

“eSkills for Volunteers”

STRATEGIC PARTNERSHIP IN THE FIELD OF YOUTH



MODULE 2: What is a domain,Html,Css,Wordpress		
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Table of contents: Module 4 – Part 2

Summary

What is CSS3?	4
Selectors	4
What are the selectors?	4
Tag selection:	4
Class selection:	5
Selection by ID:	5
Selection by Pseudo-Classes:	5
Selection by Pseudo-Elements:	6
Color	6
Color definition:	6
RGB and RGB Color:	6
Color Opacity:	6
Border	7
Border-radius:	7
Border-image:	7
Box-shadow:	9
Wallpapers	9
Multiple Wallpapers	9
Background-size	9
Background-origin	10
Background-clip	10
Text and font	10
Word-wrap	10
Text-Shadow	11
@ font-face	11
Text-decoration	12
Text-align:	12
Transactions and Animations	13
Transactions	13



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Animations.....	14
Conclusions	15
Introduction	15
Wordpress functions	15
Wordpress.org	16
Writing Tools.....	17
Editorial flow management	18
Multi User Management.....	18
How to Create a Page	19
How to create an article	20
Plugin	20
How to Install a Plugin	21
Themes.....	21
Install wordpress	22
Install wordpress in hosting.....	23
Install WordPress on your computer	24
Wordpress.com	25



What is CSS3?

CSS3 is a web programming language used to describe the appearance and formatting of a website to browser from the client side.

CSS is most commonly used in HTML and XHTML documents, but also applicable to XML documents. "CSS3" refers simply to the latest CSS version, with additional features that go far beyond the scope of the first two versions of CSS1 and CSS2.

Thanks to its modular design, CSS3 allows developers to create enrich web pages, in fact, visual effects are more elaborate, lighter pages, and improves the user interface with faster page loads.

Selectors

The selector is the element of the page where the style set mentioned in the declaration will be applied.

They are called selectors because they allow us to select the tags to apply according to CSS rules.

In fact, we can define rules for all tags or select them more specifically.

What are the selectors?

The selectors are 5:

- Tag;
- Class;
- ID;
- Pseudo-Classes;
- Pseudo-elements;

Tag selection:

Selects certain tags, and assigns valid styles throughout the page.

Example:

```
p {  
color: red;
```



}

Class selection:

Allow to select tag groups with a given class.

Example:

```
.test { font-weight: 200; }
```

```
<p class="test">code test html</p>
```

The result will be that the rule will apply to all tags with the class = "test" attribute.

Selection by ID:

The selection for ID is created to search only one element within the page.

Example:

```
#test {text-align: center; }
```

```
<div id="test">
```

```
<p> html code test</p>
```

```
</div>
```

Selection by Pseudo-Classes:

The selections by Pseudo-classes is not a real and proper classes that we create but they are made by the browser.

For example, if we connect a pseudo-class with the link, and then a tag, here you can see a simple example:

```
a:hover { color: #FF0027; }
```

```
a:active { color: #D900FF; text-decoration: underline; }
```

```
} a:visited { color: #D900FF;
```

```
text-decoration: underline; }
```

- a: visited - change the appearance of a link that it has already been visited by the user;
- to: hover - change the appearance of a link when the users move the cursor over it;
- a: active - change the appearance of a link when the users click and hold the mouse



button on it, exactly when the link remains "crushed";

Selection by Pseudo-Elements:

Pseudo-elements, like pseudo-classes, are also created by the browser in specific cases.

However, contrary to what said before, pseudo-elements are made in a virtual way by the browser.

For example, if we want to select the first letter of each paragraph, we can use:

```
p:first-letter { font-size: #FF0027; }
```

Color

Color definition:

Colors can be expressed in different way based on CSS rule.

These are sixteen keywords that define colors:

```
black | navy | blue | maroon | purple | green | red | teal
```

```
| fuchsia | olives | gray | lime | aqua | silver | yellow | white
```

RGB and RGB Color:

RGB is a color definition model based on additive primary colors, that means the mixture of the three primary colors red (Red), Green (Green) and Blue (Blue).

In the RGB model, values can be expressed as percentages:

```
body {background-color: rgb (100%, 100%, 100%)}
```

Or using a numeric scale ranging from 0 to 255:

```
body {background-color: rgb (255, 255, 255)}
```

With **RGB** color you can specify not only the color but also the transparency level (**alpha**).

```
div.box {background-color: rgba (255, 255, 255, 0.5)}
```

The transparency level is set by assigning alpha a value between 0.0 (transparent) and 1.0 (matte).

Color Opacity:

With the color Opacity we can define the transparency level of any item.



If we want to define the transparency, we use a scale from 0.0 (completely transparent object) to 1 (completely opaque object).

Example:

```
{background: white; color: black; opacity: 0.5}
```

Border

Border-radius:

The Border-radius collects border and background properties.

The properties involved are five.

- Border-top-left-radius - Define the rounding of the upper left corner of an element.
- Border-top-right-radius - Define the rounding of the upper right corner of an element.
- Border-bottom-right-radius - Define the rounding of the lower right corner of an element.
- Border-bottom-left-radius - Defines the rounding of the lower left corner of an element.
- Border-Radius - Defines with one rule the rounding values for all four corners of an element.

Border-image:

Through border-image you can assign images to the four borders of an element.

Example:

```
#border {  
width: 200px;  
padding: 10px;  
border: 27px solid black;  
-webkit-border-image: url (image1.png) 27 27 27 27 round round;  
-moz-border-image: url (image2.png) 27 27 27 27 round round;  
border-image: url (image3.png) 27 27 27 27 round round;
```



}

The main rule that is relevant to start is the border rule: 27px solid black. When use border-image, in fact, we always have to define a width for the border of the element using the custom border property.

The statement divide into three parts.

The first part contains the url of the image to use with the four borders.

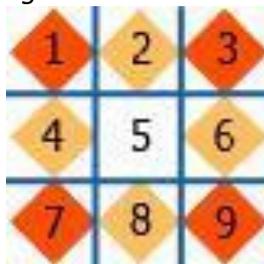
Figure 1 - Background image



The second part is based on four numerical values without a unit of measurement (can be used percentages): 27 27 27 27. Note that value 27 is related to the 27px defined by the border width.

When use an image with border-image it is subdivided into a grid of nine sections. Four corners (1, 3, 9, 7 clockwise), four sides (2, 6, 8, 4, always clockwise), and a central section (5).

Figure 2 - Grid



In brief, the four 27 values determine which parts / areas of the image to use on the box at positions 1, 3, 9, 7, and so the four corners. The first 27 means: "Use for the upper left corner (1) the equivalent part of the high 27px image". Second 27: "Use for the right upper corner (3) the corresponding part of the wide 27px image". The third 27: "Use the equivalent right part of the 27px high image for the lower right corner (9)". The fourth 27: "Use for the lower left corner (7) the corresponding part of the wide 27px image".

The third part of statement includes two keywords: round round.

The first round defines the trend of the image on the upper, lower and middle sides, horizontally (grid sections 2 5 and 8). The second round work on sections 4, 5 and 6 vertically. Round means that a specific part of the image should be repeated, like the backgrounds when use repeat-x and repeat-y.



Box-shadow:

This property allows to add a shading on the container elements.

Example:

```
#container {width: 200px; height: 200px; border: 1px solid black; box-shadow: 10px 10px 2px red; }
```

It's important to know that this property also be used to highlight words within a shaded text.

Wallpapers

Multiple Wallpapers

Multiple Wallpapers allows to developers to define multiple background images for a specific item.

Here's an example of code that suggests how to define multiple images:

```
background-image: url (image1.png), url (image2.png);
```

Example with their positioning and trends:

```
div {  
background-image: url (image1.png), url (image2.png);  
background-position: top left, 20% 80%;  
background-repeat: no-repeat, no-repeat;  
}
```

The first value for the background-position (top left) defines the position of the first image on the list (immagine1.png); the second value (separated by the first with a comma), defines the position of the second image, and so on. It's the same for background-repeat.

Background-size

The background-size property is used to set the size of images used as a background on a page element.

This property assumes four types of values:

a dimension expressed as a percentage;



(background-size: 50% 50%)

a dimension expressed by unit of measurement;

(background-size: 200px 50px)

With the cover keyword, the image is resized to fully cover the item to which it is applied;

(background-size: cover)

With the contain keyword, the image is resized to fit the area of the element to which it is applied;

(background-size: contain)

Background-origin

The background-origin property is used to specify in which area of an item will be fix a background image.

The property provides three different values:

- **padding-box:** the background position is relative to the padding box;
- **border-box:** the background position is relative to the border defined by the element;
- **content-box:** the background position is relative to the content area.

Background-clip

The value of the background-clip property defines the section of an element on which the background will extend:

- **border-box:** the background can extend to the edge area. This is a default value.
- **padding-box:** the background can extend up to include the padding area excluding the border area.
- **content-box:** the background can only extend within the element, excluding board and padding.

Text and font

Word-wrap

This property is used to solve the problem of long words in a short space.

Figure 1 - Box without word-wrap



Lorem ipsum dolor sit amet.
Lorem ipsum dolor sit amet,
consectetur adipisicing
elitlaweufyelrughelirgherguyru
ghrughòguhkdfergh.

Figure 2 - Box with word-wrap

Lorem ipsum dolor sit amet.
Lorem ipsum dolor sit amet,
consectetur adipisicing
elitlaweufyelrughelirgherguyru
ghrughòguhkdfergh.

The values that word-wrap can take on are two:

normal: is the default, so apply the classic trend.

break-word: is the value that allows the word-wrap application to the element that includes the style.

Example:

```
#container {width: 200px; background: red; word-wrap: break-word; }
```

Text-Shadow

Text-shadow is the property that can apply a shadow to all HTML elements.

```
p {text-shadow: 2px 2px 3px # 333;}
```

- the first (2px) defines shadow shift on the horizontal axis (x);
- the second (2px) defines shadow shift on the vertical axis (y);
- the third value (3px) sets the blur level of the shadow: the higher of value, the more blurred the shadow will appear; if we use 0 we will get a shadow and no blur;
- the fourth value (# 333) defines the color of the shadow.

@ font-face

The new @ font-face directive of CSS3 gives the option to "embed" a custom font on the page and use it to stylize the text. It's a very simple operation.

In its basic form it needs two parameters:



- **font-family:** with which the font name is defined;
- **src:** contain the path of the font.

Therefore the basic form of the rule is:

```
@ font-face {  
font-family:  
'Font_name'; src: url ('font_name.ttf') format ('truetype');  
}
```

In the example, in the src attribute, we also explained the format ('truetype').

Text-decoration

Set special decorations and styles for the text, to use with to all items.

Syntax:

```
selector {text-decoration: value or values;}
```

The values that we can use are:

- **none:** the text will not have any particular decoration;
- **underline:** the text will be underlined;
- **overline:** text will have a higher line;
- **line-through:** the text will be crossed from a horizontal line to the center;
- **blink:** blinking text.

Example:

```
p {text-decoration: none;}  
{text-decoration: underline;}
```

Text-align:

Text-align is used to set the text alignment. It is useful to all elements.

Syntax:

```
selector {text-align: value;}
```



Values can be represented by one of the following keywords:

- **left:** line the text to the left;
- **right:** line the text to the right;
- **center:** center the text;
- **justify:** justifies the text.

Example:

```
p {text-align: left;}
```

```
div {text-align: justify;}
```

Transactions and Animations

Transactions

Allow to transition the background of a menu or text in a gradual way between two chosen colors.

The various parameters are:

- transition-property through which we decide which property to apply the transition
- transition-duration that decides its duration
- transition-timing to choose the transition mode among the predefined ones: "ease, linear, ease-in, ease-out, ease-in-out, cubic-bezier (x1, y1, x2, y2)"
- transition-delay sets the wait before starting a new transition.

Example:

```
div {
```

```
width: 200px;
```

```
height: 200px;
```

```
background-color: 98d925 #;
```

```
transition-property: background-color;
```

```
transition-duration: 2s;
```

```
}
```



```
div: hover {  
  background-color: # ff5c00;  
}
```

Animations

Set the `@keyframes` rule followed by the name chosen is the first thing to do in order to identify the entire animation and enter all the parameters for the animation. To start and end the animation we can choose between the literal form "from and to" or the numeric "0% to 100%".

The properties for setting up animations are:

- `animation-name` will link the selected keyframes
- `animation-delay` sets the delay to start animation
- `animation-duration` will set the duration
- `animation-iteration-count` will decide how many times we want to repeat the animation
- `animation-direction` we can decide if the repetition of the animation must start from the beginning with the normal parameter or perform the inverse animation to have a more fluid path through the alternate parameter.

Animation example:

```
@keyframes example {  
  from {background-color: red;}  
  to {background-color: yellow;}  
}  
  
/* Properties to be applied to animation */  
div {  
  width: 100px;  
  height: 100px;  
  background-color: red;
```



```
animation-name: example;
```

```
animation-duration: 4s;
```

```
}
```

Conclusions

Thanks to the combined use of CSS3 and HTML5 it is possible to realize things never done before and could not be created with the use of HTML because require external plugins.

HTML5 allows a more intuitive content structure, thus reduce maintenance times and costs.

With HTML5, there is a great way to publish content thanks to the simple use of features that works with the latest technologies as a good result of investment in a digital market. New languages such as HTML5 and CSS3 offer to developers the ability to make websites and modern applications, but can create problems, because some features offered by HTML5 and CSS3 are not yet supported by all browsers.

Introduction

Wordpress is a free software created to manage websites according to the most modern online publishing standards.

Wordpress can be used to publish everything, it has many features and an easy architecture to expand through plugins, where it became one of the most scripts used to create dynamic web pages.

In brief, we can define WordPress a content management system that allows the creation of a dynamic website, which can be updated by the customer in some parts to insert, edit and delete different contents: texts, photos, PDF, video etc. that complete the website.

Wordpress functions

Wordpress offers basic tools and advanced solutions for different user needs.

WordPress is a Content Management System (CMS) that can be used as a service or can be installed on a Web server.

Below the basic steps to create a website with Wordpress:

- definition of website structure;
- save and publish articles and pages;
- definition of editors roles;



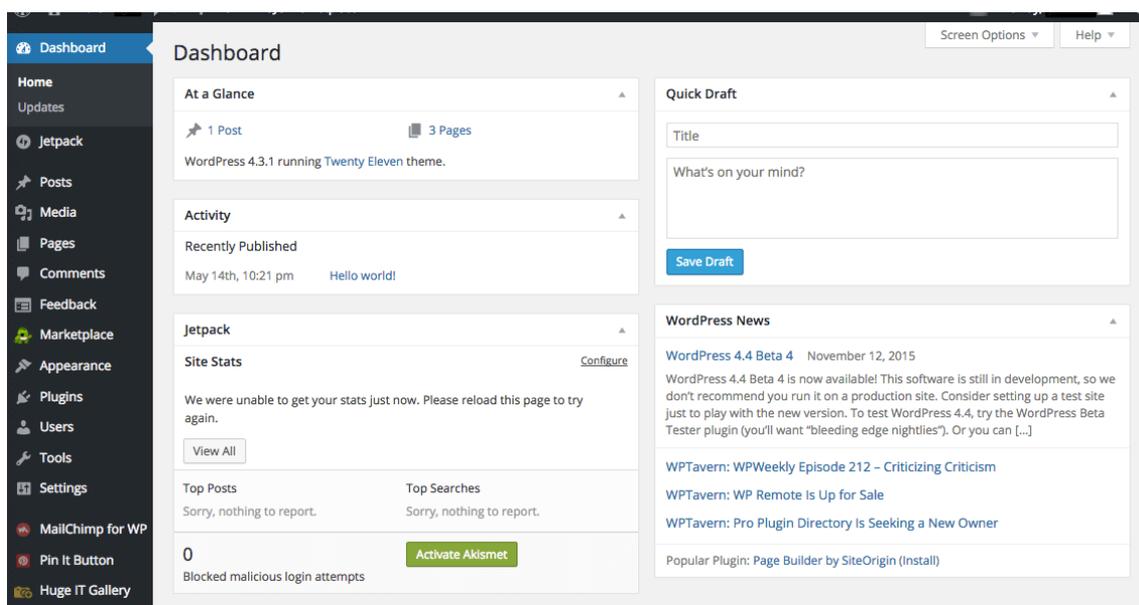
- edit flow coordination;
- Organization of image archives.

WordPress is also distributed in two versions:

- free software (WordPress.org) to download and install
- subscription service (known as WordPress.com), to be used directly with the browser.

Wordpress.org

WordPress.org software allow to fully manage a website and must be installed on a personal website.



Wordpress.org has benefits, such as:

- customization;
- use the available graphics and extensions;
- edit the files that consist of service and adapt it to the proposals and needs of your website.

While, Wordpress.org has also disadvantages, as:

- installation and configuration of WordPress.org software;
- Updating;
- management of technological issues related to its use;



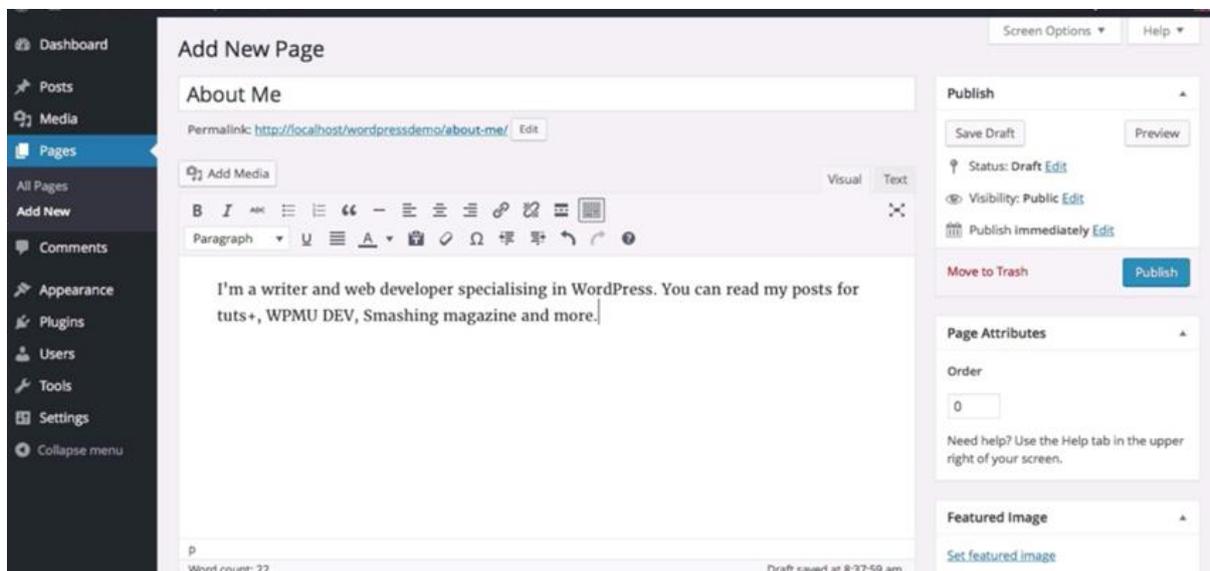
- availability of a Web space with fair technical qualities, including custom domain and e-mail addresses.

WordPress.org is one of the most used systems to create and manage websites with relevant functions and features, more sophisticated, and provide:

- a very sophisticated management of multimedia elements, especially images;
- to attach an image to each post, Featured Image;
- to include images, video files, or audio into the content.

Writing Tools

WordPress has TinyMCE, a simple and powerful visual editor that allow to write articles and web pages, and it can be extended by a special plugin.

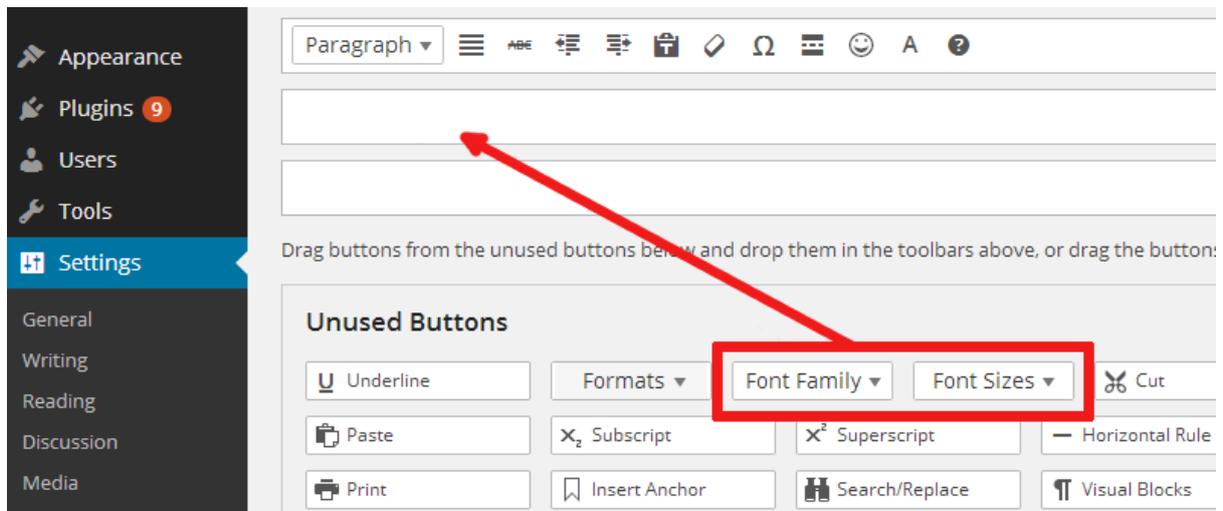


WordPress is composed by features that are the most used and has a lot benefits through TinyMCE, the advanced plugins:

- Copy and paste
- add horizontal line
- find and replace
- justifies the text
- type and font size
- apex and auxiliary numbers



- table management
- emoticons



When the plugin is installed, it adds a page in the WordPress administration panel on Settings-> TinyMCE Advanced, in this way you can add different features.

Editorial flow management

With WordPress you can manage the editorial flow of articles to be published.

Each item can:

- be saved as draft,
- to review,
- Schedule next publication or leave as private page.

Multi User Management

On WordPress platform, you can identify users through a logging system and allow to work with some actions and split into two macro groups:

- **Administrators**, who manage the site;
- **Authors**, content experts who can publish, edit, or schedule articles.

There are five predefined roles in a traditional installation, but other plugins or code changes can be added.

The roles for multiuser management are:

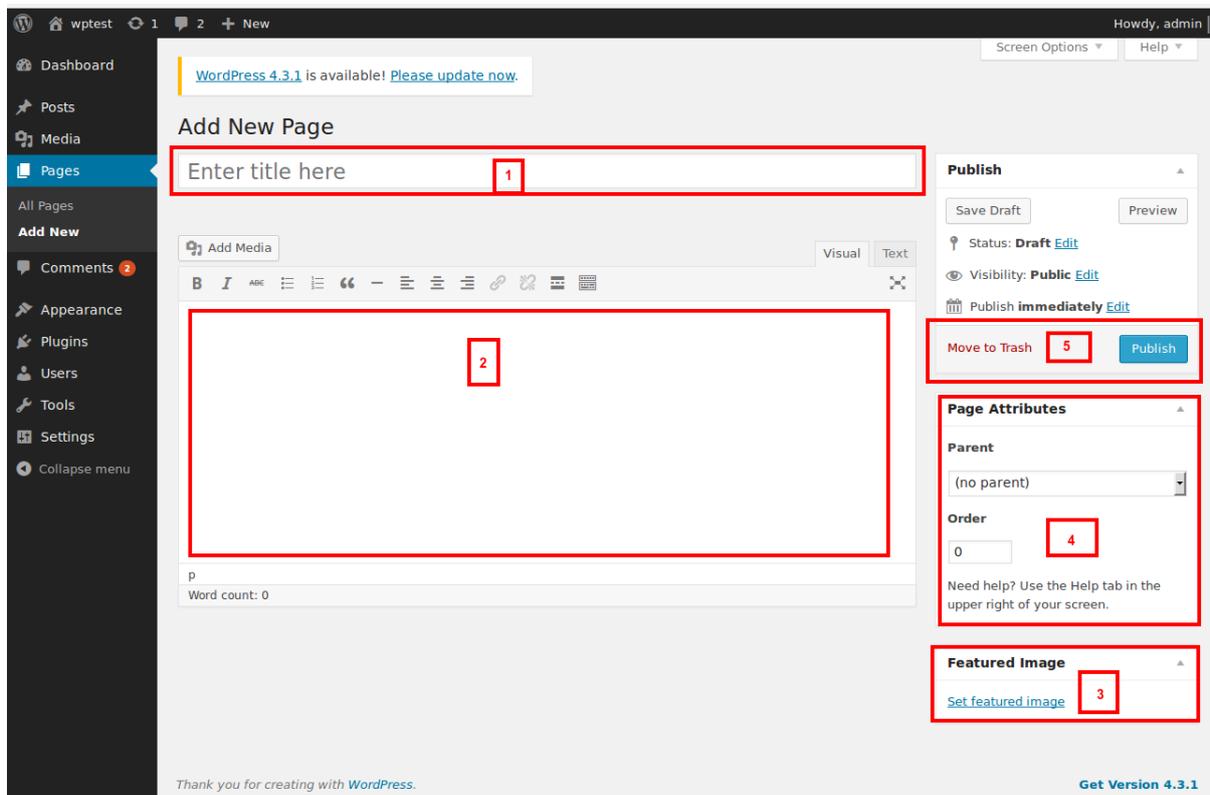


Administrator – Editor – Author –Contributor –Follower (public sites)/ Viewer (private sites only)

How to Create a Page

Create a new page in WordPress is very simple and very useful to organize contents or create a pages of a website.

Let's see how to do it:



1. First, enter the title of the page, through it the page will be searched on the web, such as "My first page with wordpress". After that, the Permalink will be created automatically, and it can always be changed. If you want to add a pdf file or an image you have to click on the "Add Media" button.

2. This section is used to change paragraph style. For example, when you write a subtitle, it's necessary to select Style 2 header, while for the text is better use Paragraph style.

3. Set the featured image, that is used to share it on social networks and around the net.

4. In the page attributes section, you can set the parent page, useful to create hierarchies and set the page system, useful to choose which order have to be, such as the menu order. If all pages have the same order (usually 0), WordPress will show them in alphabetical order.

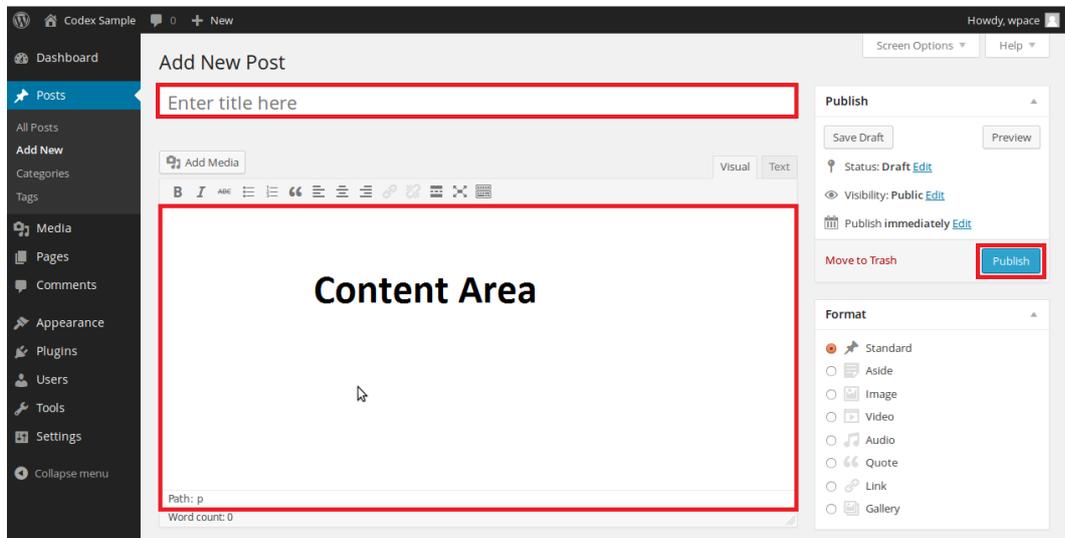
5. When everything is ready, click on Publish and the page will be published on the website.



How to create an article

Articles can be used to publish a story or discuss on a topic of the day; the pages are more static sections of website.

Let's go to learn how we can create an article:



1. Title of the article;
2. Content of the article (you can use the editor to format the text and other elements);
3. Add media to add content such as photos, audio tracks, videos, and attachments;
4. Category to specify the reference environment. There is a specific category management screen, and you can add new ones through the box selecting "+ Add a new category";
5. Add tags.

Plugin

WordPress is a flexible and customizable platform, thanks to the functions and plugins to add to your website.

Plugins are a part of code or real programs that cooperate with WordPress to extend its functions, and also to improve and enhance the website.

There are hundreds of plugins for WordPress, some are free but others are paid and you can find them with different names and categories, giving the possibility to enhance a specific feature, the SEO graphics, contact users with payment methods, etc.

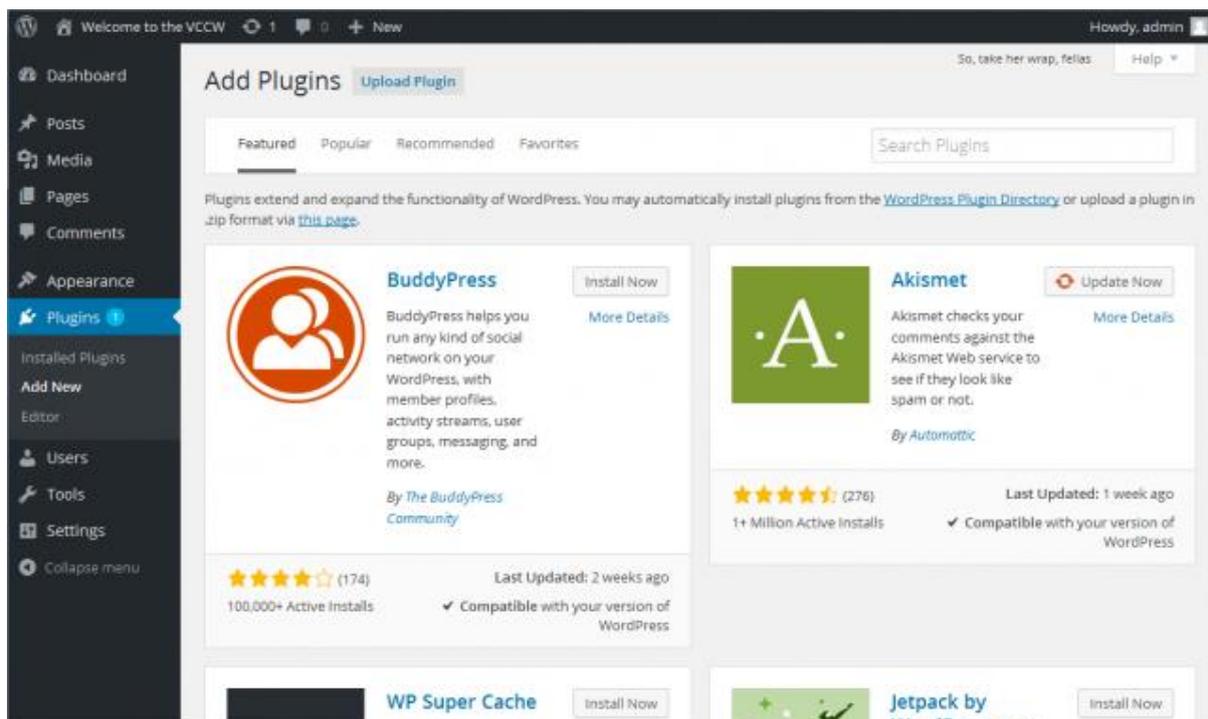


How to Install a Plugin

In this paragraph we'll see how to search the plugin through the internal engine of WordPress.

Install and use plugins is very simple:

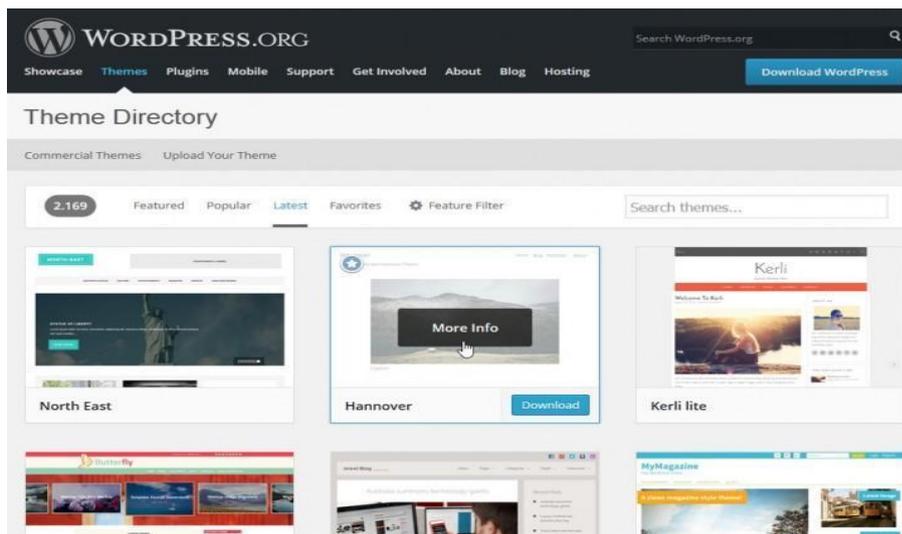
1. First of all look at "Admin Panel" section and click on "Plugin" and "Add New";
2. Now in the search field, find on this page and enter the name of plugin that you are looking for;



3. At the end, click on "Install" and "Enable Plugin".

Themes

Themes allow to choose the graphics and structure through extensions that give a chance to change colours, text layout, images, and layouts of website, distributed in a free or paid form.



You can install themes from the administration area with one click, changing only the outward appearance of the website and leaving the same contents already posted. In this way, you have the possibility to switch from one theme to another no losing anything that was saved before.

Further, themes give the possibility to faster publishing process, add elements such as menus or boxes into the website, and define many other aspects of the installation, as well as modify the graphics of website.

Install wordpress

This section describes the procedure to install WordPress (both on a Website and, on your computer)

"Web space" is a hosting service (subscription) that provides to subscribers, thanks the tools, to install and use the website, such as:

- disk space to save files;
- Configuration tools;
- database for data store and information;
- domain registration;
- an e-mail address pack, different accessory services (antispam, antivirus, auto backup, etc.).

It's useful to remark that "local" WordPress is positive for different aspects:

- to evaluate the system before getting the Web space, guaranteed by annual contracts;



- installation test to perform or change something before to make any updates on the main website;
- to copy the website to be able to log in if there is no internet connection.

In general, install the WordPress platform involves the following steps:

- Creating a database
- Download own language version of WordPress
- WordPress Upload
- Install WordPress

Install wordpress in hosting

If you want to install WordPress on a Web space you need:

- Choose the hosting service, that is, the choice and buy a hosting plan, an important but difficult phase because it's necessary to decide between many offers of operators and competing providers.
- Provide hard servers that can support the workloads. In this case is very common to use plugins and themes, that require a large amount of work to the system.

Once you have chosen and bought the hosting service you need to access to the web hosting management program, that can be, for example, Plesk or cPanel, and enter your username and password.

Then logged in, you need to click on the database icon and create a new database.

Now you have to choose the database name and has to be related to the name of the website (for example, you can call db_namewebsite).

Then it's important to link a user with the database through Add New User to the database and insert username and password.

After that, download the wordpress installation package on own language WordPress community website. Thanks to WinRAR software, extract the package and we will find in the folder all the files needed to install WordPress.

Now, upload the files on the web space (attention: upload the files and not WordPress folder!) and install WordPress . Open your browser (Internet Explorer, Google Chrome, FireFox) and go to www.nome-sito.co.uk/wp-admin, where you can enter with your domain name on the website.



You will see a window and click on 'Create a Configuration File' button.

Before to continue, you have to know the following information:

- Database name
- Database user name
- Database Password
- Database Hosts
- Prefix tables (if you want to have multiple copies of WordPress on a single database)

Enter the database name, user name, password. In Hosts database insert *localhost*, and in Prefix tables it's recommended to add something (to be sure against hackers), such as *wp_site_*.

If all the data is correct, click the Run Setup button and continue.

- Website Title: choose the name that you want in order to insert on the search engines.
- User Name: This is the administrator's username.
- Password: Enter the password you will access to the blog as an administrator.
- Your e-mail: This will be the email that will send all the messages created by the blog (such as different notifications of receiving comments, registering new users). It will be send an email as a remainder with the username that you choose.
- Privacy: Leave the box ticked if you want that the website can appear immediately (or within a few days) into search engines as Google. If you delete the tick, the website will not be indexed, but it's still accessible to all users. You can change its set in the future.

If everything is ready, press the Install WordPress button.

After the installation, click on Log in, enter username and password, you just chose and find yourself in the WordPress admin panel.

Install WordPress on your computer

The installation procedure

If you don't want to use an online service or have an Internet connection, but you prefer to install CMS on your computer, you can use local WordPress automatic installation system (for example, the Bitnami WordPress Stack , but others are available on the Web and are free).



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To install WordPress, follow these steps:

- Install the language
- Make the first configuration
- Modify basic information
- Configure permalink
- Add users
- Configure the comments
- Rename the default category

Wordpress.com



WordPress service allow to create a Website and it's no necessary to install anything on your computer without to buy a personal Web space from a service provider.

As a service (WordPress.com), WordPress is a Web application (a service distributed through the Internet) easy to get through a browser, which allow you to create a website according to your needs.

To use it, you have to continue as follow:

- access <http://it.wordpress.com/>
- Register to the service, with your e-mail address and choose the name for your website;



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After that, you can publish your content.

So, the website will be <http://name.wordpress.com> where "name" is what you created.

The service is free, but there are also paid services (registration of a personal domain, additional space, free version of advertising, etc.); each additional component has a separate cost and are offered subscription packages on an annual basis.

There are different advantages:

- no costs, technical management of the website provided by service provider. Further, the user doesn't have to install anything, has only to configure or choose options for the website, but updates are automatically installed.