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Coding Fellowship

Week 7:
CMSs: WordPress



Hello - I'm Hannah

Freelance WordPress developer in Bristol

Also management (projects and teams), training and explaining



Co-organiser of the [Bristol WordPress group](#)

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I love dogs



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Overview

Introduction to CMS-driven projects

Work method

Individually on local machine

Refreshing knowledge on

HTML, CSS, PHP, Vagrant and git

New Tools

WordPress

Project

Begin creating your own website

Module Outline

DAY ONE

- Why WordPress
- WordPress installation
- The admin interface
- Content types
- Start our own sites

DAY TWO

- Themes
- Partials
- WP functions
- Template hierarchy
- Child themes
- Git

DAY THREE

- The loop
- Hooks - actions/filters
- Advanced Custom Fields
- Custom Post Types
- Continue with portfolio projects

DAY FOUR

- Continue with portfolio projects

DAY FIVE

- Migration / going live
- Continue with portfolio projects

Start thinking like a developer

- Being a good developer, requires more skills than just coding
- Pay attention to the detail of the tasks
- They might be deliberately vague in order to make you question the best solution or what you are actually being asked to do
- If you're not sure - ask me!

What is WordPress



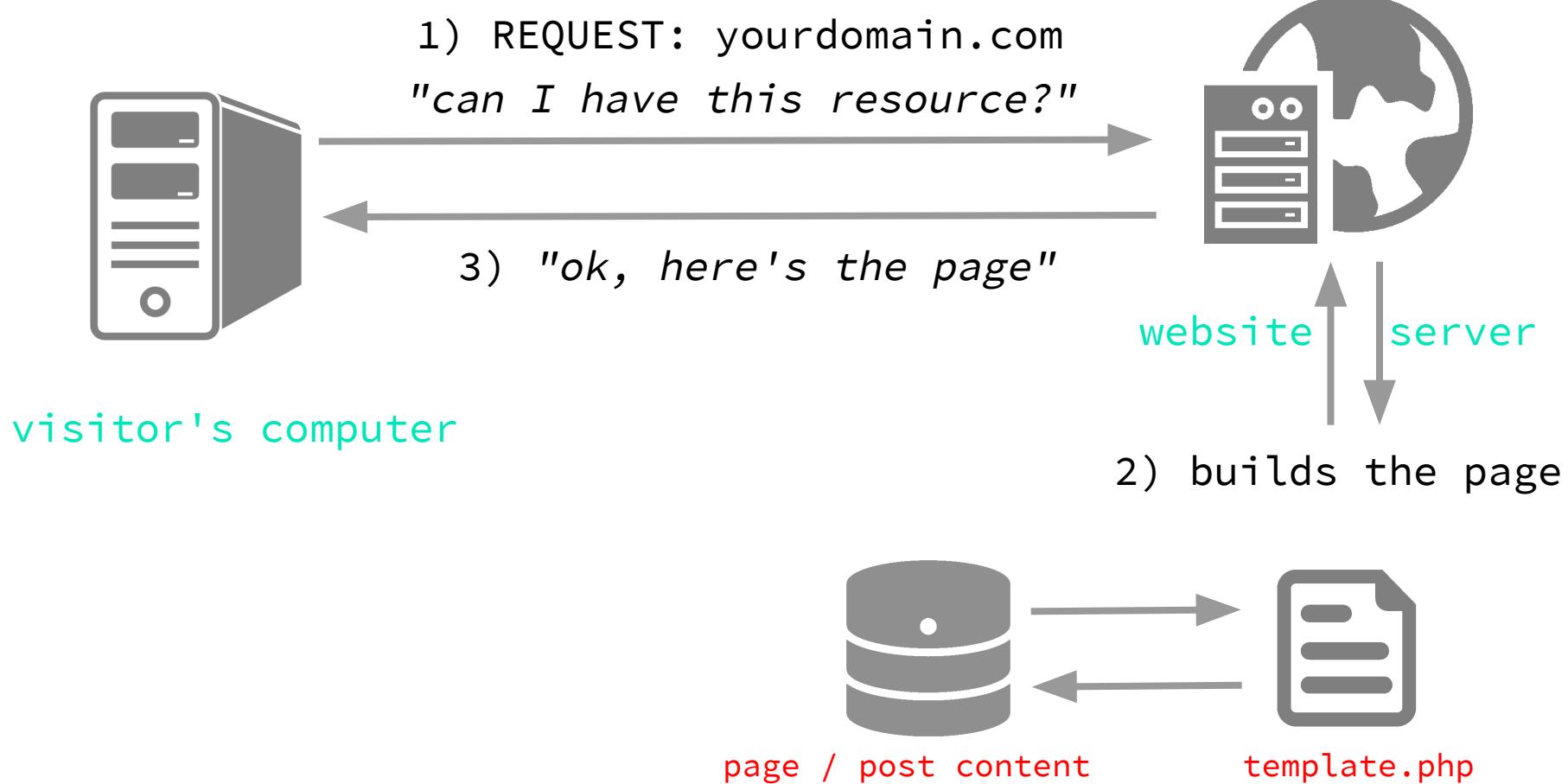
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What is a Content Management System (CMS)?

A CMS supports the separation of content and presentation

Page content is stored in a database

Pages are built using templates written in HTML/CSS, PHP and Javascript and content from the SQL database, allowing content to be dynamic, and updated



Why use a CMS?

A lot of the hard work is done for you by others

Easier for clients to manage the content as they might already know the framework

Create reusable blocks of code/content which reduces effort

What is WordPress?

It's probably the easiest and most powerful
blogging and website CMS in existence

WordPress is an online, open source website
creation tool

It started life as a blogging platform in 2003

What can WordPress be used for?

It's niche is blogging

For SMEs it's best for marketing sites or shops

At enterprise level it's best for blogs / articles / news as it can be integrated with other sites / frameworks using the API

Who uses WordPress?

Today it powers over 32% of the internet and has 75 million installs

<https://wordpress.org/showcase/>

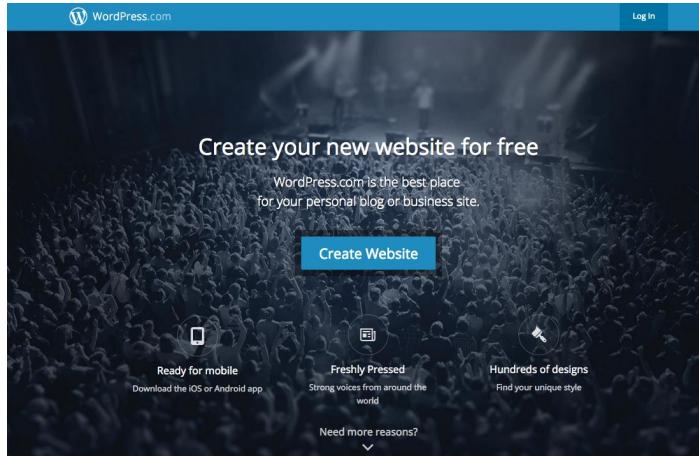
Your use of WordPress is only limited by your imagination!

What's the difference between wordpress.org and wordpress.com?

Who's actually hosting the site

How much functionality you have access to

wordPress.com is more entry level



wordpress.com

- Hosts a blog for you (not full WordPress)
- Can register a domain with Wordpress
- Limited ability to customise look and functionality

The screenshot shows the WordPress.org dashboard with a dark header. The top bar includes the WordPress logo, a search bar, and navigation links for Showcase, Themes, Plugins, Mobile, Support, Get Involved, About, Blog, and Hosting. A "Download WordPress" button is also visible. The main area features a "Dashboard" section with "At a Glance" stats (237 Posts, 5 Pages, 428 Comments, 1 in moderation) and an "Activity" feed showing recent posts and comments. Below this, there are sections for "WordPress Swag", "News From Our Blog" (with a thumbnail image of a red cloth), and "It's Easy As..." (with two numbered steps: 1. Find a Web Host and 2. Download & Install WordPress). Logos for eBay and Mötley Crüe are also present.

wordpress.org

- Need to host yourself
- Can customise theme and functionality
- Great for businesses, blogs or eCommerce

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Installing WordPress

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Installing WordPress – an overview

1. Set-up server (online or local)
2. Download the WordPress files
3. Put the WordPress files on your server
4. Create a database
5. Complete the installation

Installation using Vagrant

Step 1. Set up server

Local installs – Vagrant

Refresher of your week 6 PHP notes

- We can use ScotchBox as that provides the LAMP stack we need
- LAMP = Linux, Apache, MySQL and PHP

Local installs – other options

[MAMP](#), [WAMP](#) or [XAMP](#)

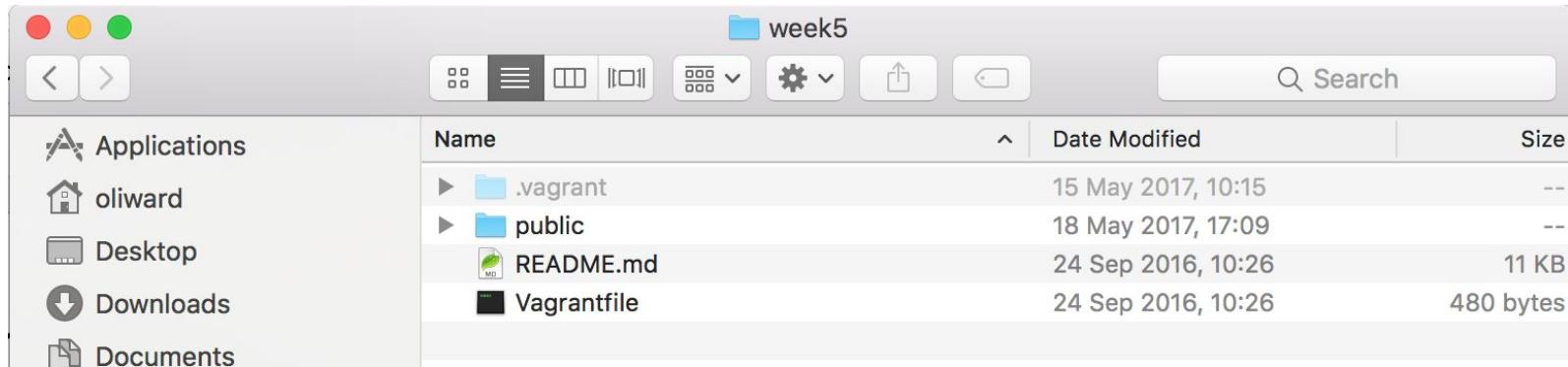
[Flywheel Local](#)

Vagrant – setup a new project folder

1. Create a folder for your wordpress install,
maybe called ‘wordpress’
2. Open cmd/terminal and navigate to this project
directory with `$ cd [path to your folder]`

Create your Vagrant box (virtual machine)

[Download Scotch Box](#), an Ubuntu-based LAMP box,
unzip, and put the files into your project folder



Vagrantfile defines what machine that Vagrant will build.

public is where you will put your files (PHP, HTML, CSS)

Turn on your machine (box)

'Spin up' (turn on) your box with:

\$ vagrant up

Test your box is working

1. Visit <http://192.168.33.10/>
2. Verify "Welcome to Scotch Box"



Just a dead-simple local LAMP/LEMP stack for developers.

This version is free and does everything you could possibly imagine. Please consider supporting this project by going [pro](#) and getting a bit more features and cool things.

Some Pro Features Include:

NEW OS: Ubuntu-17.10!
NEW PHP: PHP 7.2!
NEW APACHE: 2.4.29
NEW NGINX: 1.13.8
NEW RUBY via RVM: 2.5.0
NEW NODE via NVM: 8.9.4

Gotchas!

Vagrant clashes if you have more than one box running

Change IP address in vagrant file to have two different servers running

Step 2.
Download the WordPress files

Local install - download files

Download WordPress from wordpress.org

There are different versions of WordPress available for download, depending on what language you want

British English version is at

en-gb.wordpress.org/download/



Get WordPress

Use the software that powers over 32% of the web.

Priceless, and also free

Download WordPress and use it on your site.

 [Download WordPress 4.9.8](#)

[Download .tar.gz](#)

Installation

With our famous 5-minute installation, setting up WordPress for the first time is simple. We've created a [handy guide](#) to see you through the installation process.

Release notifications

Want to get notified about WordPress releases? Join the [WordPress Announcements mailing list](#) and we will send a friendly message whenever there is a new stable release.

Requirements

More resources

Unzipping

Locate the wordpress.zip file you just downloaded to your computer and unarchive it (you might need a special program like 7-Zip to do this)

Extract the files to a location you can get to

Open

7-Zip

Open with

Scan with Sophos Anti-Virus

Always available offline

Sync

Restore previous versions

Send to

Cut

Copy

Create shortcut

Delete

Rename

Properties

Open archive

Extract files...

Extract Here

Extract to "wordpress-4.1\"

Test archive

Add to archive...

Compress and email...

Add to "wordpress-4.1.zip.7z"

Compress to "wordpress-4.1.zip.7z" and email

Add to "wordpress-4.1.zip.zip"

Compress to "wordpress-4.1.zip.zip" and email

Plugins	
Themes	
wordpress	
wordpress-4.9.5-en_GB.zip	
	index.php
	license.txt
	readme.html
	wp-activate.php
	wp-admin
	wp-blog-header.php
	wp-comments-post.php
	wp-config-sample.php
	wp-content
	wp-cron.php
	wp-includes
	wp-links-opml.php
	wp-load.php
	wp-login.php
	wp-mail.php
	wp-settings.php
	wp-signup.php
	wp-trackback.php
	xmlrpc.php

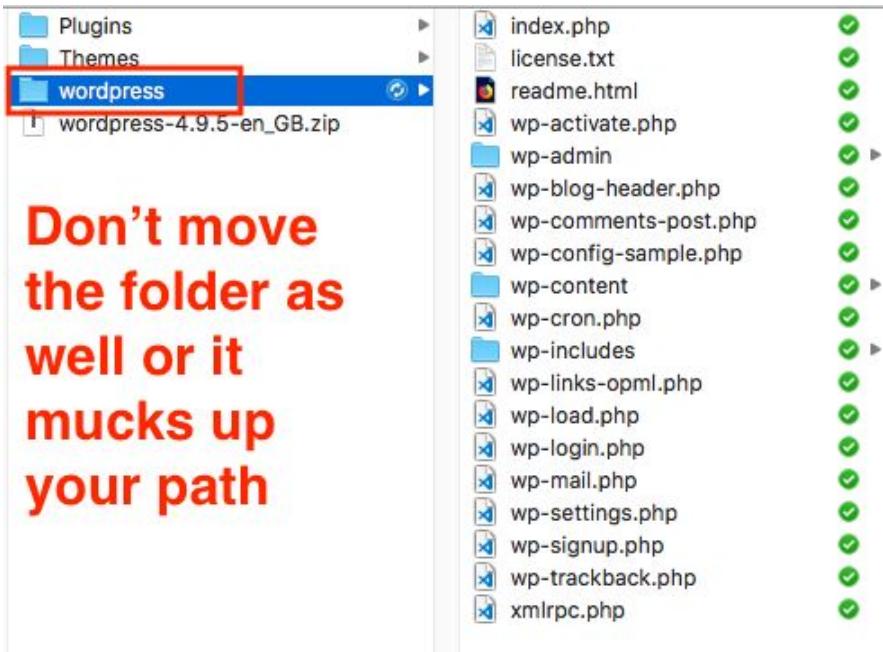
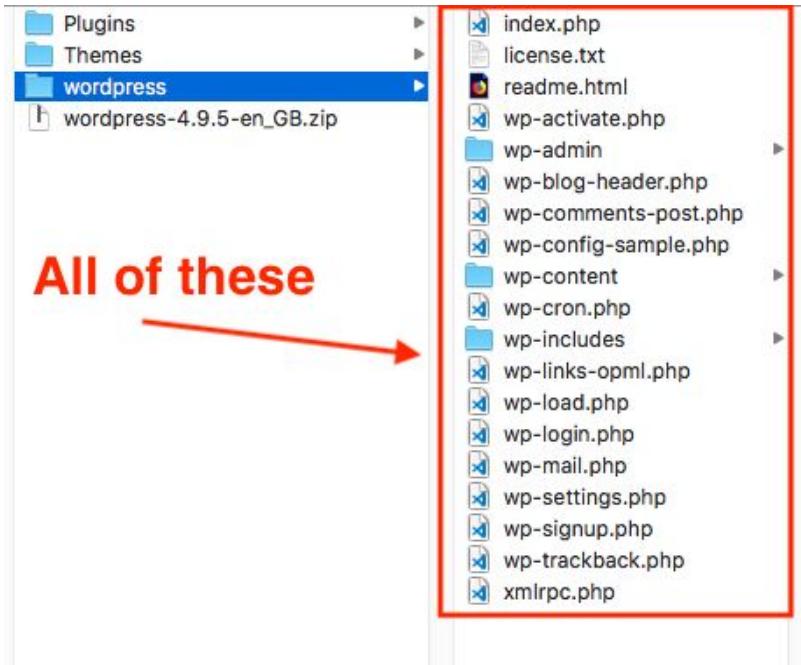
Step 3.
**Put the WordPress files on
your server**

Place all WordPress files on the server

Add all the files **inside the unzipped folder** (not the folder itself) to the server

Move them to your Vagrant box's public folder

You may get a conflict with index.php - copy over the existing one with the WordPress index.php



If you do upload the folder your URL is affected

Remote: {server}/**wordpress/**

WP URL: **http://mywebsite.com/wordpress/**

Step 4. Create a database

MySQL on your vagrant box

1. SSH into your virtual server:

```
$ vagrant ssh
```

2. Password might be vagrant

3. Access MySQL with the root user account

```
$ mysql -u root -p
```

4. Password is root

Create a new database

```
mysql> CREATE DATABASE wordpress;
```



Don't forget the ; or it won't work

Exit MySQL

```
mysql> exit
```

Make a note of these values

DB_NAME database to connect to

DB_USER database user

DB_PASSWORD database password for user

DB_HOST database host to connect to

(normally `localhost`)

For vagrant the values are:

DB_NAME wordpress

DB_USER root

DB_PASSWORD root

DB_HOST localhost

Step 5. Complete installation

Complete the installation

Now visit your webpage

You will see the following screen



Welcome to WordPress. Before getting started, we need some information on the database. You will need to know the following items before proceeding.

1. Database name
2. Database username
3. Database password
4. Database host
5. Table prefix (if you want to run more than one WordPress in a single database)

We're going to use this information to create a `wp-config.php` file. **If for any reason this automatic file creation doesn't work, don't worry. All this does is fill in the database information to a configuration file. You may also simply open `wp-config-sample.php` in a text editor, fill in your information, and save it as `wp-config.php`. Need more help? [We got it.](#)**

In all likelihood, these items were supplied to you by your Web Host. If you don't have this information, then you will need to contact them before you can continue. If you're all ready...

[Let's go!](#)



Below you should enter your database connection details. If you're not sure about these, contact your host.

Database Name

The name of the database you want to use with WordPress.

Username

Your database username.

Password

Your database password.

Database Host

You should be able to get this info from your web host, if localhost doesn't work.

Table Prefix

If you want to run multiple WordPress installations in a single database, change this.

`wp-config.php` gets updated

```
// ** MySQL settings - You can get this info from your web host **
/** The name of the database for WordPress */
define('DB_NAME', 'database_name_here');

/** MySQL database username */
define('DB_USER', 'username_here');

/** MySQL database password */
define('DB_PASSWORD', 'password_here');

/** MySQL hostname */
define('DB_HOST', 'localhost');

/** Database Charset to use in creating database tables. */
define('DB_CHARSET', 'utf8');
```

WordPress then creates the tables it needs to work

```
[mysql] > show tables;
+-----+
| Tables_in_wordpress |
+-----+
| wp_commentmeta
| wp_comments
| wp_links
| wp_options
| wp_postmeta
| wp_posts
| wp_term_relationships
| wp_term_taxonomy
| wp_termmeta
| wp_terms
| wp_usermeta
| wp_users
+-----+
12 rows in set (0.00 sec)
```



Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Don't worry, you can always change these settings later.

Site Title

≡

Username

Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol

Password

≡ Hide

YSarRLqWkhCUoAi9B

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email

Double-check your email address before continuing.

Search Engine

Discourage search engines from indexing this site

Even locally, make it
a good strong password
- every time.

Setup information

Site Title = the name of your website

Username = admin username

Password = password used to log in to admin area

Your E-mail = for account recovery and notifications



TEST

Just another WordPress site



Exercise

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Set-up your own installation locally
using Vagrant

Exercise (extension)

Try another methodology

Run another install using a different technique and see if you think it's quicker or better

- <https://wpdistillery.org/>
- MAMP, WAMP or LAMP
- FlyWheel

Remote installs

Step 1. Set up server

Online installs – online server

To make your install accessible by others it'll need hosting somewhere

Usually it's a paid service, but you can self-host

Ensure it has the necessary LAMP stack, which is pretty standard

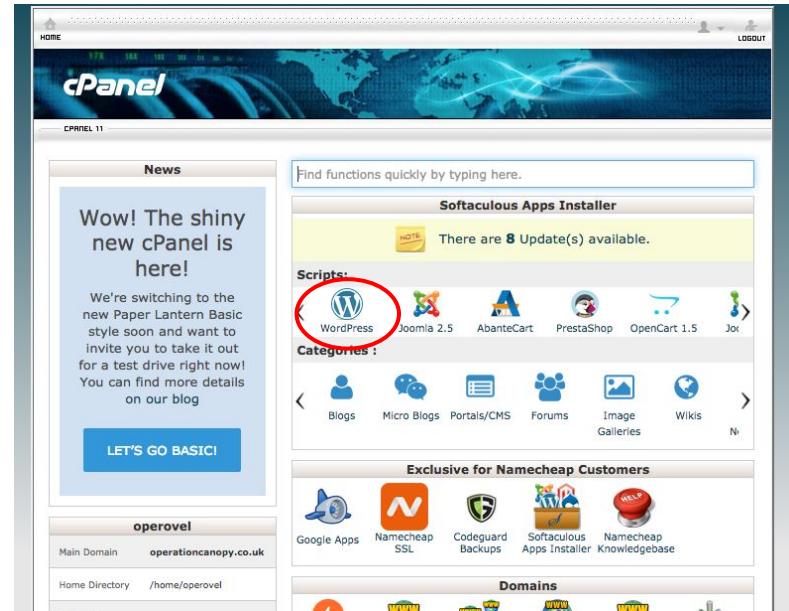
Step 2. Download the WordPress files

Online installs - auto-install

Some hosting companies might provide a WordPress auto-install in their cpanel

The cpanel is the interface you use for managing your servers

It's a few clicks to install WordPress and means you don't need to do step 2, 3 or 4



Step 3.
**Put the WordPress files on
your server**

Online install - setting up FTP software

FileZilla is a free FTP solution that works on Windows and Mac machines

Download it here:

<https://filezilla-project.org/download.php>



Transferring the files with FTP

Typically you need:

- Server name (sometimes a URL or sometimes an IP address)
- FTP Username
- FTP Password

Site Manager

General

Advanced

Transfer Settings

Charset

Host: Port:

Protocol:

Encryption:

Logon Type:

User:

Password:

Background color:

Comments:

Connect

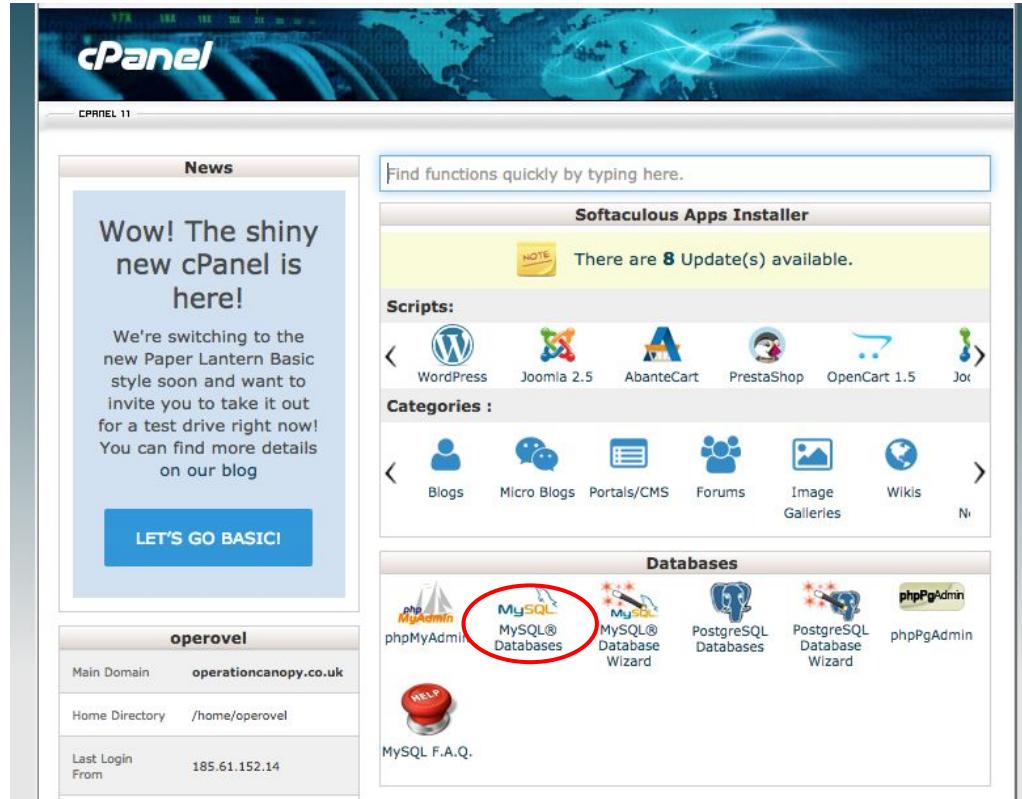
OK

Cancel

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Step 4. Create a database

Online hosting – use cpanel to create a database



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Step 5. Complete installation

Logging into the admin interface

WordPress login page

The login page is at `/wp-login.php`

Put that at the end of the URL

Eg visit, <http://wp1.developme.training/wp-login.php>



Username

Password

Remember Me

Log In

[Lost your password?](#)

[← Back to My Website](#)

Hi, admin

Screen Options ▾ Help ▾

Dashboard

Welcome to WordPress!

We've assembled some links to get you started:

Get Started

Customise Your Site

or, change your theme completely

Next Steps

- Write your first blog post
- Add an About page
- View your site

More Actions

- Manage widgets or menus
- Turn comments on or off
- Learn more about getting started

At a Glance

1 Post 1 Page

1 Comment

WordPress 4.9.5 running Twenty Seventeen theme.
Search Engines Discouraged

Activity

Recently Published

Today, 8:28 pm Hello world!

Recent Comments

 From A WordPress Commenter on Hello world!
Hi, this is a comment. To get started with moderating, editing, and deleting comments, please visit the Comments screen in...

All (1) | Pending (0) | Approved (1) | Spam (0) | Bin (0)

Quick Draft

Title

What's on your mind?

Save Draft

WordPress Events and News

Attend an upcoming event near you.

 WordCamp Europe
Belgrade, Serbia Thursday, 14 Jun 2018

 WordCamp goes to JS Oxford
Oxford OX1 1BP, United Kingdom Wednesday, 16 May 2018 4:45 pm

 WordCamp Belfast
Belfast, Northern Ireland Saturday, 26 May 2018

An error has occurred, which probably means the feed is down. Try again later.

An error has occurred, which probably means the feed is down. Try again later.

Meetups  | WordCamps  | News 

Thank you for creating with [WordPress](#).

Version 4.9.5

WordPress admin area

The admin area is at `/wp-admin/`

You are automatically redirected here after logging in

URLs

Paying attention to the URL can often tell you where you are

You can also shortcut by typing in URLs - example of when this is useful later

Exercise

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Login to your local site

WordPress content types

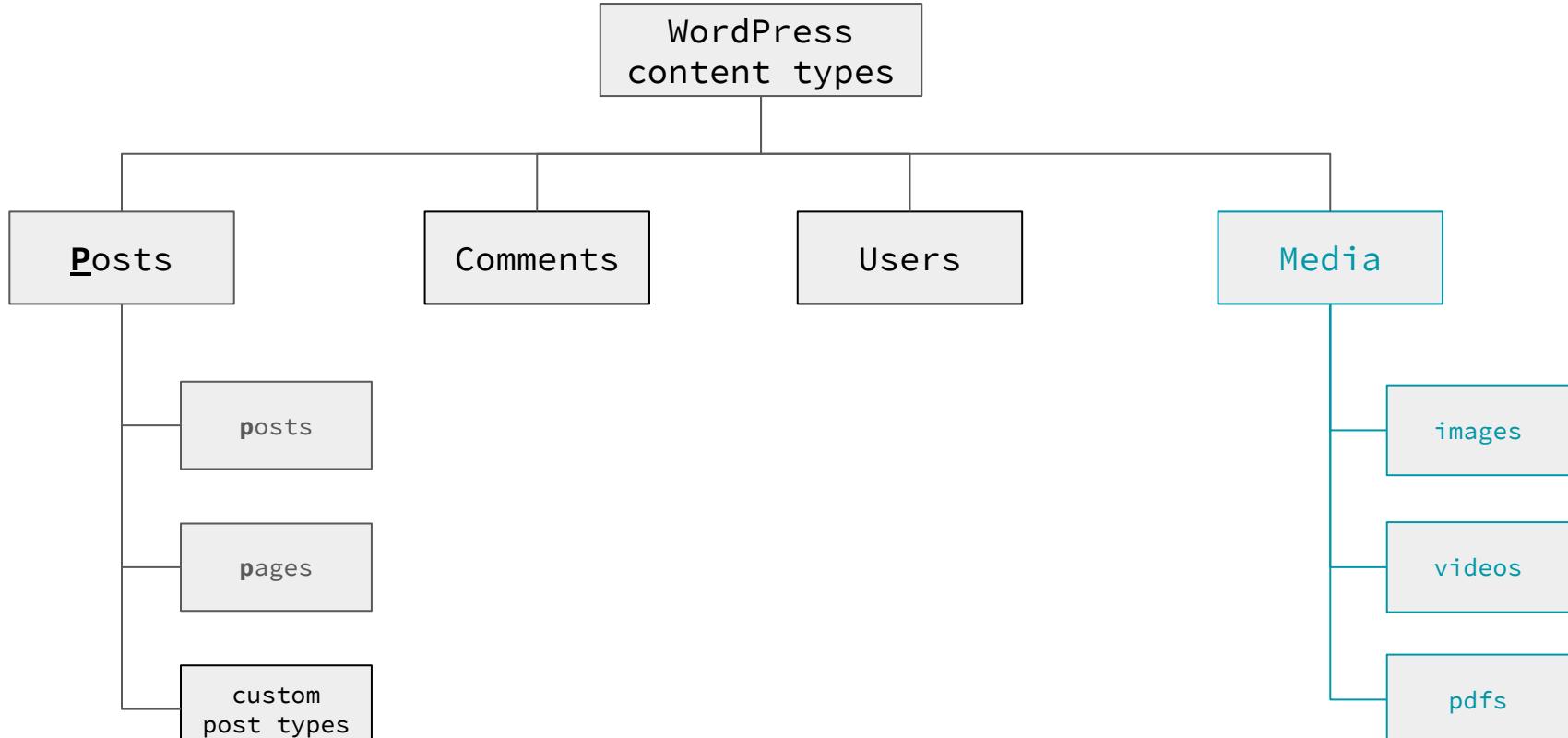
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Content types

WordPress is a CMS – CONTENT mgt system

It can hold and display many different types of content that can be reused:

- Posts (also powers pages)
- Users
- Comments
- Media files (images, videos)



KEY:

Saved in the
database

Saved on the
server

Posts, posts and pages

What is a Post content type?

A Post is the most important type of WordPress content - it's the bedrock of WordPress

The Post content type powers both pages and (blog) posts

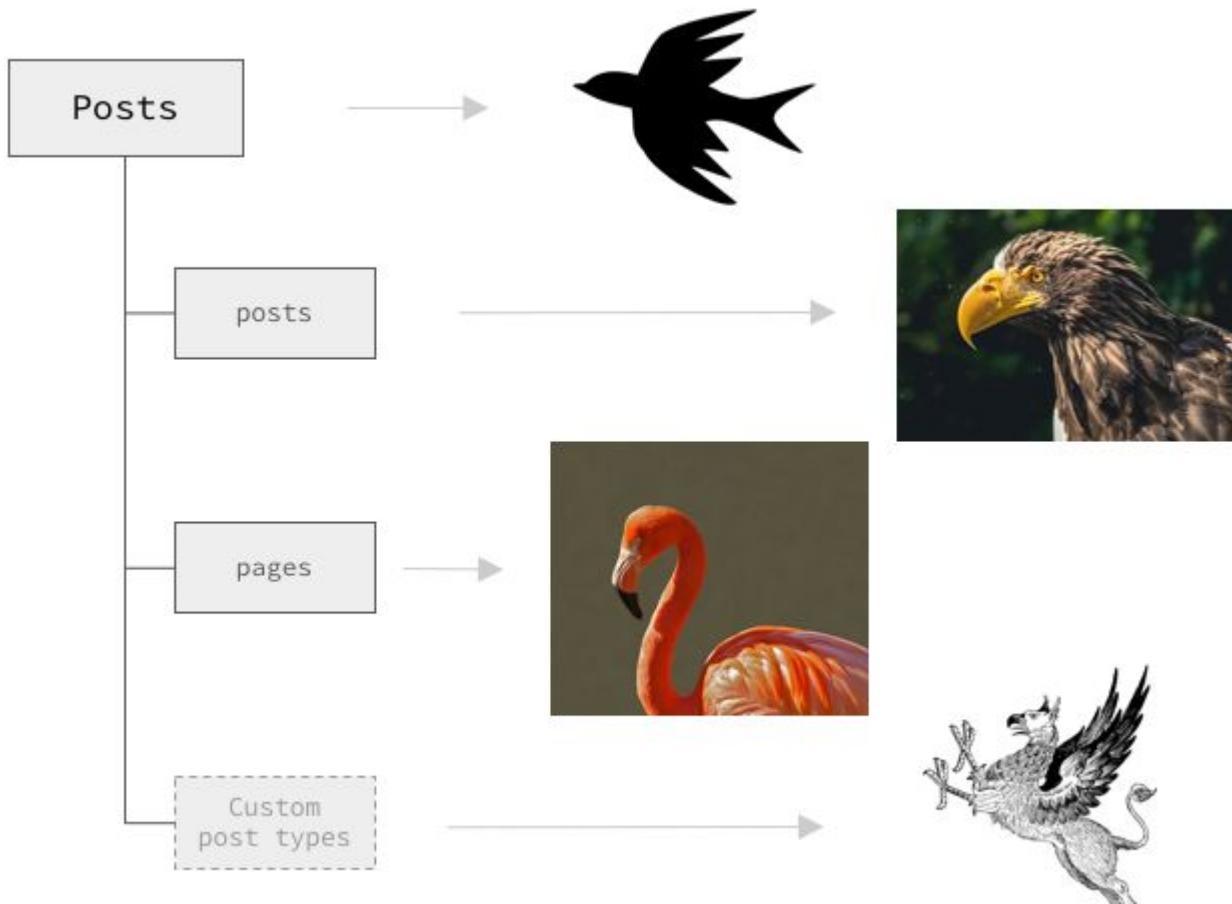
The vast majority of your site's content will be a Post, either posts or pages

What is a Post content type

Consider Posts as a species of content type

The descendants of which are similar to one another but have some distinct differences and behave in different ways - a bit like birds

Use the right content type (eg post or page) for the right thing



What posts and pages have in common

- Title
- Content
- Add Media
- Discussion Options
- Featured Image
- Privacy Settings
- Version control – you can view previous versions

*We say that posts and pages **inherit** these features from the Post content type*

Things unique to posts

They have categories and tags

You can change its format

They can be displayed in archives

Archives are a special type of WordPress template
that can display multiple posts

Things unique to pages

They don't have tags or categories

You can't display lots of them on one page (no archive)

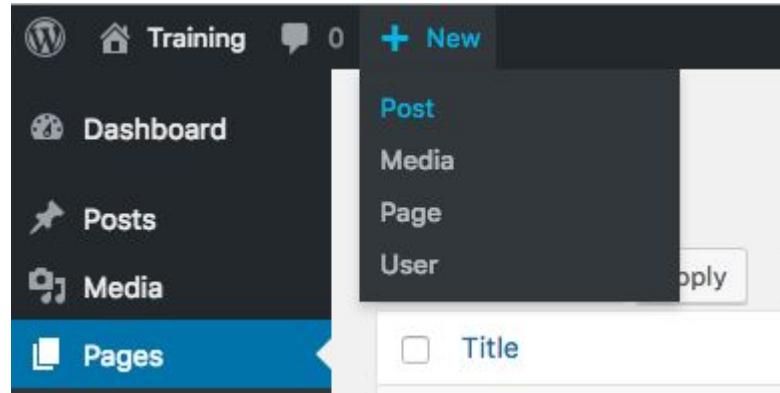
You can change the template

They have a parent, you can organise them into groups which can info hierarchies

Creating a new page

How to create a new page

Select “New” from the admin bar at the top



You can also go to Dashboard > Pages > Add New

The basics of how to edit, preview and publish a page

1. Add a title

The screenshot shows the 'Add New Page' screen in the WordPress admin. At the top, there's a title input field labeled 'Enter title here'. Below it is a rich text editor toolbar with various formatting options like bold, italic, and lists. The main content area is a large, empty box for entering content. At the bottom left, it says 'Word count: 0'.

2. Put some content into the large box using the WYSIWYG (what you see is what you get)

3. Preview your content
- **ALWAYS** do this

The screenshot shows the 'Publish' screen in the WordPress admin. It includes sections for 'Publish' (with 'Save Draft' and 'Preview' buttons), 'Page Attributes' (set to 'Parent: (no parent)' and 'Order: 0'), and 'Featured Image' (with a link to 'Set featured image'). A red arrow points to the 'Preview' button.

4. Publish your content

Permalinks

After adding a title, the permalink box appears and generates a permanent link to your page



You can change the way these are generated in
Settings -> Permalinks

Slugs



Add New Page

About

Permalink: <https://clients.opcan.co.uk/training/about/> about Edit

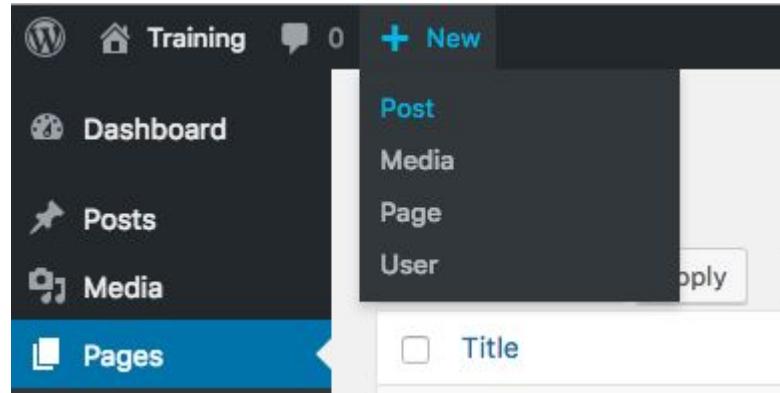
Add Media

The end part is called the **slug**, useful to remember this, it crops up quite a lot

Creating a new post

How to create a new post

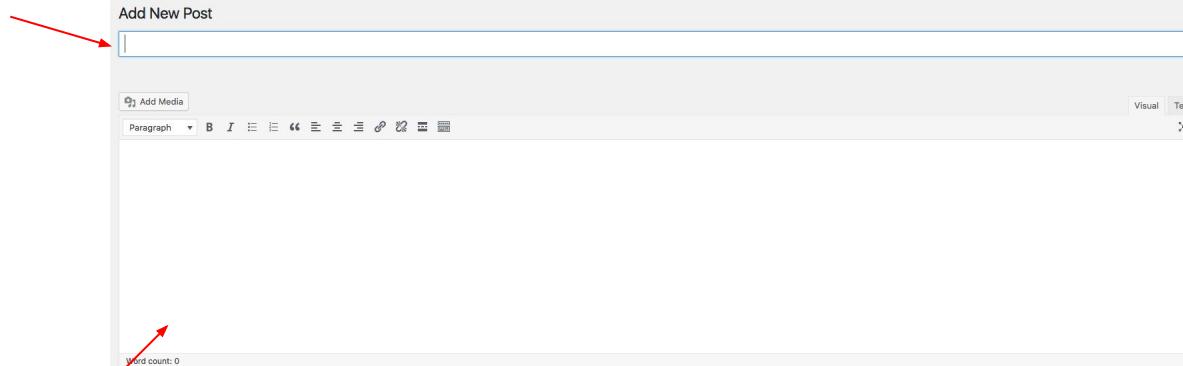
Select “New” from the admin bar at the top



You can also go to Dashboard > Posts > Add New

The basics of how to edit, preview and publish a post

1. Add a title



2. Put some content into the large box using the WYSIWYG (what you see is what you get)

3. Add categories

4. Add a featured image

A screenshot of the WordPress Publish sidebar. At the top right are two buttons: 'Preview' (highlighted by a red arrow) and 'Publish' (highlighted by another red arrow). Below these buttons are sections for 'Format' (Standard selected), 'Categories' (Uncategorized selected), and 'Tags'. At the bottom is a 'Featured Image' section with a 'Set featured image' button.

5. Preview your content
- **ALWAYS** do this

6. Publish your content

Gutenberg

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Version 5.0 of WordPress coming soon!

A major upgrade

The editing interface will change a lot

Brand new, so likely to be buggy for a while

Can install ‘Classic editor’ plugin to force
WordPress to use the old style

Extension exercise

Install the Gutenberg plugin

Have a play and see what you think

The Media Library

- adding images and featured images

Adding an image

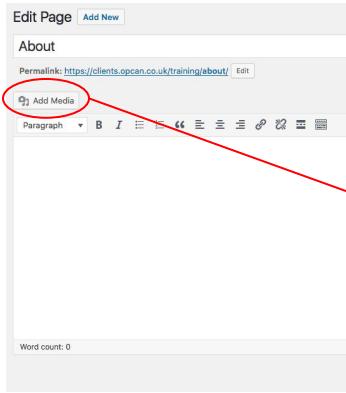
Edit Page [Add New](#)

About

Permalink: <https://clients.opcan.co.uk/training/about/> [Edit](#)

[Add Media](#)

Word count: 0



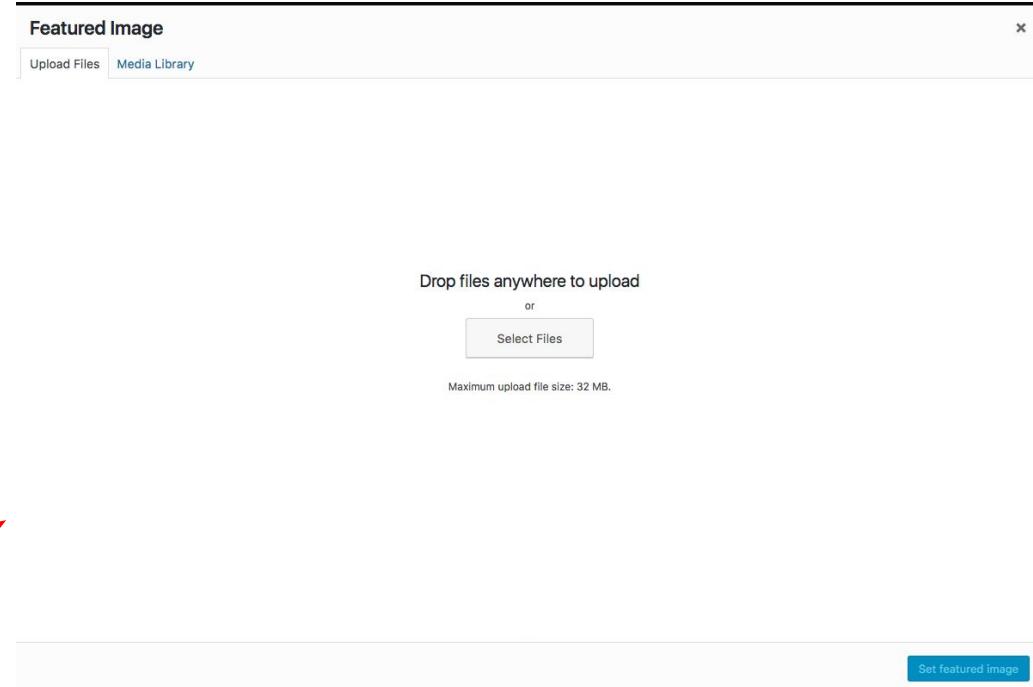
Featured Image

[Upload Files](#) [Media Library](#)

Drop files anywhere to upload
or
[Select Files](#)

Maximum upload file size: 32 MB.

[Set featured image](#)



Page Attributes

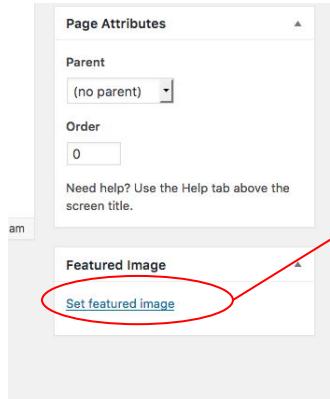
Parent
(no parent)

Order
0

Need help? Use the Help tab above the screen title.

Featured Image

[Set featured image](#)

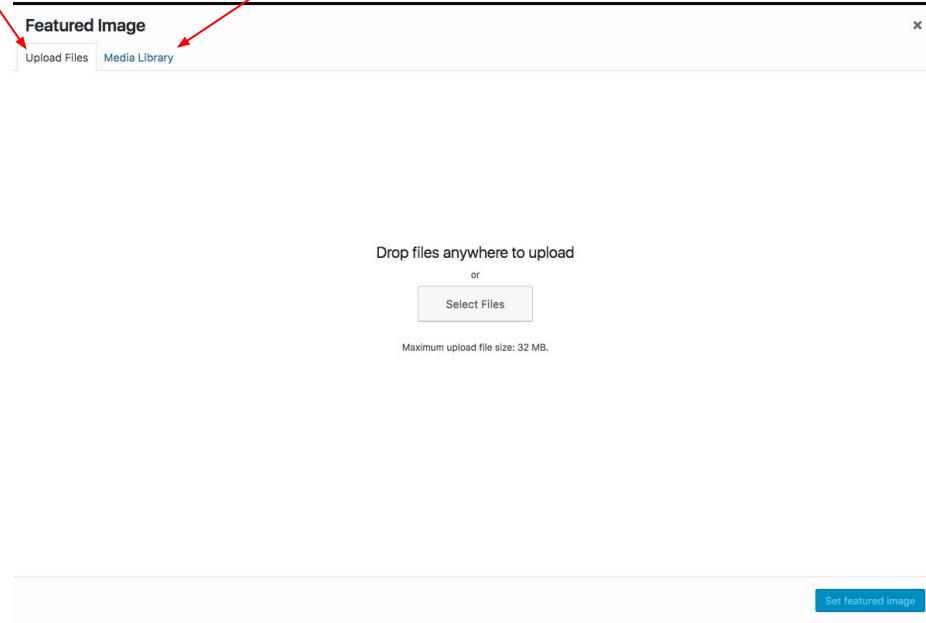


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The Media Library screens

Add new files
in this tab

Select images you have already uploaded
in this tab
- you will automatically end up on this
tab after uploading new images



Be careful where you get your images from

If you don't own the image, you need to check who does and if you have permission to use it on your site

You shouldn't just nick images from Google!

There are plenty of free images out there, try using <https://pixabay.com/>

Exercise

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Create an ‘About’ page

- Create a page - give it the title of ‘About’
- Add some text
- Add an image to the content (use Pixabay?)
- Preview it
- Save it

How WordPress handles images

On uploading, WordPress makes several different sized versions of your images called thumbnails

These are served up by WordPress core to help with responsiveness

You can make use of the different sizes in your content

Image Details

X

Caption

Alternative Text

Hannah Smith talks about agile project management at WDC 2017 Bristol

DISPLAY SETTINGS

Align

Left Centre Right None

Size

Medium – 300 × 173



Link To

Media File



<https://operationcanopy.co.uk/wp-content/uploads/2017/07/Speaking-at-W>

ADVANCED OPTIONS ▾



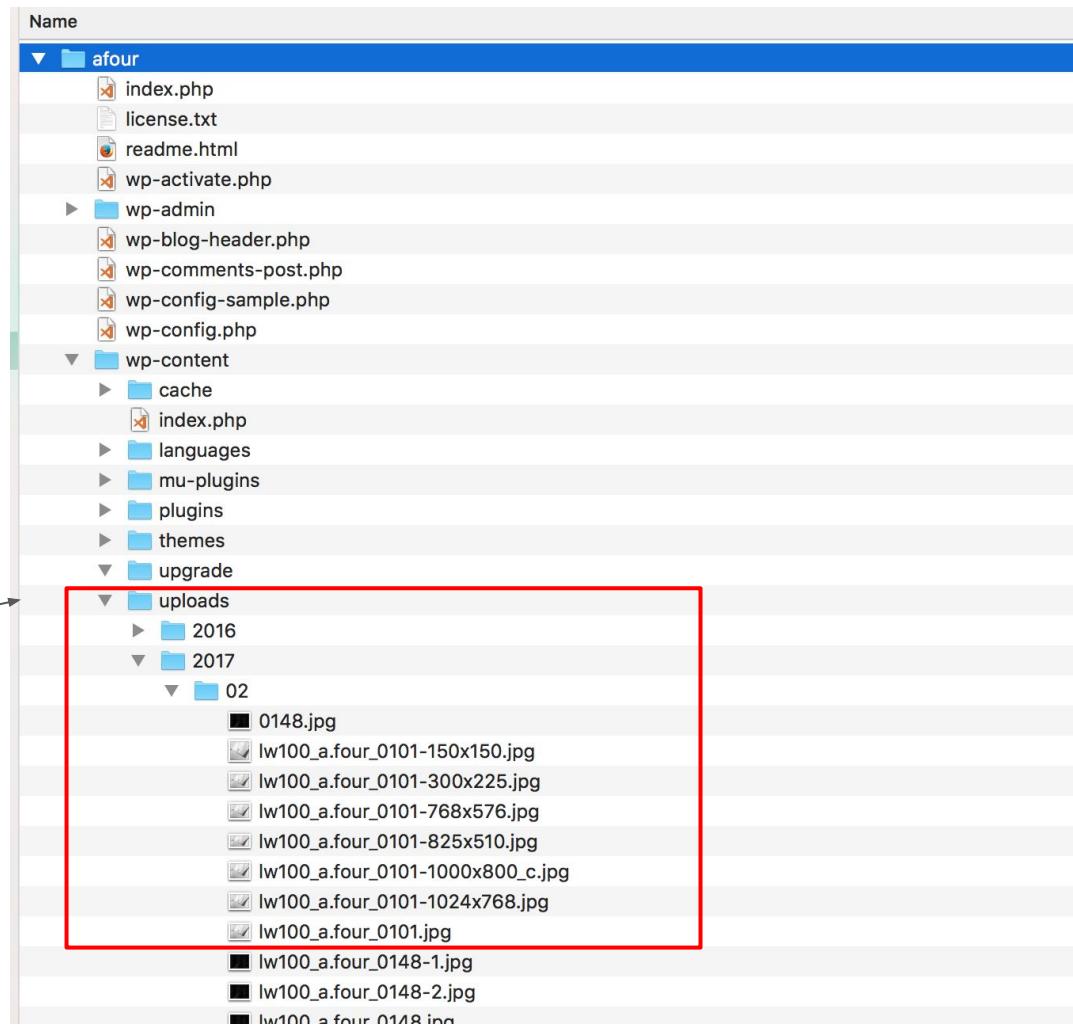
Edit Original

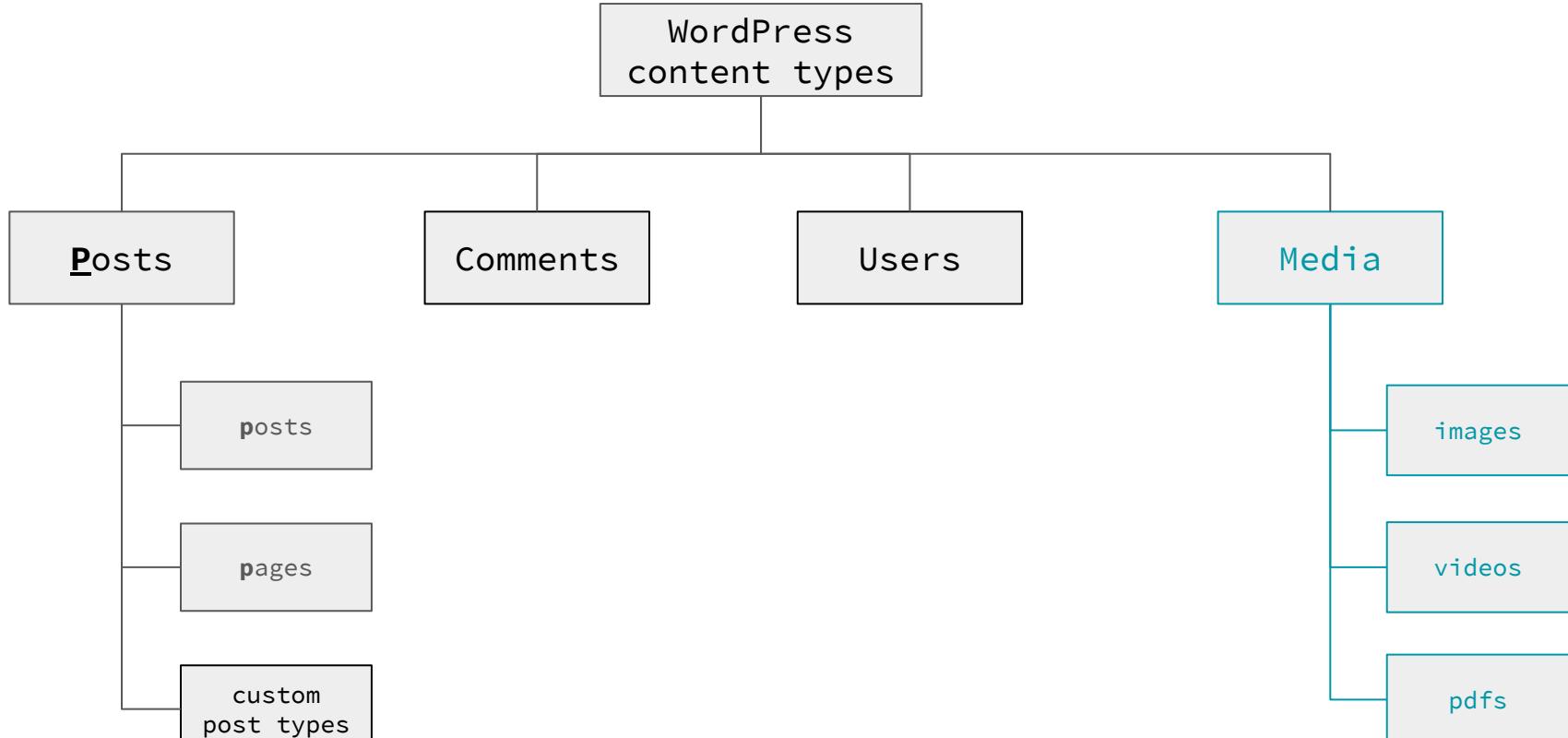
Replace

Update

WordPress
root folder

Images stored
by year and
month





KEY:

Saved in the
database

Saved on the
server

Exercise

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Find your uploads folder

- Navigate to your uploads folder (in a finder window or in terminal)
- Have a look at the image you just uploaded

Comments

Comments

You decide whether users can leave comments on pages or posts

By default, they are held in the ‘pending’ status so you can approve them

Change this if you want, they can auto-publish

Manage this in
Settings -> Discussion -> Default article settings
or on an individual page/post basis

Users and permissions

Overview of the different roles

Administrator - somebody who has access to all the administration features within a single site (the first user created is always an admin)

Editor - somebody who can publish and manage posts including the posts of other users

Author - somebody who can publish and manage their own posts

Contributor - somebody who can write and manage their own posts but cannot publish them

Subscriber - somebody who can only manage their profile.

Managing menus

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Menus are managed in admin

The screenshot shows the WordPress admin interface for managing menus. The left sidebar is dark-themed and includes links for Dashboard, Posts, Media, Pages, Comments, Appearance (which is highlighted with a red circle), Themes, Customize, Widgets, Menus (which is also highlighted with a red circle), Header, Editor, Plugins, Users, Tools, Settings, and a Collapse menu option.

The main content area is titled "Menus" and features a "Manage with Live Preview" button. A "Edit Menus" button is visible. Below it, a text box says "Edit your menu below, or [create a new menu](#)".

The "Pages" section lists "About" and "Sample Page" with checkboxes and an "Add to Menu" button. The "Posts", "Custom Links", and "Categories" sections have dropdown arrows next to their names.

On the right side, there is a "Menu Name" input field, a "Create Menu" button, and another "Create Menu" button at the bottom of the menu creation form.

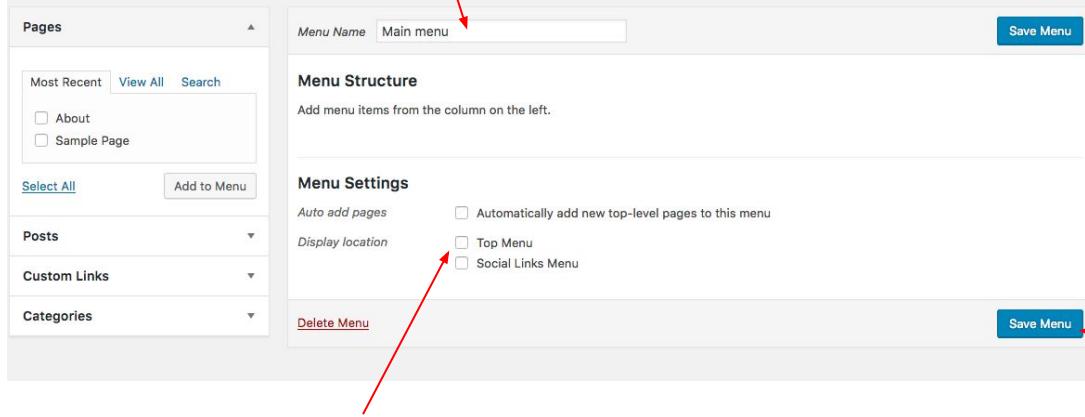
Creating a menu

Give your menu a title and click ‘Create menu’

The title ‘Main menu’ is a good name

Creating a menu

1. Name your menu (main menu)



2. Select 'top menu' in menu settings to display your menu somewhere

3. Save your menu

Adding items to your menu

The screenshot shows a 'Pages' section on the left with a red box highlighting the 'Add to Menu' button. The main area is a 'Main menu' editor with sections for 'Menu Structure' and 'Menu Settings'. In 'Menu Structure', 'Contact Me' is listed under 'Home'. A red arrow points to the down arrow next to 'Page' in the 'Contact Me' row. Another red arrow points to the 'Navigation Label' input field where 'Contact Me' is typed. A third red arrow points to the 'Save Menu' button at the bottom right.

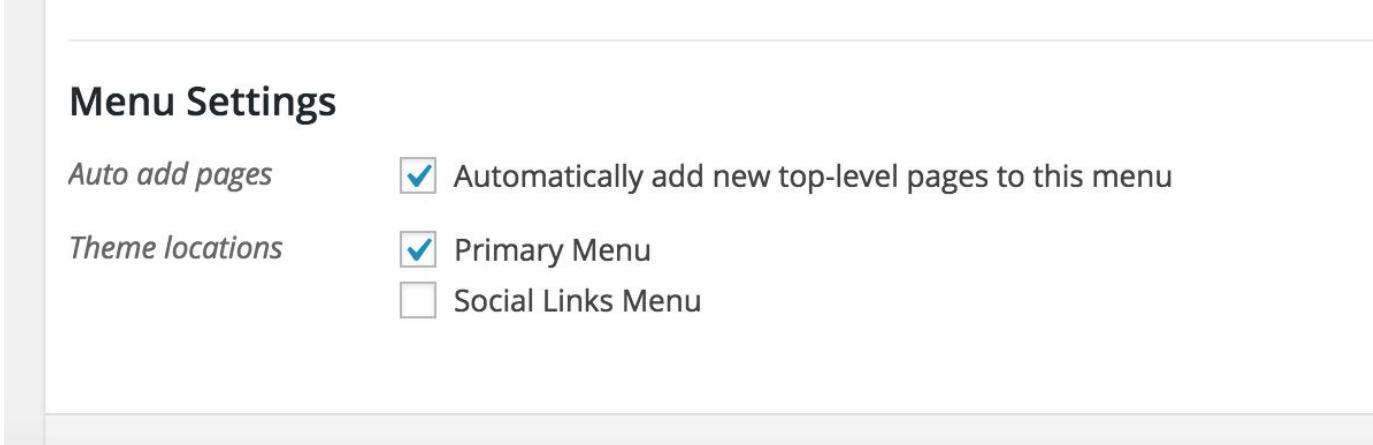
1. Select items from the left and click 'Add to menu'

You can add pages, posts, custom links or (post) categories

2. Customise the title by pressing the down arrow and filling in the 'navigation label'

3. Save your menu

Different themes have different menu locations



The screenshot shows the 'Menu Settings' section of the WordPress admin. It includes two main sections: 'Auto add pages' and 'Theme locations'. Under 'Auto add pages', there is a checked checkbox for 'Automatically add new top-level pages to this menu'. Under 'Theme locations', there are two checkboxes: one checked for 'Primary Menu' and one unchecked for 'Social Links Menu'.

Setting	Status	Description
Auto add pages	Checked	Automatically add new top-level pages to this menu
Theme locations	Checked	Primary Menu
	unchecked	Social Links Menu

Exercise 1

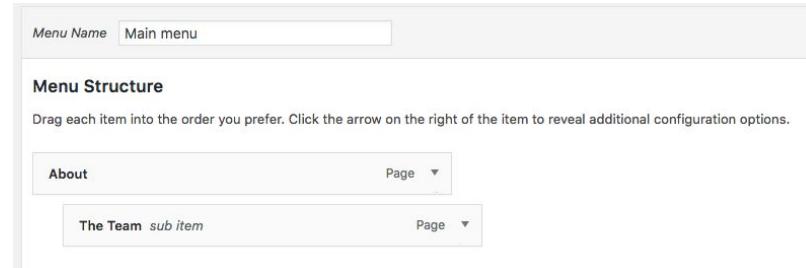
Create a new menu

- Create a menu
- Add your about page
- Save it
- View your website

Exercise 2

Create a sub-menu

1. Create a new page called ‘The team’
2. Set it’s parent page to ‘About’
3. Add new menu item ‘The Team’ and drag it under the ‘About’ menu option so it’s indented



4. Save
5. View your site

Customising the look of your site with themes

Themes control how your site looks

They define the **structure** and **appearance** of content

- Colours
- Page layouts
- Widget positions
- Menu locations

They consist of template files and function (php)
files

wordpress

Search

Name	Date Modified	Size	Kind
index.php	25 Sep 2013, 00:18	418 bytes	PHP: H...ument
license.txt	5 Mar 2016, 19:14	20 KB	Plain Text
readme.html	12 May 2016, 11:54	7 KB	HTML
wp-activate.php	28 Jan 2016, 02:35	5 KB	PHP: H...ument
wp-admin	21 Jun 2016, 16:17	--	Folder
wp-blog-header.php	19 Dec 2015, 10:20	364 bytes	PHP: H...ument
wp-comments-post.php	30 Jan 2016, 20:56	1 KB	PHP: H...ument
wp-config.php	Today, 11:33	3 KB	PHP: H...ument
wp-content	Today, 11:50	--	Folder
.DS_Store	Today, 11:50	6 KB	Document
index.php	8 Jan 2012, 16:01	28 bytes	PHP: H...ument
plugins	21 Jun 2016, 16:17	--	Folder
themes	21 Jun 2016, 16:17	--	Folder
index.php	5 Jun 2014, 15:59	28 bytes	PHP: H...ument
twentyfifteen	21 Jun 2016, 16:17	--	Folder
twentyfourteen	21 Jun 2016, 16:17	--	Folder
twentysixteen	21 Jun 2016, 16:17	--	Folder
wp-cron.php	24 May 2015, 17:26	3 KB	PHP: H...ument
wp-includes	21 Jun 2016, 16:17	--	Folder
wp-links-opml.php	24 Oct 2013, 22:58	2 KB	PHP: H...ument
wp-load.php	5 Nov 2015, 22:59	3 KB	PHP: H...ument
wp-login.php	6 Mar 2016, 02:06	34 KB	PHP: H...ument
wp-mail.php	6 Oct 2015, 14:07	8 KB	PHP: H...ument
wp-settings.php	17 Feb 2016, 21:59	12 KB	PHP: H...ument

1 of 28 selected, 22.77 GB available

Default themes

WordPress comes with the most recent themes created by WordPress, already installed

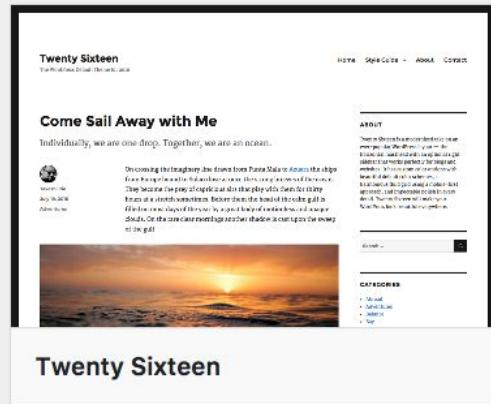
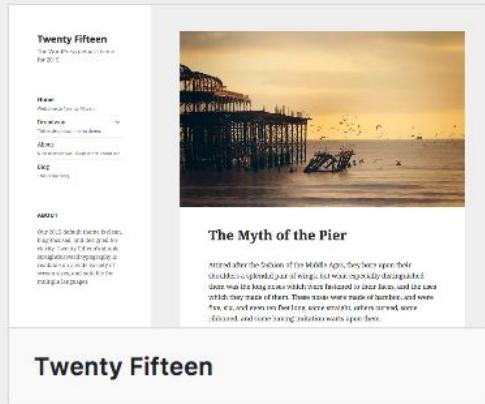
For example **twentyseventeen**, **twentysixteen** etc

They are not very exciting, but they are usually very reliable and stable and a recommended starting point

Viewing and switching between installed themes

- Dashboard
- Posts
- Media
- Pages
- Comments
- Appearance**
- Themes
- Customise
- Widgets
- Menus
- Header
- Editor
- Plugins
- Users
- Tools
- Settings
- Collapse menu

Themes 3

[Add New](#)[Add New Theme](#)

Activating a new theme

Hover over the theme and click ‘Activate’

Themes 3 Add New Search installed themes...

The screenshot shows the WordPress 'Themes' screen. There are three themes listed:

- TWENTY SEVENTEEN**: Active theme. It features a dark blue background with a potted plant on a wooden table.
- Twenty Fifteen**: Theme Details button is visible. It features a sunset over a pier.
- Twenty Sixteen**: It features a sunset over the ocean.

At the bottom, there are buttons for 'Customize', 'Activate' (circled in red), and 'Live Preview'.

Add New Theme

Choosing themes

Choosing a theme

This can be really hard as there are so many, most will only do 80/90% of what you want.

Be wary of chasing unicorns!



Free or paid for?

WordPress has a [library of free themes](#)

There are also 'premium' paid-for themes which you need to upload yourself to your site

Premium themes should have regular updates, fast support, good documentation and will probably do something specialised, like a food blog

Choosing a theme

Less is more - you don't need bloated themes that come with lots of features you won't use, it just slows your site down

Look for themes with good reviews and regular updates

Use the filters on wordpress.org

Installing new themes

- Dashboard
- Posts
- Media
- Pages
- Comments
- Appearance**

- Themes
- Customise
- Widgets
- Menus
- Header
- Editor

- Plugins
- Users
- Tools
- Settings
- Collapse menu

Themes 3

[Add New](#)

TWENTY SEVENTEEN
Bringing real business back to life

Active: Twenty Sevente... [Customise](#)

Twenty Fifteen
The 2015 WordPress theme

ABOUT
Our 2015 default theme includes a homepage, a blog page, a single post page, a category archive page, a tag archive page, a 404 error page, and a footer page. It also includes a header image, a logo, and a footer image.

ANSWER
Started after the Sinking of the Costa Concordia, they began open their classrooms,船舱, and dining areas to the public. They were so popular that they had to build more boats to keep up with the demand. These boats were made of lumber, and were very slow, so they had to hire some smart engineers to speed them up.

The Myth of the Pier

During the night of the sinking, many passengers from the ship got off onto the pier to escape. The pier was built to help them get off the ship, but it collapsed under the weight of the passengers. This became a symbol of hope and resilience for many people around the world.

Twenty Fifteen

Twenty Sixteen
The 2016 WordPress theme

COME SAIL AWAY WITH ME
Individually, we are one drop. Together, we are an ocean.

ABOUT
There is something about the ocean that makes us feel like we are part of something bigger than ourselves. The ocean is a symbol of hope and resilience, and it is a reminder that even in the face of challenges, we can still find beauty and strength. The Twenty Sixteen theme is designed to reflect this spirit of exploration and discovery.

CATEGORIES

- Home
- Get Started
- About
- Contact

Twenty Sixteen

Add New Theme

[Dashboard](#)[Posts](#)[Media](#)[Pages](#)[Comments](#)

Appearance

[Themes](#)[Customise](#)[Widgets](#)[Menus](#)[Header](#)[Background](#)[Editor](#)

Plugins

[Users](#)[Tools](#)[Settings](#)[Collapse menu](#)

Add Themes

[Upload Theme](#)

For themes you have purchased, you will be required to upload a zip file of it

15

[Featured](#)[Popular](#)[Latest](#)[Feature Filter](#)

Alexandria

[Install](#) [Preview](#)

Enigma

Catch Kathmandu

Dynamic News Lite

Influence

Moesia

 Dashboard Posts Media Pages Comments Appearance**Themes**

Customise

Widgets

Menus

Header

Background

Editor

 Plugins Users Tools Settings Collapse menu

Installing Theme: Alexandria 2.0.37

Downloading install package from <https://wordpress.org/themes/download/alexandria.2.0.37.zip...>

Unpacking the package...

Installing the theme...

Successfully installed the theme Alexandria 2.0.37.

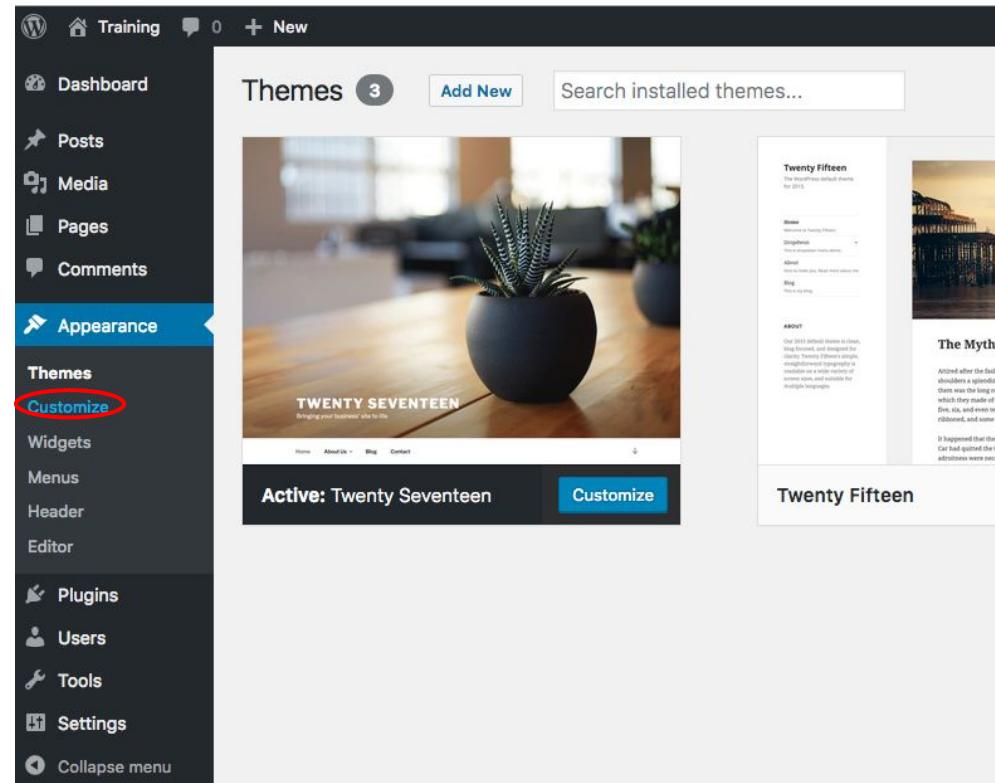
[Live Preview](#) | [Activate](#) | [Return to Theme Installer](#)

Theme settings

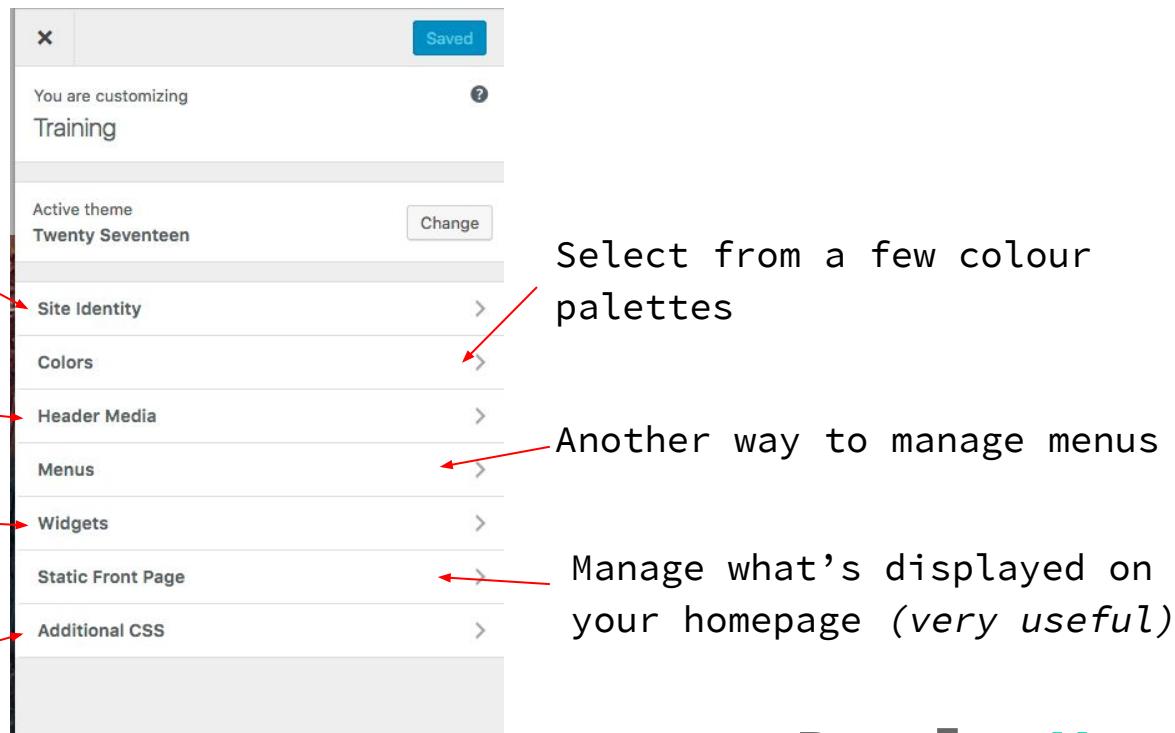
Customising your theme

Most themes provide settings that allow you to customise things

NB Each theme is different, the way to find the settings might not always be like this



TwentySeventeen theme settings

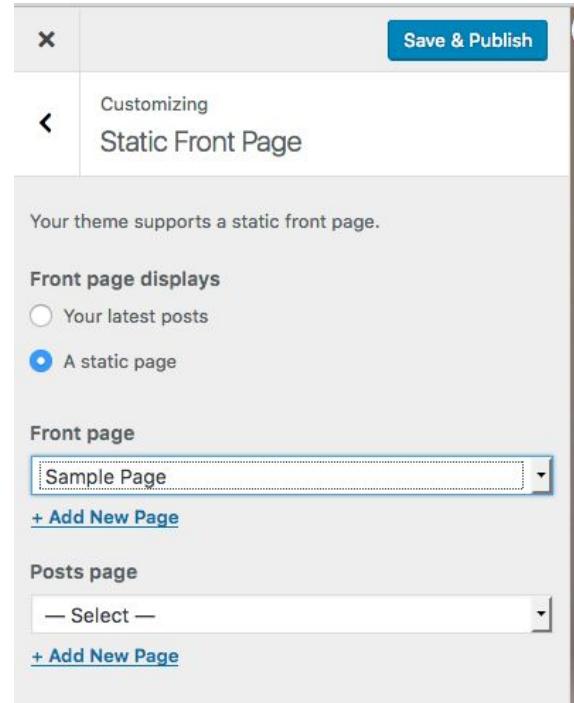


Setting the homepage

In the theme options, click ‘Static front page’

Click ‘A static page’

In the front page dropdown select the page you'd like



Switching between themes

Because each theme will have different settings, you may lose some of your settings when you switch between themes.

Keep an eye on your menus, widget positions and logos.

Exercise 1

Create a homepage and add it to your menu

1. Create a new page called Home and put some content in there
2. Set your homepage (front page) to be this new page
3. Add home to your menu
4. View your site

Exercise 2

Use theme settings to set-up a blog

1. Create a new page called Blog, but don't add any content
2. Using theme settings set this new page to be your blog (archive page)
3. Add the new blog page to your menu
4. View your site

Exercise (extension)

Install a few themes

Pick some themes at random and see how they differ

Note the settings that you have to reapply each time you switch theme

Customising the functionality of your site using plugins

What are plugins?

Plugins bring functionality into WordPress

Functionality is any aspect of what the website can
do for you (the administrator) or a site visitor

For example contact forms, image galleries, shop
(WooCommerce), page builders

Plugins

WordPress comes with a few plugins installed, for example **akismet** and **hello dolly**

wordpress

Favorites

- Applications
- oliward
- Desktop
- Documents
- Downloads
- Freelance
- Pictures
- Develop Me
- dev.developme.training
- Sites
- tecexec
- Kerbal Space Program
- resources.developme.training
- Vuze Downloads
- Creative Cloud Files

Devices

- Remote Disc

Shared

Name **Date Modified** **Size** **Kind**

Name	Date Modified	Size	Kind
index.php	25 Sep 2013, 00:18	418 bytes	PHP: H...ument
license.txt	5 Mar 2016, 19:14	20 KB	Plain Text
readme.html	12 May 2016, 11:54	7 KB	HTML
wp-activate.php	28 Jan 2016, 02:35	5 KB	PHP: H...ument
wp-admin	21 Jun 2016, 16:17	--	Folder
wp-blog-header.php	19 Dec 2015, 10:20	364 bytes	PHP: H...ument
wp-comments-post.php	30 Jan 2016, 20:56	1 KB	PHP: H...ument
wp-config.php	Today, 11:33	3 KB	PHP: H...ument
wp-content	Today, 11:50	--	Folder
.DS_Store	Today, 12:10	6 KB	Document
index.php	8 Jan 2012, 16:01	28 bytes	PHP: H...ument
plugins	21 Jun 2016, 16:17	--	Folder
akismet	21 Jun 2016, 16:17	--	Folder
hello.php	22 May 2013, 21:08	2 KB	PHP: H...ument
index.php	5 Jun 2014, 15:59	28 bytes	PHP: H...ument
themes	21 Jun 2016, 16:17	--	Folder
wp-cron.php	24 May 2015, 17:26	3 KB	PHP: H...ument
wp-includes	21 Jun 2016, 16:17	--	Folder
wp-links-opml.php	24 Oct 2013, 22:58	2 KB	PHP: H...ument
wp-load.php	5 Nov 2015, 22:59	3 KB	PHP: H...ument
wp-login.php	6 Mar 2016, 02:06	34 KB	PHP: H...ument
wp-mail.php	6 Oct 2015, 14:07	8 KB	PHP: H...ument
wp-settings.php	17 Feb 2016, 21:58	13 KB	PHP: H...ument
wp-signup.php	28 Jan 2016, 02:51	20 KB	PHP: H...ument

Macintosh HD > Users > oliward > Sites > scotch > public > wordpress > xmlrpc.php

1 of 27 selected, 23.02 GB available

 Dashboard Posts Media Pages Comments Appearance Plugins

Installed Plugins

Add New

Editor

 Users Tools Settings Collapse menu

Plugins

[Add New](#)[All \(2\)](#) | [Inactive \(2\)](#)[Screen Options](#) ▾[Help](#) ▾[Bulk Actions](#) ▾[Apply](#)

2 items

 Plugin Description

Akismet Used by millions, Akismet is quite possibly the best way in the world to protect your blog from comment and trackback spam. It keeps your site protected from spam even while you sleep. To get started: 1) Click the "Activate" link to the left of this description, 2) Sign up for an Akismet API key, and 3) Go to your Akismet configuration page, and save your API key.

Version 3.0.2 | By [Automatic](#) | [View details](#)

Hello Dolly This is not just a plugin, it symbolises the hope and enthusiasm of an entire generation summed up in two words sung most famously by Louis Armstrong: Hello, Dolly. When activated you will randomly see a lyric from Hello, Dolly in the upper right of your admin screen on every page.

Version 1.6 | By [Matt Mullenweg](#) | [View details](#)

 Plugin Description[Bulk Actions](#) ▾[Apply](#)

2 items

Installing new plugins

The screenshot shows the WordPress admin interface under the 'Plugins' section. A red circle highlights the 'Add New' button at the top left of the main content area. The page displays two active plugins:

Plugin	Description
Akismet	Used by millions, Akismet is quite possibly the best way in the world to protect your blog from comment and trackback spam. It keeps your site protected from spam even while you sleep. To get started: 1) Click the "Activate" link to the left of this description, 2) Sign up for an Akismet API key, and 3) Go to your Akismet configuration page, and save your API key. Version 3.0.2 By Automattic View details
Hello Dolly	This is not just a plugin, it symbolises the hope and enthusiasm of an entire generation summed up in two words sung most famously by Louis Armstrong: Hello, Dolly. When activated you will randomly see a lyric from Hello, Dolly in the upper right of your admin screen on every page. Version 1.6 By Matt Mullenweg View details

At the bottom of the screen, there is a footer note: *Thank you for creating with WordPress.* and the version information: Version 4.0.

If you've bought a plug-in you may have a zip file, in which case upload it here

The screenshot shows the WordPress admin interface for managing plugins. The left sidebar is dark-themed and includes links for Training, Dashboard, Posts, Media, Pages, Comments, Appearance, Plugins (which is highlighted), Installed Plugins, Add New, Editor, Users, Tools, and Settings. Below the sidebar, there's a 'Popular tags' section.

The main content area has a light background. At the top, there are two buttons: 'Add Plugins' and 'Upload Plugin' (the latter is circled in red). Below these are tabs for 'Featured', 'Popular', 'Recommended', and 'Favorites'. A note says: 'Plugins extend and expand the functionality of WordPress. You may automatically install plugins from the [WordPress Plugin Directory](#) or upload a plugin in .zip format by clicking the button at the top of this page.'

The page displays a grid of plugin cards:

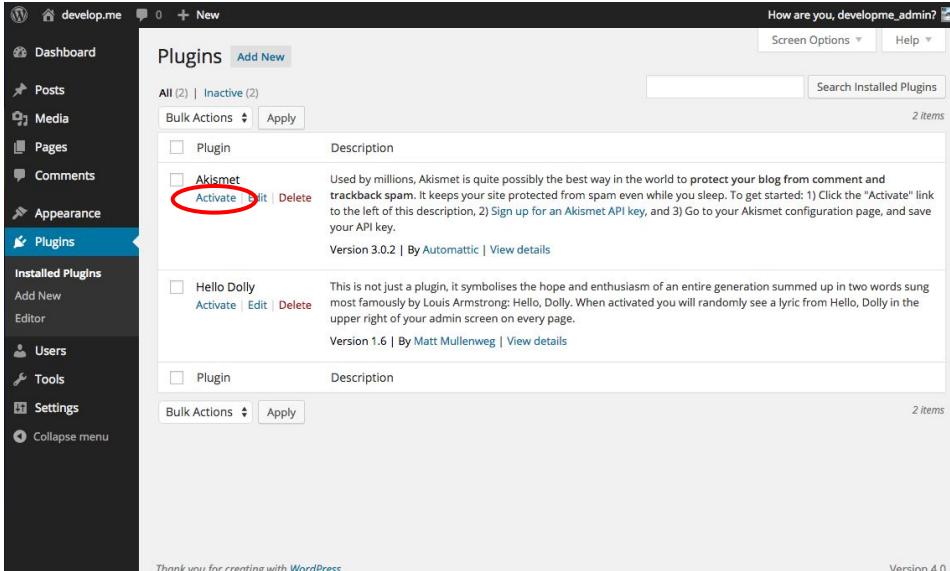
- BuddyPress**: Helps site builders and WordPress developers add community features to their websites, with user... (Install Now, More Details)
- Theme Check**: A simple and easy way to test your theme for all the latest WordPress standards and practices. A great theme development tool! (Install Now, More Details)
- bbPress**: bbPress is forum software, made the WordPress way. (Install Now, More Details)
- WP Super Cache**: A very fast caching engine for WordPress that produces static html files. (Install Now, More Details)
- Jetpack by WordPress.com**: The one plugin you need for stats, related posts, search engine optimization, social sharing, protection, backups, speed, and email list management. (Install Now, More Details)
- Akismet**: Akismet checks your comments and contact form submissions against our global database of spam to protect you and your site from malicious content. (Activate, More Details)

Each card includes a star rating, number of active installs, last updated date, compatibility status, and a brief description. Red arrows point from the 'Upload Plugin' button and the search bar to the respective sections of the page.

Most of the time, you'll search for the plugin title here and then install it using the 'install now' button

Installing new plugins

Once you have installed a plugin, make sure you activate it!



The screenshot shows the WordPress admin interface under the 'Plugins' section. On the left, a sidebar lists various menu items: Dashboard, Posts, Media, Pages, Comments, Appearance, Plugins (which is currently selected and highlighted in blue), Installed Plugins, Users, Tools, Settings, and a 'Collapse menu' option at the bottom. The main content area is titled 'Plugins' and shows two installed plugins: 'Akismet' and 'Hello Dolly'. Both entries include a checkbox labeled 'Plugin', a 'Description' text block, and three action links: 'Activate', 'Edit', and 'Delete'. The 'Activate' link for the Akismet plugin is circled in red. Below each plugin entry, there is a small note indicating the version and author. At the bottom of the screen, there are 'Bulk Actions' and 'Apply' buttons, along with a 'Screen Options' and 'Help' dropdown menu.

Tips for choosing plugins (or any 3rd party software)

How many active installs

When was it last updated

How many stars does it have,
read some reviews

Is it tested with the version
of WordPress you're using

View 'more details' and see if
the documentation is any good

Add Plugins [Upload Plugin](#)

Featured Popular Recommended Favorites

Plugins extend and expand the functionality of WordPress. You may automatically install plugins from the repository.



BuddyPress

BuddyPress helps site builders and WordPress developers add community features to their websites, with user...

By [The BuddyPress Community](#)

Install Now [More Details](#)

★★★★★ (355) Last Updated: 4 days ago

200,000+ Active Installs Untested with your version of WordPress

Common plugin pitfalls

Too many plugins will kill your site's speed

It's a good idea to try a few out, but always deactivate and delete those you are not using

Some plugins can interfere with each other and break your site - always test everything once you've added a new one in

Debugging

If you start having issues with your site

- Deactivate all your plugins
- Change back to a stable WordPress theme eg 2017
- Activate each plugin one at a time
- Test

Eventually you'll see what's causing it

Shortcodes = shortcut

A shortcode is WordPress-specific code that lets you call complex code to appear in a page or post

Easy to recognise, they are in square brackets

[gallery]

A lot of plugins use shortcodes

Exercise

DevelopMe_

Install and activate a plugin

1. Install "Contact Form 7" plugin
2. Activate it
3. Create a contact page and add it to your menu
4. Add the default contact form to the contact page using the shortcode
5. Explore the form's settings and get a submission sent to your email.

Exercise (extension)

Try out some more plugins

Popular plugins that I install on almost every site:

- Yoast - SEO, defo worth checking out
- Social media plugins - Twitter, Instagram, FB - try plugins by Smash Balloon
- GoogleMaps - try WP GoogleMaps
- Smush - reduces sizes of photos

Widgets

DevelopMe_

What is a widget?

Widgets are tools that allow a user to add and control features or content to pre-defined areas of a site - usually header, footer or sidebar

A user can drag and drop a widget into a desired location



Dashboard

Posts

Media

Pages

Comments

Appearance

Themes

Customize

Widgets

Menus

Header

Editor

Plugins

Users

Tools

Settings

Collapse menu

Widgets

Manage with Live Preview

Available Widgets

To activate a widget drag it to a sidebar or click on it. To deactivate a widget and delete its settings, drag it back.

Archives

Audio

A monthly archive of your site's Posts.

Displays an audio player.

Calendar

Categories

A calendar of your site's Posts.

A list or dropdown of categories.

Custom Menu

Image

Add a custom menu to your sidebar.

Displays an image.

Meta

Pages

Login, RSS, & WordPress.org links.

A list of your site's Pages.

Recent Comments

Recent Posts

Blog Sidebar

Add widgets here to appear in your sidebar on blog posts and archive pages.

Search

Recent Posts

Recent Comments

Archives

Categories

Meta

Footer 1

Footer 2

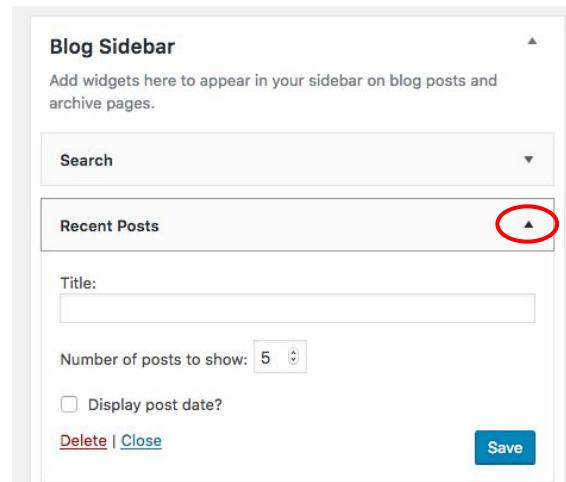
The pre-defined areas

Adding a widget to the sidebar

On the widgets page, drag and drop a widget from the ‘available widgets’ column on the left to the ‘blog sidebar’ widget on the right

Then click the little arrow on the right to expand the options

Click ‘Save’ **on each** widget when done



Installing new widgets

The default WordPress install comes with some widgets

Widgets are installed as plugins

Some themes come installed with their own widgets

The theme defines what widget positions your site has

Creating new widget positions

Add them with code in functions.php:

[https://codex.wordpress.org/Widgetizing Themes](https://codex.wordpress.org/Widgetizing_Themes)

Exercise

DevelopMe_

Add a text widget to your footer

Exercise (extension)

Add a text widget to the sidebar

- See what pages it displays on
- Can you figure out why it only displays on some pages and not others?

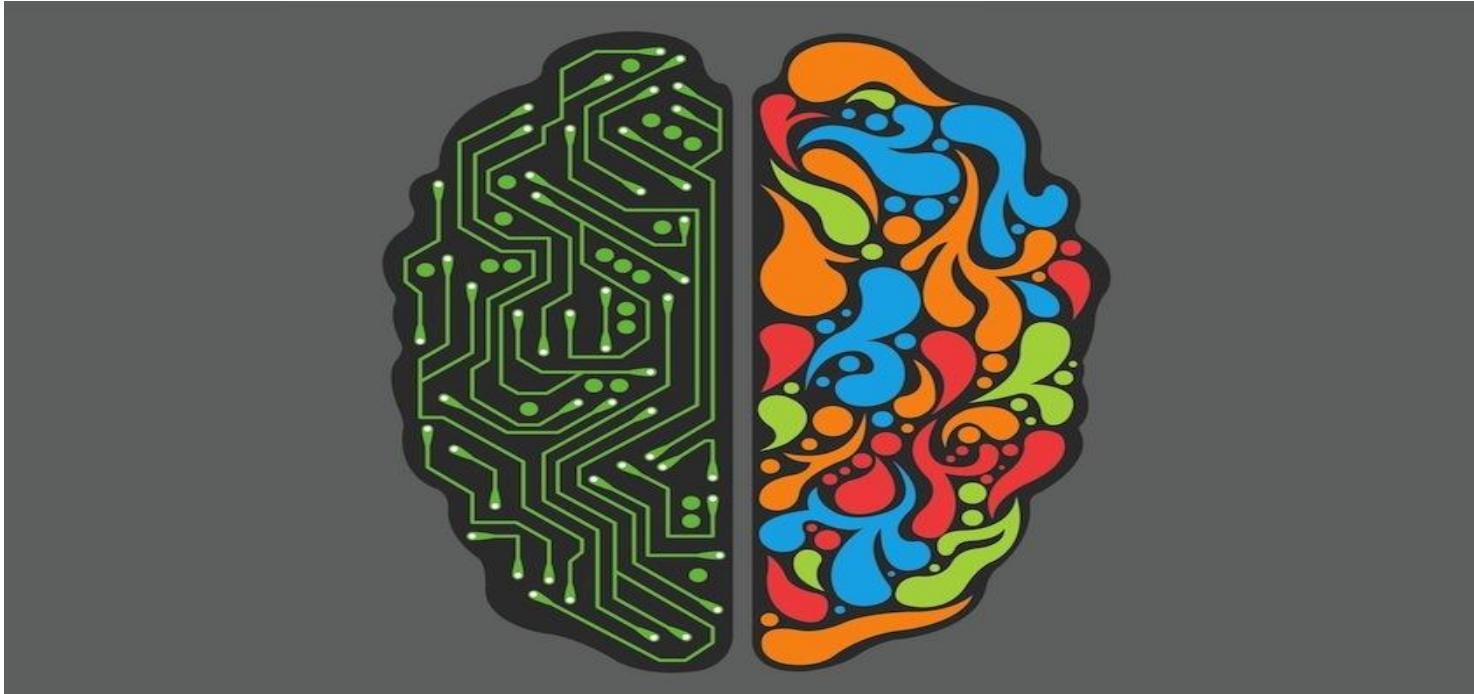
Running WordPress projects

DevelopMe_

A typical project

- **Plan** - purpose and audience
- **UX design** - how are you going to organise and present info
- **Copy** - text, what are you going to say
- **Design** - detailed layout, pretty pictures, colours etc
- **Build** - skills from this course
- **Test** - get customers or friends to help
- **Make changes** - inevitable
- **Go live** - fun and scary at the same time
- **Market and promote** - really hard work!!!!

Split brain



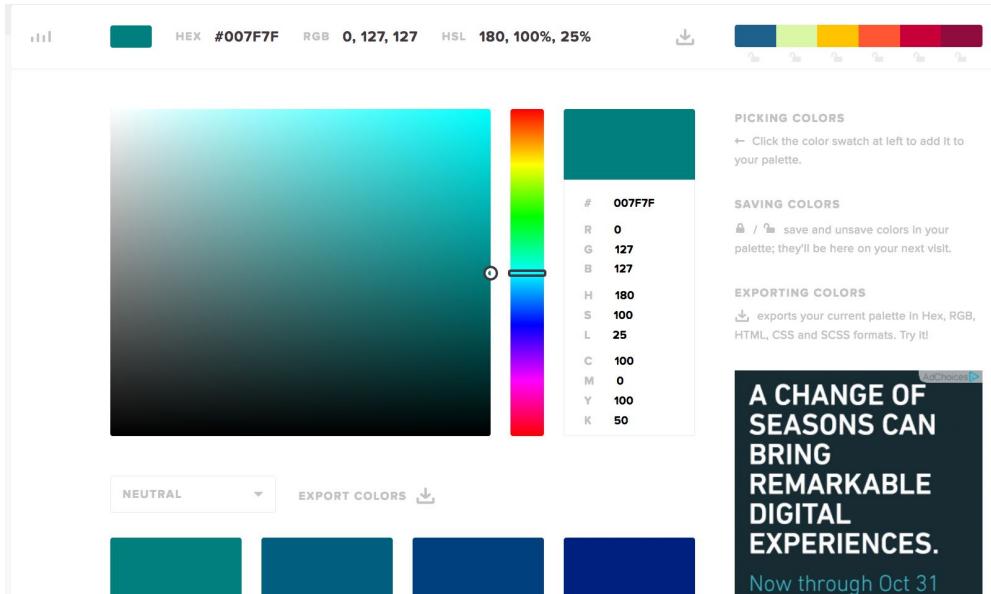
Top tips

Plan on paper with a pencil - going back to basics really helps you think creatively, you can make it electronic and look cool later

Test your thoughts with others - speak your plans out loud, listen to what they say, try and test with your target audience

Think about your MVP - minimal viable product, projects that try and do everything all at once are likely to fail

Picking a colour scheme



<https://htmlcolorcodes.com/color-picker/>

<https://color.adobe.com/explore/>

Exercise

DevelopMe_

Begin your own project

- Develop a site for a business or your own CV
- Plan your content and copy, *before* themes
 - Refer back to weeks 1 and 2
 - It might take a while
 - Don't worry if you don't know how to get WordPress to do it yet
- Then pick a suitable theme to develop
 - More on customising themes tomorrow

DAY TWO

DevelopMe_

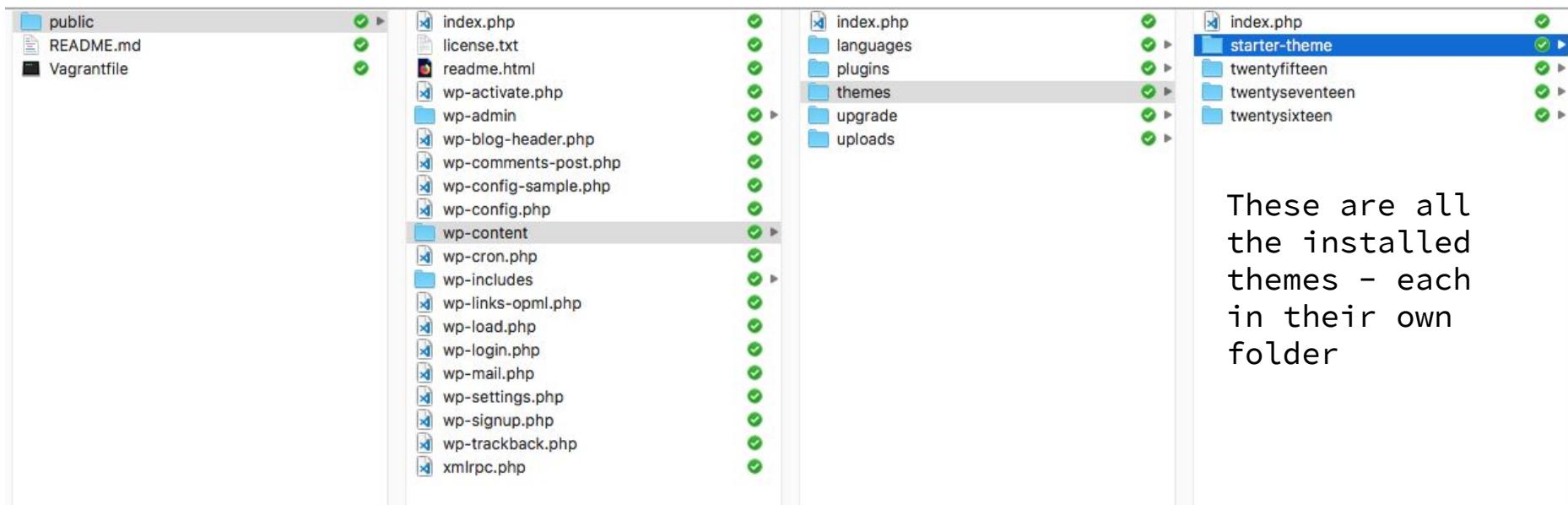
Theming

10,000+ themes are great, but they never quite do exactly what we want.

Let's learn how themes work and ways to alter them

Theme file basics

Recap – where theme files live



These are all
the installed
themes - each
in their own
folder

Themes are a collection of files

- PHP & HTML
- CSS
- Javascript
- Assets such as images or icons

Twenty Sixteen theme

 404.php	✓
 archive.php	✓
 comments.php	✓
 css	✓ ►
 error_log	✓
 footer.php	✓
 functions.php	✓
 genericons	✓ ►
 header.php	✓
 image.php	✓
 inc	✓ ►
 index.php	✓
 js	✓ ►
 page.php	✓
 readme.txt	✓
 rtl.css	✓
 screenshot.png	✓
 search.php	✓
 searchform.php	✓
 sidebar-content-bottom.php	✓
 sidebar.php	✓
 single.php	✓
 style.css	✓
 template-parts	✓ ►

Minimum required theme files

1. style.css
2. index.php

style.css

Doesn't need to have any CSS in it!

It's there to tell WordPress the theme exists and a few bits about it, like its name

It's a way of documenting what the theme is about.

Your style.css starts with a comment block with these key details in it

style.css comment block

```
/*
 * Theme Name: Starter theme
 * Theme URI: https://basictheme.com/
 * Author: A. N Other
 * Author URI: https://another.com/
 * Description: A very simple WordPress theme.
 * Version: 1.0
 */
```

`index.php`

A file that renders the page's content

Usually makes calls to WordPress functions or other files – more to follow

```
1  <?php
2   get_header();
3   if (have_posts()) :
4       while (have_posts()) : the_post();
5           ?>
6           <h2><a href=<?php echo the_permalink(); ?>><?php the_title(); ?></a></h2>
7           <em>Published on <?php the_time(); ?> by <?php the_author(); ?></em>
8           <?php the_content(); ?>
9           <?php comments_template(); ?>
10          <?php
11      endwhile;
12  else :
13      ?>
14      <h2>No Posts Found</h2>
15      <p>Sorry, there are no posts yet.</p>
16  <?php
17 endif;
18 get_sidebar();
19 get_footer();
20 ?>
```

Dashboard

Posts

Media

Pages

Comments

Appearance

Themes

Customise

Editor

Plugins 1

Users

Tools

Settings

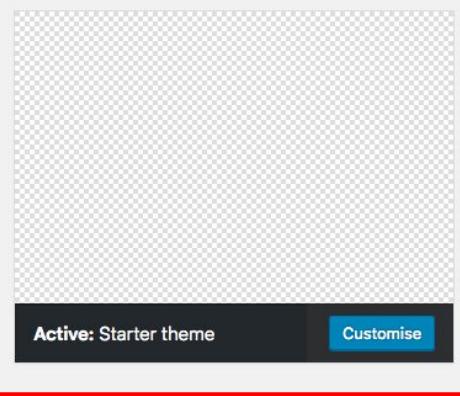
Collapse menu

Themes 4

Add New

Search installed themes...

New theme activated. Visit site



New version available. [Update now](#)

by 2015

Description
A clean, modern, and minimalist theme.

About
Twenty Fifteen is a clean, modern, and minimalist theme.

ABOUT
Our 2015 default theme is clean, modern, and minimalist. Twenty Fifteen is simple, straightforward (especially in its mobile view), and suitable for personal sites, and suitable for multiple categories.

The Myth of the Pier

Arrived after the fashion of the Middle Ages, they have again their shoulders a twisted pair of wings, but what especially distinguishes them is the way in which they are joined together, and the ways in which they make of them. These wings were made of fibroconcrete, and were few, big, and round; some long, some strong; others curved, some ribbed, and some having insulation wings upon them.

Twenty Fifteen

New version available. [Update now](#)

by 2017

TWENTY SEVENTEEN
Bring your business site to life

Twenty Seventeen

New version available. [Update now](#)

by 2016

Come Sail Away with Me

Individually, we are one drop. Together, we are an ocean.

July 18, 2016 Adventure

Twenty Sixteen



Add New Theme

Test site

Just another WordPress site

Hello world!

Published on 2:30 pm by admin

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

- Search for:

. Pages

- [Sample Page](#)

. Archives

- [July 2018](#)

. Categories

- [Uncategorised](#) (1)

. Meta

- [Log in](#)

A word of caution!

I wouldn't try and create your own theme from scratch in this way

There are lots of starter themes out there you can use as a starting point

More on this later...

Exercise

DevelopMe_

Make your own theme

1. Create a folder for your theme in the themes folder - call it starter-theme
2. Create style.css and copy the code in
3. Create index.php and copy the code in
4. In the admin screen go to Appearance -> Themes
5. Activate your new theme
6. Check it's working

Partials

DevelopMe_

Good themes make use of partials

Any good code base will be made up of lots of reusable parts – the premise of functions

Themes are no different

Most themes will call on lots of different partials (files) to render a complete page

Many of these partials can be reused in lots of different circumstances

OLI'S WEBSITE

MORE than just another WordPress site

Home About Contact

index.php

header.php

27TH FEBRUARY 2017 BY OLI_ADMIN

Hello world!

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

Search ...



ARCHIVES

February 2017

META

Site Admin

Log out

Proudly powered by WordPress

footer.php

Twenty Sixteen theme

 404.php	✓
 archive.php	✓
 comments.php	✓
 css	✓
 error_log	►
 footer.php	✓
 functions.php	✓
 genericons	►
 header.php	✓
 image.php	✓
 inc	►
 index.php	✓
 js	►
 page.php	✓
 readme.txt	✓
 rtl.css	✓
 screenshot.png	✓
 search.php	✓
 searchform.php	✓
 sidebar-content-bottom.php	✓
 sidebar.php	✓
 single.php	✓
 style.css	✓
 template-parts	►

How to call a partial

We make use of an in-built WP function called:

```
get_template_part( string $slug, string $name = null )
```

The file name, can be
a path relative to the
root of your theme or
just a file name

Optional parameter.
Allows us to call a
specialised part -
examples follow

https://developer.wordpress.org/reference/functions/get_template_part/

Example 1

Call a file in /template-parts called content.php

```
get_template_part( 'template-parts/content' );
```

We don't need to add the file extension eg .php

WordPress already knows it will be a .php file

404.php	✓	biography.php	✓
archive.php	✓	content-none.php	✓
comments.php	✓	content-page.php	✓
css	✓ ▶	content-search.php	✓
footer.php	✓	content-single.php	✓
functions.php	✓	content.php	✓
genericons	✓ ▶		
header.php	✓		
image.php	✓		
inc	✓ ▶		
index.php	✓		
js	✓ ▶		
page.php	✓		
readme.txt	✓		
rtl.css	✓		
screenshot.png	✓		
search.php	✓		
searchform.php	✓		
sidebar-content-bottom.php	✓		
sidebar.php	✓		
single.php	✓		
style.css	✓		
template-parts	✓ ▶		

Example 2

Call a file in the theme's /template-parts folder called content-page.php

```
get_template_part( 'template-parts/content', 'page' );
```

The function puts the two variables together with a hyphen in between

It automagically creates the right file name eg
content-page.php

404.php	✓	biography.php	✓
archive.php	✓	content-none.php	✓
comments.php	✓	content-page.php	✓
css	✓ ▶	content-search.php	✓
footer.php	✓	content-single.php	✓
functions.php	✓	content.php	✓
genericons	✓ ▶		
header.php	✓		
image.php	✓		
inc	✓ ▶		
index.php	✓		
js	✓ ▶		
page.php	✓		
readme.txt	✓		
rtl.css	✓		
screenshot.png	✓		
search.php	✓		
searchform.php	✓		
sidebar-content-bottom.php	✓		
sidebar.php	✓		
single.php	✓		
style.css	✓		
template-parts	✓ ▶		

Why is this useful

We can keep standard naming conventions for our files

We can detect the content type and automagically select the correct partial for that content type

```
| get_template_part( 'template-parts/content', get_post_format() );
```

In-built WP functions

WP functions

WordPress is full of functions we can make use of

Part of being a good developer is researching what functions exist and figuring out how to make use of them

Someone will likely have done the hard work for you
- reuse it and bask in the glory!

We've already seen some examples

```
get_template_part();
```

```
get_post_format();
```

A full reference of WordPress functions:

<https://developer.wordpress.org/reference/functions>

Special functions that output common partials

get_header();	--> header.php
comments_template();	--> comments.php
get_footer();	--> footer.php
get_template_part('content');	--> content.php

index.php ×

```
1  <?php
2  /**
3   * The main template file
4   *
5   * This is the most generic template file in a WordPress theme
6   * and one of the two required files for a theme (the other being style.css).
7   * It is used to display a page when nothing more specific matches a query.
8   * E.g., it puts together the home page when no home.php file exists.
9   *
10  * @link https://codex.wordpress.org/Template\_Hierarchy
11  *
12  * @package WordPress
13  * @subpackage Twenty_Sixteen
14  * @since Twenty Sixteen 1.0
15  */
16
17  get_header(); ?>
18
19  <div id="primary" class="content-area">
20      <main id="main" class="site-main" role="main">
21
22          <?php if ( have_posts() ) : ?>
23
24              <?php if ( is_home() && ! is_front_page() ) : ?>
25                  <header>
26                      <h1 class="page-title screen-reader-text"><?php single_post_title(); ?></h1>
27                  </header>
28              <?php endif; ?>
29
30              <?php
31                  // Start the loop.
32                  while ( have_posts() ) : the_post();
33          |
```

Exercise

DevelopMe_

Investigate some functions

1. Active twentysixteen theme
2. Locate page.php
3. Comment out the call to `get_header();` function
4. See what happens
5. Uncomment out the call so the file is as it was

Template hierarchy -how WP knows which files to load

Template hierarchy

With so many files in a WordPress theme, how does WordPress know where to start?

eg which file should it load first

It uses the template hierarchy:

<https://developer.wordpress.org/themes/basics/template-hierarchy>

and <https://wphierarchy.com>

The template hierarchy is a bunch of rules

In-built to WP are a set of **rules** to figure out what file (template) in your theme it should use to render your content as a starting point

These rules are based on the **content type**, content **meta-data** and the **slug** the user wants to view in the front-end

It will combine these 3 factors in different ways to generate possible file names

Outline of the rules

If WP finds a file that matches a very specific naming convention it is looking for, **it stops.**

If doesn't find the file, it looks at the next option.

The next option will be more generic. And so on.

Essentially we have **fall-back options**, and eventually result in a default option: index.php

Our basic starter theme

Our basic starter theme had style.css and index.php.

Now we know why it only needed index.php
index.php is the default fallback option for displaying everything whatever the content type, slug or the content meta-data

VISUALIZE THE WORDPRESS TEMPLATE HIERARCHY

with ↓ from WPSHOUT



For oEmbeds: embed-{post-type}-{post_format}.php → embed-{post-type}.php → embed.php → wp-includes/theme-compat/embed.php

Primary Template Secondary Template Variable Template Page Type

Menu

How to use the diagram

Work LEFT -> RIGHT

Select the content type from the leftmost column
and follow the lines

The right most file names are the most generic /
fallback options

Interpreting the diagram

Some parts of the diagram use variables to help you decipher the file name



Replace \$slug with
the actual slug in
question

Eg page-about.php

Replace \$id with
the id of the post
being viewed

Eg page-2.php

Some of the most used variables in the diagram

`$slug` -> end of the URL being visited

`$posttype` -> a content type name such ‘post’ or ‘page’

`$id` -> the id of the post in the database

There are a few others

Go to <https://wphierarchy.com> and click on the boxes to read the documentation

An example

We want to create a template in our starter theme to present all the posts for given author

The URL would look like:

192.168.33.10/author/admin

Some of the **content meta-data** would be the author's name = "admin" and id = 1

An example

1. Does the file author-admin.php exist? No...
2. Does the file author-1.php exist? No...
3. Does the file author.php exist? No...
4. Does the file archive.php exist? No...
5. Does the file index.php exist? Yes!

"What template file is this?!"

“What The File” plugin is great for working out which theme files are *actually* being used to build a page.



single.php

Template Parts

Powered by Never5

BACON!

Give me some more.

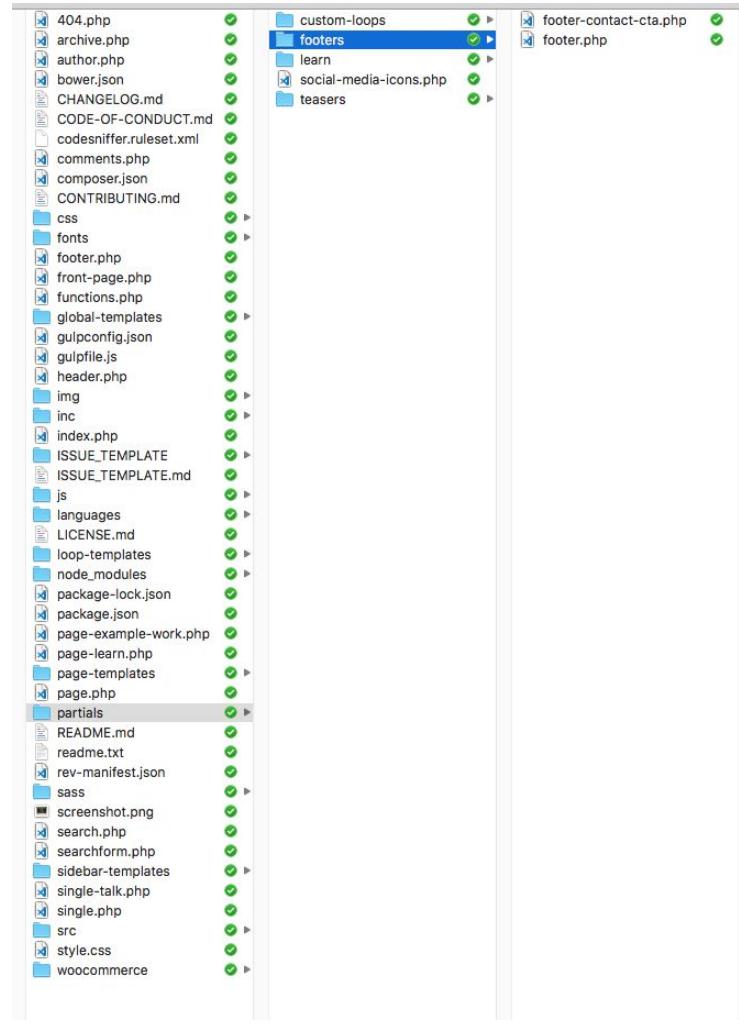
Exercise

DevelopMe_

Identify About template file

1. Use the template hierarchy to make an educated guess about the file name your About page is using in the TwentySixteen theme
2. Use What the File to verify if you are right or not

Tips on finding the file now
you know its name



Woah, there's a lot of files in this theme!

- A theme you're unfamiliar with could be quite complex and have a bespoke design pattern
- There might be lots of folders and sub-folder
- You might have got the filename right, but where the hell is it so you can edit it?

Tips on locating the right file in a complex theme or WP build

1. Use What The File to confirm the file name
2. Navigate the theme directory and use your eyes click around to find it
3. Search in the theme directory for unique looking CSS classes or ids or HTML snippets
4. Check plugins directories

Starter themes - making your own theme from scratch

Understrap

- Well commented theme to help you get started
- Includes Bootstrap 4
- Comes ready with SASS
- Has a lot of other gulp processes ready installed
- Good for mobile first

<https://understrap.com/>

Bones theme

- Mobile first design
- CSS is all set up using SASS
- Lots of comments and guidance to help you make great themes
- You don't need to make a child theme of this

<https://themble.com/bones/>

<https://github.com/squibbleFish/theme-bones>

Child themes

DevelopMe_

Creating a child theme is a technique for
customising / changing an existing theme
in a safe, future-proof manner

What is a child theme?

A child theme is a theme that is linked to another theme - it's parent

A child theme inherits all the files from the parent theme

And allows you override any file, or add a new one by including it in the child theme

Child themes and template hierarchy rules

A child theme **adds new rules** for WP to follow

If there is a child theme activated, WP will first look in the child theme directory for the most specific file name

If it doesn't find it there, it next looks for the same file name in the parent directory

Then it looks at the next possible file name, first in the child theme and then the parent theme.

Our example

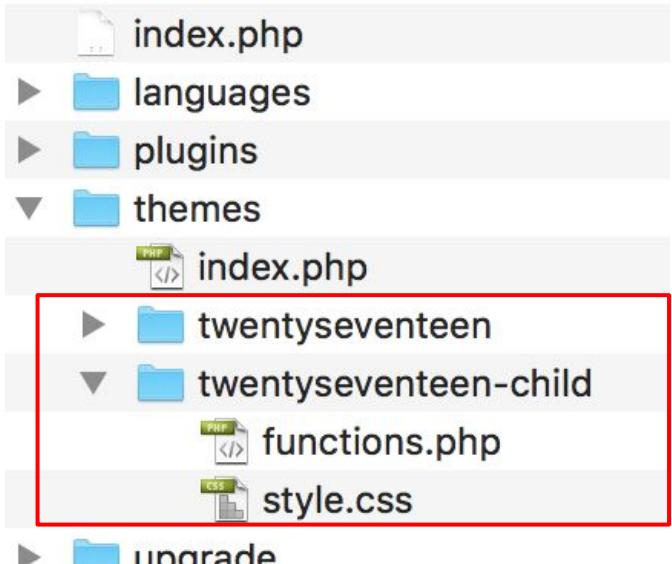
1. Does the file author-admin.php exist in the child? No...
2. Does the file author-admin.php exist in the parent? No...
3. Does the file author-1.php exist in the child? No...
4. Does the file author-1.php exist in the parent? No...
5. Does the file author.php exist in the child? No...
6. Does the file author.php exist in the parent? No...

etc etc...

Creating a child theme

What bits make a child theme?

1. Parent theme
2. Child theme directory
3. Stylesheet, must be **style.css**, in child theme folder
4. **functions.php** file in child theme folder



Comparing our starter theme files with a child theme's files

	Essential / required files				
	Theme folder	Parent theme	style.css	index.php	functions.php
Starter theme	✓	✗	✓	✓	✗
Child theme	✓	✓	✓	✗	✓

Theme folder

It is recommended that the name of your child theme directory ends with **-child** for clarity

Eg **parentthemename-child**

Child theme directory names should have no spaces, as this may result in errors

style.css - setting it up for child themes

The first thing in your style.css is a comment block

The comment block tells WordPress which theme is your parent theme

WordPress is magic and knows that a comment block at the top of this file is important and means something

style.css - for child themes

```
/*
Theme Name: My Child Theme
Author: John Doe
Description: This is the first theme created by John a
child theme of WordPress' Twenty Seventeen theme
Template: twentyseventeen
*/
```

`functions.php`

`functions.php` is necessary to enqueue (load) styles correctly

It contains a few lines of PHP that tells WordPress what stylesheet to load

functions.php

```
<?php
add_action( 'wp_enqueue_scripts', 'theme_enqueue_styles');

function theme_enqueue_styles() {
    wp_enqueue_style( 'parent-style', get_template_directory_uri() . '/style.css' );
}
```

WordPress website has documentation on child themes

[http://codex.wordpress.org/Child Themes](http://codex.wordpress.org/Child_Themes)

It is also a great resource for anything you want to do with WordPress, as is the Support Forum.

Exercise

DevelopMe_

Create a child theme for twentysixteen

1. Create the required files
2. Change the theme name, so it displays differently in the admin interface
3. Activate the child theme in WordPress admin panel

Git

DevelopMe_

What we **DON'T** put into git

- All of the WordPress core files
 - They are version controlled by WordPress central – it's a waste of time
 - This includes our media files
- The database
- Parent plugins or themes

What we **DO** put into git

- Child themes
- Child plugins (it's way harder to make child plugins by the way!)

Exercise

DevelopMe_

Put your child theme into git

1. Initiate your git repo
2. Put 2 files in the repo only, not the directory
style.css and functions.php

Refer to week 5 notes, hopefully you made a git cheatsheet.

If you didn't now is the time to make one!

Overriding the parent theme

How to override a parent theme file

1. Locate the right file in the parent directory
2. **Copy** the file over to the child folder,
maintaining the **same folder structure**.
3. **Rename** file if necessary to make it specific and
only used in the circumstances you want
4. Make your changes to the file in the **child theme**

Child themes should be slim

- Only copy the files you need to change / edit
- Your child theme should be as slim as possible
- More overriding means more work = slow websites

Exercise 1

Customise About page with some text **after the title**

1. Figure out which template/s are being used in the parent theme for your About page in TwentySixteen
2. Copy it to your child theme
3. Rename it so it only applies to your About page
4. Change the copied file in your child theme by adding some text after the page title

Exercise 2

Customise homepage, add some custom text after the title

1. Figure out which template/s are being used for your home page in the parent theme
2. Copy that file to your child theme
3. Rename it so it only works on your home page / front page
4. Make some changes - again add some text in after the title

How do I know if my code is right?

Four questions to ask yourself...

1. Does it work?
2. Are there any unintended consequences? **TEST!!**
 - Are the content types relevant?
3. Is it understandable to someone else?
 - Do variables etc have meaningful names?
 - Do I need to comment stuff?
4. Did I pick a simple solution?
 - Can someone else maintain (make changes) to this code six months later when I'm on holiday

Customising styling

Reminder of stylesheet order

```
<html>
  <head>
    <link href='/wp-content/themes/twentysixteen/style.css' type='text/css' />
    <link href='/wp-content/themes/twentysixteen-child/style.css' />
  </head>
  <body>
  </body>
</html>
```

Parent stylesheet loaded first

Child stylesheet loaded next

Child overrides parent

Changes can be made in the child theme's stylesheet, to either override or supplement the parent theme's styling.

Picking the right selectors

A lot of the same classes and HTML structure is used in posts and pages

WordPress inserts lots classes in the body tag to help us specifically target different post types or even templates

Exercise

DevelopMe_

Change home page text colour

1. Change the text colour of the page content to red

```
color: red;
```

2. Now make sure it is only changing on the home page, not all pages

Page templates (global templates)

Page templates

In the admin interface you can select different templates for pages to use

This only applies to pages, not posts as well

<https://developer.wordpress.org/themes/template-files-section/page-template-files/>

 Revisions: 44 [Browse](#)

 Published on: 15 Apr 2017 @ 20:13

[Edit](#)

 Readability: Needs improvement

 SEO: Unavailable

[Move to Bin](#)

[Update](#)

Page Attributes

Parent

(no parent)

Template

About Us Page

Default Template

About Us Page

Careers Page

Contact Us Page

Industries Page

Latest News Page

Page with Header Image

Slider Revolution Blank Template

Featured Image

I well-respected GRP
id abroad.n the UK.

nclosures, Gas Cabinets,
within the industrial and
onal GRP manufacturing

our worldwide customers
Telecom, Electrical and

Page templates not template files

In the last section we learnt about template files

These templates are not the same!

We are talking about page templates (sometimes called global templates)

Why create page (global) templates?

To allow your clients (content editors) to select different layouts themselves

Up until now, we have been learning how to make changes to templates in the code

But clients are unlikely to be able to do this themselves - they will want a solution in the admin interface

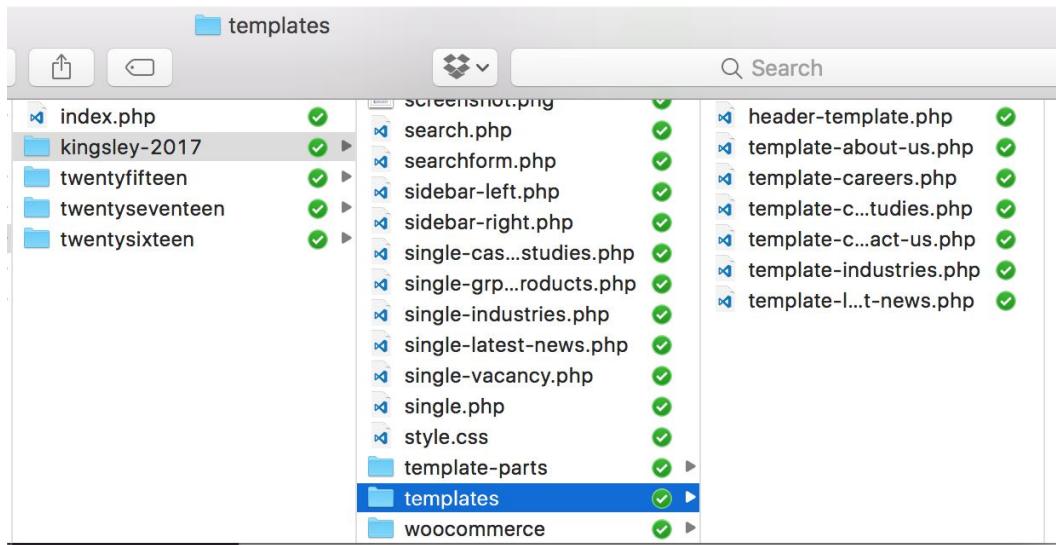
Defining our own templates

To create a global template, write an opening PHP comment at the top of the file that states the template's name.

```
<?php /* Template Name: Example Template */ ?>
```

Conventions

- Make sure the template name is understandable
- Put all of these kinds of templates in a folder called /templates



Exercise

DevelopMe_

Create a page template for ‘The team’

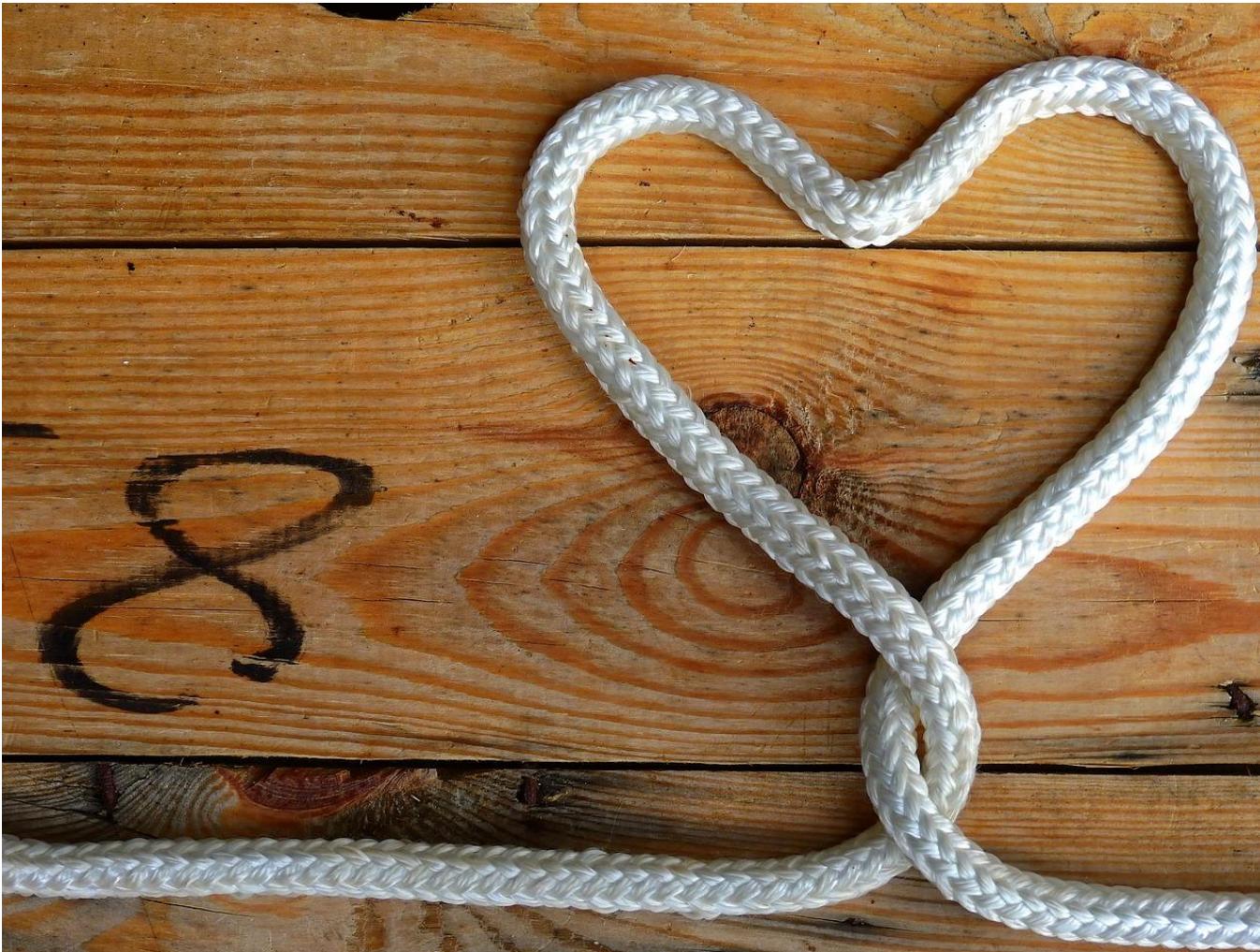
- Create a page template called “Team Page”
- Set the team page to use it
- Make the background colour for the template green

DAY THREE

DevelopMe_

The Loop

DevelopMe_



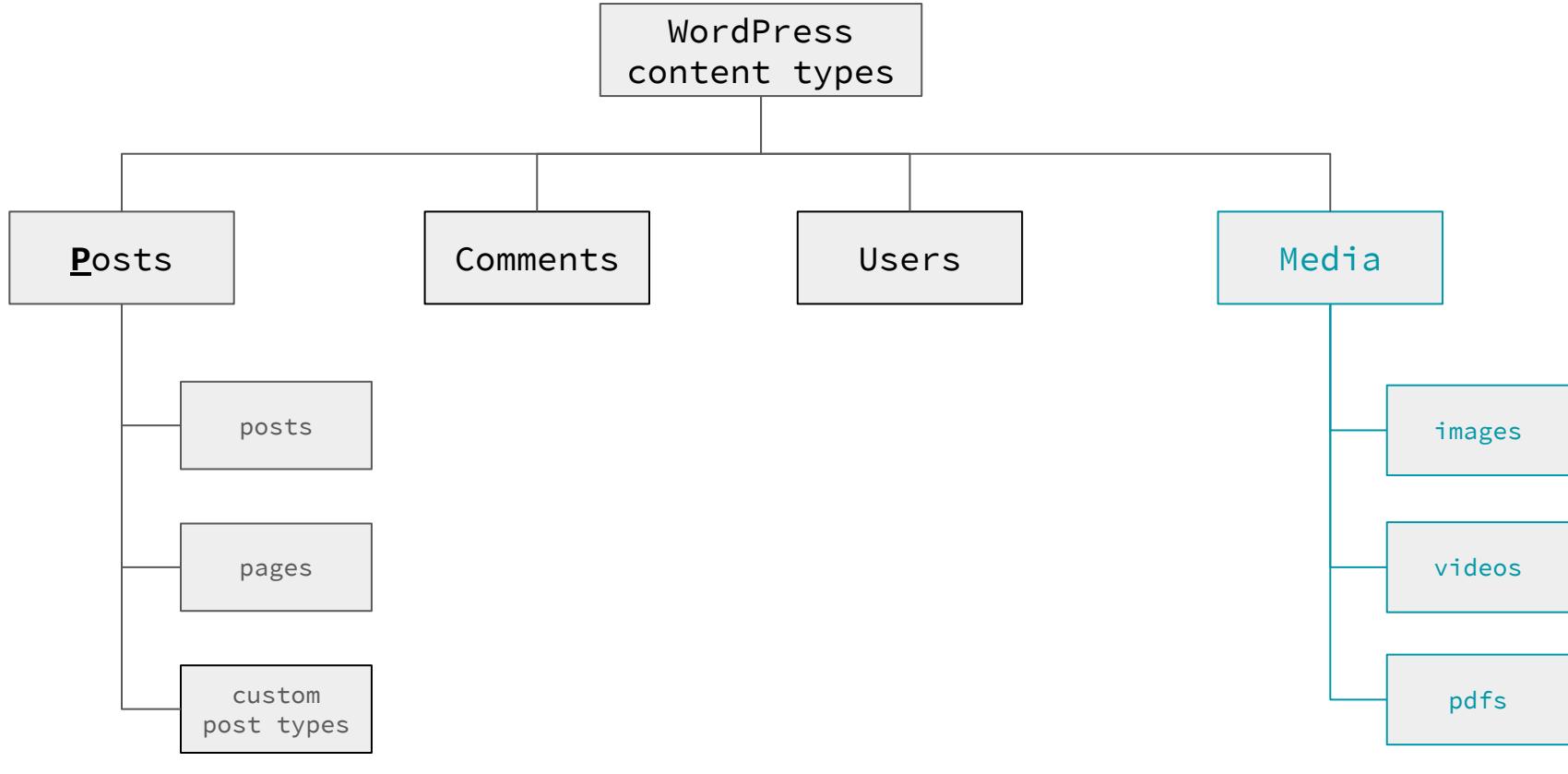
The Loop

The Loop is PHP code used to display Posts.

Using The Loop, WordPress processes each Post to be displayed on the current page.

Any code in the Loop (HTML/PHP) will be processed on each Post.

Note the capital 'P', we are talking about posts AND pages AND CPTs



KEY:

Saved in the
database

Saved on the
server

The Loop

Depending on the arguments it receives, it may display one or many Posts

It's a *really* fundamental part of the WordPress core

[https://codex.wordpress.org/The Loop](https://codex.wordpress.org/The_Loop)

```
// Start the Loop
while ( have_posts() ) : the_post();

    get_template_part( 'template-parts/content', get_post_format() );

// End the loop
endwhile;
```

1. While there are posts to be displayed, execute the following lines

```
// Start the Loop
while ( have_posts() ) : the_post();
```

get_template_part('template-parts/content', get_post_format());

```
// End the loop
endwhile;
```

2. Put all the data relating to the next post in this object

3. For each post, execute this code

4. Go back to the loop start and check the conditions again

Displaying post content

There are over 100 tags that will *only* work inside the Loop

`the_title();`

`the_content();`

`the_category();`

[https://codex.wordpress.org/Template Tags](https://codex.wordpress.org/Template_Tags)

Exercise

DevelopMe_

Understanding the loop

1. Take a look at the TwentySixteen single.php
2. Identify where the body (all the text) of the post is being drawn in
3. Remove it from the template and see what happens
4. Then put it back

Making our own loops

DevelopMe_

Why would we want to make our own loop?

- You may want to display some blog titles inside a page (loop within the loop)
- You might want to be selective about which blog posts you are pulling out (odd numbered posts, posts written before a specific date)

Making our own post queries

`have_posts()` actually calls `$wp_query->have_posts()`

If we want to make our own post queries then we can make use of `$wp_query` ourselves

https://codex.wordpress.org/Class_Reference/WP_Query

Making our own post queries

```
$query_args = array(  
    'category_name' => 'employer-voice',  
    'post_type' => 'post',  
    'posts_per_page' => 10,  
    'orderby' => 'rand'  
) ;  
  
$result = new WP_Query( $query_args ) ;
```

POSTED MARCH 13, 2012 • TAGGED: QUERY

WP_Query Arguments

58 SHARES



Here's two tutorials on using these query arguments:

- [Customizing the WordPress Query](#) – using pre_get_posts for the main query
- [Custom WordPress Queries](#) – For generating custom queries

```
1 <?php
2 /**
3 * WordPress Query Comprehensive Reference
4 * Compiled by luetkemj - luetkemj.com
5 *
6 * CODEX: http://codex.wordpress.org/Class_Reference/WP_Query
7 * Source: http://core.trac.wordpress.org/browser/tags/3.3.1/wp-includes/query.php
8 */
9
10 $args = array(
11
12 /////Author Parameters - Show posts associated with certain author.
13 'author' => 1,2,3,                                // (int) - use author id [use minus (-) to exclude author]
14 'author_name' => 'luetkemj',                      // (string) - use 'user_nicename' (NOT name)
15
16 /////Category Parameters - Show posts associated with certain categories.
17 'cat' => 5, // (int) - use category id.
18 'category_name' => 'staff', 'news',                // (string) - use category slug (NOT name).
19 'category_and' => array( 2, 6 ),                  // (array) - use category id.
20 'category_in' => array( 2, 6 ),                  // (array) - use category id.
21 'category_not_in' => array( 2, 6 ),                // (array) - use category id.
22
23 /////Tag Parameters - Show posts associated with certain tags.
24 'tag' => 'cooking',                               // (string) - use tag slug.
25 'tag_id' => 5,                                    // (int) - use tag id.
26 'tag_and' => array( 2, 6 ),                      // (array) - use tag ids.
27 'tag_in' => array( 2, 6 ),                      // (array) - use tag ids.
28 'tag_not_in' => array( 2, 6 ),                   // (array) - use tag ids.
29 'tag_slug_and' => array( 'red', 'blue' ),        // (array) - use tag slugs.
30 'tag_slug_in' => array( 'red', 'blue' ),          // (array) - use tag slugs.
31
32 /////Taxonomy Parameters - Show posts associated with certain taxonomy.
33 //Important Note: tax_query takes an array of tax query arguments arrays (it takes an array of arrays)
34 //This construct allows you to query multiple taxonomies by using the relation parameter in the
35 'tax_query' => array(                           // (array) - use taxonomy parameters (available with
```

Outputting query results

```
while ( $result->have_posts() ) : $result->the_post();  
?>  
    <h1><?php the_title(); ?></h1>  
  
    <div class="entry-content">  
        <?php  
            the_content(); ?>  
    </div>  
<?php  
// End the loop  
endwhile;  
...
```

Resetting the query

At the end of the while loop we need to add this code to reset the query and allow our original loop to continue

```
wp_reset_query();
```

Outputting query results

```
while ( $result->have_posts() ) : $result->the_post(); ?>
    <h1><?php the_title(); ?></h1>

    <div class="entry-content">
        <?php the_content(); ?>
    </div>

    // End the loop
    <?php endwhile;
    wp_reset_query();
wp_reset_query();

?>
```

🐘 talks-future.php

```
1  <?php
2
3  $query_args = array(
4      'post_type' => 'talk',
5      'meta_key'   => 'date',
6      'orderby'    => 'meta_value_num',
7      'order'      => 'ASC'
8  );
9
10 $the_query = new WP_Query( $query_args );
11
12 // The Loop
13 if ( $the_query->have_posts() ) { ?>
14     <section class="talks-teasers">
15
16         <h2>Listen to a talk</h2>
17         <p>My next talks will be:</p>
18
19         <?php
20             while( $the_query->have_posts() ) : $the_query->the_post(); ?>
21
22             <?php get_template_part( 'partials/teasers/talks-future' ); ?>
23
24         <?php endwhile; // End the loop ?>
25
26     </section>
27
28 <?php
29 wp_reset_query();
30 } else {
31     //get_template_part( 'template-parts/content', 'none' );
32 } ?>
```

Hooks: actions and filters

WordPress loads in order

- Dependencies can be managed and your content is presented in the right order
- For example WP needs to be loaded and ‘ready to receive’ before you can call a function to pull data out of the database
- The header should be loaded before the footer
- The WP core manages this all for us

A rough idea of the loading order - much is missed out!

```
init();  
wp_loaded();  
get_header();  
wp_enqueue_scripts();  
loop_start();  
the_post();  
loop_end();  
get_footer();
```

Hooks

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What are hooks?

Hooks are pre-defined places in that running order where you can add your own code

Using them we can change the default behaviour of WP



Hooks are like doors

- WordPress is such a successful CMS because it allows developers to customise it's inner workings with ease
- The hooks are like doorways into the code and are scattered liberally throughout
- We can access a lot of core code and alter it that otherwise could be overridden with updates

An interesting read if you want to know more about hooks firing order

<http://rachievee.com/the-wordpress-hooks-firing-sequence/>

Actions and filters

There are two types of hooks:

1. **actions** (also called “action functions”)
2. **filters** (also called “filter functions”)

Filters *modify* existing output, while actions can *run* some code when something happens.

Action hook

Actions

These run code at particular events / times in WP

For example:

- When a post is published by an admin
 - Send me an email
- Before the footer is rendered
 - Add an image

Adding an action hook

There are two parts, both go in functions.php:

1. The function definition
2. The hook that tells the function when to run

You need both parts

Actions

1. Create a function that does something

```
function devme_action_example() {  
    echo "I was here";  
}
```

Actions

2. Hook the function into an action, so that WordPress knows when to run it

```
add_action('wp_footer', 'devme_action_example');
```

Both parts of the action code

```
function devme_action_example() {  
    echo "I was here.";  
}  
  
add_action('wp_footer', 'devme_action_example');
```

Another example

Remember your child theme?

*The only child theme file required is **style.css**, but **functions.php** is necessary to enqueue styles correctly.*

```
<?php  
add_action( 'wp_enqueue_scripts', 'theme_enqueue_styles');  
  
function theme_enqueue_styles() {  
    wp_enqueue_style( 'parent-style', get_template_directory_uri() . '/style.css'  
);  
}
```

Action hooks

A complete list of hooks:

[https://codex.wordpress.org/Plugin API/Action Reference](https://codex.wordpress.org/Plugin_API/Action_Reference)

Filter hook

Filters

Functions that WP passes data through to change it before something is done with it

For example

- When the post title is displayed
 - Add the date to it
- When the author URL is output
 - Redirect it to LinkedIn

Filters

Same principle as actions, you need a function and a code line that add (or hooks) that function in somewhere

You need both parts

Filters

Filters must always be passed something to work with (a parameter) and should return something.

Otherwise how does it know what it is filtering?

Filters

```
add_filter ('the_title', 'filter_example');
```

```
function filter_example($title) {  
    return 'Hooked: '.$title;  
}
```

Exercise

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Experiment with the_title filter

Add the code from the previous slide (its below again)

What happens - any unintended/funny consequences?

```
add_filter ('the_title', 'filter_example');
```

```
function filter_example($title) {  
    return 'Hooked: '.$title;  
}
```

Advanced Custom Fields

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Advanced Custom Fields

Add extra content fields to the **backend** edit screens, essentially creating new fields in the database for the site administrator to use

Great for making templated content really quickly

<https://www.advancedcustomfields.com/>

The Strategy Distillery 8 0 + New View Page

Hi, Website Support

Status: Published Edit

Visibility: Public Edit

Revisions: 27 Browse

Published on: 28 May 2015 @ 14:42 Edit

SEO: Not available

Move to Bin Update

Page Attributes

Parent (no parent)

Template Team

Order 3

Need help? Use the Help tab above the screen title.

Clicky Goal Tracking

Clicky can track Goals for you too, [read the documentation here](#). To be able to track a goal on this post, you need to specify the goal ID here. Optionally, you can also provide the goal revenue.

Goal ID
Goal
Revenue

Featured Image

[Set featured image](#)

People

Name * Natalie Reed

Job Title * Founder & Strategist

Profile

Founder of The Strategy Distillery. Natalie has run strategy departments in agencies and undertaken brand strategy and innovation projects for many of the world's top multi-national companies. She has been a brand strategist for 19 years and prior to that held various marketing roles with Unilever and Diageo.

A truly unconventional thinker, and the originator of our unique innovation approach. It was developed from the continued frustration of regularly watching good concepts fail in focus groups and screeners; then a very similar idea be successfully launched by the competition. Never one to shy away from a challenge, Natalie knew there had to be a better way....so she set about building one. That was over 10 years ago.

Photo



User Natalie Reed

Name * Shelly Greenway

Job Title * Partner & Strategist

Profile

JOHNSON, WONDERS (formerly NESTLÉ FOODS), RECKITT BENCKISER and DARDONE. Her time spent there led Shelly to believe that how you build and research concepts is as important, if not more, than the ideas themselves. It was this belief that drove Shelly to be part of The Strategy Distillery.

Convinced by the importance of consumers in the innovation process, Shelly also believes that getting stakeholders to actively contribute at key stages is vital to the success of a project. She has developed new tools to reduce client's frustrations with the process, ensuring it runs smoothly, and that key movers and shakers in the organisation are highly engaged so they are firing on all cylinders.

Photo



User Shelly Greenway

Name * Jess Warren

Job Title * Strategy Consultant

BMW i3s eDrive 94Ah Range Extender

Permalink: <http://driveelectric.staging.wpengine.com/vehicles/bmw-i3s-range-extender-lease/> [Edit](#)

 [Classic Mode](#) [Frontend Editor](#)

Business price

£319

Business price number (for searching)

This field will not be displayed on the site for users to see. It is so the search will work when you order low to high, or high to low prices.

319



Business initial rental

1,914

Personal contract price

£383

Personal Initial rental

£2,298

Hire term

48 months

Miles per annum

8000



Total miles

32,000

NEDC Range

137 Miles

Maintenance Included

No



Why do we need ACF?

To avoid hardcoding info, hardcoded is bad, avoid whenever you can

Users (clients) want to manage content themselves without having to pay you again

To ensure pages are consistently styled

NOTE: ACF is not about creating contact forms, this is a different kind of input field

Advanced Custom Fields

To make it work you need to:

1. Install the plugin
2. Create the fields and assign them to display on the editing screen of the correct Post type
3. Edit the relevant template to display the information in the front-end



Dashboard

Posts

Media

Pages

Comments

Appearance

Plugins

Users

Tools

Settings

Custom Fields

Custom Fields

Export

Add-ons

Collapse menu

Edit Field Group

[Add New](#)

About email

Field Order	Field Label	Field Name	Field Type
1	Email address	email_address	Email
Field Label *	Email address		
This is the name which will appear on the EDIT page			
Field Name *	email_address		
Single word, no spaces. Underscores and dashes allowed			
Field Type *	Email		
Field Instructions Instructions for authors. Shown when submitting data			
Required?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Default Value	oli@oli.com		

Publish

Status: Publish

[Move to Bin](#)

Editing the template to display the ACF output

Creating the fields in the backend does not display them in the front end.

You must write some PHP so WordPress knows how to display the info that has been added.

ACF output inside the loop

To retrieve a field value as a variable, use the [get_field\(\)](#) function.

To display a field, use the [the_field\(\)](#).

They accept a string as an argument which is the field name of your ACF field.

Advanced Custom Fields output

If your "field label" is 'Email address' then
"field name" is `email_address` (look for the
underscores)

```
get_field('email_address')
```

Field Label * This is the name which will appear on the EDIT page	<input type="text" value="Email address"/>
Field Name * Single word, no spaces. Underscores and dashes allowed	<input type="text" value="email_address"/>

Advanced Custom Fields output

```
<?php  
if (get_field('field_name')) { ?>  
    <h2> <?php the_field('field_name') ?> </h2>  
<?php } ?>
```

Testing to see if the field has anything in it

Outputting the field's value

Exercise 1

A phone number field for an about page

1. Create a new set of fields in the ACF area
2. Create a field for a phone number
3. Set field to only display on the about page
4. Populate the field when editing the about page
5. Change the template (in the child theme) to output the fields' content

Exercise 2 (extension)

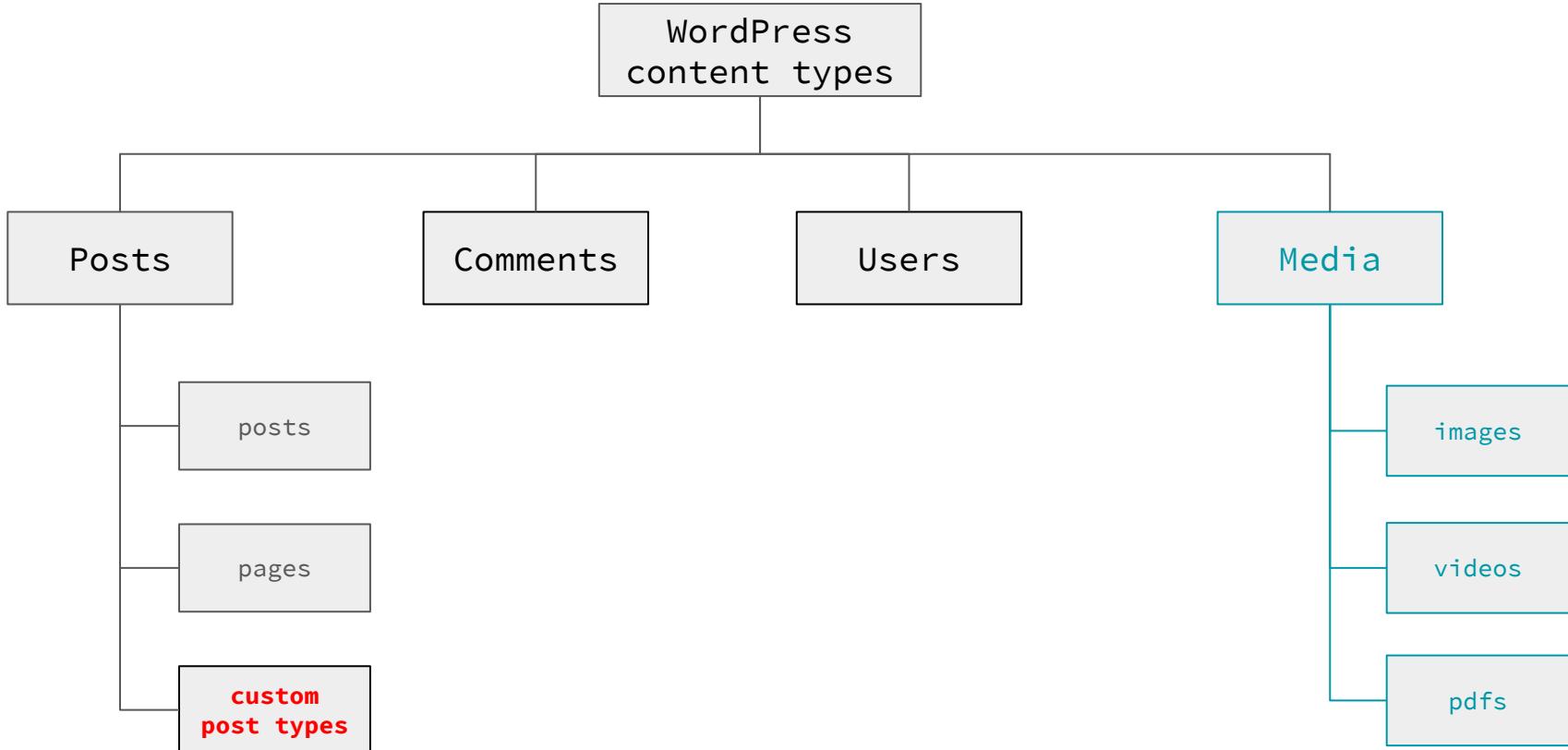
About page for a company

Add and display fields for:

- Company name
- Telephone number
- Contact email address
- Company logo
- Postal address

Custom Post Types

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https://codex.wordpress.org/Post_Types

KEY:

Saved in the
database

Saved on the
server

Custom post types (CPT)

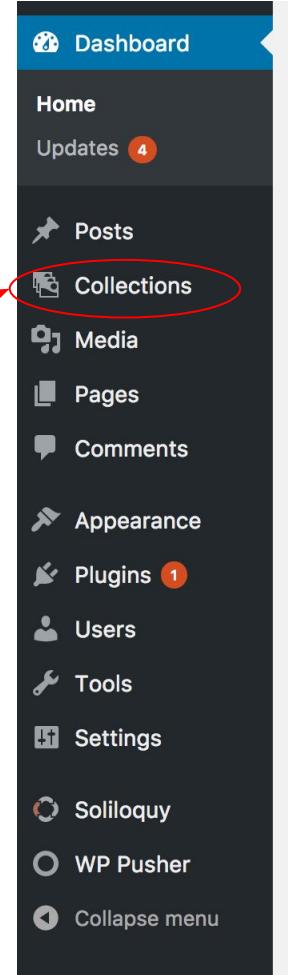
We can extend the built-in functionality of a Post to provide custom templated pages for other types of data

- Events
- Products
- Jobs
- Case studies

https://codex.wordpress.org/Post_Types#Custom_Post_Types

CPTs appear in the main menu

Here's one I made earlier



Why create CPTs?

- To group similar types of content together
- To separate it's display, eg into its own archive
- To make certain content types behave uniquely
- To help clients figure out where their content is and help template it so they always achieve consistent layouts

It's good info architecture

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Defined programmatically

The definitions are made in your functions.php file

There are plugins to help you do this, but we prefer the code way!

The four steps to defining your own CPT

1. Define naming or labels
2. Define the options (or the functionality bits)
3. Create the action hook
4. Update permalinks

1. Define naming

```
function create_custom_post_type_event() {  
    $labels = array(  
        'name' => 'Events',  
        'singular_name' => 'Event',  
        'add_new' => 'Add New',  
        'add_new_item' => 'Add New Event',  
        'edit_item' => 'Edit Event',  
        'new_item' => 'New Event',  
        'view_item' => 'View Event',  
        'search_items' => 'Search Events',  
        'not_found' => 'No events found',  
        'not_found_in_trash' => 'No events found in Trash',  
        'parent_item_colon' => '',  
    );  
  
    $args = array(  
        ...  
    );  
}
```

Give your function a
useful name – you'll need
it for the hook shortly

2. Define options

```
function create_custom_post_type_event() {
    ...
    $args = array(
        'label' => __('Events'),
        'labels' => $labels, // from array above
        'public' => true,
        'can_export' => true,
        'show_ui' => true,
        '_builtin' => false,
        'capability_type' => 'post',
        'menu_icon' => 'dashicons-calendar', // from this list
        'hierarchical' => false,
        'rewrite' => array( "slug" => "events" ), // defines URL base
        'supports'=> array('title', 'thumbnail', 'editor', 'excerpt'),
        'show_in_nav_menus' => true,
        'taxonomies' => array( 'event_category', 'post_tag') // own categories
    );
    register_post_type('events', $args); // used as internal identifier
}
```

Should be lowercase-with-no-spaces

3. Create the action hook

Define on initialisation of theme

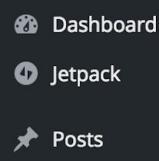
```
add_action('init','create_custom_post_type_event');
// define event custom post type

function create_custom_post_type_event() {
    // define post type here
    // what we did in steps 1 and 2
}
```

4. Update Permalinks

Refresh link handling

1. Go to: Settings > Permalinks
2. Don't make any changes
3. Click "Save Changes"



Pages

Comments

Case Studies

Appearance

Plugins

Users

Tools

Settings

General

Writing

Reading

Discussion

Media

Permalinks

Custom Fields

Collapse menu

Permalink Settings

WordPress offers you the ability to create a custom URL structure for your permalinks and archives. Custom URL structures can improve the aesthetics, usability, and forward-compatibility of your site. [number of tags are available](#), and here are some examples to get you started.

Common Settings

Plain <http://192.168.33.10/wordpress/?p=123>

Day and name <http://192.168.33.10/wordpress/2016/06/28/sample-post/>

Month and name <http://192.168.33.10/wordpress/2016/06/sample-post/>

Numeric <http://192.168.33.10/wordpress/archives/123>

Post name <http://192.168.33.10/wordpress/sample-post/>

Custom Structure <http://192.168.33.10/wordpress/%year%/%monthnum%/%day%/%postname%/>

Optional

If you like, you may enter custom structures for your category and tag URLs here. For example, using `topics` as your category base would make your category links like <http://192.168.33.10/wordpress/topics/uncategorised/>. If you leave these blank the defaults will be used.

Category base

Exercise

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Set up a Custom Post Type for case studies

1. Define the CPT programmatically
2. Update your permalinks
3. Create a case study and verify it works

Creating templates for custom post types



Custom Post Type templates

Single posts normally use the `single.php` template

To use a different template for your Custom Post Type
set up the template file as `single-{post type key}.php`

Note: this post type key comes from defining the CPT:
`register_post_type('case-studies', $args);`



single-case_study.php



Template Parts

Powered by Never5

Home

About

Sample Page

PAGES

Exercise

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Create a bespoke theme file for your Custom Post Type in your child theme

1. Create a file in your theme that only your CPT uses (test for unintended consequences)
2. Add a name field using ACF to your post type
3. Modify your template to output these fields

Exercise (extension)

Set up an archive page

1. Set your Custom Post Type to have an archive by adding
`'has_archive' => true` to \$args
2. Set up a list view of your case studies by building a new archive template for that Custom Post Type
3. Refresh links by saving Settings > Permalinks
4. Modify the archive page to show the image from the company logo field instead of the featured image

DAY FIVE

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Security

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Is WordPress secure?

Yes!

WordPress when it is installed is secure, the code itself is good.

However, if WordPress has bad plugins/custom code, or not updated it can be vulnerable.

Migration & going live

Ways to migrate your site

Making this as quick and easy as possible is a **really important** part of your workflow.

You can do it manually or use tools to help you.

Top tip: save time, make your life easier, get comfortable with some tools

Tools that can help with this

ManageWP -

<https://orion.managewp.com>

BackUp Buddy -

<https://ithemes.com/purchase/backupbuddy/>

Migrate DB -

<https://deliciousbrains.com/wp-migrate-db-pro/>

Steps for migrating your site

1. Copy your files and FTP them to the new server
2. Copy your database (the content) to the new database
3. Update wp-config to point to the new database

2. Copy database

To move content, you can either:

1. Export your existing content to an XML file with "Tools > Export" then import it into your new site with "Tools > Import"

2. Export (dump) the database, change the URLs and import it into new database on the web server

Create a database dump (export database)

1. `vagrant ssh`
2. Navigate to `cd /var/www/public/`
3. Dump the database with
`mysqldump -u {USER} -p {DATABASE} > wordpress.sql`

Find and replace the URLs

1. Open up the SQL file in your code editor and do a find and replace (this is the easiest way)
2. Replace the old url with your new one

Old url: 192.168.5.43

New url: www.opcan.co.uk

If you don't do this when you visit your new URL you will get redirected to your old URL

Find and replace in database using SQL

The wp_posts table has all the post, page and menu content. Any links refer back to the old site.

Use this SQL for EVERY table (a bit time consuming right?)

```
update TABLE_NAME set FIELD_NAME =  
replace(FIELD_NAME, 'find this string', 'replace  
found string with this string');
```

Adding the new SQL file

1. Upload the SQL file with your FTP client (or put it in your vagrant public folder)
2. SSH into the server with `ssh user@host`
3. Navigate to `cd /var/www/public/`
4. Import the data into the database with
`mysql -u {USER} -p {DATABASE} < wordpress.sql`

3. Update wp-config.php

Wp-config.php

Wp-config.php stores the database login credentials

You will need to change these so your new WordPress install knows about your new database

3. Update wp-config.php with new db credentials

```
// ** MySQL settings - You can get this info from your web host **
//
/** The name of the database for WordPress */
define('DB_NAME', 'database_name_here');

/** MySQL database username */
define('DB_USER', 'username_here');

/** MySQL database password */
define('DB_PASSWORD', 'password_here');

/** MySQL hostname */
define('DB_HOST', 'localhost');
```

Maintaining your site

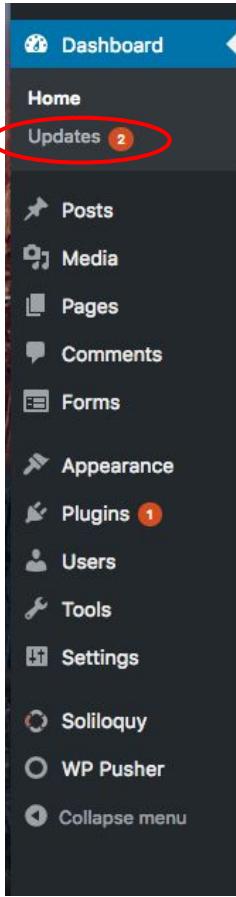
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Look after your site

If you owned a shop, it would need:

- cleaning
- the odd lick of paint/new carpet
- security upgrades
- a makeover every so often to keep it looking fresh and appealing

A website is no different, it also needs maintaining



Looking after your site

Check your site regularly for updates – look for the red circles

Update the wordpress core, themes and plugins

Get rid of plugins you're not using

Keep your content up to date especially links

Backing up

Make sure you back up regularly

You'll need a tool to help you (don't try and do it manually)

Plugins like BackUp Buddy or tools like WPManage are good

Continuing to learn

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Join a FREE WordPress group

Most major cities have their own WordPress meet-up group.

Have a look at

<https://www.meetup.com/pro/wordpress/> for more details

You can find the Bristol group here -

<https://wpbristol.co.uk/>

Attend a VERY CHEAP WordCamp

WordCamps are informal, community-organized events that are put together by WordPress users.

Tickets usually cost around £25 - £40 for a whole weekend including food - what a bargain!

<https://central.wordcamp.org/>

Thank you.

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Learning for a digital world™