

1-Git intro (co-007)

Git_Lesson1

Training Clarusway

Pear Deck - July 3, 2021 at 9:14AM

Part 1 - Summary

Use this space to summarize your thoughts on the lesson

Part 2 - Responses

Slide 1

► Git Introduction

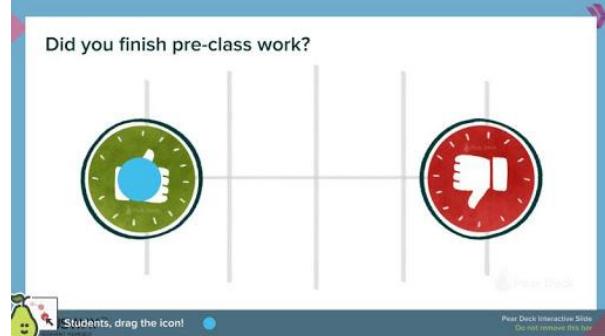
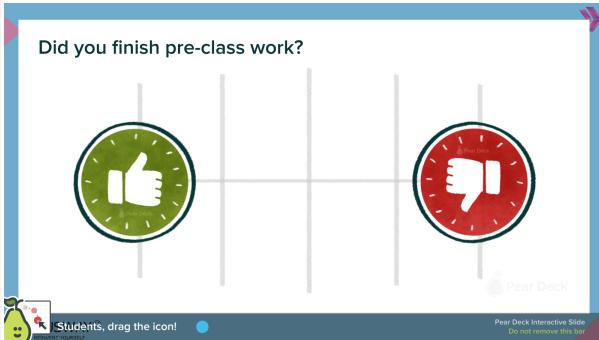


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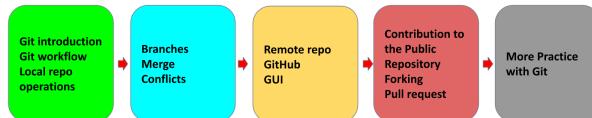
Your Response



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Git Journey



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Table of Contents ➤

- ▶ What is version control?
- ▶ What is Git?
- ▶ How to create a Git repository?
- ▶ Basic Git commands
- ▶ **Git workflow**

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What do you know about Git? ➤

Let's discuss about Git



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What is Git?



Git is an open source distributed
version control system



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What's Version Control?

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Your Response

Answer 1:

Çalışmalarımızın tüm versiyonlarını görürüz.

► What's Version Control?



Version Control Systems

What comes to your mind when you hear this?



SWAMITS, write your response!

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Do not remove this slide

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► What's Version Control?



- Track changes on text files / source files for you
- Unlimited Undo / Redo
- Time Travel
- Collaborative development environment
- Compare and Blame
 - ◆ What changed
 - ◆ When it changed
 - ◆ Why it changed
 - ◆ Who changed it

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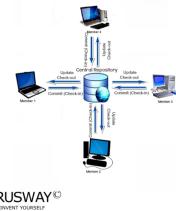
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► Version Control Systems

- **Centralized**

You need to be connected to the server



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- **Distributed**

You can work while offline



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► What's Version Control?

Your Daily Tasks

- **Create** things
- **Save** things
- **Edit** things
- Save the things **again**

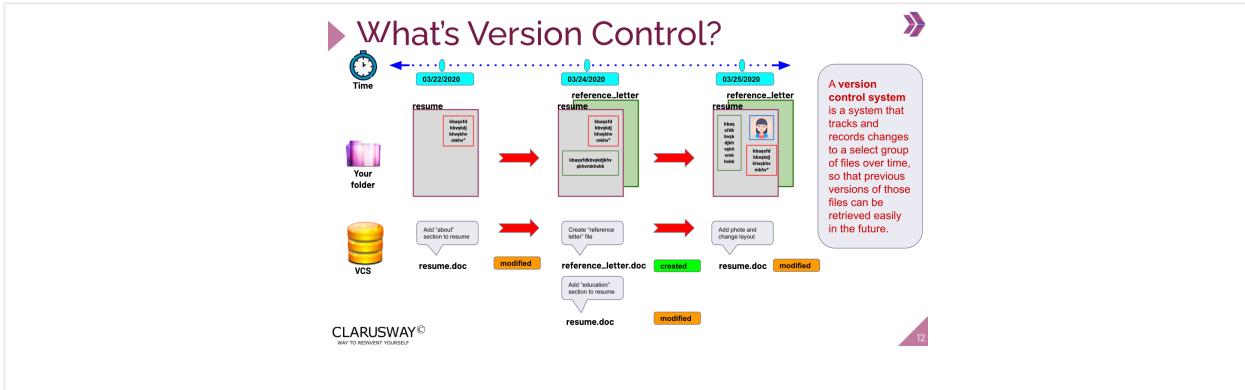
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► What's Version Control?

Version Control Systems (VCS)

- **Tracks** and **records** changes to files over time
- Can track any type of file, but most commonly used for code
- Contains extra information such as date, author, and a message explaining the change

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► What's Version Control?



Benefits of Version Control Systems (VCS)

- Can **retrieve** previous version of files at any time
- Retrieve files that were accidentally deleted
- Can be used **locally**, or **collaboratively** with others

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2 ► What is Git?

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► What is Git?



- Git is a software
- Content Tracker
- Distributed Version Control System (VCS)
- Linus Torvalds



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► Why do we need Git?



- Backup/Archive/Versioning/History
- Undo Changes
- Comparing
- Collaboration and Teamwork
- Code Review
- Blame

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▶ Git Basics



Local Git

- **Distributed** so that connectivity doesn't block work
- **Easy** so that learning its commands can happen progressively

Distributed Git

- **Team-centric** so that collaboration happens *naturally*

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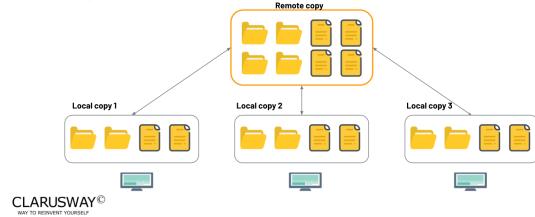
Slide 19

▶ Git Basics



Backup

- In any case if your remote server crashes, a backup is available in your local servers.

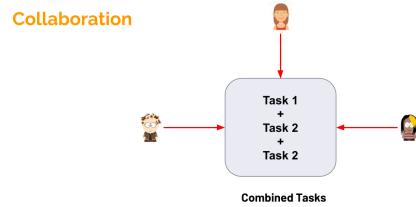


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► Git Basics



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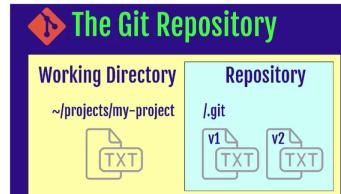
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► Git Repository

What is a repository

- A directory or storage space where your projects can live.
 - Local Repository
 - Remote Repository



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► Git Repository



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► Git Repository



- Let's check if you have git in your computer

git --version

- git needs your identity to mark/label changes / editor

git config --global user.name "Your Name"

git config --global user.email "Your Email"

git config --global core.editor "vim"

git config --list

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► Git Repository



- to create a new local repo

git init

- to see the commands

git help

- to see the status of your repo

git status

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► Git Repository



- to create a new remote repo and connect it with your local repo (after you create a remote repo on Github/Bitbucket etc.)

git clone address

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3 Workflow

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► Workflow



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► File Stages

Committed	Unmodified changes from the last commit snapshot
Modified	Changes made to files since last commit snapshot
Staged	Changes marked to be added into the next commit snapshot

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► Track a new file

- let's create a new file in our project folder
touch file1.txt
- let's edit this file
vim file1.txt
- let's check the status of our project
git status

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► Git



Stage modified files & commit changes

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► Create a new file

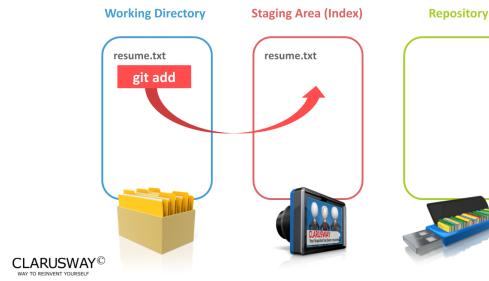


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▶ Track/stage a file



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▶ Stage files options

- stage one file
git add filename
- stage all files (new, modified)
git add .
- stage all changes
git add -A
- stage modified and deleted files only
git add -u

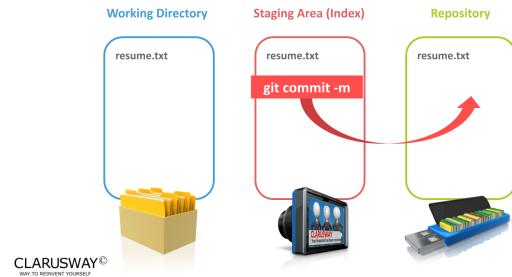
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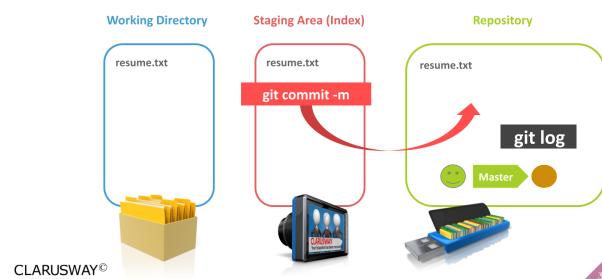
▶ Commit



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▶ Commit



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▶ Commit

→ Commit the files on the stage

```
git commit -m "message"
```

→ Add and commit all tracked files

```
git commit -am "message"
```

→ amend commit message

```
git commit --ammend
```



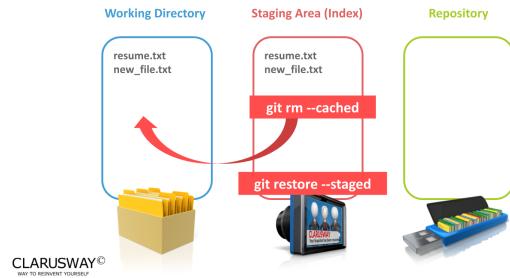
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▶ Remove from stage

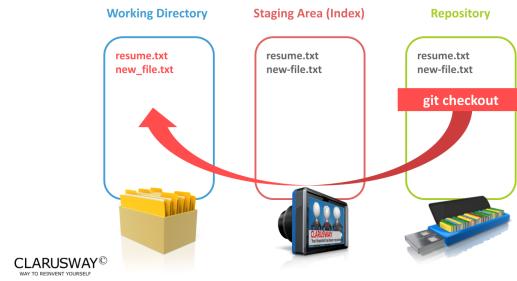


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► Checkout from Repo

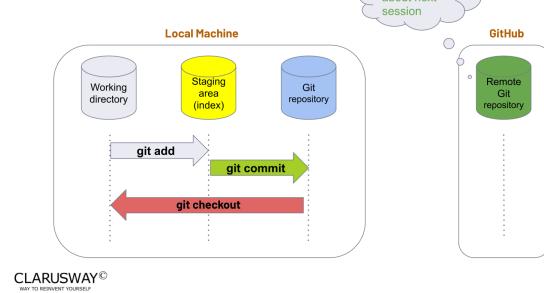


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► Git



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► New project

- Create a repo
- Create a new file/edit file etc.
- Stage/Track your changes
- Commit changes

git init

git add .

git commit -m "message"

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Your Response

► Task-1

- Create a new repo under **project-3** folder
- Create a file named **file1.txt**
- Change the file
- Stage the file
- Commit the file to your repo

Answer 1:

git init git add git commit -m "first commit"

 Students, write your response!

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► Task-1 Solution

- Create a new repo under **project-3** folder **git init**
- Create a file named **file1.txt** **touch file1.txt**
- Change the file **vim file1.txt**
- Stage the file **git add .**
- Commit the file to your repo **git commit -m "message"**

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Your Response

► Task-2

- Create a file named **file2.txt**
- Edit **file2.txt**
- Stage
- Delete the file **file1.txt**
- Rename **file2.txt >> file3.txt**
- Stage **file3.txt**
- Unstage **file3.txt**
- Stage **file3.txt** again
- Commit the file to your repo
- Change the message of the commit
- Switch back to your first commit in [Task-1](#)



Students, write your response!

Answer 1:

touch file2.txt git

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▶ Task-2 Solution

- Create a file named `file2.txt`
 - Edit `file2.txt`
 - Stage
 - Delete the file `file1.txt`
 - Rename `file2.txt >> file3.txt`
 - Stage `file3.txt`
- ```
touch file2.txt
```

```
vim file2.txt
```

```
git add .
```

```
rm file1.txt
```

```
mv file2.txt file3.txt
```

```
git add .
```

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### ▶ Task-2 Solution Cntd.

- Unstage `file3.txt`
  - Stage `file3.txt` again
  - Commit the file to your repo
  - Change the message of the commit
- ```
git rm --cached file3.txt
```

```
git add .
```

```
git commit -m "message"
```

```
git commit --amend
```
- Switch back to your first commit in [Task-1](#)

`git log`
`git checkout "first commit ID"`

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Summary

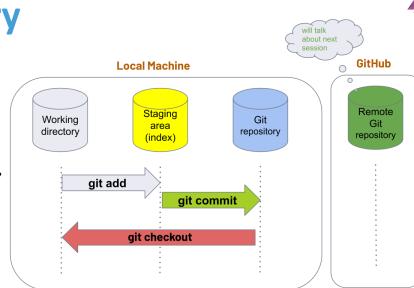
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git init
git status
git add .
git commit -m "abc"
git log
git checkout



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THANKS!

Any questions?

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