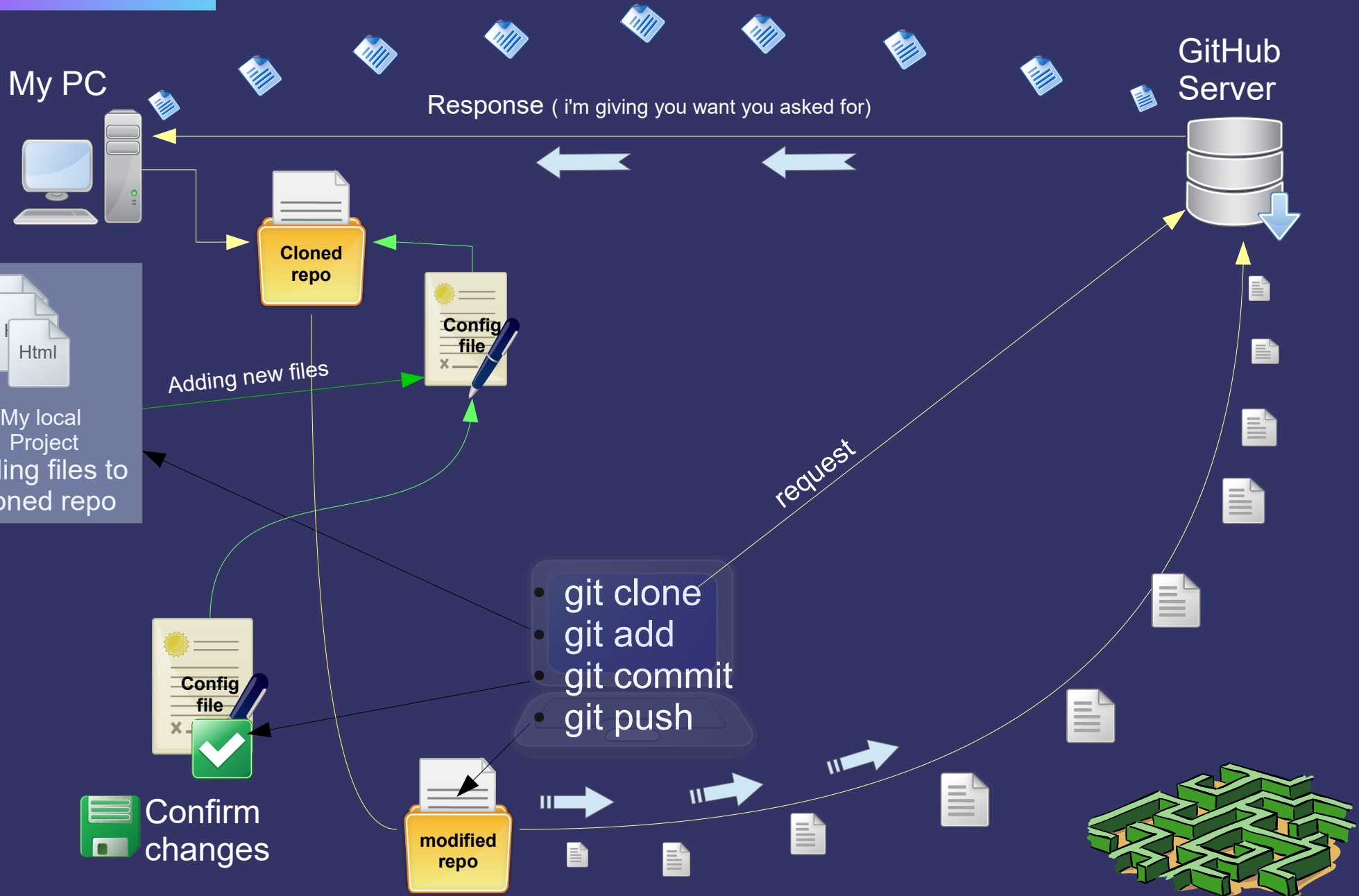


# Road Map

The general idea and the flow chart behind this guide



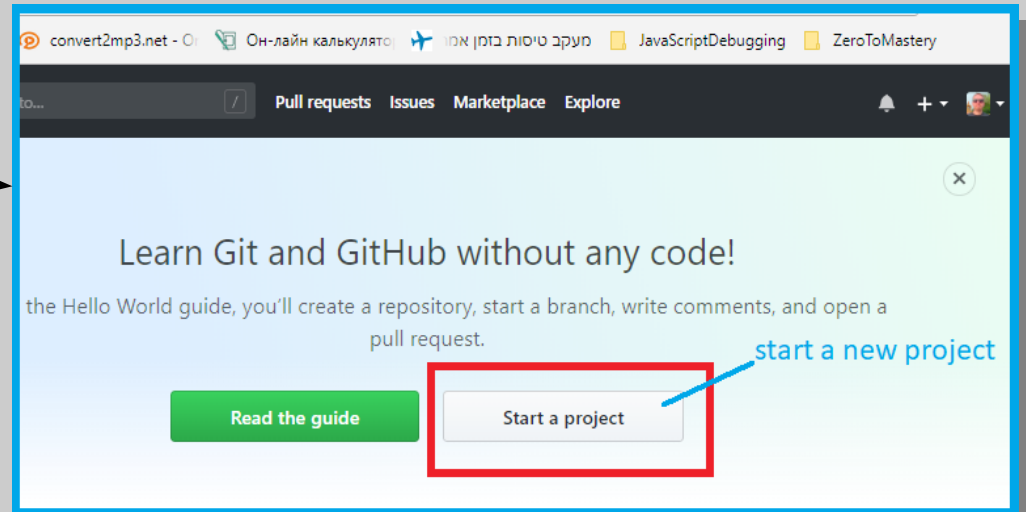
# Git and GitHub Source Control

## Part1 (Working on a new repository)

### The Complete Web Developer in 2018: Zero to Mastery

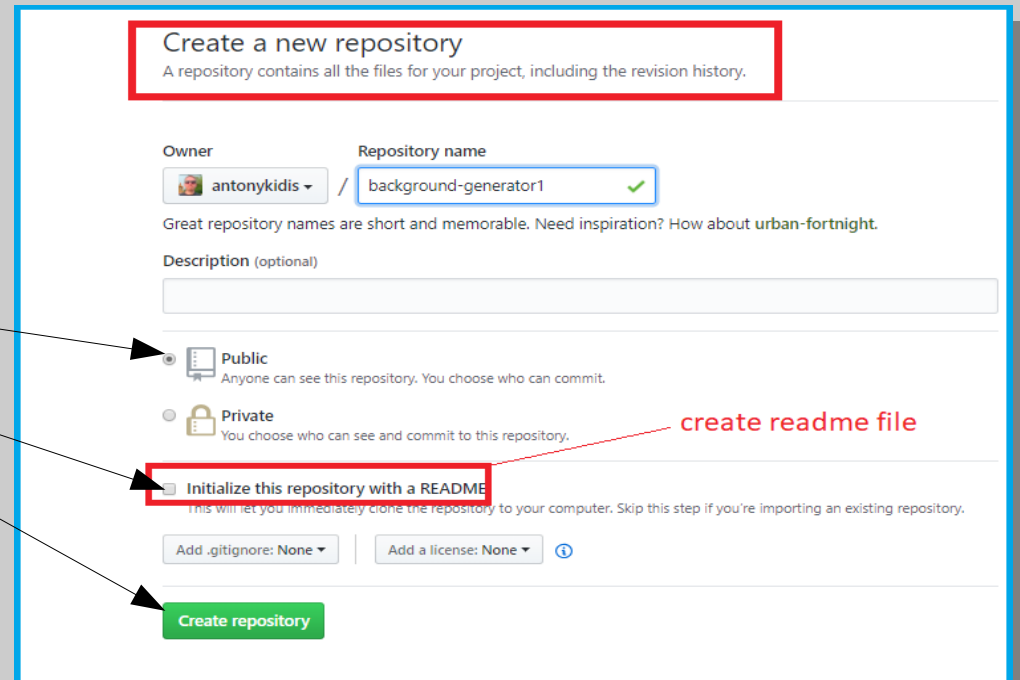
#### Step 1

- Navigate to <https://github.com>
- Start a new project



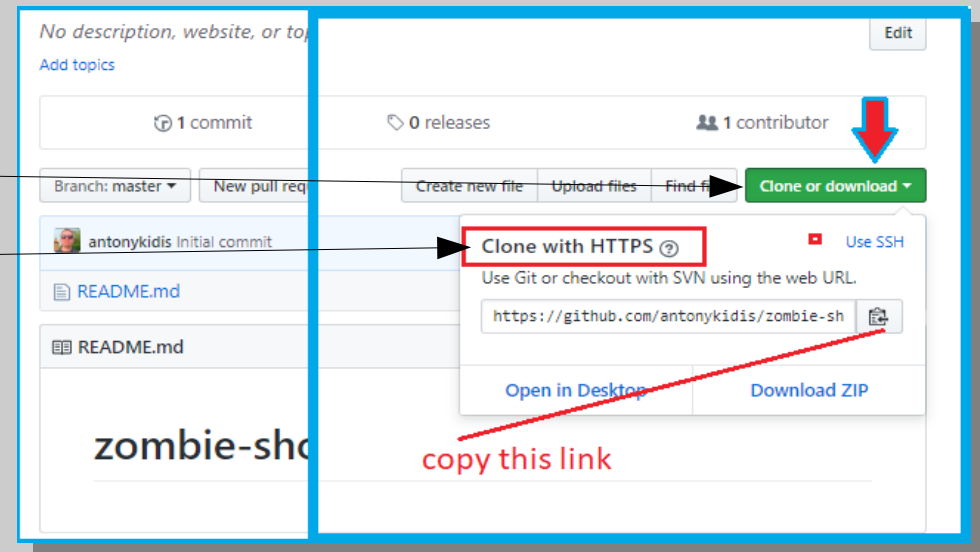
#### Step 2

- Name your project **background-generator**
- Select Public
- Check to create a **README** file
- Finally click **create repository** button



### Step 3

- Click Clone or download button
- Select use HTTPS
- Copy the URL to a clipboard by clicking the Little icon



### Step 4

- Open terminal (bash, or powershell) or other preferred terminal.
- Navigate to a project you currently work on.
- Enter the following command:  
`git clone https://github.com/antonykidis/background-generator.git`  
*This will clone GitHub's repository to your computer.*
- Here is the following output:  
Unpacking objects 100% (6 / 6) done.  
The background-generator cloned now to your computer

```
MINGW64:/d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018
Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018
$ cd Github
$ ls
CSS/ index.html Scope.js Script/

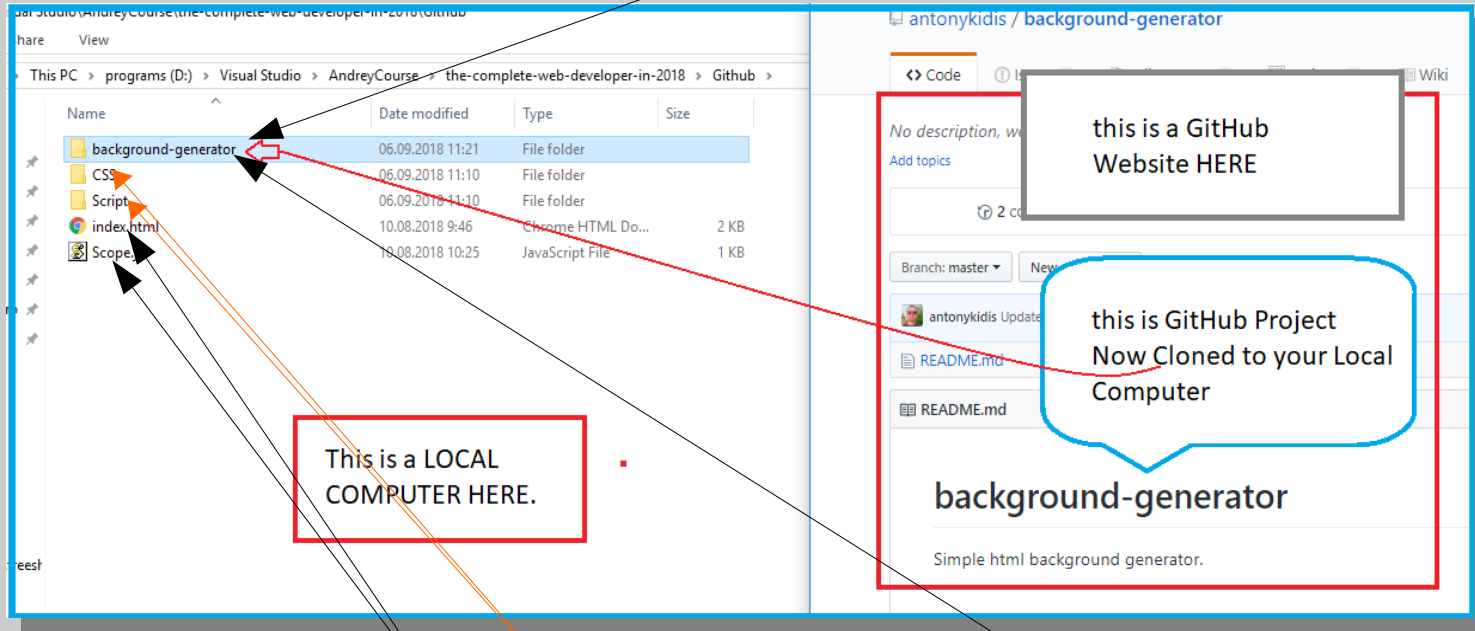
Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github
$ git clone https://github.com/antonykidis/background-generator.git
Cloning into 'background-generator'...
remote: Counting objects: 6, done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), done.

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github
$ ls
background-generator/ CSS/ index.html Scope.js Script/

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github
```

We've just copied our repo to a local computer.

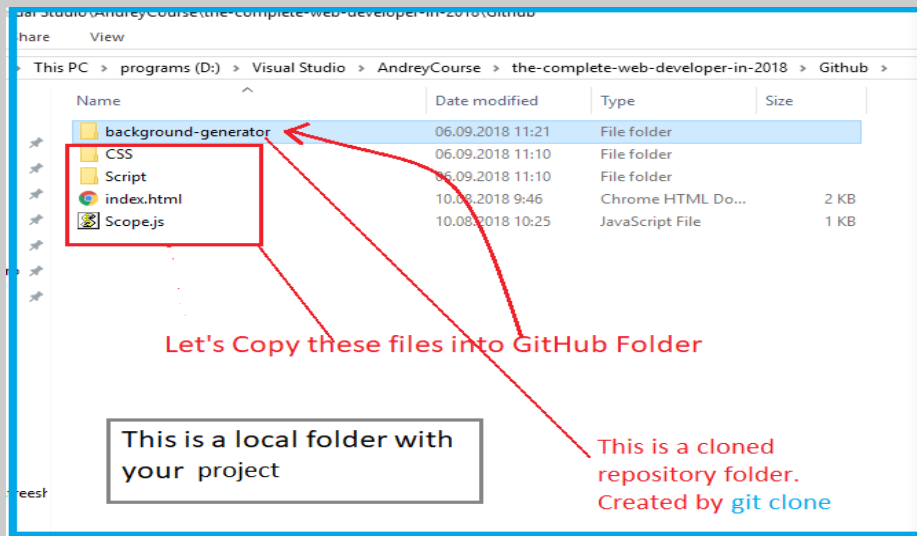
You can see the **background-generator** appeared in the left window



### Step 5

Next Step is to take all of our local project's **files and folders**, and copy them into the background-generator repository folder. You can copy these files using the IDE, or a command line (terminal)

To copy files and folders via command line please refer to the terminal section of the course



## Illustration

## Step 6

1. Back to a terminal window and cd (navigate) to a newly created cloned directory named background-generator  
Example:  
`cd background-generator`
  2. Then type `ls` (dir in windows) to list the contents of a background-generator folder.
  3. You should see the similar output with all the copied files from the previous step.
- (master) means that we now working in the repository folder

```
Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ ls
CSS/  index.html  README.md  Scope.js  Script/

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$
```

This folder will contain the project files plus the readme file

## Step 7

- We now can check the status of our files since we've copied our files into the repository folder (communication folder)
- While in terminal type `git status`
- This will invoke the following output

You can see that we have untracked files and folders  
We can now add these files to a GitHub **Configuration file** before upload it back to GitHub

```
MINGW64:/d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ ls
CSS/  index.html  README.md  Scope.js  Script/

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        CSS/
        Scope.js
        Script/
        index.html

nothing added to commit but untracked files present (use "git add" to track)

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$
```



Configuration file. We will explore it in the following sections.

# Adding files and folders to configuration file

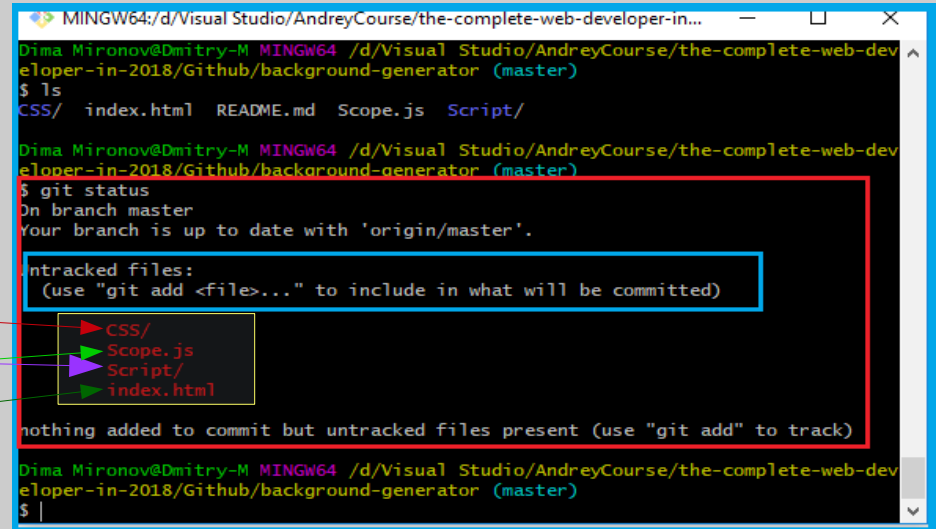
## Step 8

- Let's Add untracked files to a special Configuration file

Type the following commands:

- `git add CSS` (folder)
- `git add Script`(folder)
- `git add Scope.js`(file)
- `git add index.html` (file)

To add all files and folders at once type `git add .`



```
MINGW64:/d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ ls
CSS/  index.html  README.md  Scope.js  Script/

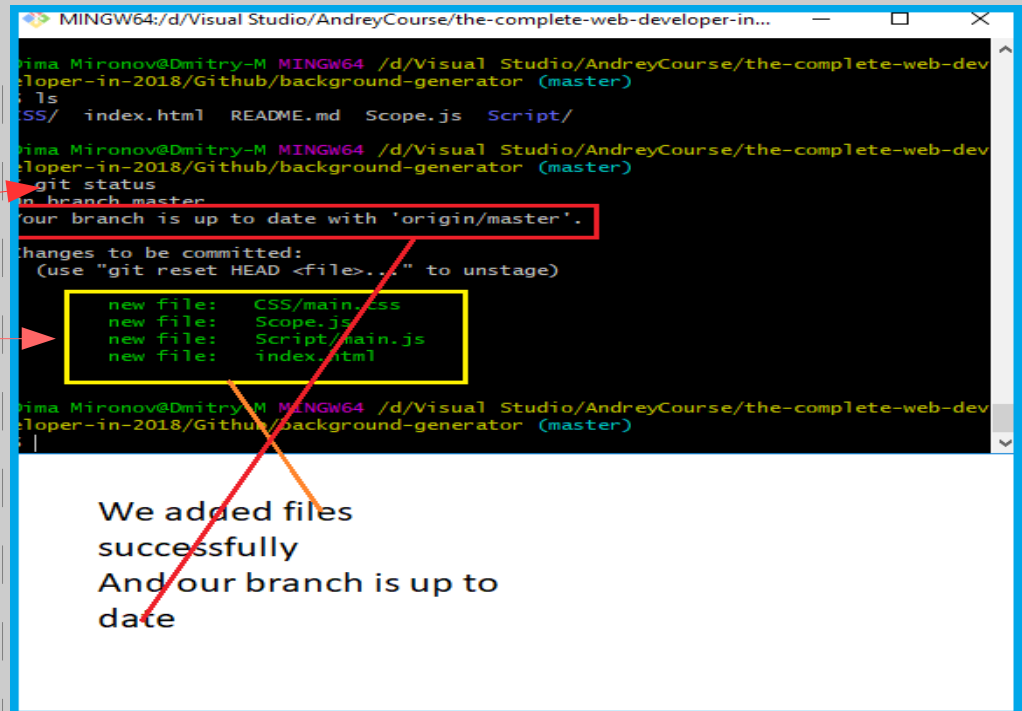
Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        CSS/
        Scope.js
        Script/
        index.html

nothing added to commit but untracked files present (use "git add" to track)
```

## Step 9

- After adding each file, and folder
- Type `git status`
  - You should see the following output
  - Okay we've just set the configuration file. Great!
  - Next step is to commit these files into the configuration file.



```
MINGW64:/d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ ls
CSS/  index.html  README.md  Scope.js  Script/

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
        new file:   CSS/main.css
        new file:   Scope.js
        new file:   Script/main.js
        new file:   index.html
```

We added files successfully  
And our branch is up to date

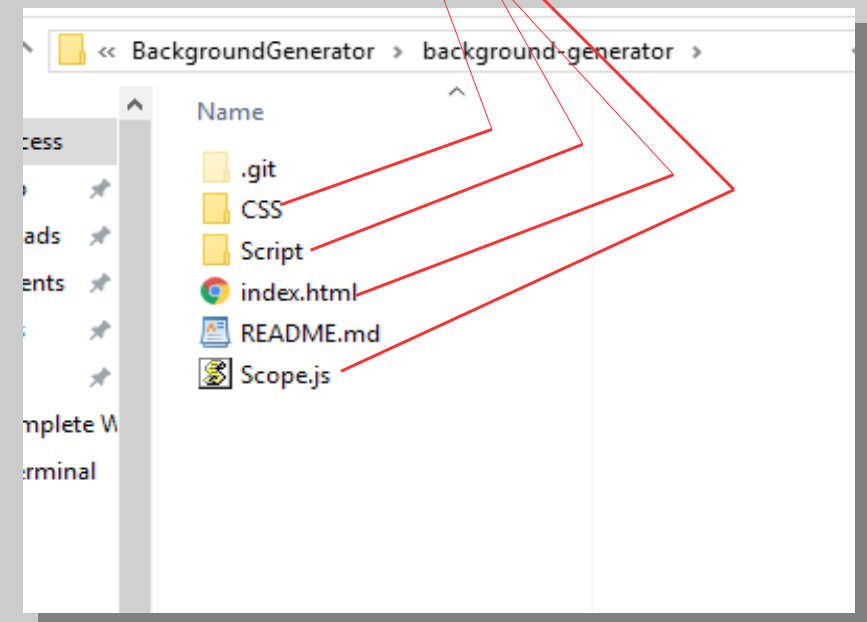
# Commit the changes we've made in previous steps

## Step 10

- Let's commit previously added files and folders.
- Enter the following command
- `git commit -m "adding starting project"`

Commit means **Save all** the changes to config.file before pushing it back to the GitHub server

```
ima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
loper-in-2018/Github/background-generator (master)
git commit -m "adding starting project. Say hi to marcy"
master 31a4720] adding starting project. Say hi to marcy
4 files changed, 82 insertions(+)
create mode 100644 CSS/main.css
create mode 100644 Scope.js
create mode 100644 Script/main.js
create mode 100644 index.html
```



We've just set up the configuration file

- The last step is to push these changes back to the GitHubServer. But let's explore the configuration file first.



# Explore the configuration file

his PC > programs (D:) > Visual Studio > AndreyCourse > the-complete-web-developer-in-2018 > Github > background-generator > .git

Name	Date modified	Type	Size
hooks	06.09.2018 11:19	File folder	
info	06.09.2018 11:19	File folder	
logs	06.09.2018 11:19	File folder	
objects	06.09.2018 13:51	File folder	
refs	06.09.2018 11:19	File folder	
COMMIT_EDITMSG	06.09.2018 13:51	File	1 KB
config	06.09.2018 11:19	File	1 KB
description	06.09.2018 11:19	File	1 KB
HEAD	06.09.2018 11:19	File	1 KB
index	06.09.2018 13:51	File	1 KB
packed-refs	06.09.2018 11:19	File	1 KB

```
Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
eloper-in-2018/Github/background-generator (master)
$ git add CSS

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
eloper-in-2018/Github/background-generator (master)
$ git add Script

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
eloper-in-2018/Github/background-generator (master)
$ ls
CSS/ index.html README.md Scope.js Script/

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
eloper-in-2018/Github/background-generator (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    new file:   CSS/main.css
    new file:   Scope.js
    new file:   Script/main.js
    new file:   index.html

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
eloper-in-2018/Github/background-generator (master)
$ git commit -m "adding starting project. Say hi to marcy"
[master 31a4720] adding starting project. Say hi to marcy
 4 files changed, 82 insertions(+)
 create mode 100644 CSS/main.css
 create mode 100644 Scope.js
 create mode 100644 Script/main.js
 create mode 100644 index.html

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev
eloper-in-2018/Github/background-generator (master)
$
```

index - WordPad

CSS/main.css

Scope.js

Script/main.js

index.html

Think of it as a Configuration file  
This file will be PUSHED to GitHub to make changes

index file = Configuration file



# Push changes to GitHub

## Step 11

- Finally Push the changes to the server
- Use the following command
- `git push`
- This will get you to the following output
- We've successfully wrote objects to <http://github.com...>

```
Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-developer-in-2018/Github/background-generator (master)
$ git push
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 12 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (8/8), 1.77 KiB | 1.77 MiB/s, done.
Total 8 (delta 0), reused 0 (delta 0)
To https://github.com/antonykidis/background-generator.git
b5d39e0..31a4720 master -> master
```

Great!  
Now a background-generator is online

## Step 12

Go back to <https://github.com> and check  
What you've done so far  
(Test pushed files on GitHub)



# What we've done so far

## We successfully added a new files into GitHub repository



Visual Studio\AndreyCourse\the-complete-web-developer-in-2018\Github\background-generator

Share View

<< Github >> background-generator

Search background-generator

Quick access

- Desktop
- Downloads
- Documents
- Pictures
- This PC
- .git
- CSS
- FromZeroToPro
- Script

OneDrive

This PC

- 3D Objects
- Desktop
- Documents
- Downloads
- ftp.dimashop.fr
- Music
- Pictures
- Videos
- Local Disk (C:)

6 items

Name

- .git
- CSS
- Script
- index.html
- README.md
- Scope.js

Date r

- 06.09.
- 06.09.
- 06.09.
- 10.08.
- 06.09.
- 10.08.

Select a file to preview

We pushed our files to the GitHub :-)

Counting objects: 100% (9/9), done.  
Delta compression using up to 12 threads.  
Compressing objects: 100% (5/5), done.  
Writing objects: 100% (8/8), 1.77 KiB | 1.77 MiB/s, done.  
Total 8 (delta 0), reused 0 (delta 0)  
To https://github.com/antonykidis/background-generator.git  
b5d39e0..31a4720 master -> master

Dima Mironov@Dmitry-M MINGW64 /d/Visual Studio/AndreyCourse/the-complete-web-dev  
eloper-in-2018/Github/background-generator (master)

```
$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
```

antonykidis / background-generator

Code Issues 0 Pull requests 0 Projects 0

No description, website, or topics provided.

Add topics

3 commits 1 branch

Branch: master New pull request

antonykidis adding starting project. Say hi to marcy

- CSS adding starting project. Say hi to marcy
- Script adding starting project. Say hi to marcy
- README.md Update README.md
- Scope.js adding starting project. Say hi to marcy
- index.html adding starting project. Say hi to marcy

README.md

### background-generator

Simple html background generator.

© 2018 GitHub, Inc. Terms Privacy Security Status Help



# Next Step - Work on Existing Repository

- Open Terminal(or cmd/bash/powrshell in windows)
- Navigate to the folder where you want to download a GitHub existing repository
- Copy repository's url from GitHub
- Type the following command (Example)  
`git clone https://github.com/antonykidis/background-generator.git`
- Finally check if a cloned repository appears in the desired folder

The screenshot shows a Windows File Explorer window on the left and a Windows Terminal window on the right. The File Explorer window is open to the 'test' folder on the Desktop, showing a subfolder named 'background-generator'. A red box highlights the contents of this folder: '.git', 'CSS', 'Script', 'index.html', 'README.md', and 'Scope.js'. The Windows Terminal window is open to the 'test' folder and shows the following commands and output:

```
Dima Mironov@Dmitry-M MINGW64 ~/Desktop
$ cd test

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test
$ ls
index.html

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test
$ ls

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test
$ git clone https://github.com/antonykidis/background-generator.git
Cloning into 'background-generator'...
remote: Counting objects: 14, done.
remote: Compressing objects: 100% (8/8), done.
remote: Total 14 (delta 0), reused 8 (delta 0), pack-reused 0
Unpacking objects: 100% (14/14), done.

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test
$ ls
background-generator/

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test
$
```

Red arrows point from the text 'we've just cloned our repo to a local computer' to the 'background-generator' folder in the File Explorer and the 'git clone' command in the terminal. Another red arrow points from the 'git clone' command to the 'background-generator' folder in the File Explorer.

we've just cloned our repo to a local computer

# Next Step - Pushing a modified files back to a GitHub

1. For example:  
open [index.html](#) and change the title<h1>here</h1>  
to a cool generator
  2. Save it
  3. Comeback to a terminal window, and type  
`git status` —————→
- You should see a similar output*
4. Type `git add` (adding the index.html)
  5. Type `git commit -m "title has been changed"`  
(save changes)
  6. Type `git push` (pushing the changes back to  
server)

```
MINGW64:/c:/Users/Dima Mironov/Desktop/Dima Studies/Andrei Negoie/T...
$ ls
CSS/  index.html  README.md  Scope.js  Script/

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/Dima Studies/Andrei Negoie/The Complete
Web Developer 2018/BackGroundGenerator/background-generator (master)
$ start code index.html

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/Dima Studies/Andrei Negoie/The Complete
Web Developer 2018/BackGroundGenerator/background-generator (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

    modified:   index.html

no changes added to commit (use "git add" and/or "git commit -a")

Dima Mironov@Dmitry-M MINGW64 ~/Desktop/Dima Studies/Andrei Negoie/The Complete
Web Developer 2018/BackGroundGenerator/background-generator (master)
$
```

The screenshot shows the Visual Studio Code editor with the `index.html` file open. The title has been changed to "Cool Generator". A speech bubble points to the change with the text "title has been changed now to cool Generator". Below the editor, a terminal window shows the command `$ git commit -m "title has been changed"` being executed. To the right, the GitHub web interface is visible, showing the commit history for the repository `antonykidis / background-generator`. The latest commit, "title has been changed", is highlighted with a red box.

7. Go to  
GitHub

# Navigate to commits link

And see the actual changes we've just made  
As you can see the title has been changed to a Cool Generator

4 commits

Showing 1 changed file with 1 addition and 1 deletion.

2 index.html

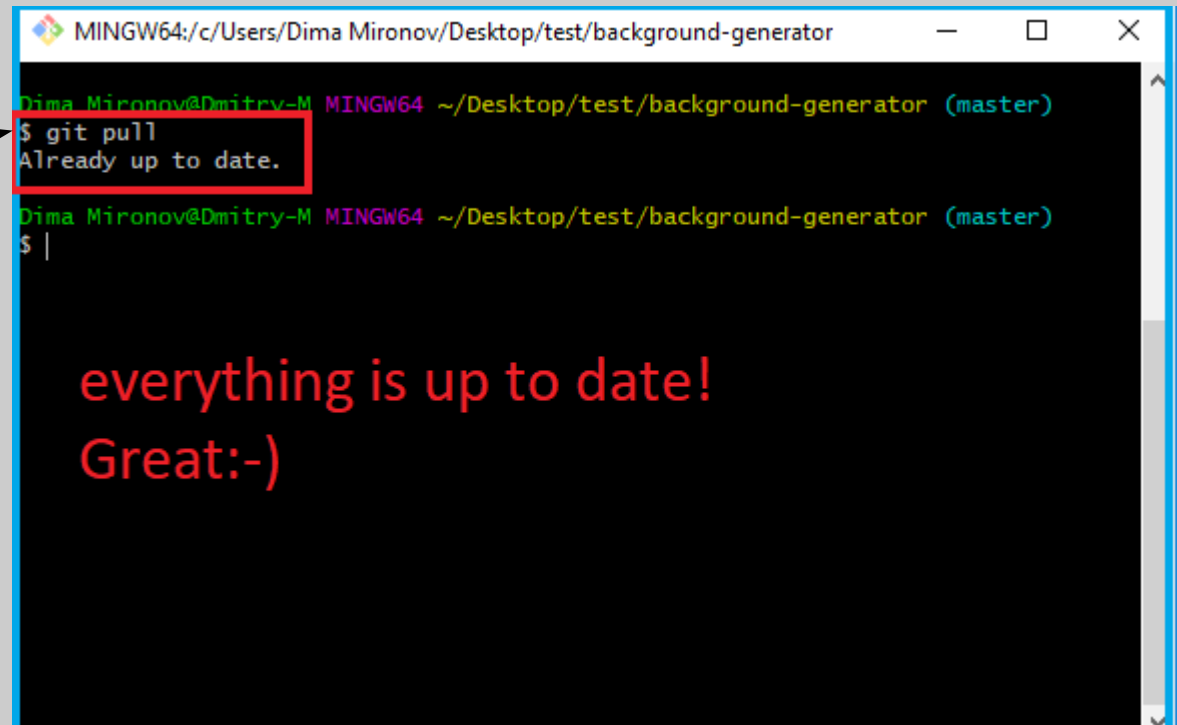
title has changed

		@@ -11,7 +11,7 @@
11	11	</head>
12	12	<body id="gradient">
13	13	<div class="cntr">
14		- <h1>Background Generator</h1>
	14	+ <h1>Cool Generator</h1>
15	15	<input class="color1" type="color" name="color1" value="#00ff00">
16	16	<input class="color2" type="color" name="color2" value="#ff0000">
17	17	

0 comments on commit 5c9dc71

# We can pull the latest version from GitHub

- Type `git pull`



A terminal window titled 'MINGW64:/c/Users/Dima Mironov/Desktop/test/background-generator'. The prompt is 'Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test/background-generator (master)'. The command '\$ git pull' is entered and highlighted with a red box. The output is 'Already up to date.'. Below the terminal output, the text 'everything is up to date! Great:-)' is written in red.

```
Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test/background-generator (master)
$ git pull
Already up to date.
Dima Mironov@Dmitry-M MINGW64 ~/Desktop/test/background-generator (master)
$ |
```

everything is up to date!  
Great:-)

Useful  
commands

git add <files, or folders>	Adds a new files to repo(via config file)
git rm <files or folders>	Removes files, or folders from GitHub
git add .	Adds all files and folders
git commit	Save changes to config file, and prepare pushing it to the server
git push	Pushes the new changes back to server, and updates the remote repository
git pull	Pulls the latest version of the repository from a GitHub
git status	Checks the overall status of repository