Git

Distributed Source Version Control

Git

History for a collection of files.

1. Record changes to the files
2. Revert to an older state
3. Share the files with multiple people

Terminology

Repository: Contains the history

Branches : Separate code line with its own history.

Tags: Checkpoint

Commit: Commit the changes

Revision: Version of a source code (SHA1 ids)

latest version: HEAD

the one before that HEAD~1 and so on

Setup Git info

```
git config --global user.name "Your Name"
git config --global user.email "your@e-mail"
```

Getting Started with Git

```
$ cd source_folder
$ git init
$ git add .
$ git commit -am "Initial commit!"
```

Done!

The usual routine

- Develop source code
- If new files are to be added to the source code tree

```
    $ git add <source_file>
```

- When you feel it's right

```
    $ git commit -am "Explanatory commit comment"
```

Working with a global Repository

- Use an online service to host your git repositories (www.github.com)

- Create a repository and get the git url

https://github.com/mpekatsoula/SoftwareEngineering.git

- Then enter the local repository

```
$git remote add origin <URL>
$git push -u origin master
```

Working with a global Repository

- Clone a repository

```
$ git clone <URL>
```

- Work as if it was created by you
- Important: Add each member of the team as a collaborator in GitHub.

Useful Git commands

```
$ git status
$ git log
$ git diff >> to create a patch
$ git checkout
$ git revert
$ git commit --amend
```

For more Information

http://git-scm.com/documentation

https://help.github.com/