



WorkshopPLUS: Azure DevOps Essentials – Git

Repositories – Local and Remote

Microsoft Services



Setting up Repository

Initialize a new repository:

git init

```
~/dev/source/repos> git init exercise1  
Initialized empty Git repository in /Users/brian/dev/source/repos/exercise1/.git/  
~/dev/source/repos>
```

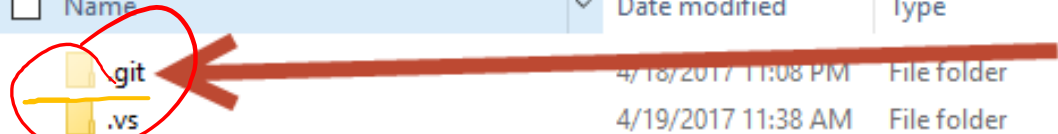
Create a new repository based on existing one:

git clone URL

```
~/dev/source/repos> git clone https://isvalmsig@dev.azure.com/isvalmsig/GitDemos/_git/TechTalk  
Cloning into 'TechTalk'...  
remote: Azure Repos  
remote: Found 16 objects to send. (54 ms)  
Unpacking objects: 100% (16/16), done.  
~/dev/source/repos>
```


Git Init

- What gets created:
 - hidden folder (.git) containing:
 - Objects
 - Commit
 - Tree
 - Blob
 - Branches
 - HEAD (Current Branch)
 - Configurations such as remote URLs
 - Logs



File Explorer view of the `eShopOnContainers` directory. The `.git` folder is highlighted with a red circle and a red arrow pointing to it.

Name	Date modified	Type
<code>.git</code>	4/18/2017 11:08 PM	File folder
<code>.vs</code>	4/19/2017 11:38 AM	File folder
<code>cli-linux</code>	4/18/2017 11:08 PM	File folder
<code>cli-mac</code>	4/18/2017 11:08 PM	File folder
<code>cli-windows</code>	4/18/2017 11:08 PM	File folder
<code>docs</code>	4/18/2017 11:08 PM	File folder
<code>img</code>	4/18/2017 11:08 PM	File folder
<code>src</code>	4/18/2017 11:08 PM	File folder



File Explorer view of the `eShopOnContainers > .git` directory. The `info` folder is highlighted.

Name	Date modified	Type	Size
<code>hooks</code>	4/18/2017 11:07 PM	File folder	
<code>info</code>	4/18/2017 11:07 PM	File folder	
<code>logs</code>	4/18/2017 11:08 PM	File folder	
<code>objects</code>	4/18/2017 11:07 PM	File folder	
<code>refs</code>	4/18/2017 11:08 PM	File folder	
<code>config</code>	4/18/2017 11:08 PM	File	1 KB
<code>description</code>	4/18/2017 11:07 PM	File	1 KB
<code>HEAD</code>	4/18/2017 11:08 PM	File	1 KB
<code>index</code>	4/18/2017 11:08 PM	File	181 KB
<code>packed-refs</code>	4/18/2017 11:08 PM	File	1 KB

Git Clone

git clone <Repo URL>

- Create a new folder for your repo
- Create a .git folder and set your remote server for fetch/pull/push
- This will pull down the full repository from the URL
- Checkout the default branch

Configuration – Common Options

```
git config user.name "John Doe"
```

Set username for local repo – also have global as option

```
git config user.email  
"johndoe@git.com"
```

Set email for local repo – also have global option

```
git config --global user.email  
"johndoe@git.com"
```

Set email for global – user-specific at OS level

```
git config -l
```

View list of configurations

```
git config --global core.editor  
notepad
```

Set the default editor to notepad

Git Ignore

- Add file extensions and folders that you do not want Git to track.
- Files already tracked by Git are not affected, only new ones.
- In case you want to stop tracking a file that has already been tracked (if you tracked files before you added the .gitignore)

Common Uses of Git Ignore

Compiled sources

- *.com
- *.class
- *.dll
- *.exe
- *.o
- *.so

Logs and databases

- *.log
- *.sql
- *.sqlite

Packages

(it's better to unpack these files and commit the raw source, git has its own built in compression methods)

- *.7z
- *.dmg
- *.gz
- *.iso
- *.jar
- *.rar
- *.tar
- *.zip

OS generated files

- .DS_Store
- .DS_Store?
- *_*
- .Spotlight-V100
- .Trashes
- ehthumbs.db
- Thumbs.db

Demo: Create Repo

Clone existing repo
Add files to repo



Knowledge Check

- Git command to create a new repository on your local machine?
- Git command to create a local repository based on a remote one?
- Git command to inspect the repository for changes?
- Git command to view the history of a repository?

Lab: Local and Azure Repositories

Configure Azure Repo
Clone a repository
Configure a repository
View local history

