Basics of Bitbucket

Introduction to Bitbucket

Bitbucket is a web-based platform that hosts Git repositories. It is used for version control, collaboration, and code management. Bitbucket supports Git and Mercurial (though Mercurial support was removed after 2020).

Why Use Bitbucket?

Version Control: Keeps track of all code changes.

Collaboration: Allows multiple developers to work on the same project.

Pull Requests and Code Reviews: Ensure better code quality through reviews.

Integration with Jira: Links issues and tasks with the code.

Key Concepts

Repository (Repo):  
A repository stores all your project’s files and history. It can be either:

Public: Accessible to everyone.

Private: Accessible only to invited users.

Branch:  
A branch is an independent line of development. The default branch is usually named main or master.

Commit:  
A commit is a snapshot of your changes with a message describing the modifications.

Pull Request (PR):  
A pull request is a request to merge changes from one branch into another. It allows team members to review and discuss changes before merging.

Merge:  
Merging combines changes from different branches into a single branch.

Pipeline:  
An automated process that builds, tests, and deploys code using a bitbucket-pipelines.yml file.

Getting Started with Bitbucket

1. Create a Bitbucket Account

Sign up at .

Create a workspace or join an existing one.

2. Create a Repository

Click on Repositories → Create Repository.

Fill in the details:

Repository name

Project (optional)

Version control: Choose Git

Access level: Public or private

Click Create Repository.

3. Clone a Repository

To clone a repository to your local system:

git clone <repository\_url>

4. Add Remote Repository

If you have an existing local project:

git init

git remote add origin <repository\_url>

5. Push Local Code to Bitbucket

git add .

git commit -m "Initial commit"

git push -u origin main

Basic Git Commands with Bitbucket

Check the Status

git status

Add Files to Staging Area

git add <filename> # Add a specific file

git add . # Add all files

Commit Changes

git commit -m "Commit message"

Push Changes to Remote Repo

git push origin <branch\_name>

Pull Changes from Remote Repo

git pull

Working with Branches and Pull Requests

Create a New Branch

git branch <branch\_name>

Switch to the New Branch

git checkout <branch\_name>

Push Branch to Bitbucket

git push -u origin <branch\_name>

Create a Pull Request

Go to Bitbucket and open the repository.

Click Pull requests → Create pull request.

Select the source and destination branches.

Add a description and reviewers if needed.

Click Create pull request.

Merge a Pull Request

After review, click Merge to integrate the changes.

Undoing Changes

Unstage a File

git reset <file>

Discard Local Changes

git checkout -- .

Undo Last Commit (Soft Reset)

git reset --soft HEAD~1