

تبديد غموض الشاشة السوداء

بتول المرزوق

٢٠٢٢-٨-١٢



Windows

- [Install Linux on Windows using WSL \(Windows Subsystem for Linux \)](#)
- [Install Zsh And Oh my zsh \(Optional\)](#)

Mac

- [Install Zsh And Oh my zsh \(Optional\)](#)



GUI



CLI



Graphical User Interface

Help of graphical icons and visual indicators

Visually intuitive

Slower

More customizable

Best for simple tasks

Command Line Interface

Commands are given to interact with the device

Requires expertise

Faster

Less customizable

Best for complex tasks

لماذا التعب؟



@drtechworld



@OpenSciSaudi, @batool664



www.osc-ksa.com

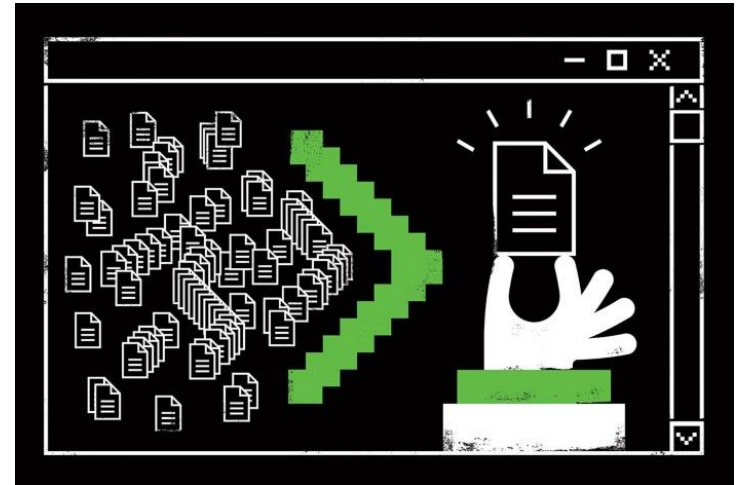


batool@liverpool.ac.uk



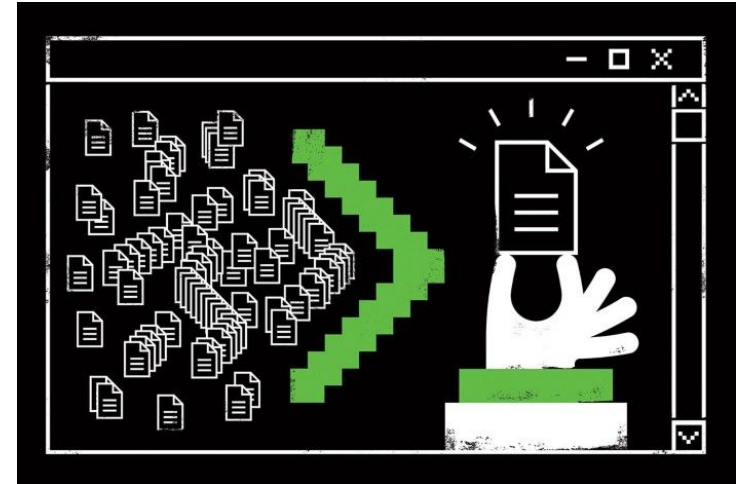
كيف يقرأ الكمبيوتر الأسماء؟

Avoid	Example Characters	Reasons
File separators	: (colon) / (forward-slash) (backward-slash)	Some operating systems and drive formats use these characters as directory separators. Consider substituting an underscore (_) or dash (-) for slashes or colons in file and folder names.
Non-alphabetical and non-numerical symbols	¢™\$®	Not all file systems and operating systems support these characters. Non-alphanumeric characters can also cause difficulties with certain file formats, such as EDL, OMF, or XML.
Punctuation marks, parentheses, quotation marks, brackets, and operators.	.,[]{}()!;"'!*?<>	These characters are often reserved for special functions in scripting and programming languages.
White space characters such as spaces, tabs, new lines and embedded returns.		Certain processing scripts and applications may not recognize these characters, or may treat your files differently than expected. Consider substituting an underscore (_) or dash (-) where you would normally use spaces.



كيف يقرأ الكمبيوتر الأسماء؟

My file



@OpenSciSaudi, @batool664



www.osc-ksa.com



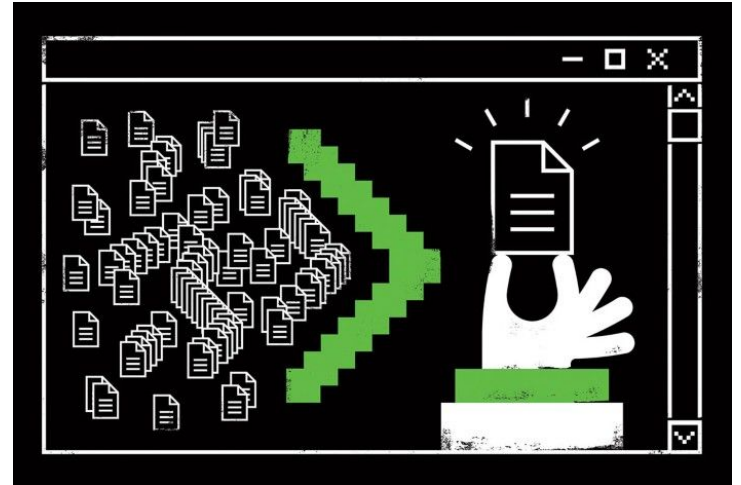
batool@liverpool.ac.uk



كيف يقرأ الكمبيوتر الأسماء؟

My_file

my_file



@OpenSciSaudi, @batool664



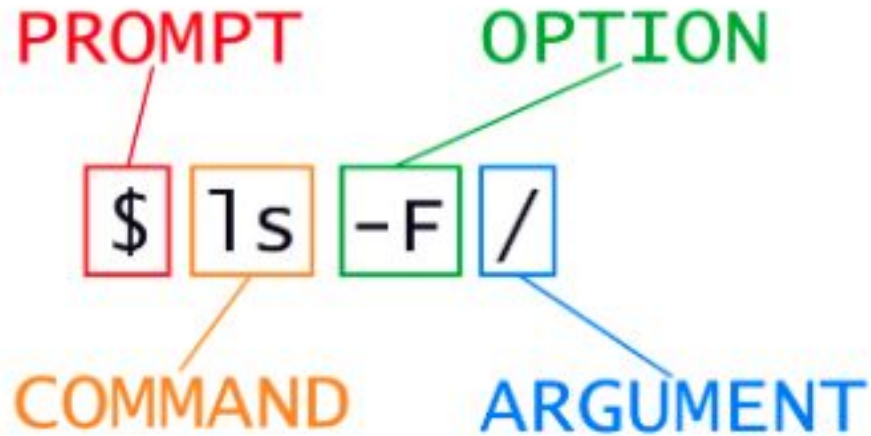
www.osc-ksa.com



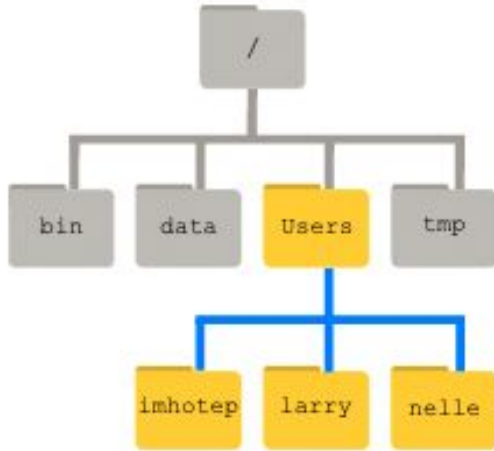
batool@liverpool.ac.uk



كيف تتكون الأوامر؟



ماهي أهم الأوامر ؟



`pwd`

هوم دايركتوري
Home directory

On Linux, it may look like `/home/batool`, and on Windows, it will be similar to `C:\Documents and Settings\batool` or `C:\Users\batool`



@OpenSciSaudi, @batool664



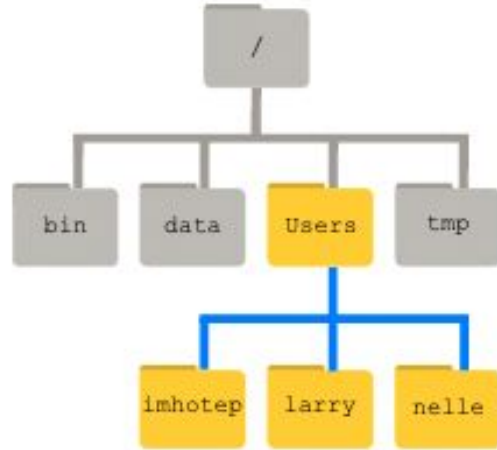
www.osc-ksa.com



batool@liverpool.ac.uk



ماهي أهم الأوامر ؟



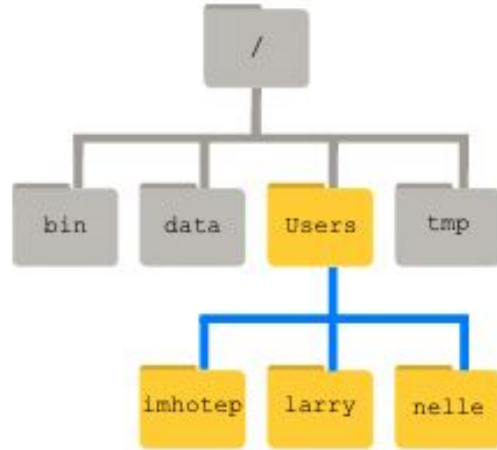
cd

تحرك من دايركتوري
change directory

<code>cd</code>	<i>Home directory</i>
<code>cd [Folder Name]</code>	<i>Change directory</i>
<code>cd /</code>	<i>Root of drive</i>
<code>cd ..</code>	<i>Go to parent directory</i>



ماهي أهم الأوامر ؟



ls اعرض كل شيء في دايركتوري
list directory

Bash

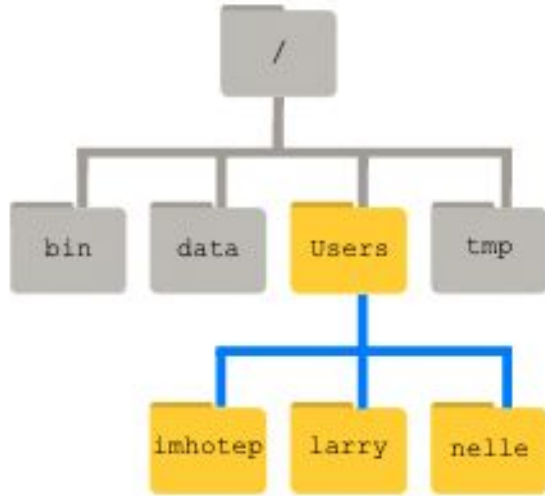
```
$ ls
```

Output

Applications	Documents	Library	Music	Public
Desktop	Downloads	Movies	Pictures	



ماهي أهم الأوامر ؟



ls

اعرض كل شيء في دايركتوري
list directory

Bash

```
$ ls --help
```

Output

```
Usage: ls [OPTION]... [FILE]...
List information about the FILES (the current directory by default).
Sort entries alphabetically if neither -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options, too.
-a, --all                do not ignore entries starting with .
-A, --almost-all       do not list implied . and ..
--author                with -l, print the author of each file
-b, --escape            print C-style escapes for nongraphic characters
--block-size=SIZE      scale sizes by SIZE before printing them; e.g.,
                        '--block-size=M' prints sizes in units of
                        1,048,576 bytes; see SIZE format below
-B, --ignore-backups   do not list implied entries ending with ~
-lt, --long             with -lt: sort by, and show, ctime (time of last
                        modification of file status information);
                        with -l: show ctime and sort by name;
                        otherwise: sort by ctime, newest first
list entries by columns
-C, --color[=WHEN]     colorize the output; WHEN can be 'always' (default
                        if omitted), 'auto', or 'never'; more info below
-d, --directory        list directories themselves, not their contents
-D, --dired             generate output designed for Emacs' dired mode
-f                     do not sort, enable -al, disable -ls --color
-F, --classify         append indicator (one of */=>@|) to entries
...                    ...
```



@OpenSciSaudi, @batool664



www.osc-ksa.com



batool@liverpool.ac.uk



ماهي أهم الأوامر ؟

(Single Period)	Existing Directory
/(Forward Slash)	Top Level Directory
..(Double Period)	Parent Directory
~(Tilde)	Home Directory
Sudo command	The run command which comes with security advantages of the administrator
open[File]	Opens a particular file
Nano [file]	Opens Terminal Editor
man[command]	Brings up the help manual of the command
[command]-h	Get help related to the command



ماهي أهم الأوامر ؟

DIRECTORIES

```
$ pwd
Display path of current working directory

$ cd <directory>
Change directory to <directory>

$ cd ..
Navigate to parent directory

$ ls
List directory contents

$ ls -la
List detailed directory contents, including hidden files

$ mkdir <directory>
Create new directory named <directory>
```

OUTPUT

```
$ cat <file>
Output the contents of <file>

$ less <file>
Output the contents of <file> using the less command (which supports pagination etc.)

$ head <file>
Output the first 10 lines of <file>

$ <cmd> > <file>
Direct the output of <cmd> into <file>

$ <cmd> >> <file>
Append the output of <cmd> to <file>

$ <cmd1> | <cmd2>
Direct the output of <cmd1> to <cmd2>

$ clear
Clear the command line window
```

FILES

```
$ rm <file>
Delete <file>

$ rm -r <directory>
Delete <directory>

$ rm -f <file>
Force-delete <file> (add -r to force-delete a directory)

$ mv <file-old> <file-new>
Rename <file-old> to <file-new>

$ mv <file> <directory>
Move <file> to <directory> (possibly overwriting an existing file)

$ cp <file> <directory>
Copy <file> to <directory> (possibly overwriting an existing file)

$ cp -r <directory1> <directory2>
Copy <directory1> and its contents to <directory2> (possibly overwriting files in an existing directory)

$ touch <file>
Update file access & modification time (and create <file> if it doesn't exist)
```

PERMISSIONS

```
$ chmod 755 <file>
Change permissions of <file> to 755

$ chmod -R 600 <directory>
Change permissions of <directory> (and its contents) to 600

$ chown <user>:<group> <file>
Change ownership of <file> to <user> and <group> (add -R to include a directory's contents)
```

SEARCH

```
$ find <dir> -name "<file>"
Find all files named <file> inside <dir> (use wildcards [4] to search for parts of filenames, e.g. "file.*")

$ grep "<text>" <file>
Output all occurrences of <text> inside <file> (add -i for case-insensitivity)

$ grep -r "<text>" <dir>
Search for all files containing <text> inside <dir>
```

NETWORK

```
$ ping <host>
Ping <host> and display status

$ whois <domain>
Output whois information for <domain>

$ curl -O <url/to/file>
Download <file> (via HTTP[S] or FTP)

$ ssh <username>@<host>
Establish an SSH connection to <host> with user <username>

$ scp <file> <user>@<host>:/remote/path
Copy <file> to a remote <host>
```

PROCESSES

```
$ ps ax
Output currently running processes

$ top
Display live information about currently running processes

$ kill <pid>
Quit process with ID <pid>
```

30-day free trial available at
www.git-tower.com

TOWER

The best Git Client for Mac & Windows



@OpenSciSaudi, @batool664



www.osc-ksa.com



batool@liverpool.ac.uk





```
git push
~/Desktop/test (master ✓) > git push
```

Git هي أحد أكثر أنظمة (version control) استخدامًا في العالم وهي أداة مجانية و مفتوحة المصدر

GitHub من ناحية أخرى، يعد موقعًا وأداة لاستضافة ومشاركة مستودعات Git عن بُعد



@OpenSciSaudi, @batool664



www.osc-ksa.com



batool@liverpool.ac.uk





main		1 branch	0 tags	Go to file	Add file	Code
BatoolMM	add CoC	2cea29	on 4 Apr 2021	22 commits		
bin	Create bin					16 months ago
docs	Create docs					16 months ago
imgs	add logo					16 months ago
.gitignore	Initial commit					16 months ago
CITATION.md	add CITATION					16 months ago
CODE_OF_CONDUCT.md	add CoC					15 months ago
CONTRIBUTING.md	Create CONTRIBUTING.md					16 months ago
LICENSE	add the complete text of the LICENSE					16 months ago
Open Science Community SA-01.png	add logo					16 months ago
README.md	Update README.md					15 months ago

Git هي أحد أكثر أنظمة (version control) استخدامًا في العالم وهي أداة مجانية و مفتوحة المصدر

GitHub من ناحية أخرى، يعد **موقعًا** وأداة لاستضافة ومشاركة مستودعات Git عن بُعد



@OpenSciSaudi, @batool664



www.osc-ksa.com



batool@liverpool.ac.uk



git init

We can initialize a repository by typing **git init** inside the folder we want to use for our project.

```
• • •  
$ cd project_folder  
$ git init
```

كيف أبدأ مع git ؟



@OpenSciSaudi, @batool664



www.osc-ksa.com



batool@liverpool.ac.uk





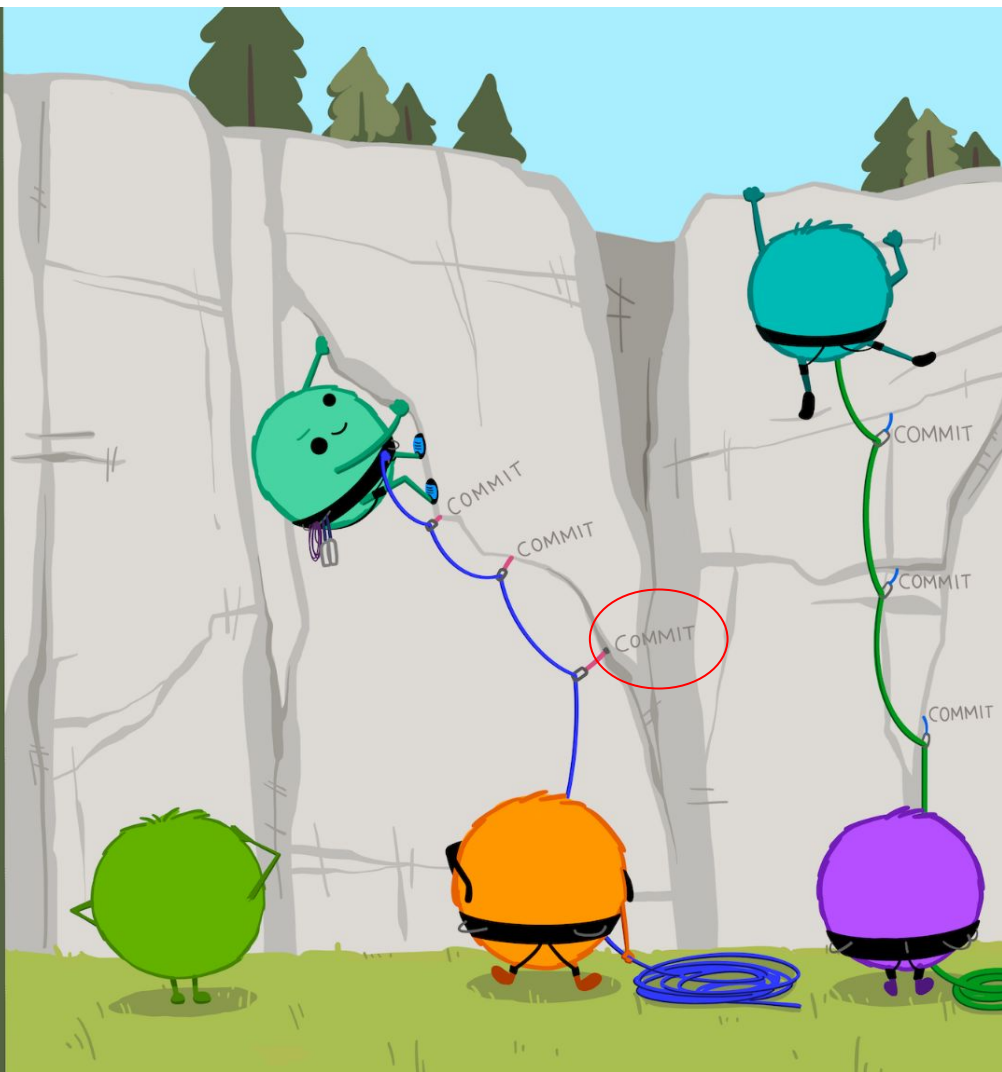
Using a Git commit is like using anchors and other protection when climbing...**if you make a mistake, you can't fall past the previous commit.**

Commits are also helpful to others, because **they show your journey, not just the destination.**

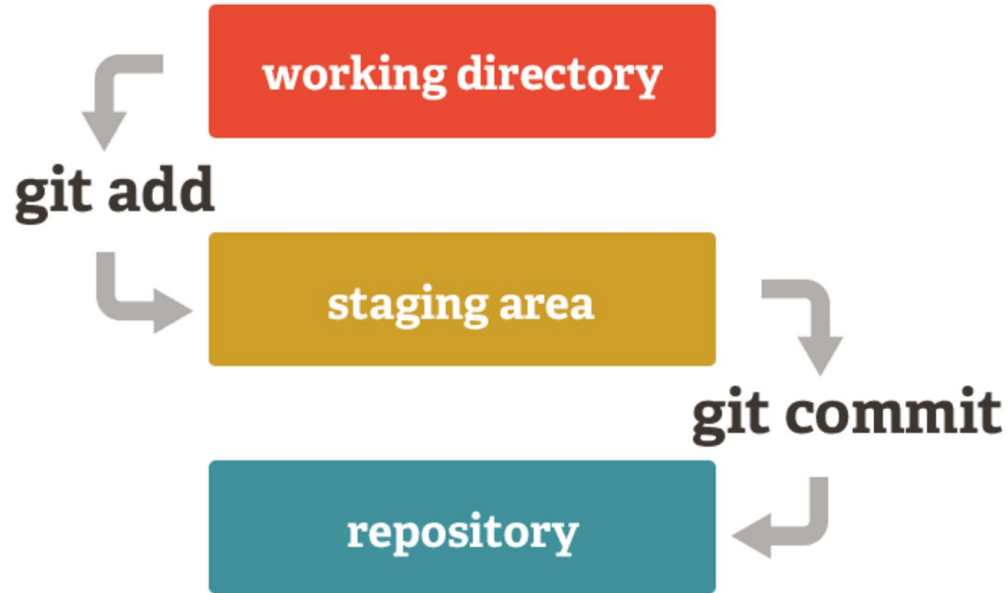
- HADLEY WICKHAM & JENNY BRYAN

Credit: This slide and illustrations are taken from from the [Openscapes](#) blog [GitHub for supporting, contributing, and failing safely](#) by Allison Horst and Julia Lowndes

Wickham & Bryan, RPackages (<https://r-packages.org/preface.html>)



كيف نستخدم git ؟



كيف نستخدم git ؟

Quick setup — if you've done this kind of thing before

Set up in Desktop or HTTPS SSH `https://github.com/BatoolMM/test3.git`

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# test3" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/BatoolMM/test3.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/BatoolMM/test3.git
git branch -M main
git push -u origin main
```

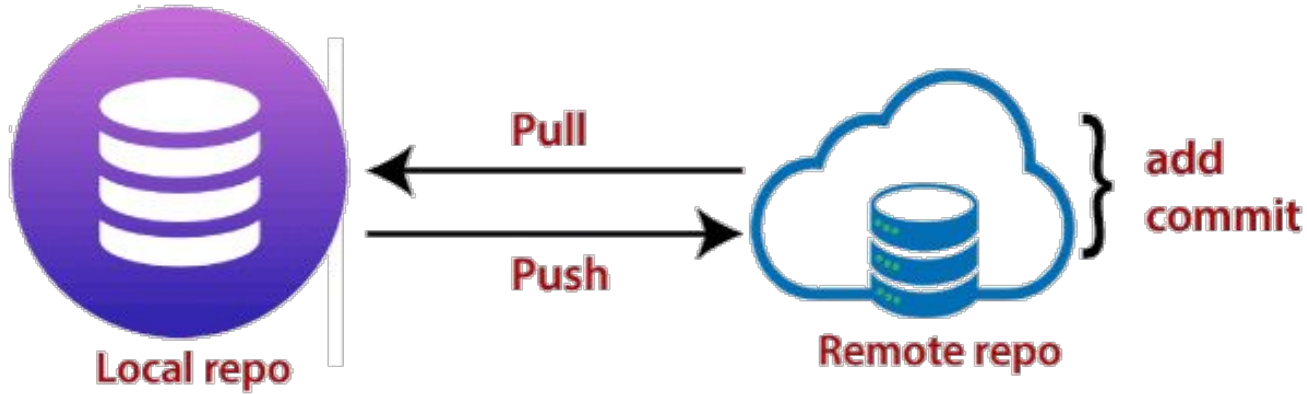
...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

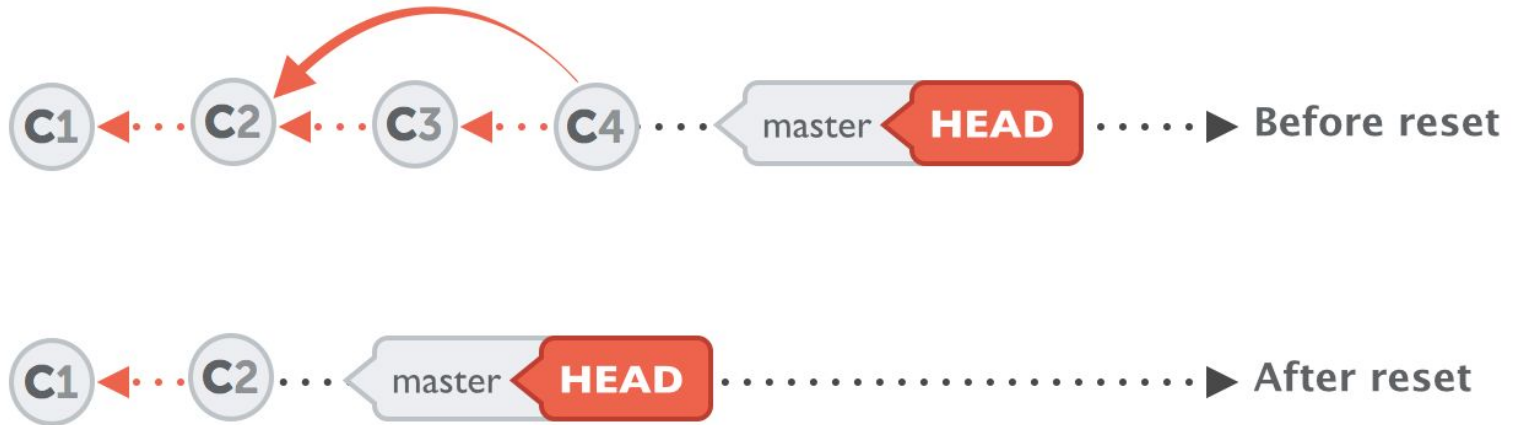
[Import code](#)



كيف نستخدم git ؟



كيف نعود بالزمن ؟



git log

```
learnr-rgirls -- git log -- git -- less - git log -- 98x29
commit b52de8e751b44a2bcf43c86f82ce5070950bef41 (HEAD -> main, origin/main)
Author: Batool Almarzouq <53487593+BatoolMM@users.noreply.github.com>
Date: Sun Apr 24 11:15:10 2022 +0300
    correct typo

commit da2f3f2744e3c7ded21e2f721245dfbc2a87ae19
Author: Batool Almarzouq <53487593+BatoolMM@users.noreply.github.com>
Date: Sun Apr 17 22:37:06 2022 +0300
    add welcome page

commit d82827554609627188db896adc2037d510fbaf60
Author: Batool Almarzouq <53487593+BatoolMM@users.noreply.github.com>
Date: Sun Apr 17 22:36:55 2022 +0300
    add welcome page

commit 71ba734df5844b906051f59f4a45ba546d788b7d
Merge: 75129ec 2e90754
Author: Batool Almarzouq <53487593+BatoolMM@users.noreply.github.com>
Date: Sun Apr 17 19:33:34 2022 +0300
    Merge branch 'main' of github.com:R-Girls/learnr-lessons

commit 75129ec4e0dce296faffdafdabb638269232f99a
Author: Batool Almarzouq <53487593+BatoolMM@users.noreply.github.com>
Date: Sun Apr 17 19:33:20 2022 +0300
```

كيف نستخدم git ؟

git checkout <commit_id> <file>

git checkout HEAD



@OpenSciSaudi, @batool664



www.osc-ksa.com



batool@liverpool.ac.uk



كيف أطور شاشتي السوداء ؟

oh my zsh

Your terminal never **felt** this good before

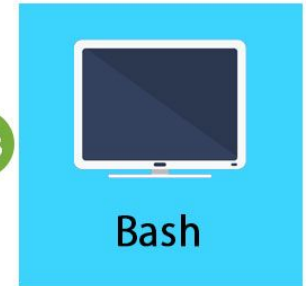
```
sagan@galaxy: ~/screen-capture-theme/preview/git-repo - view/git-repo - zsh - 100x35
[master] ~/screen-capture-theme/preview/git-repo$ echo "Theme: eastwood"      rvm: ruby-1.9.3-p194
Theme: eastwood
[master] ~/screen-capture-theme/preview/git-repo$ echo "Testing return value."
Testing return value.
[master] ~/screen-capture-theme/preview/git-repo$ false                    rvm: ruby-1.9.3-p194
[master] ~/screen-capture-theme/preview/git-repo$ echo Hello World >> file  rvm: ruby-1.9.3-p194
* [master] ~/screen-capture-theme/preview/git-repo$ touch lqqofnxfixtdyowlzkb rvm: ruby-1.9.3-p194
* [master] ~/screen-capture-theme/preview/git-repo$ git add lqqofnxfixtdyowlzkb
* [master] ~/screen-capture-theme/preview/git-repo$ git add file            rvm: ruby-1.9.3-p194
* [master] ~/screen-capture-theme/preview/git-repo$ git commit -m 'Showcasing eastwood' &> /dev/null
[master] ~/screen-capture-theme/preview/git-repo$ git checkout other-branch  rvm: ruby-1.9.3-p194
Switched to branch 'other-branch'
[other-branch] ~/screen-capture-theme/preview/git-repo$ git checkout master  rvm: ruby-1.9.3-p194
Switched to branch 'master'
[master] ~/screen-capture-theme/preview/git-repo$ █
```



reviewed by oopsreview



VS



www.educba.com



@OpenSciSaudi, @batool664



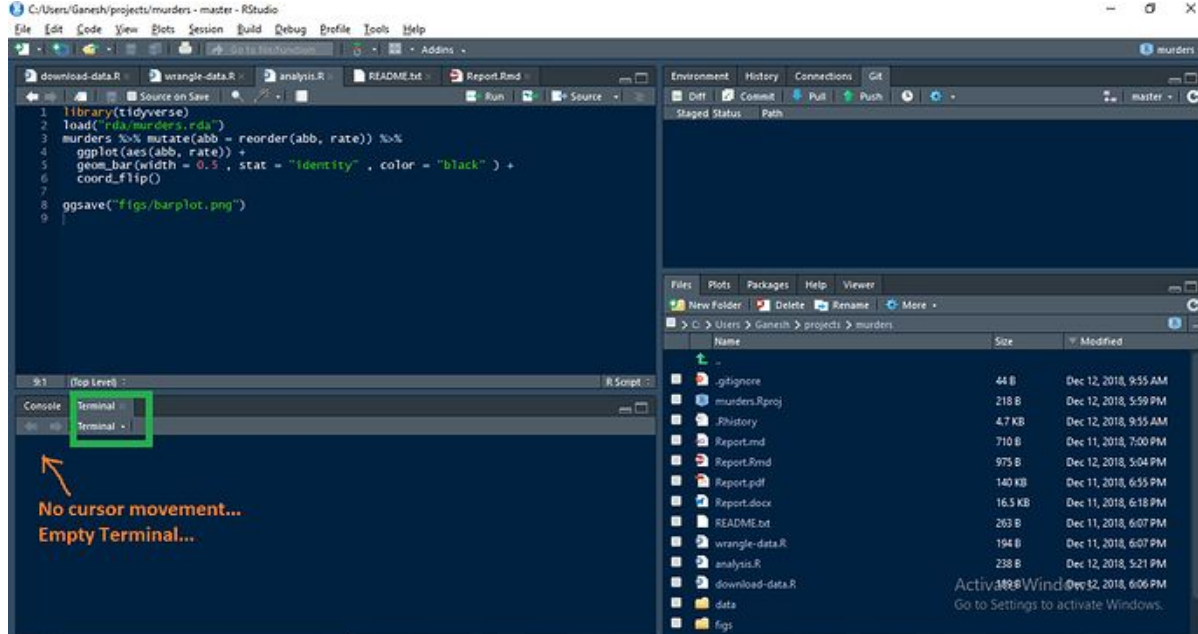
www.osc-ksa.com



batool@liverpool.ac.uk



الشاشة السوداء من داخل RStudio ؟



Version Control with Git from Carpentries

The Unix Shell from Carpentries

