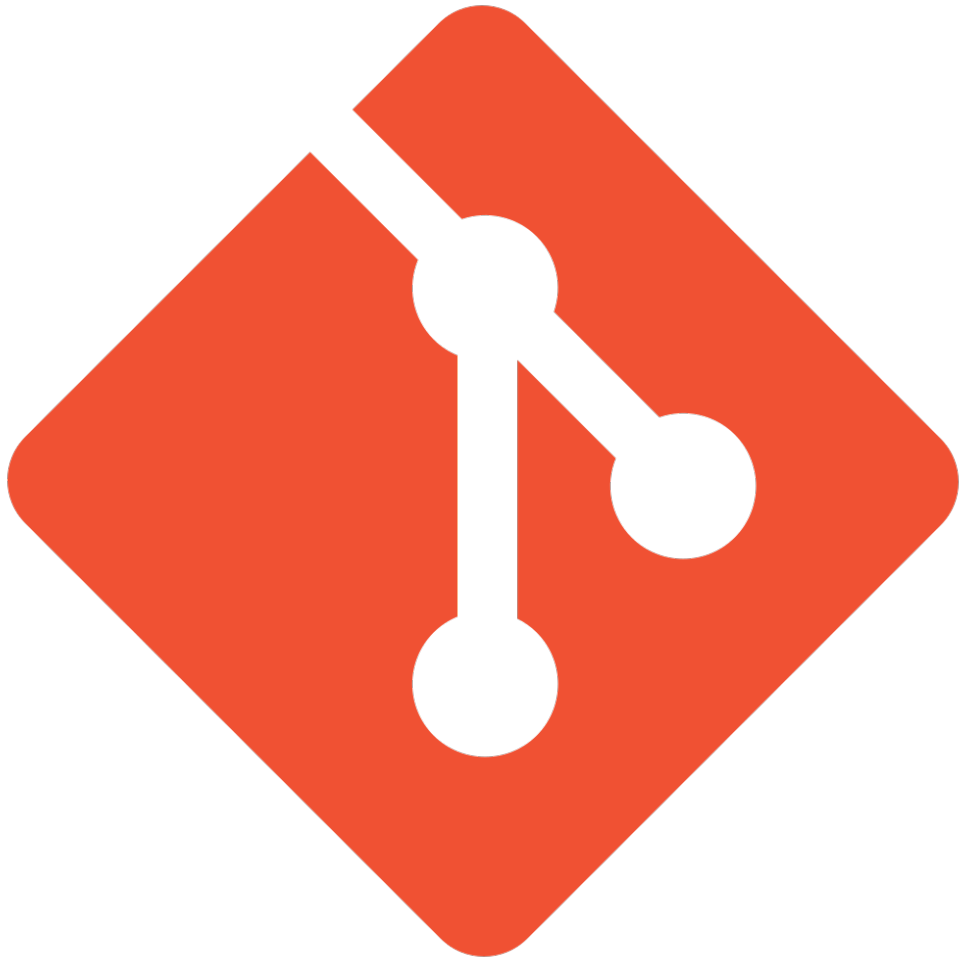
Most helpful git commands:

- git help
- git status
- git log [branchname]

Introduction to git

Git implementation on Local Machine:

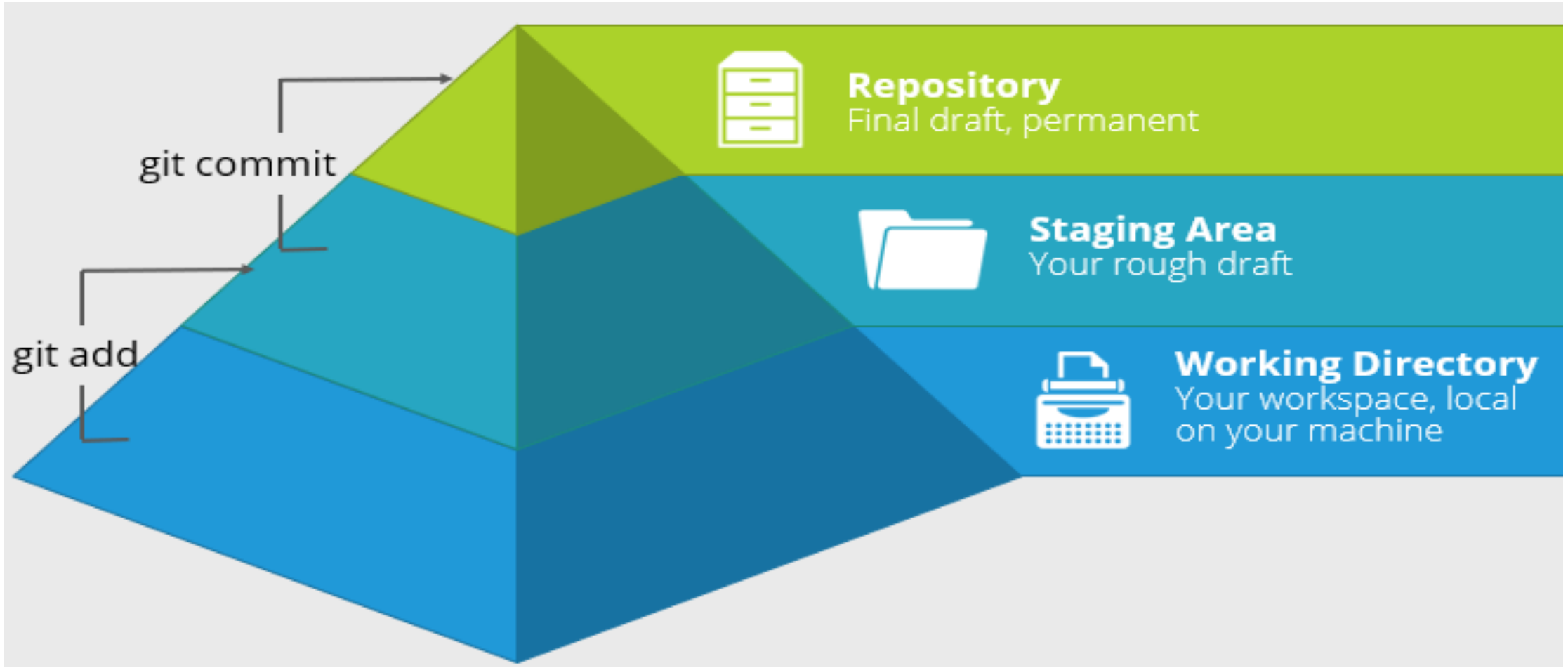
- git init [projectname]
- git add <filename>
- git commit –m “<message>”



Introduction to git

How to Rollback to previous commit in GIT:

- git checkout <filename>
- git reset HEAD~<No. of commits back>
- Git revert <SHA Code>


git commit
git add
Repository
Final draft, permanent
Staging Area
Your rough draft
Working Directory
Your workspace, local
on your machine


Git
directory
Staging
area


Working tree

Collaborate with GitHub

Creating a GitHub Account

https://github.com/

Collaborate with GitHub

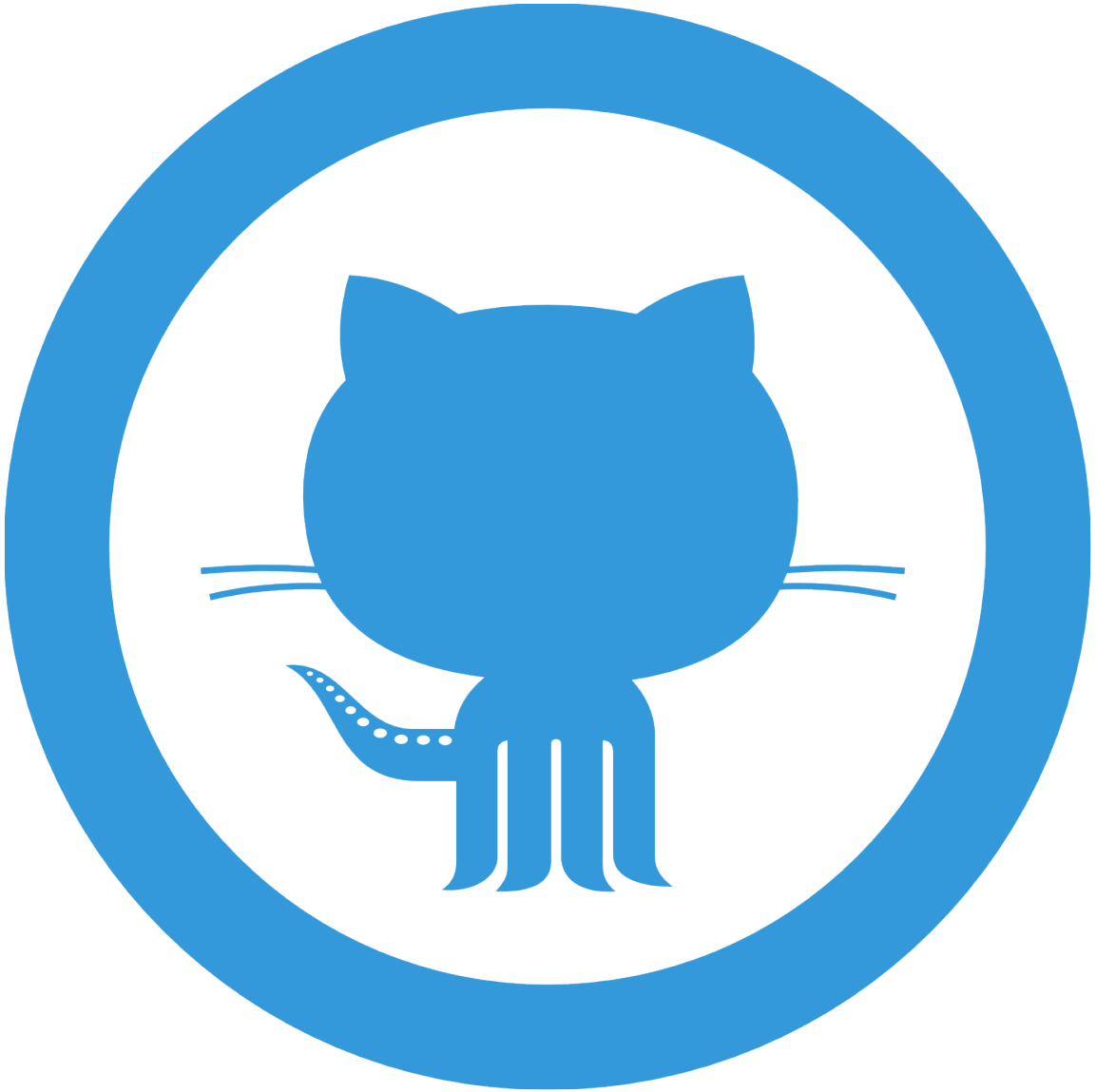
Connecting Git from local machine with GitHub:

- git remote add <remotename> <URL>
- git pull <remotename> <branchname>
- git push <remotename> <branchname>

Collaborate with GitHub

Branches

- git branch <branchname>
- git checkout <branchname>
- git merge <branchname>



Contribute with GitHub

Steps :

1. Visit GitHub
2. Fork
3. Make changes
4. Send a pull request

Recap

- What is VCS
- GIT & GitHub
- Collaborations with GitHub
- Contribution with GitHub
- GitHub Pages
- GitHub Profile Readme

Quiz Time

Please Provide Your Valuable Feedback

http://bit.do/mspgitfeedback

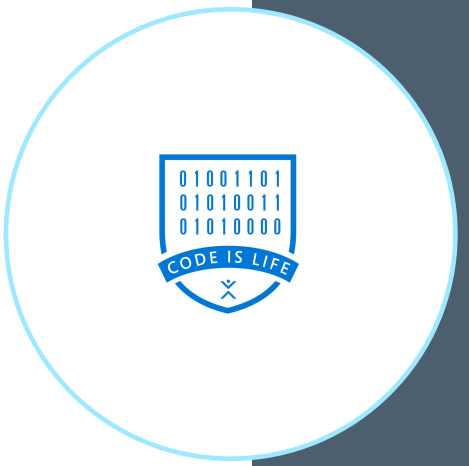
Microsoft Student Ambassador

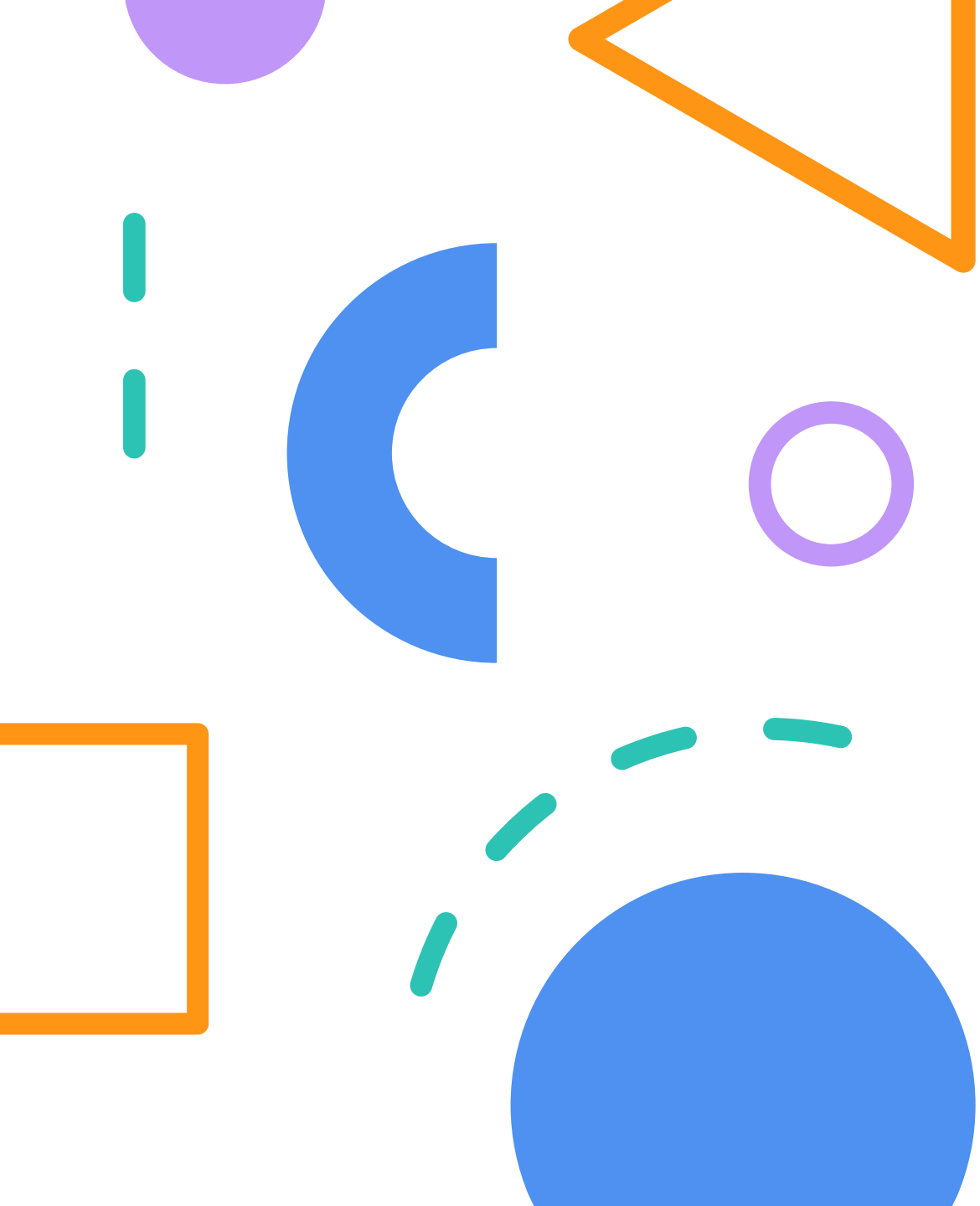
Official Website:
https://studentambassadors.microsoft.com/en-us

Other Important Links:

FAQ's :
https://studentambassadors.microsoft.com/en-us/FAQ

Application Form:
https://studentambassadors.microsoft.com/en-US/form





Thankyou