UNIT – 2

Introduction Installation & Configuration

- **Content Management System (CMS)**

CMS stands for Content Management System.

The definition of a CMS is an application (more likely web-based), that provides capabilities for multiple users with different permission levels to manage (all or a section of) content, data or information of a website project, or internet / intranet application.

Managing content refers to creating, editing, archiving, publishing, collaborating on, reporting, distributing website content, data and information.

An example of a CMS application is a Web Application that provides the following administration, control panel or website management functionalities:

Administration or Control Panel:

- Create, Edit, Publish, Archive web pages
- Create, Edit, Publish, Archive articles
- Create, Edit, Publish, Archive press releases

- **Introduction of Wordpress**

WordPress is web publishing software you can use to create your own website or blog. Since it was released in 2003, WordPress has become one of the most popular web publishing platforms. Today it powers more than 70 million websites!

WordPress is open source software you can use to create a beautiful website or blog. It just may be the easiest and most flexible blogging and website content management system (CMS)

WordPress enables website owners to update page content and operate a blog page through a friendly interface.

But many people don't realize that WordPress is much more just a blogging tool. It's also a highly flexible content management system (CMS) that enables you to build and manage your own full-featured website using just your web browser. Best of all, it's completely FREE.

That's because WordPress is an 'Open Source' project. That means that hundreds of volunteers from all around the world are constantly creating and improving the code for the WordPress software. And, there are thousands of plugins, widgets, and themes that enable you to build just about any type of website you can imagine.

There are several reasons WordPress is a great choice for building your blog or business website.

1. **Open Source**

   First of all, WordPress is Open Source. That means that there are hundreds of people all around the world working on improving WordPress. And because WordPress is an open source project it's also completely FREE.

2. **User-Friendly**

   Second, it's user-friendly. Rather than having to hire a web designer or contact a "webmaster" every time you want to make a small change to your website, you can easily manage and update your own content — without having to learn HTML. In fact, if you know how to use the basic formatting tools in a program like Microsoft Word, you can edit your site.

3. **Flexible and Extensible**

   Third, it's flexible and extensible. There are thousands of plugins and themes that enable you to easily change the entire look of your website, or even add new features like polls or contact forms, with just a few clicks.

4. **Easy to find support**

   Next, if you run into problems, or you want to add custom features, it's easy to find support or hire someone to help you. In addition to the WordPress tutorials on this site, there are also thousands of WordPress developers and designers who can help you. The official WordPress Forum is a great place to get answers to your questions.

5. **SEO-friendly**

   WordPress is SEO-friendly. Right out of the box, WordPress includes everything you need to ensure that your content is optimized for search engines. This is critical to your site's visibility and online success. Matt Cutts of Google says, "WordPress is made to do SEO well."

6. **Control of your own content**

   Last, you're in control of your own content. Other publishing platforms limit what you can and can't do on your own website. And, you're locked in to that service. If it should ever shut down, your content could simply disappear. With WordPress, you can import your data from other systems like Blogger or Tumblr. And you can also easily export your data to move away from WordPress, should you choose. You're in control of your site… and your content.

- **WordPress Advantages and Key Features**

WordPress is the most desired website development platform today and its popularity can indeed be evaluated with the fact that it powers over 23 percent of the websites. Well, the figure isn't constant but increases every single day.

Although WordPress has considerably high competition in the website development market, this powerful CMS (i.e. Content Management System) combines a group of features, viz. Simplicity and User-friendliness. Its under-the-hood complexity for developers cannot be overlooked though. However, the following list of standard features and advantages, powers WordPress stand out in the competition:

- **Quick Installation and Upgrade**

WordPress has simple and quick processes of installation and upgrade. Simply create your web pages online and upload the database. In case of using the FTP program, simply create a database and upload WordPress, and subsequently install it to continue.

- **User Management**

A website has several different roles associated with it. For instance, the administrator to manage the web pages, writers and editors to manage content, users or subscribers to create and manage their profiles. WordPress makes the management quick and easy.

- **Simplicity of Operations**

The simplicity and ease of operations make the process efficient and the productivity level enhances as a result. With WordPress, you can anytime create a new web page and publish content with quickness, thereby following the standard Internet culture.

- **Inbuilt Themes**

WordPress has multiple inbuilt themes and allows you create more as per your personal or business requirements. WordPress API powers you create themes that can be very simple as well as complex in design.

- **Inbuilt Comments**

You write and publish a blog of your WordPress website. Your friends and followers can put their comments, as WordPress' built-in comments feature provides them with a space or forum for discussion. You can manage or moderate those comments.

- **Extensions & Plug-ins**

WordPress is a feature-rich website development platform that meets your different needs. A plug-in directory full of plug-ins extend its features. Use these plug-ins enhance the features and functionality of your website.

- **Flexibility**

WordPress is an Open-source platform for website development and you can proceed with any type of theme, i.e. a personal blog to a full-fledged professional website. Choose any of the existing designs or create a new one.

- **Media Management**

You can add images, videos, and other media items to your WordPress website and enhance the richness of content. Simply drag the media content from your computer and drop it into the uploader to get it uploaded. Use the image editing tools if required.

Not only is WordPress available free of cost, but also the open source to be used in any manner.

- **Advantages & Disadvantages of Wordpress**
- **Advantages:**

1. **Easy to Use**
   While most products advertise themselves as being "easy to use" WordPress doesn't advertise this, this is the reputation it has earned. Unlike Drupal and Joomla, WordPress doesn't require knowledge of PHP or HTML coding. WordPress comes with rich preinstalled features that are literally point and click, installing plugins is simple, and their templates make designing easy.

WordPress is an out-of-the-box turnkey solution that just works. It comes loaded with rich features without any tweaking, coding or other bumbling around. If you are a beginner user then seriously consider using WordPress.

2. **Menus**
   WP 3.0 has some great menu options, making it prettier and simpler than Joomla due to its custom menus that can be rearranged to include categories, pages, etc.
3. **Community**
   Having a large community to draw on for support and tricks is important to many people and WP has one of the largest online communities around.
4. **Themes**
   There are thousands of free themes available online to use to help you choose a design for your site. There are also premium themes available for purchase for those who want an added touch of professionalism to their site.
5. **Plugins**
   There are almost 13,000 plugins available for the WP platform. It is through these plugins that WP gained its CMS title as plugins opened up WP to a world of possibilities. Most of these plugins are free which is cool.
6. **Custom Fields**
   Through the use of custom fields you can turn WP into a CMS by going beyond the typical blogging activities like posting, categorizing and tagging. They have made this process easy for beginners as well with the addition of custom field plugins like 'Custom Fields Template,' 'Flutter', and 'More Fields'.
7. **Pods CMS**
   This plugin allows you to create and manage different content types without using custom fields.

- **Disadvantages:**

1. **WP Scripting**
   For advanced users who are familiar with more advanced techniques like scripting, WP uses its own script. And knowledge of the WP script is necessary for things like adding or removing post dates.
2. **Design Knowledge Required**
   While WP does have plenty of nice-looking templates many people want to design a unique website as WP themes often look too similar to one another. To make unique designs in WP you need knowledge of the CSS style sheet language, and odds are that if you have this sort of designing knowledge you will want a more powerful toolset like those available in Drupal-like CMSs.
3. **Too Many Plugins**
   WP needs a lot of plugins to be able to do the things that Joomla and Drupal can do out of the box. While the plugins are available they can slow your page down if you install too many of them. The double-edged sword on WP plugins is that by the time your page has been slowed because of the plugins you have already put a significant amount of man-hours into the project and would be reluctant to migrate to another CMS. Plan for this ahead of time by looking at how many plugins you would need to create the functionality you want.

4. **PHP Security**
   Unfortunately the PHP security for WP has a shoddy track record and security isn't as strong as some of the other platforms. This will only be a factor depending on how sensitive the content of your site is.
5. **Documentation**
   While there is a large online community of users to help and support you there is little to no offline documentation. WP has been criticized for not creating a MS SDK document, especially now that it calls itself a CMS.
6. **Tables and Graphics**
   Modifying and formatting tables and graphic images is more difficult in WP than in its competitors.
7. **Needs Regular Updates**
   WP is constantly changing and growing and it needs regular updates. This is not a big deal unless you are looking for a set-it-and-forget-it solution, in which case this might not be the solution for you as it needs periodic updates.
8. **Queries**
   Queries can be a difficult and convoluted process because of all the custom fields you need to use to go take WP beyond typical blogging actions. Often you need a Custom Select Query, which can be a royal pain in the butt.

- **Installation of wordpress**

Step -1 : **Download the WordPress installation package**

To start the installation process, first you need to download WordPress from it's official download page. We recommend that you always download and install the latest stable version of WordPress.
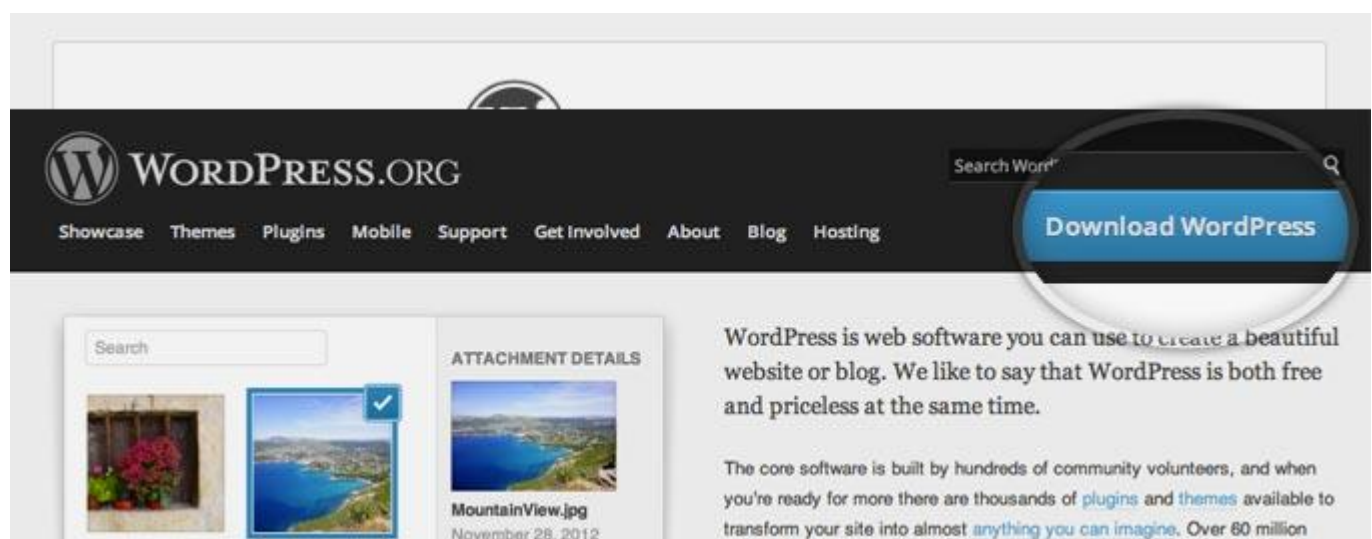
Once you click on the Download button for the latest WordPress version, the installation package will be saved to your hard disk. Locate the installation package that you've just downloaded and extract it to a new folder.

Step 2 : **Upload the WordPress Files to Your Server**

Now, you need to upload the extracted files and folders to your web server. The easiest way to upload the installation files is via FTP.

If you want your WordPress to be the main installation on your account and to be accessible through your main domain (i.e. www.mydomain.com), you need to upload the extracted files to your public_html folder.

Once the download is complete, extract the archive and upload it to your web hosting account. You can do that via FTP using a client application like Filezilla or via cPanel -> File Manager -> Upload file(s). If you want this WordPress installation to be main for your website, the files should reside in the public_html folder of your account. However, you can always make a subfolder (i.e. public_html/blog) if you want to run only part of your website on WordPress.
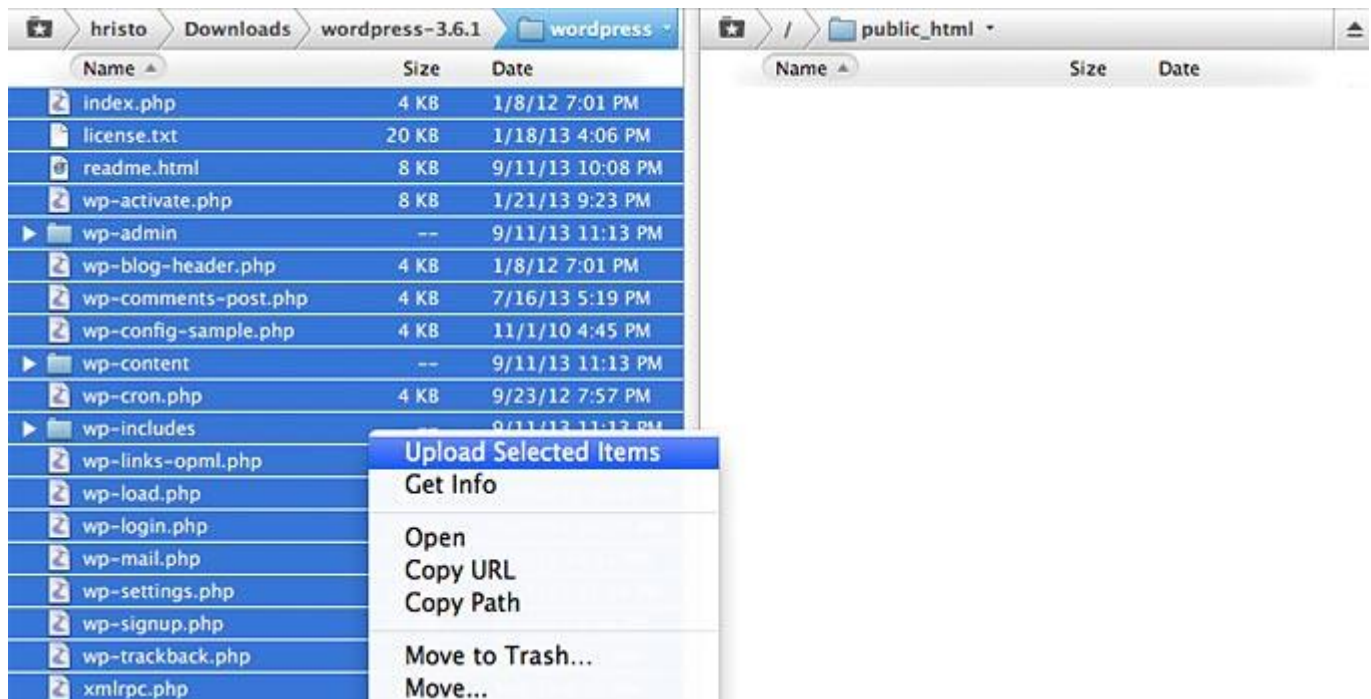
Step 3 : **Create a MySQL Database for WordPress to use**

Now, you need to create a MySQL database and assign a user to it with full permissions. Once you create your MySQL Database and User, make sure you write down the database name, database username and password you've just created. You will need those for the installation process.
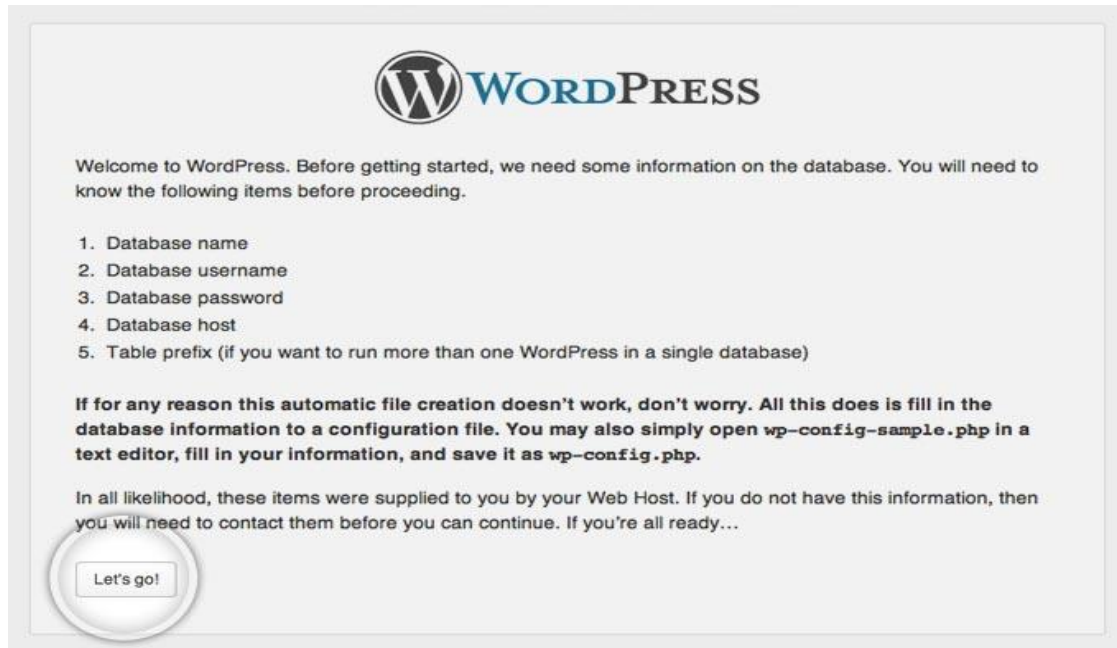
Step 4 **Go through the installation process**

Now it's time to navigate to your website to start with the installation process. If you have uploaded WordPress in your public_html directory you'll need to go to http://yourdomain.com in your preferred browser. The first thing you will notice is a message, telling you that you don't have a wp-config.php file and you should create one. Just click on the Create a Configuration File button to proceed.

On this page you will see a message, asking you to prepare the necessary information for the installation. Since we already have this information, simply press the Go! button.

Enter the details for your newly created MySQL database and press the Submit button

WordPress will now check if your settings are correct. If you have entered all the necessary information, you will see a confirmation screen. Press the Run the Install button to proceed.

On the next screen you will have to enter the information about your administrative username and the title of your new site. In addition, you can specify whether you'd want search engines to index your site or not. Once you fill in that information, press the Install WordPress button. Bear in mind, however, that you should specify a real email address. It can be later used in case you forget your password.

Your new WordPress application is installed. You can use the Login In button to access your administrative backend and start posting in your new site.

Wordpress Directory & file structure

The directory structure is the organization of files into a hierarchy of folders. It describes how files are arranged for an application. A hierarchy is similar to a tree structure.

The WordPress Directory Structure

The core WordPress files and directories are listed below.

wp-admin

wp-content

wp-includes

index.php

license.txt

readme.html

wp-activate.php

wp-blog-header.php

wp-comments-post.php

wp-config-sample.php

wp-cron.php

wp-links-opml.php

wp-load.php

wp-login.php

wp-mail.php

wp-settings.php

wp-signup.php

wp-trackback.php

xmlrpc.php

.htaccess

wp-config.php

These are the core WordPress directories and files. Now, let's see some of the important files and folders in detail. Keep in mind that the first three are folders and rest are files.

- **wp-admin**

The admin tools are powered by this folder. As it's name indicates, this deals with the administrator. The main file inside this directory is the admin.php. It enables the connection to the database, displays the WordPress dashboard, and performs any other number of key functions, such as checking if any given user is in fact the admin in question.

- **wp-content**

The next folder we are going to see is the wp-content. The Themes and Plugins are familiar to every WordPress user. These are stored inside this directory.

- **Plugin**

The plugins are used to add more functionality to the WordPress site. Plugins can offer custom setup to the WordPress installation while the default WordPress installation is designed to be light weight.

- **Themes**

The WordPress themes provide the graphical interface to the website. There are many files that work together to achieve this.

The themes and plugins are the major parts in the wp-content directory.

- **wp-includes**

The wp-includes is the final top-level folder and is large in size. As we have seen earlier, the wp-admin includes all the files necessary to power said admin functions, wp-content stores all your themes and plugins, and wp-includes is what enables the site to run.

This folder is where most of the WordPress core files are stored. A fresh WordPress install will include over 140 different files in the main directory, and fourteen different folders including certificates, fonts, js, theme-compact, and widgets.

These subfolders aren't important as the files included in the main folder, such as functions.php. This file is part of WordPress' core, and it comes with a lot of the functions that enable the WordPress installation to work. As an example, some lines of code will be seen when you open the file on a text editor, and they're just a regular function meant to transform dates into different formats.

- **index.php**

The index file loads and initializes all your WordPress files when a page is requested by a user.

- **license.txt**

This is WordPress license file. The WordPress is a free software and is licensed under the GNU General Public License as published by the Free Software Foundation.

- **readme.html**

This core file contains the instructions to the user as its name indicates.

- **wp-activate.php**

This contains the following:

- **do_activate_header()**

Function: Adds an action hook specific to this page that fires on wp_head.

- **activate_wp_head**

Fires before the Site Activation page is loaded, but on the wp_head action.

- **wpmu_activate_stylesheet()**

Function: Loads styles specific to this page.

- **activate_header**

Action Hook: Fires before the Site Activation page is loaded.

- **wp-blog-header.php**

This folder contains the http headers.

- **xmlrpc.php**

WordPress uses an XML-RPC interface. WordPress has its own implementation for WordPress-specific functionality in an API called the WordPress API. This should be used when possible, and your client should use the API variants beginning with the wp prefix.

XML-RPC functionality is turned on by default since WordPress 3.5.

In previous versions of WordPress, XML-RPC was user enabled. To enable, go to Settings > Writing > Remote Publishing and check the box.

- **wp-config.php**

It is one of the core WordPress files which contains information about the database, including the name, host (typically localhost), username, and password.

There are many other folders and files, but these are the most important folders and files in the WordPress directory structure.

- **Dashboard overview**

The WordPress dashboard area gives you a general overview of your website. It also displays many useful quick links for performing common tasks such as writing a quick draft or replying to the latest comment.
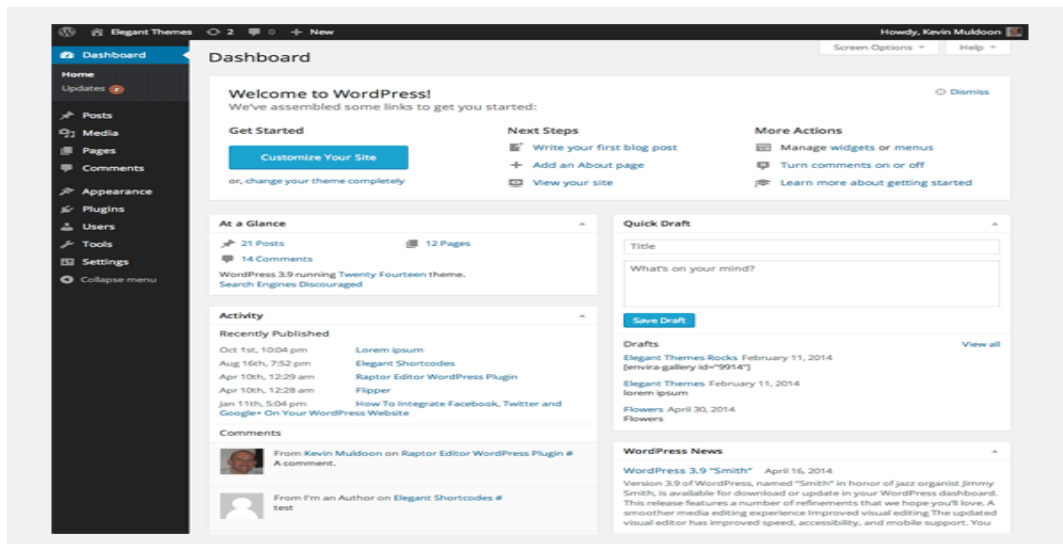
The dashboard area is built up of many different widgets. Each widget can be enabled or disabled.

To do this, click on the "Screen Options" drop down menu at the top of the page. This will show you a list of default widgets and widgets that have been added by plugins. Simply uncheck the widgets that you want to remove and they will automatically be hidden.
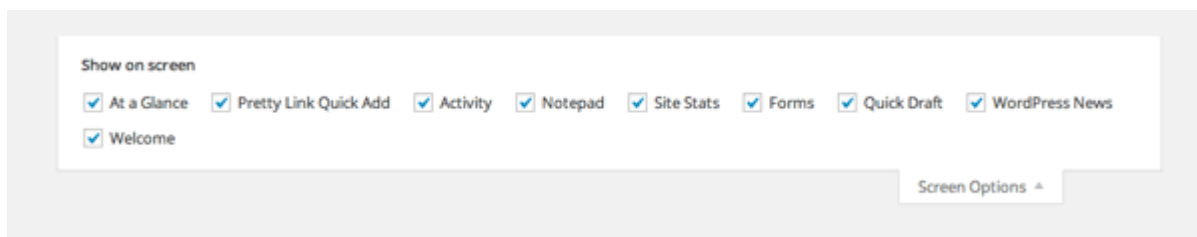
Many beginners do not alter the default dashboard that WordPress initially offers. However, WordPress allows you to minimize widgets. It also allows you to drag widgets to a new location. This lets you place the widgets you use more frequently in a more prominent position.
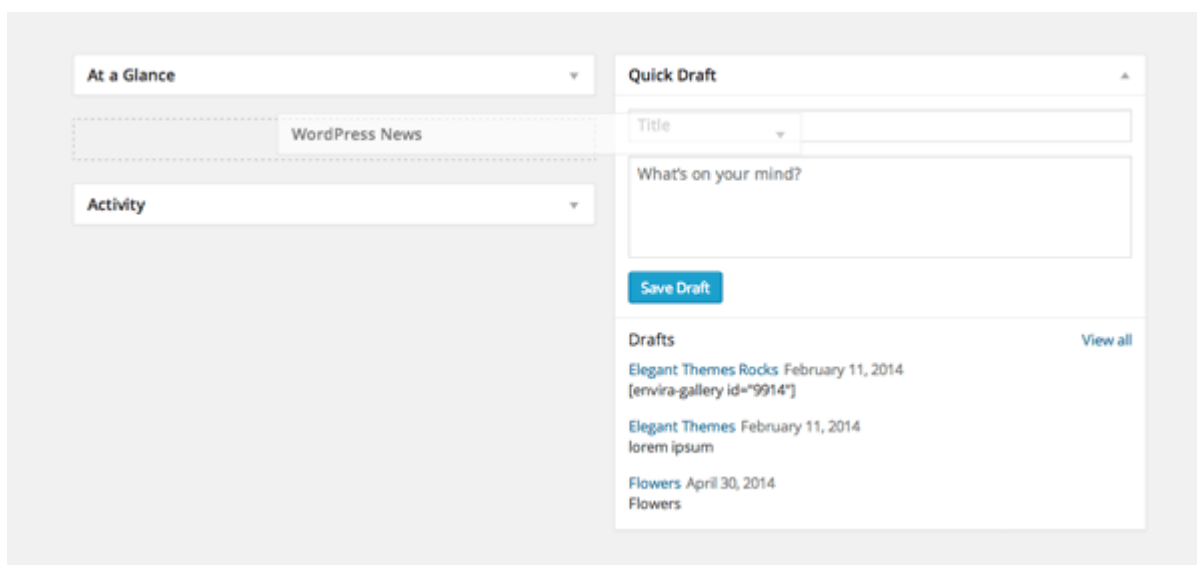

Let us take a closer look at the default widgets that populate the WordPress dashboard.

Welcome to WordPress!

The welcome widget is displayed at the top of the dashboard. On the left hand side is a large "Customize" button that takes you to the WordPress theme customizer and a link underneath to the main themes area.

The center column contains useful links to create a blog post, create a page, and view the front end of your website.
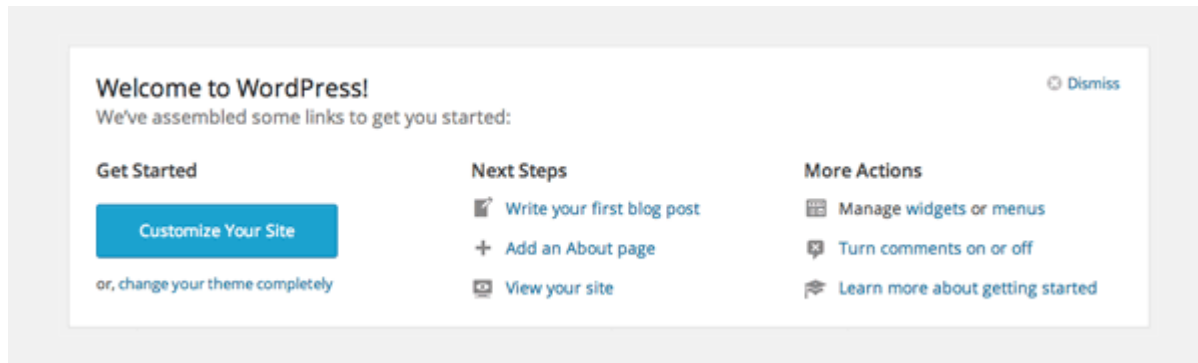
The last column contains links to the widgets page, menu page and comment settings. A link to the "First Steps With WordPress" page in the WordPress codex is also displayed.

Unlike other widgets, there is no option to minimize the "Welcome to WordPress" box. Instead, there is an option to remove it. I assume that this is because the widget is aimed at beginners.

You may have dismissed the widget already and removed it from your dashobard, however if you find its quick links useful, you can re-enable the "Welcome to WordPress" box via the screen options drop down menu.

At a Glance

The "At a Glance" widget gives you a general overview of your website including the number of published posts and published pages. The figure for the total number of comments include spam comments.

The theme you are currently using is also noted and a reminder is printed if you have blocked search engines from indexing your website.
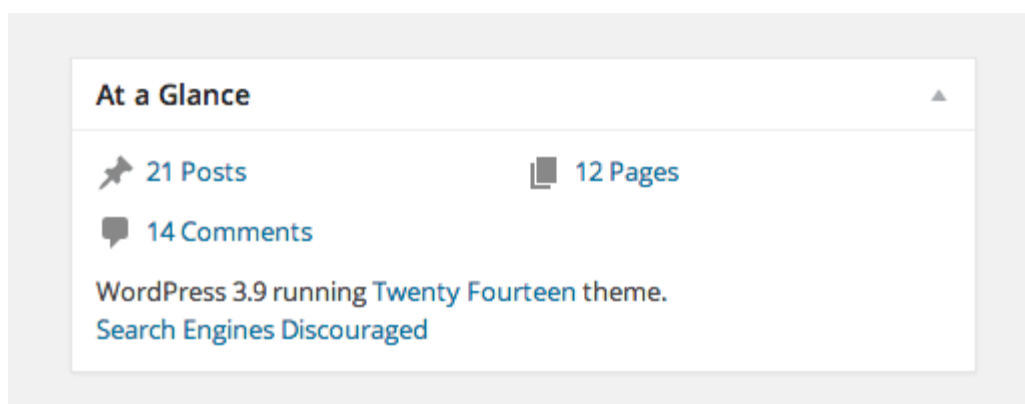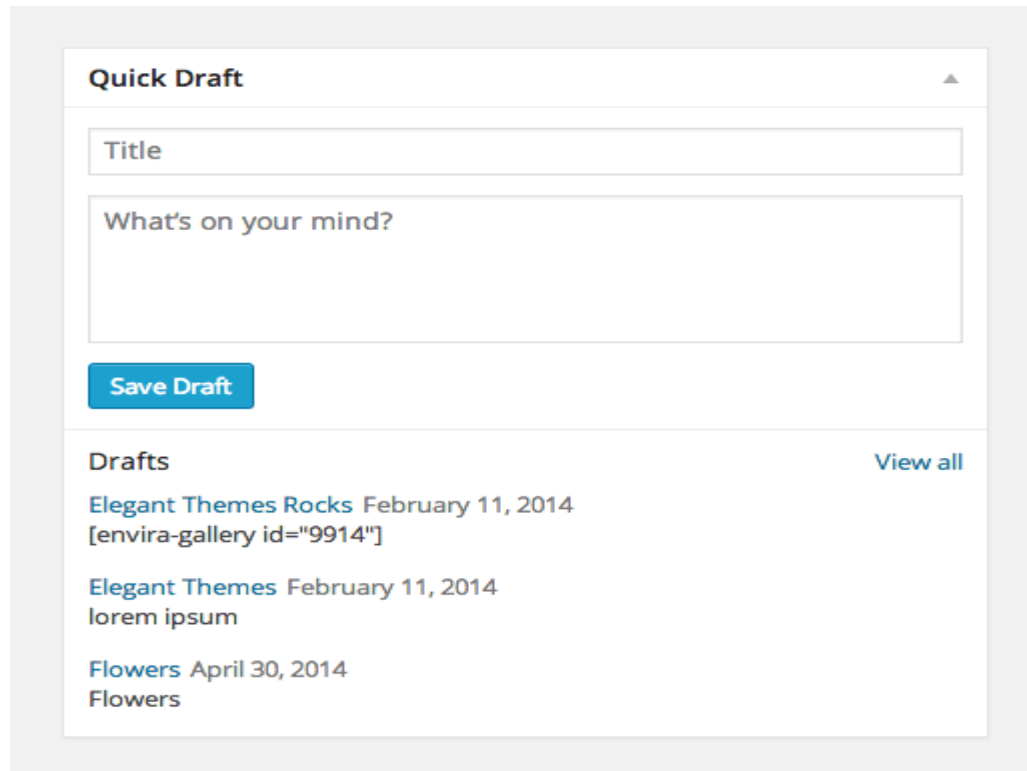

Some plugins add additional information to this widget. For example, if Akismet is activated, it displays how many spam comments it has protected you from and how many spam comments are queued.

- **Quick Draft**

The "Quick Draft" widget is handy for jotting down an idea for a future blog post. There is no visual editor available, therefore you cannot make text bold or upload an image.

The concept of quick draft is simple. If you have an idea for a post, write down a title and some notes about your idea and then save it as a draft. You can then complete the post at a later date.

- **Activity**

The "Activity" widget displays your last few published posts. It also displays the latest comments that have been submitted. You can respond to the comment directly through the widget. You can also trash the comment or move it to spam.

- **WordPress News**

The "WordPress News" widget displays the latest blog posts from official WordPress blogs such as WP Tavern and the WordPress.org blog.

In the past, I would check this widget to see if there was any WordPress update. Since WordPress now advises you whenever a new update is live, I tend to hide this widget.

- **Custom Dashboard Widgets**

The WordPress dashboard is not restricted to the five widgets that come packaged with WordPress. Many plugins add a widget to your dashboard after activating it.

For example, if you have the WordPress.com Stats module from Jetpack activated, you can see a summary of your traffic stats directly from your dashboard.
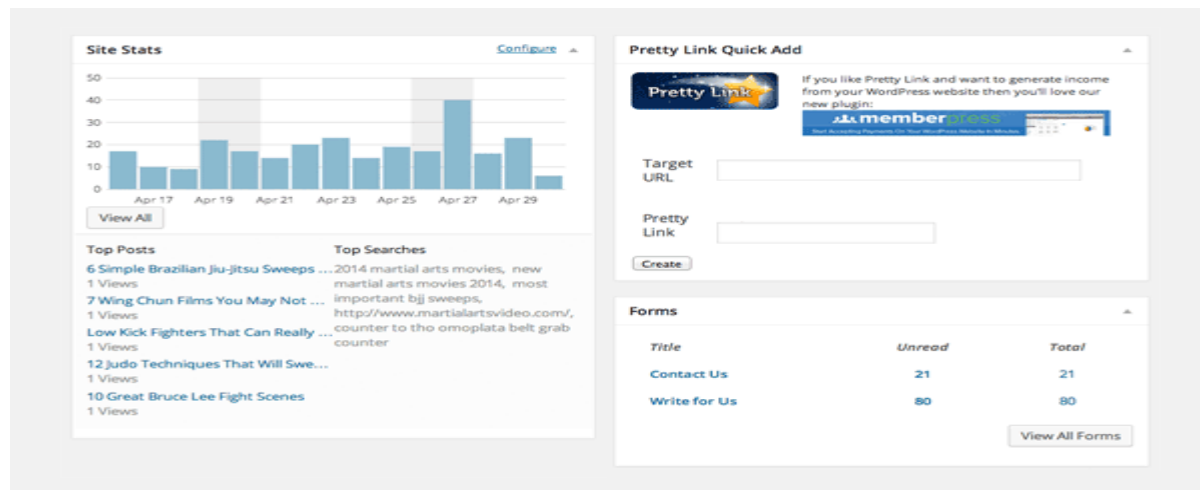
Other plugins, such as Dashboard Notes or Advanced Drafts & Reviews Dashboard Widget, are specifically designed to enhance your WordPress dashboard. This allows you to truly customize your dashboard with the information you need. For example, on my personal blog I have installed Google Analytics Dashboard for WP so that I can have a quick glance at my recent traffic stats every time I log in.

You can also add your own custom widgets to your dashboard by adding functions to a plugin or to your theme's functions.php template. This does, however, require a little technical knowledge to execute.

If you have a lot of plugins installed on your website, your dashboard may start getting a little overcrowded. Do not be alarmed if this occurs as you can disable any unwanted widgets through the screen options menu. Alternatively, you could use a plugin such as Nova Dashboard Cleanup to remove unwanted widgets.

The default widgets, such as activity and quick draft, are automatically displayed on the dashboard of other users such as contributors and authors. Plugins that add widgets to your dashboard may also show them to unauthorized users. This can be a big problem as users may see sensitive information that they were not supposed to (e.g. traffic, important notes etc).

To control what widgets other user groups can see, I recommend using a plugin such as Dashboard Commander. It allows you to restrict access of widgets to users who have a certain permission level.

Dashboard Commander Options

Select the minimum access level you want to make a dashboard widget visible to.

At a Glance — Nobody

Activity — Nobody

Quick Draft — Nobody

WordPress News —
✓ Nobody
switch_themes
edit_themes
activate_plugins
edit_plugins
edit_users

Save Changes

For many people, the WordPress dashboard is simply the page they see before they click on the admin menu and go to a specific page. For others, the dashboard has become a nuisance as it has been filled with useless widgets from plugin developers.

Yet, if you take control of your dashboard, it can be a fantastic tool. It can be a place to save ideas, reply to comments, and view your current traffic statistics. WordPress gives you the tools to control your dashboard; however it is your job to use them.

- **Adding a New Web Page**

To add a new web page:

1. Click on the Pages menu in the sidebar and select "Add New."
2. Enter your page title in the top box
3. Add the page content into the WordPress Editor.
4. In the right sidebar, you will see a box labelled "Page Attributes." Here you can specify a parent page and a template.

• Parent Page: If your new page belongs on a sub-menu beneath another page, you should specify that page as it's Parent.

• Template: You may also choose a template if your theme has multiple templates; however, most pages will use the default template.

5. Make sure you click the Publish button to save your changes and make them live. If you are not ready to go live, you can also choose to save your page as a draft.

Important Note: Some themes are set up to automatically add your page to the menu and others require that an Administrative user manually add the page to the menu.

- **Updating a Web Page**

The process for updating an existing web page is basically the same as adding a new page.

Click on the Pages menu to bring up a list of your pages.

When you hover over the page that you want to edit, a menu will appear below that page as shown in the screen-shot below. Click on the Edit link to edit your web page.
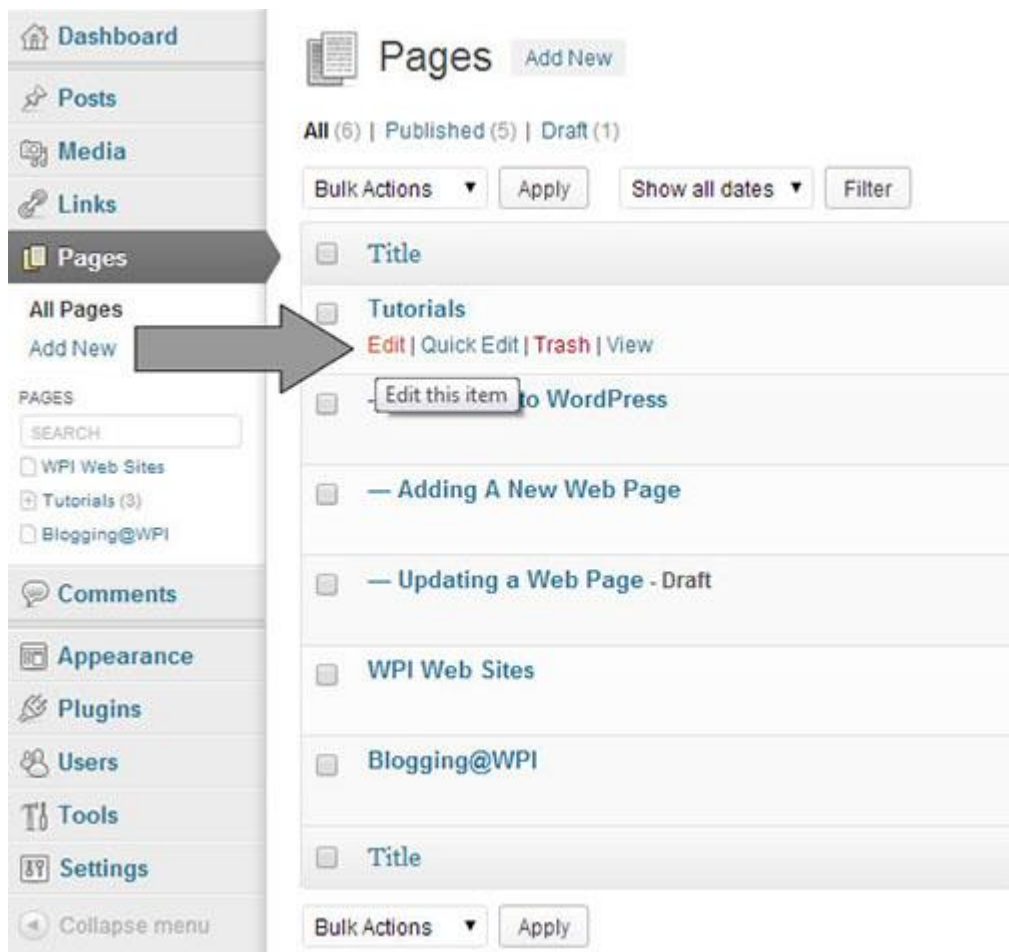
When the web page opens, you can edit your title(1) and your page content(2) as desired. Make sure you click the Update button (3) to save your changes and make them live.

- **Adding a Blog Post**

One of the great things about WordPress is that its interface is very consistent. So if you already know how to add/edit web pages, then this tutorial will seem like a review. There are however a few "extra" things that you need to do when adding a blog post.

To add a new blog article, click on the Posts menu in the sidebar and select "Add New."

1. Enter your post title in the top box
2. Add the content into the WordPress Editor
3. In the sidebar, you need to choose a category for the article to appear in.
4. You should also specify tags for your article (Make sure you check out the tutorial on Organizing your Blog with Categories & Tags)
5. If your theme uses Excerpts, you can specify a shortened version of the article in the Excerpts box.
6. Make sure you press the Publish button to save your changes and make them live!

- **Updating a Blog Post**

The process for updating a blog post is basically the same as adding a new post.

Click on the Post menu to bring up a list of your articles.

When you hover over the article that you want to edit, a menu will appear below that page as shown in the screen-shot below. Click on the Edit link to edit your post.

When the post opens, you can edit your title(1) and your page content(2) as desired.

You can also change the categories and tags in side bar if necessary.

Make sure you click the Update button (3) to save your changes and make them live.

Deleting a Page or Post

To delete a web page or blog post, click on the appropriate menu (Pages or Posts) and hover over the one you wish to delete..

On the hover menu, you will see a Trash option. Click this to move the page to the trash.
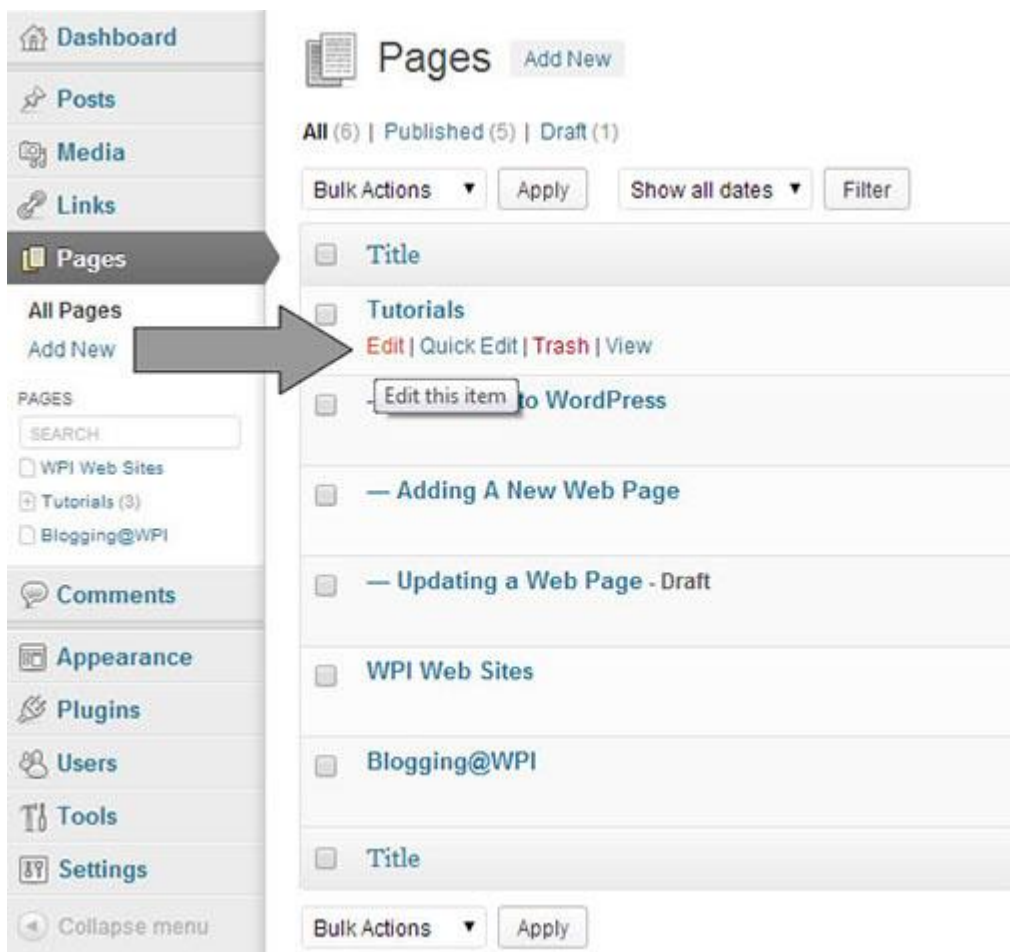
Note that the file is just moved to the trash and is not actually deleted. You can go into the trash folder to restore a page if you accidentally delete a page.

To get to the trash folder go to either the Pages section or the Posts, depending upon what you want to delete. At the top of the page, there is a horizontal menu (1) that allows you to filter the page to view: All Pages, Published Pages, Draft Pages or Trash. Click on the Trash link.

To RESTORE(2): Hover over the page you want to restore and click on the Restore link. This will restore the page to it's former state – either Published or Draft.

To PERMANENTLY DELETE(2): Hover over the page you want to delete and click on the Delete Permanently link.

You can also check the box prior to multiple pages and use the "Bulk Action" drop-down box to Restore or Permanently Delete multiple pages at once.

In addition, you can "Empty the Trash(3)" to delete all of the pages in the trash at once.

- **How to Add Media (pdfs, jpgs, etc.) to Posts and Pages**

In order to add or update content and/or media on a WordPress website, you must have Administrator, Editor, Author or Contributor privileges.

- **How to upload .jpg, .gif, .png and .pdf files:**

(It is not recommended to upload and /or link to .doc files)

1. Log into your WordPress website
2. Click on Media (left navigation) > Add New
   You will see a 'Multi-file uploader' – you can do the same tasks with the 'Browser uploader' as well, however these instructions are for using the 'Multi-file uploader'. File types you can upload: .jpg, .gif, .png and .pdf.
3. Either:
   drag and drop the media files you wish to use on your website to the space inside the dotted lines;OR
   click on 'Select Files', find the file you wish to upload, and click to upload.
   Information about the file will then appear.
4. (Optional) You can now edit the image by clicking the 'Edit Image' button
5. Fill in the Alternate Text field
   This is the text that would appear if a visitor's images are turned off or if a visitor was using a text or screen reader. It should describe the image in a succinct manner.
6. Take note of the File URL
   This is the URL you use to link to the image or file.
7. Click 'Save all changes' to keep your file in the system
   You will be directed to the Library page that lists all uploaded media for your website.

- **How to delete a media file:**

If you no longer wish to have a media file in your system:

1. Click on Media > Library
2. Hover over the name of the file you wish to delete
   Three options will appear: 'Edit', 'Delete Permanently' and 'View'.
3. Click on 'Delete Permanently'
   A pop-up window will appear.

4. Click on 'Ok'
Your file will now be permanently deleted and no longer available or in an archive.

Keep in mind that when a file is deleted, there is no back-up and it is not retrievable. It is very important to be sure that when a file is deleted, it is done intentionally and with care.

- **How to find a media file's URL:**

1. Click on Media > Library
2. Hover over the name of the file you wish to delete
Three options will appear: 'Edit', 'Delete Permanently' and 'View'.
3. Click on 'Edit'
A page will all associated data will appear.
4. At the bottom of the page is 'File URL' and a URL.
This is your file's URL.
5. Click on 'Update Media' to return to the Library page
Alternatively, you can simply navigate away from this page. If you have made any changes to the information, you will loose those changes if you do not click 'Update Media' to save them.

- **How to link to media:**

If you wish to link to a media file (eg. a PDF or ZIP file) from a page or post:

1. Open up the Page or Post you wish to add the media file to
2. Highlight the text you'd like to use as a hyperlink
3. Click on the chain icon in the area above the text field you're using – it usually appears in the middle of the top row and if you rest your mouse on it, the words 'Insert / Edit Link (Alt + Shift + A)' will appear with a yellow background. A pop-up box will appear
4. Enter the URL of your file (see above 'How to find a media file's URL')
5. Optional: Click 'Open link in a new window/tab'
Only links to PDF files should open up in separate window; images, videos and webpages should not.
6. Click on 'Add Link'
You will be returned to your original Page or Post, and the text you made into a hyperlink will now be underlined and a different colour than your regular text.

Note:

- A hyperlink's text should be descriptive of the link destination. Whenever possible it should be the title of the page or media file being linked to and never read as 'click here'.
- If you are linking to a PDF, ZIP file, etc., warn your visitors by including the file type in brackets before the end of the hyperlink

- **How to insert an image onto your page:**

1. Open up the Page or Post you wish to insert the image file into
2. Click on 'Upload / Insert'
This is found below the title of your page and above the field where you add your content – there are usually icons on the right side. A new window will appear.
3. If your image has not yet been uploaded, stay on the default 'From Computer' tab and proceed as directed in the "How to upload .jpg, .gif, .png and .pdf files" above; If your image is already uploaded to the website, click on the 'Media Library' tab at the top of the window and continue as described belowWhen the 'Media Library' tab is opened, a list of all available images will be shown.

4. Find the image you wish to use, and click on 'Show' (on the right)
    The section will expand to show all details associated with the image.
5. If Alternate Text has not yet been written, fill in that field
6. Click on where on the page the image should be aligned
    Right alignment is recommended.
7. Select the appropriate size for your image
    If the image was sized before uploading, click on 'Full Size'
8. Click on 'Insert into Post'
    The window will close and you will be returned to your page or post.

- **User Roles and Capabilities**

User roles

Roles are essentially user groups, WordPress comes with six out of the box. These go from the most basic of subscriber all the way up to the most powerful one of Super Admin. Let's learn a bit more about them.

- Subscriber: the most basic role a user can have. A subscriber can only read published posts and pages and modify their own profile.
- Contributor: a contributor can create new posts and modify their content, but can't publish them.
- Author: an author can create, modify and publish their own posts.
- Editor: the editor can do anything an author can do and additionally has the capability of modifying, publishing and deleting other users' posts.
- Administrator: along with all the above permissions and administrator can handle administrative tasks, such as installing plugins and themes, modifying site settings and more.
- Super Admin: the final user role can only be found on multisite installations and grants the user the ability to create and delete sites, install and activate themes and plugins network wide and more.

Capabilities

Capabilities are essentially permissions, each one grants the user a certain ability. For example publish_posts allows a user to publish a post they have created, this capability is available to users with the role of author and upwards. As you might imagine the more capabilities a user has, the more powerful they become. A subscriber has a single capability, that of read which means that the only thing they can visit in the WordPress dashboard is their own profile page under Users > Your Profile. At the moment of writing there are about 60 default capabilities which can be found here.

The default roles and their assigned capabilities will cover the needs of most websites out there. However in some cases they might not be perfect. For example, while contributors can create posts they can't upload files of any kind, so they can't add featured or inline images. Another thing that may cause trouble to multi author site owners is that the author role allows users to delete posts that have been already published, which is problematic because an author can create the post, get paid for it and then delete it after it's published.

By default WordPress does not allow administrators to modify capabilities for user groups, making it hard to fine tune permissions to match their needs. This can be amended by writing some code to add or remove permissions from specific groups, or luckily, by using one of the many role manager plugins available in the plugin directory. Some of the most popular are User Role Editor, Members, Advanced Access Manager, WPFront User Role Editor, Capability Manager Enhanced and User Roles & Capabilities. Basic functionality on all plugins is the same, they will all allow you to modify the capabilities of existing user roles, create new user roles only with the capabilities you need and even create and assign new capabilities.
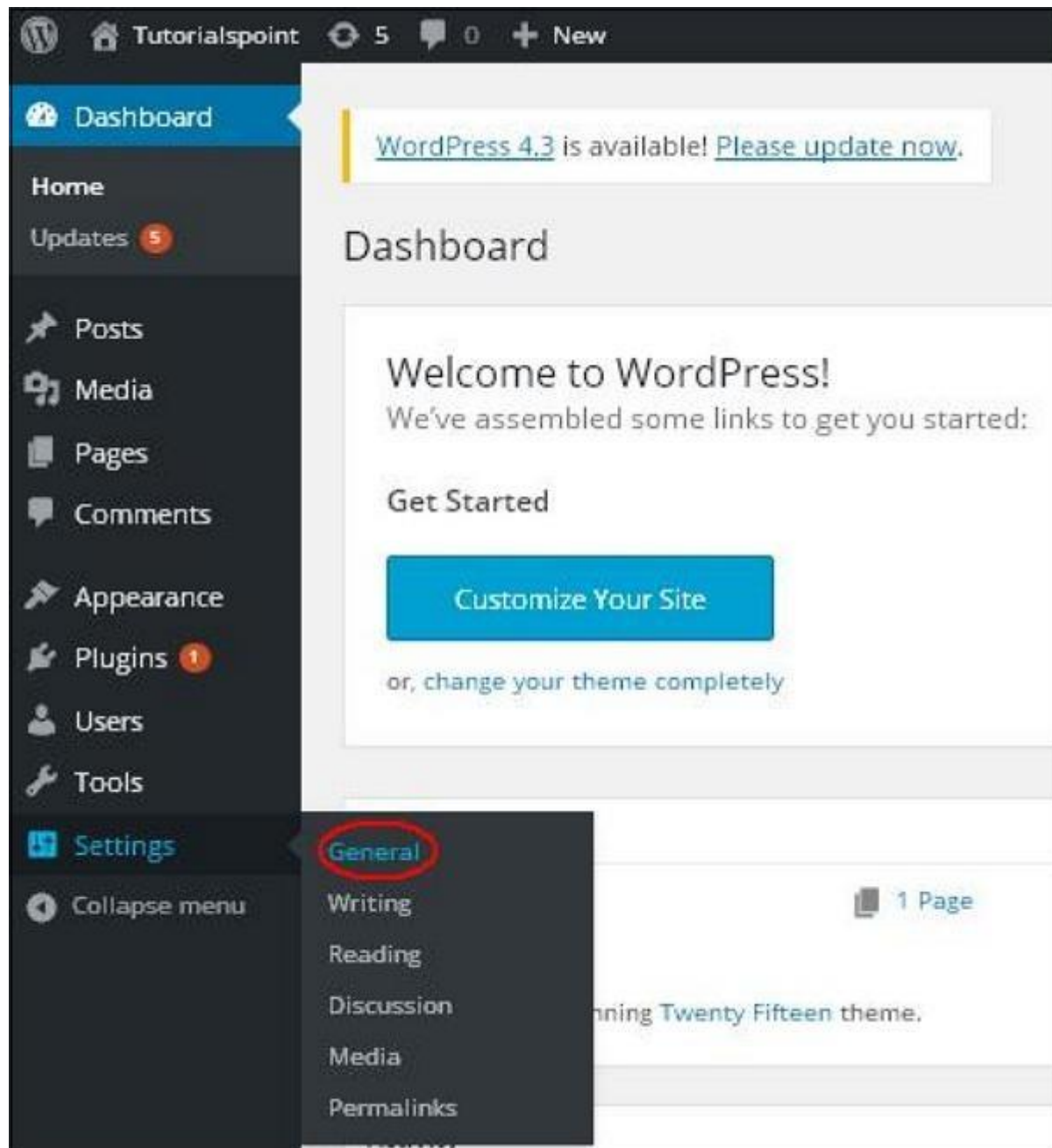
- **Settings (General, writing, Reading, Discussion, Media, Permalinks)**

General Setting

WordPress general setting is used to set the basic configuration settings for your site. In the setting administration screen, it is a default setting screen.

Following are the steps to access the general settings –

Step 1 – **Click on Settings → General option in WordPress.**

Step 2 – **The General Setting page is displayed as shown in the following snapshot.**

Following are the details of the fields on general settings page.

- Site Title − It displays the name of the site in the template header.
- Tagline − Displays a short sentence about your site.
- WordPress Address (URL) − It is the URL of WordPress directory where your all core application files are present.
- Site Address(URL) − Enter the site URL which you want your site to display on the browser.
- E-mail Address − Enter your e-mail address which helps to recover your password or any update.
- Membership − Anyone can register an account on your site after you check this checkbox.
- New User Default Role − The default role is set for the newly registered user or members.
- Timezone − Sets the time zone based on the particular city.
- Date Format − Sets the date format as you need to display on the site.
- Time Format − Sets the time format as you need to display on the site.
- Week Starts On − Select the week day which you prefer to start for WordPress calendar. By default it is set as Monday.
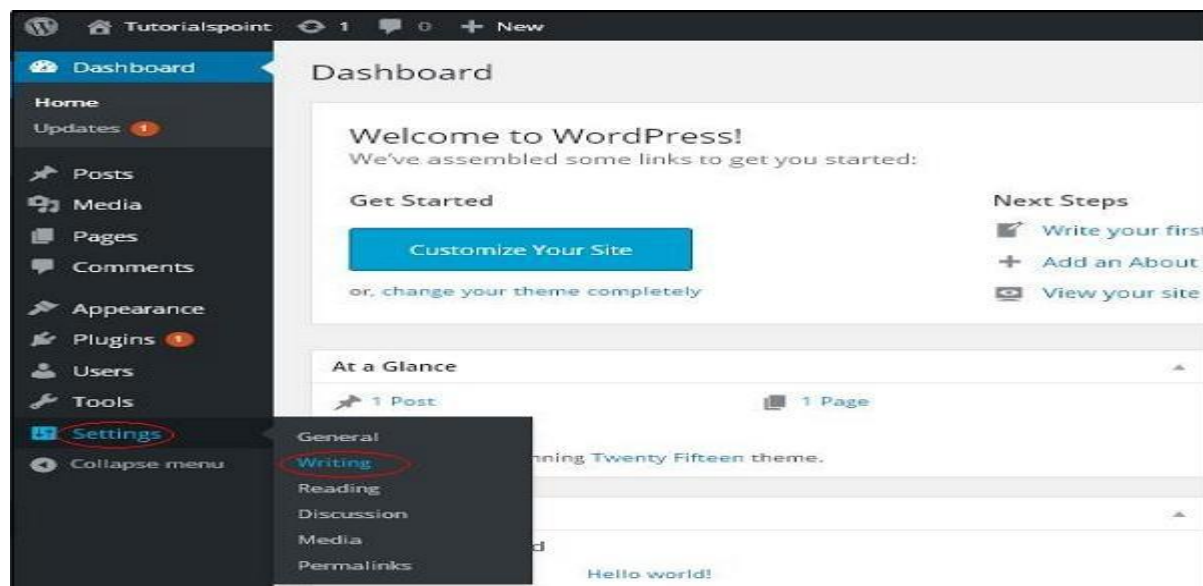- Site Language − Sets the language for the WordPress dashboard.

Step3 − After filling all the information about general settings, click on Save Changes button. It saves all your general setting information.

- **Writing Setting**

The writing settings controls the writing experience and provides options for customizing WordPress site. These settings control the features in the adding and editing posts, Pages, and Post Types, as well as the optional functions like Remote Publishing, Post via e-mail, and Update Services.

Following are the steps to access the writing settings –

Step (1) – **To change writing settings, go to Settings → Writing option.**

Step (2) – **The Writing Setting page is displayed as shown in the following screen.**

Following are the details of the fields on the page.

- Formatting – This field defines two sub options for better user experience.
  - The first option Convert emoticons like :-) and :-P to graphics on display will turn text-based emoticons into graphic-based emoticons.

- o The second option WordPress should correct invalidly nested XHTML automatically corrects the invalid XHTML placed within the posts or pages.
- Default Post Category – It is a category to be applied to a post and you can leave it as Uncategorized.
- Default Post Format – It is used by themes to select post format to be applied to a post or create different styles for different types of posts.
- Post via e-mail – This option uses e-mail address to create posts and publishes posts on your blog through e-mail. To use this, you'll need to set up a secret e-mail account with a POP3 access, and any mail received at this address will be posted.
- Mail Server – It allows reading the e-mails that you send to WordPress and stores them for retrieval. For this, you need to have POP3 compatible mail server and it will have URI address such as mail.example.com, which you should enter here.
- Login Name – To create posts, WordPress will need its own e-mail account. The Login Name will use this e-mail address and should be kept as a secret as spammers will post links redirecting to their own websites.
- Password – Set password for the above e-mail address.
- Default Mail Category – It allows selecting custom category for all the posts that are published via Post by e-mail feature.
- Update Services – When you publish a new post, WordPress will automatically notify the site update services in the box. See the Update Services on the codex for the long list of possible services.

Step (3) – **After filling all the above information, click on Save Changes button to save your information.**

- **Reading Setting**

Reading Setting is used to set the content related to the front page. You can set the number of post to be displayed on the main page.

Following are the steps to access the reading settings –

Step (1) – **Click on Settings → Reading option in WordPress.**
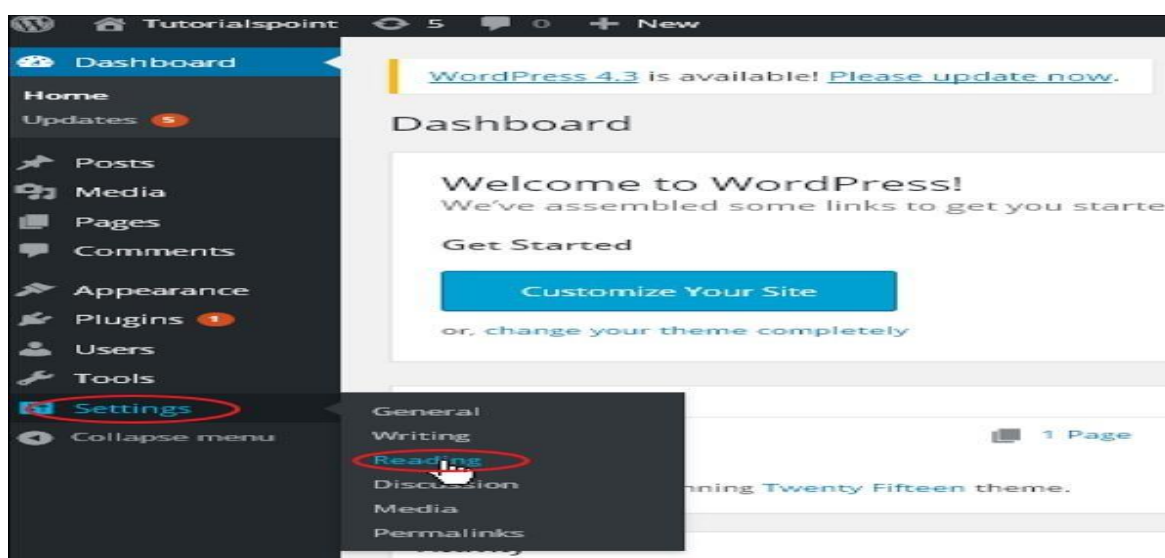
Step(2) – **The Reading Settings page is displayed as shown in the following screen.**
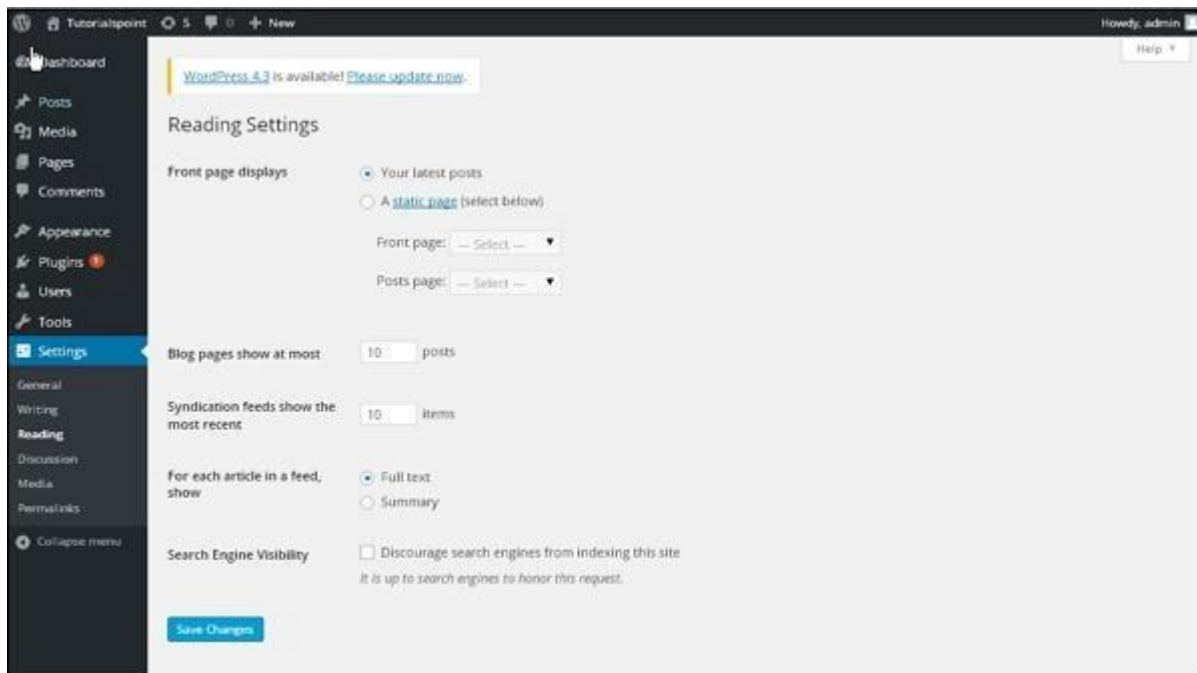
Following are the details of the fields on reading settings.

- **Front page displays** – This section is used to display the front page in any of the following format –
  - ○ Your latest posts – It displays latest posts on the front page.
  - ○ A static page – It displays the static pages on the front page.
  - ○ Front Page – You can select the actual page you want to display on front page from the drop down.
  - ○ Posts Page – You can select the page from the drop down which contains posts.
- **Blog pages show at most** – The number of posts to be displayed per page or site. By default, it is set as 10.
- **Syndication feeds show the most recent** – The user can view the number of posts when they download one of the site feeds. By default, it is set as 10.
- **For each article in a feed, show** – This section is used to display the post by selecting any of the following formats –
  - ○ Full Text – It displays the complete post. It is set as default.
  - ○ Summary – It displays the summary of the post.
- **Search Engine Visibility** – After clicking on the checkbox, Discourage search engines from indexing this site, your site will be ignored by the search engine.

Step(3) – **After filling all the information, click on Save Changes button to save your Reading Setting information.**

- **Discussion Setting**

WordPress discussion setting can be defined as the interaction between the blogger and the visitors. These settings are done by the admin to have a control over the posts/pages that come in through users.

Following are the steps to access the Discussion setting –

Step (1) – **Click on Settings → Discussion option in WordPress.**
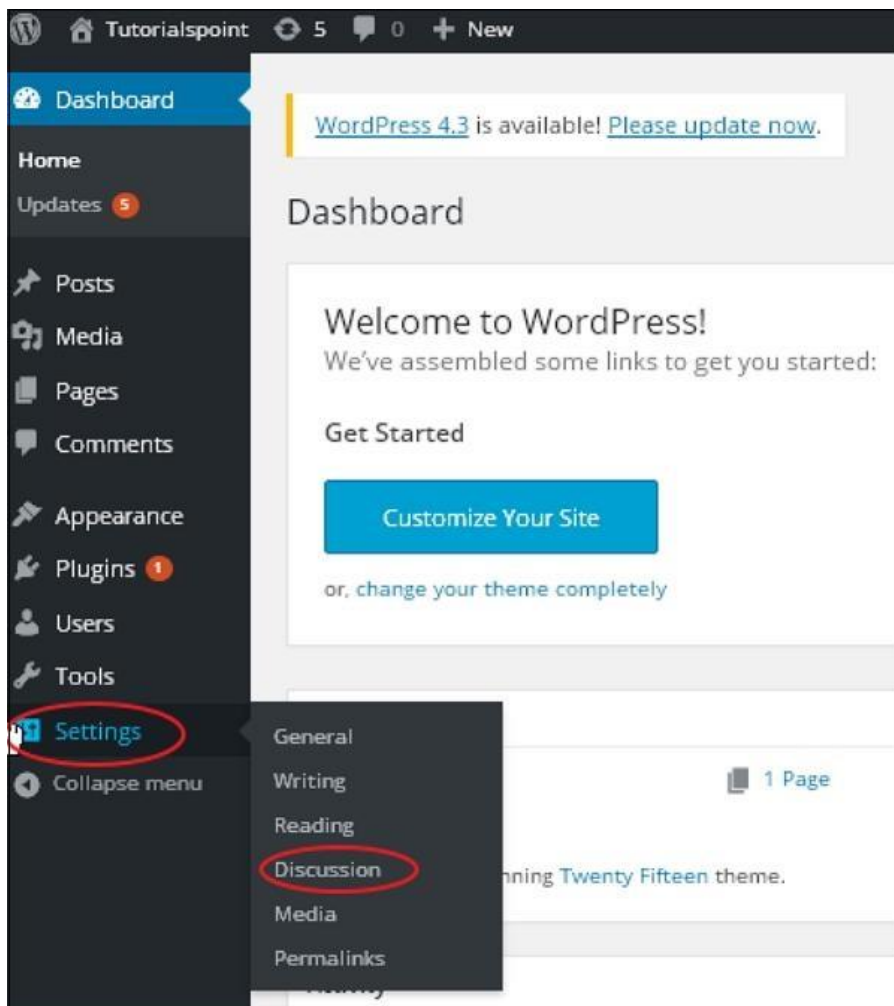
Step (2) − **The Discussion Settings page is displayed as shown in the following snapshot.**
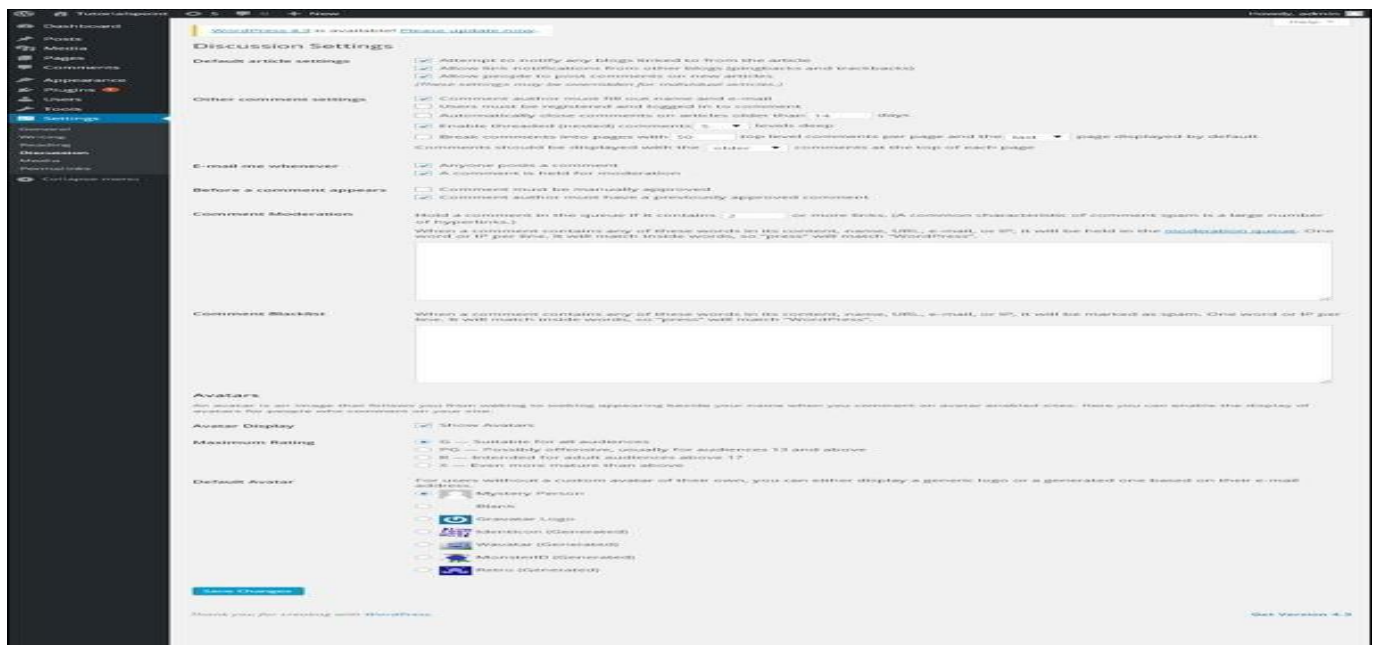
Following fields are seen in Discussion settings.

- Default article settings − These settings are default to the new pages you create or new posts. This contains three more settings. They are −
    - Attempt to notify any blogs linked to from the article − When you publish articles then it sends a notification (sends pings and trackback) to other blogs.

- o Allow link notifications from other blogs (pingbacks and trackbacks) – Accepts pings from other blogs.
  - o Allow people to post comments on new articles – You can allow or disallow other people to comment on your article using this setting.

  You can change the settings as per your will for individual articles.

- Other Comment Settings – This setting has the following options –
  - o Comment author must fill out name and e-mail – When you check this box, it is mandatory for visitors to fill their name and email address.
  - o Users must be registered and logged in to comment – If you check this box, only those registered visitors can leave comments, if not checked anyone can leave any number of comments.
 - o Automatically close comments on articles older than days – This option allows you to accept comments only for a particular time period as per your wish.
  - o Enable threaded (nested) comments – When you check this option, visitors can reply or have a discussion and get responses.
  - o Break comments into pages with top level comments per page and the page displayed by default – If your pages are getting a lot of comments then you can split them into different pages by checking this box.
  - o Comments should be displayed with the comments at the top of each page – You can arrange the comments in the form of ascending or descending order.
- Email me whenever – This setting contains two options, namely –
  - o Anyone posts a comment – When you check into this box, the author gets an e-mail for every single comment that is posted.
  - o A comment is held for moderation – This is used in case you do not want your comment to be updated before it's moderated by the admin.
- Before a comment appears – This setting allows how your posts are controlled. There are two more settings as followed –
  - o Comment must be manually approved – If you check this box then only the approved comments by the admin can be displayed on the posts or pages.
  - o Comment author must have a previously approved comment – This can be checked when you want to approve a comment of an author whose has commented and his e-mail address matches the e-mail address of the previous posted comment. Otherwise the comment is held for moderation.
- Comment Moderation – Contain only a specific number of links that are allowed into a comment.
- Comment Blacklist – You can input your own spam words which you do not want your visitors to enter into the comments, URL, e-mail etc.; later it would filter the comments.
- Avatars – Avatar is a small image that displays at the top-right-hand corner of the dashboard screen beside your name. It is like your profile picture. Here you have a few more options where you can set your avatar for WordPress site.
  - o Avatar Display – It displays your avatar besides your name when it is checked.
  - o Maximum rating – You have a four other options of avatars you can use. They are G, PG, R and X. This is the age section where you select according to which type of audience you want to display your posts.
  - o Default Avatar – In this option, there are few more types of avatars with images; you can keep these avatars according to your visitors e-mail address.

Step (3) – **Click on Save Changes button to save the changes.**

- **Media Setting**

It is used to set the height and width of the images which you're going to use on your website.

Step (1) – **Click on Settings → Media option in WordPress.**
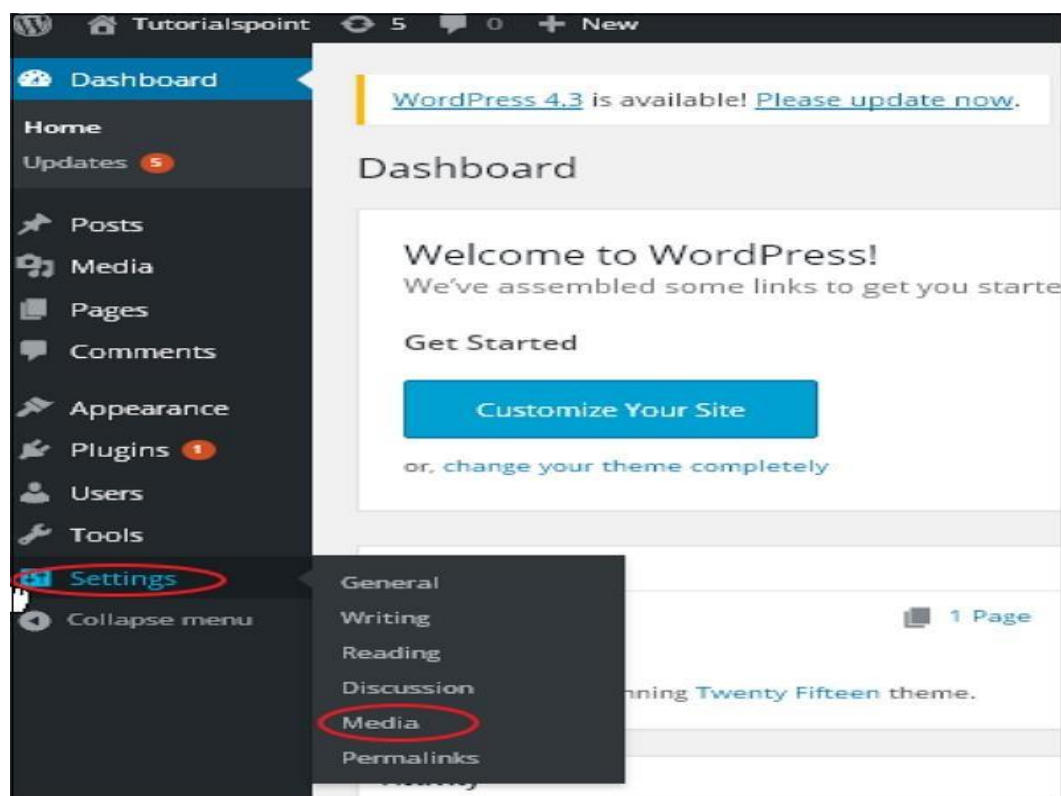
Step (2) – **The Media Settings page is displayed as seen in the following screenshot.**
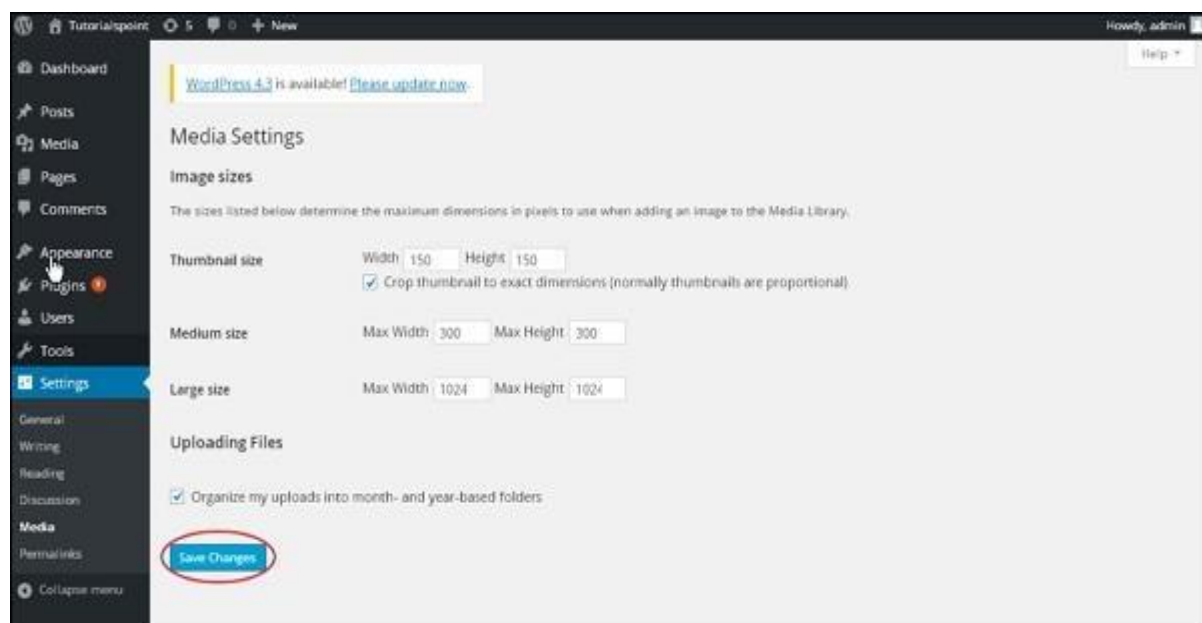
Following are the details of the fields on Media settings –

- Thumbnail size – Set the size of the thumbnail.
- Medium size – Set the height and width of medium size images.
- Large size – Set width and height of larger images.
- Uploading files – After checking this checkbox, the uploaded image will be arranged into year and month based folder.

Step (3) – After setting the dimension in pixels, click on Save Changes button. It saves your media setting information.

- **Permalinks Setting**

Permalink is a permanent link to a particular blog post or category. It allows setting the default permalink structure. These settings are used to add permalinks to your posts in WordPress. Following are the steps to access permalink settings.

Step (1) – **Click on Settings → Permalinks option from the left navigation menu.**
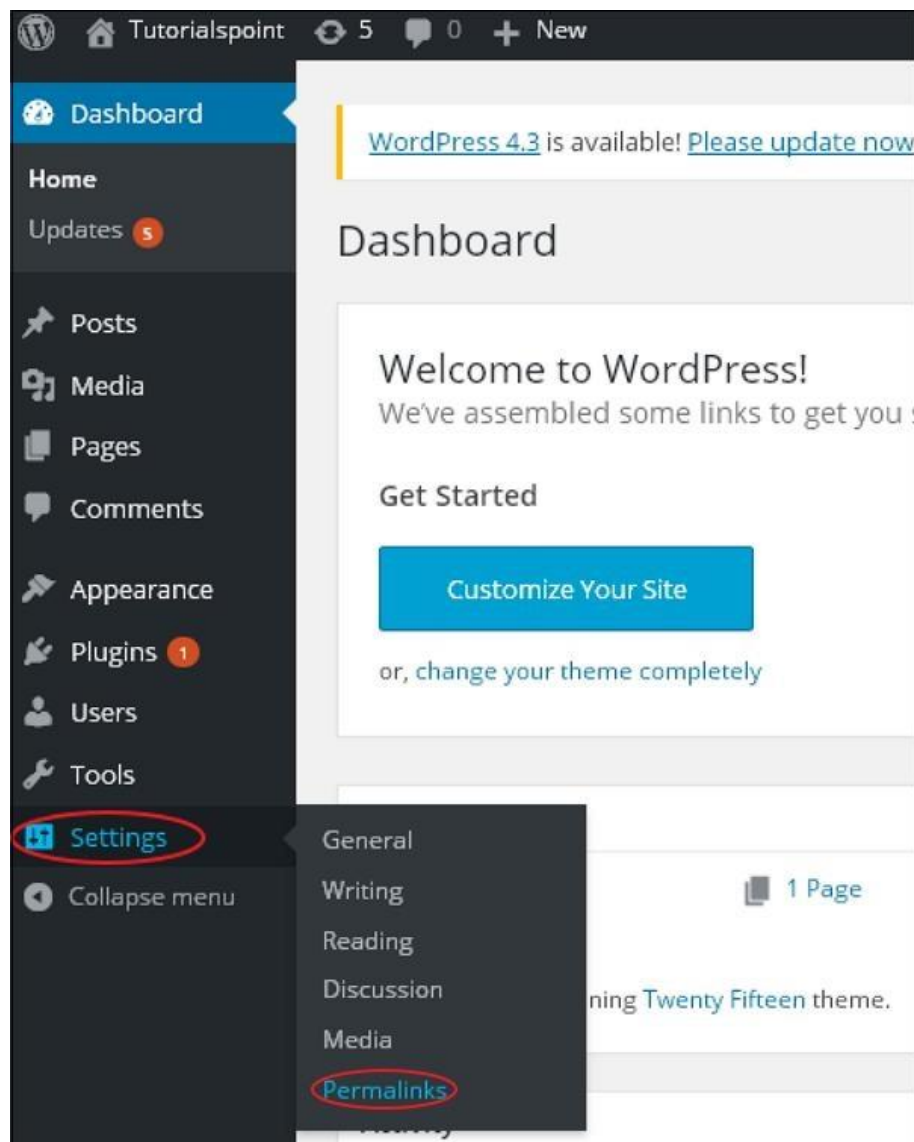
Step (2) – **When you click on Permalinks, the following page appears on the screen.**
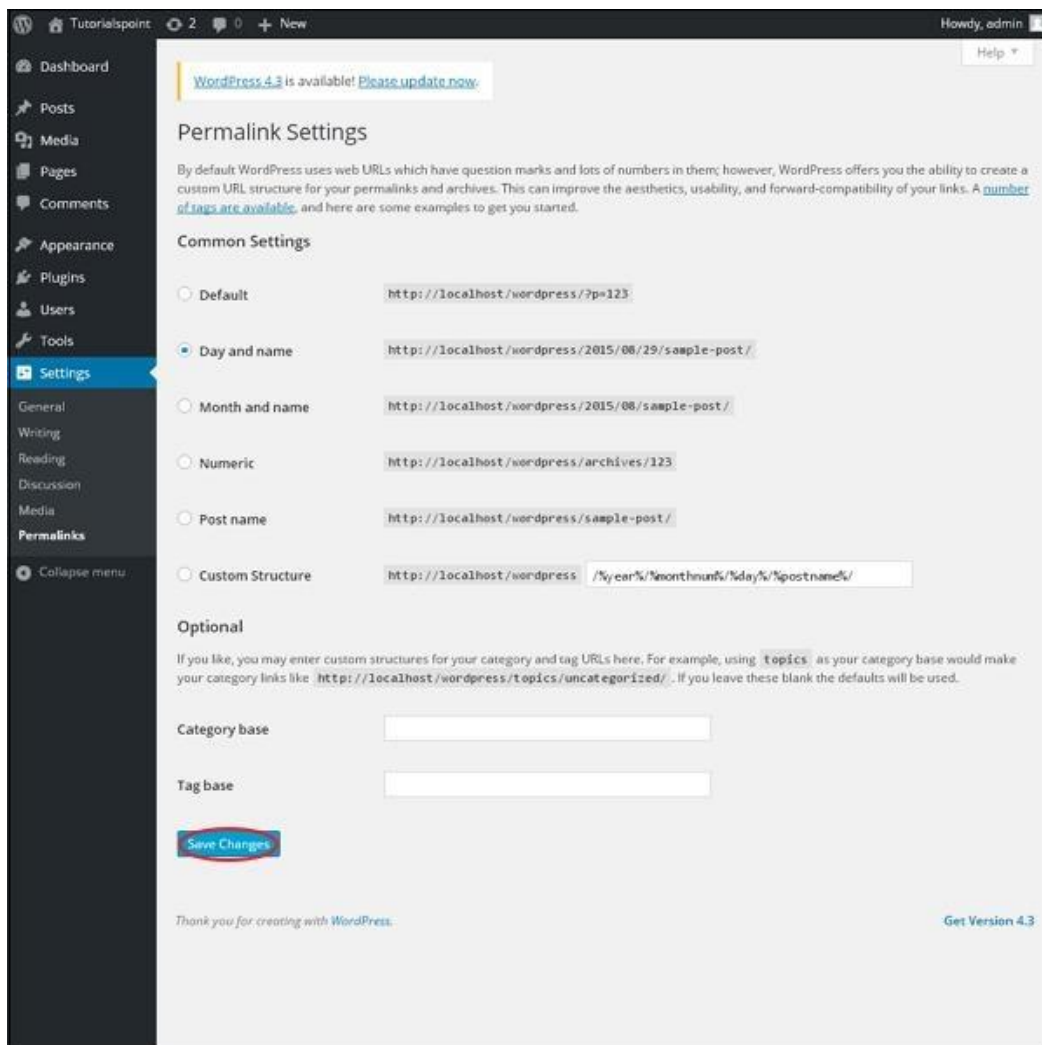
Here are a few settings you can make −

- **Common settings −**

  Check any of the radio buttons to choose your permalink structure for your blogs

    o Default − It sets the default URL structure in Wordpress.
    o Day and name − It sets URL structure according to the date and name in your posts.
    o Month and name − It sets the URL structure according to the month and name in your post.
    o Numeric − It sets numbers in the URL structure in your post.
    o Post name − It sets post name in the URL structure in your post.
    o Custom Structure − It sets the URL structure of your choice by writing the desired name in the given text box.

- Optional

  These are optional. You can add custom structure for main category or tag URL. If your text box is empty then default settings is used. Here you have two options.

    o Category Base − Add custom prefix for your category URL.
    o Tag Base − Add custom prefix to your Tags URL.

Step (3) − **Once you are done with changes, click on Save Changes button to save the permalink settings.**

Upgrading WordPress Core Manually

1. First create a full backup of your website. This is very important in case you make a mistake.
2. Download the newest WordPress ZIP file from wordpress.org.
3. Unzip the file into a directory on your local machine or in a separate directory on your website.
4. Deactivate all of the plugins on your WordPress site.
5. Go to your website root directory and delete your 'wp-includes' and 'wp-admin' directories. You can do this via sFTP or via SSH.
6. Upload (or copy over) the new wp-includes and wp-admin directories from the new version of WordPress you unzipped to your website root directory to replace the directories you just deleted.
7. Don't delete your wp-content directory or any of the files in that directory. Copy over the files from the wp-content directory in the new version of WordPress to your existing wp-content directory. You will overwrite any existing files with the same name. All of your other files in wp-content will remain in place.
8. Copy all files from the root ('/') directory of the new version of WordPress that you unzipped into your website root directory (or the root directory of your WordPress installation). You will overwrite any existing files and new files will also be copied across. Your wp-config.php file will not be affected because WordPress is never distributed with a wp-config.php file.
9. Examine the wp-config-sample.php which is distributed with WordPress to see if any new settings have been added that you may want to use or modify.
10. If you are upgrading manually after a failed auto-update, remove the .maintenance file from your WordPress root directory. This will remove the 'failed update' message from your site.
11. Visit your main WordPress admin page at /wp-admin/ where you may be asked to sign-in again. You may also have to upgrade your database and will be prompted if this is needed. If you can't sign-in, try clearing your cookies.
12. Re-enable your plugins which you disabled earlier.
13. Clear your browser cache to ensure you can see all changes. If you are using a front-end cache like 'varnish' you should also clear that to ensure that your customers can see the newest changes on your site.
14. Your upgrade is now complete and you should be running the newest version of WordPress.

Upgrading WordPress Plugins Manually

1. First back-up your WordPress site if you haven't already.
2. Download a ZIP file of the plugin you need to upgrade. You can usually find most plugins on the plugin repository along with a link to download the newest ZIP file.
3. Unzip the plugin onto your local machine. It will create a directory called 'plugin-name' with all the files under it.
4. Use sFTP to delete the existing plugin directory from the wp-content/plugins/ directory on your site.
5. Replace the deleted directory by uploading the unzipped plugin to the wp-content/plugins/ directory leaving it in a directory that looks like (for example) wp-content/plugins/plugin-name
6. Sign in to your WordPress site. Go to the 'Plugins' menu and verify that the plugin you upgraded is the newest version.

Upgrading WordPress Themes Manually

Note, if you are running a customized theme you will lose any customizations if you simply overwrite your theme with a new one. In this case you will need to work with a developer to integrate your customizations into your new WordPress theme instead of just overwriting the old theme. If you have not customized your theme's code and have merely customized it using the web admin interface that WordPress provides (without changing any of it's files), then you can follow the procedure below:

1. First create a backup of your WordPress site.
2. Download a ZIP file of the theme you plan to upgrade.
3. Unzip the theme files onto your local machine.
4. Use sFTP to delete your existing theme directory from the wp-content/themes/ directory.
5. Replace the deleted directory by uploading the unzipped theme into your wp-content/themes/ directory. You should now have a structure that looks something like wp-content/themes/theme-name/
6. Sign into your WordPress site. Go to Appearance > Themes and verify you are running the newest version of your theme.

One-Click WordPress installation to automatically update

You can use either the One-Click Installs page in the panel or log into your WordPress panel to set up automatic upgrades.

To use the One-Click Install feature in the panel to request upgrade notifications:

1. Open your panel at (Panel > 'Goodies' > 'One-Click Installs')
2. Choose your domain.
3. Click the edit link under the 'Upgrade Action' column.
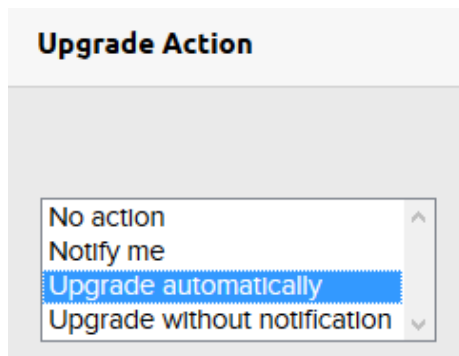
4. Select the Upgrade automatically option.

   Please note that all One-Click Installs require that the domain they are being installed onto is set to Fully Hosted.

- When you request automatic upgrades, DreamHost updates the packages in the installer whenever they become available and notifies you via email.

- You can also update your site by logging into your WordPress dashboard. From there, you can update your core WordPress install, plugins, and themes.

WordPress Database Structure

WordPress is written using PHP as its scripting language and MySQL as its database management system. For using WordPress you don't need to learn php & MySQL, but if you have basic understanding of how it works that will be enough to solve any problems that you will get into. Here in this article you will learn about WordPress database structure.

Default installation of WordPress comes with eleven tables. These are the following tables.

1. wp_commentmeta
    o   Each comment features information called the meta data and it is stored in the wp_commentmeta.
2. wp_comments
    o   The comments within WordPress are stored in the wp_comments table.
3. wp_links
    o   The wp_links holds information related to the links entered into the Links feature of WordPress.
4. wp_options
    o   The Options set under the Administration > Settings panel are stored in the wp_options table.
5. wp_postmeta
    o   Each post features information called the meta data and it is stored in the wp_postmeta. Some plugins may add their own information to this table.
6. wp_posts
    o   The core of the WordPress data is the posts. It is stored in the wp_posts table. Also Pages and navigation menu items are stored in this table.
7. wp_terms
    o   The categories for both posts and links and the tags for posts are found within the wp_terms table.
8. wp_term_relationships
    o   Posts are associated with categories and tags from the wp_terms table and this association is maintained in the wp_term_relationships table. The association of links to their respective categories are also kept in this table.
9. wp_term_taxonomy
    o   This table describes the taxonomy (category, link, or tag) for the entries in the wp_terms table.
10. wp_usermeta
    o   Each user features information called the meta data and it is stored in wp_usermeta.
11. wp_users
    o   The list of users is maintained in table wp_users.

Above are the eleven tables, wp_ is the database prefix, we can change database prefix while installing WordPress.