

## Feature Branches

- Developers will work on local feature branches and they create a merge/pull request to development branch
- In many cloud hosted repositories, we clone the code

## Pull request

- Major cloud hosted git repositories support forks [Refer Here](#)
- [Refer Here](#) for official docs

## Steps to Recover a Deleted Commit

1. **Open your terminal** and navigate to the repository where the commit was deleted.
2. **Run the reflog command:**

```
git reflog
```

This command will display a list of recent commits, including those that have been deleted. Each entry will have an associated SHA identifier.

3. **Identify the commit** you want to recover from the reflog output. Look for the commit message or the SHA that corresponds to the deleted commit.
4. **Reset to the desired commit:** If you want to restore your working directory to that commit, use:

```
git reset --hard <commit-SHA>
```

Replace `<commit-SHA>` with the SHA identifier of the commit you want to recover. Note that this will overwrite any changes in your working directory that have not been committed.

5. **Alternatively, cherry-pick the commit:** If you want to apply the changes from the deleted commit without resetting your entire branch, you can use:

```
git cherry-pick <commit-SHA>
```

This will create a new commit on top of your current branch with the changes from the specified commit.

## Important Considerations

- **Local Only:** Reflogs are stored locally, which means they cannot be accessed from remote repositories. If you have pushed the changes to a remote repository after the deletion, the reflog will not help you

recover those commits from the remote.

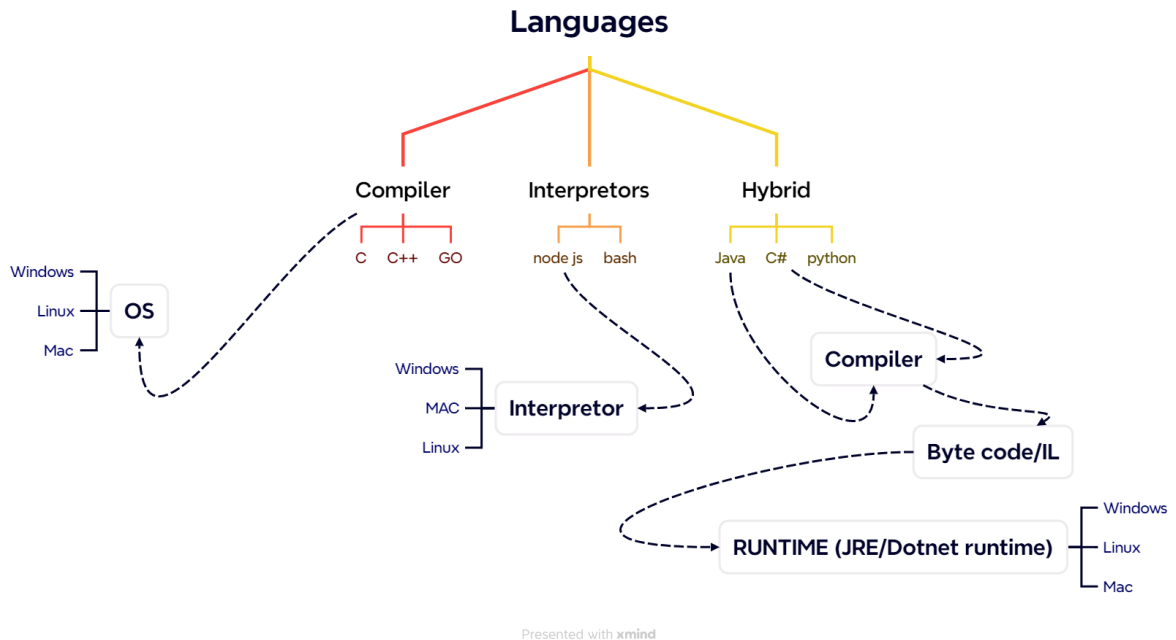
- **Expiration:** Reflog entries may expire after a certain period or may be cleaned up, so it's best to act quickly after realizing a commit has been deleted.
- **Backup:** Regularly backing up your repository can help prevent data loss in the future

## Exercise

- Moving code from github to aws code commit/azure source repos
- What are the cases where you need to force the push

## Building the code

- Language Types



- As a devops engineer, we are supposed to build and package the code, this is very much technology dependent
  - Java Packages contain byte code
  - Dotnet packages contain IL
  - C/C++ we directly create package which can execute directly
  - node js/python/shell we copy code to the desired systems
- Next steps:
  - Dependencies
  - Package formats
    - java
      - jar
      - war
    - dotnet
      - dll

- exe
- C/C++
  - exe
- Build tools
  - make
  - ant
  - maven
  - msbuild