

# **SPM Tool(Git)**

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# Agenda

- What's a Version Control System?
- What is Git?
- Some Git commands
- What's about GitHub?
- Git in Action!

# **What's a Version Control System?**

“An application that allows you to record changes to your codebase in a structured and controlled fashion.”

# Why do I need that?

- Makes it way easier to **undo errors / roll back** to earlier versions of code
- Makes it way easier to **share a codebase** between developers without creating conflicts
- Makes it way easier to **deploy changes** from development to staging or production environments

# What is Git?



- Distributed Source Control system
- Open source, free (GNU GPL V2)
- Originally developed by Linus Torvalds for the development of the Linux Kernel in 2005
- Focus on speed and efficiency
- Quite a unique design and therefore sometimes a bit scary and difficult to understand

# What is Git?



- Save snapshots, no differences
- Branching (lightweight & fast)
- Automatic merge of files
- Used on personal or very large projects, and for all size of teams

# Git Commands

## Getting and Creating projects



### **init**

To create a git repository from an existing directory of files

```
$ git init
```

### **clone**

If you want to get a copy of a project, you need to clone it

```
$ git clone [url]
```



# Git Commands

## Basic Snapshotting



### **git add**

You have to add file contents to your staging area before you can commit them

```
$ git add index.php
```

### **git status**

View the status of your files in the working directory and staging area

```
$ git status
```



# Git Commands

## Basic Snapshotting



### **git diff**

Shows diff of what is staged and what is modified but unstaged

```
$ git diff
```

### **git commit**

Records a snapshot of the staging area

```
$ git commit -m "My comment"
```

# Git Commands

## Sharing and Updating Projects



### **git fetch**

Download new branches and data from remote repository

```
$ git fetch
```

### **git pull**

Fetch from a remote repo and try to merge into the current branch

```
$ git pull
```

# Git Commands

## Sharing and Updating Projects



### **git push**

Push your new branches and data to a remote repository

```
$ git push
```

The End