



Web Technology and Services

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(CMS) Content Management Systems



- A CMS allows non-technical users to make changes to an existing website with little or no training.
- Primarily a Web-site maintenance tool for non-technical administrators.
- Typically requires an experienced coder to set up and add features

A CMS facilitates:

- Content creation
- Content control
- Editing
- Maintenance functions





- Designed for users with little or no knowledge of programming languages or markup languages
- Tools to create and manage content with relative ease of use.
- Most systems use a database to store content, metadata, and/or artifacts that might be needed by the system.



- Search engine optimization
- Integrated and online documentation
- Modularity and extensibility
- User and group functionality
- Template support for changing designs
- Installation and upgrade wizards
- Integrated audit logs
- Reduced need to code from scratch
- Unified user experience
- Version control
- Edit permission management



WordPress



WordPress Check List

- It is a **content management system** (CMS) used to create blogs and websites
- Created primarily in PHP, MYSQL and JavaScript
- Free and Open Source
- Powers 35% of Websites in Internet





WordPress Check List

	WORDPRESS.ORG	WORDPRESS.COM
Web Hosting	X	FREE
Domain Name	X	FREE *
Design (Themes)	FULLY CUSTOMIZABLE	LIMITED *
Plugins	FULL CONTROL	LIMITED *
Backups	SELF MANAGED	INCLUDED
Security	SELF MANAGED	INCLUDED

* upgrades will cost \$



WordPress Installation

Manual 5 minutes



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

Database Name	<input type="text" value="wordpress"/>	The name of the database you want to use with WordPress.
Username	<input type="text" value="root"/>	Your database username.
Password	<input type="password"/>	Your database password.
Database Host	<input type="text" value="localhost"/>	You should be able to get this info from your web host, if localhost doesn't work.
Table Prefix	<input type="text" value="wp_"/>	If you want to run multiple WordPress installations in a single database, change this.

Submit

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

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

Password [Hide](#)
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 Visibility ☐ Discourage search engines from indexing this site
It is up to search engines to honor this request.

Install WordPress

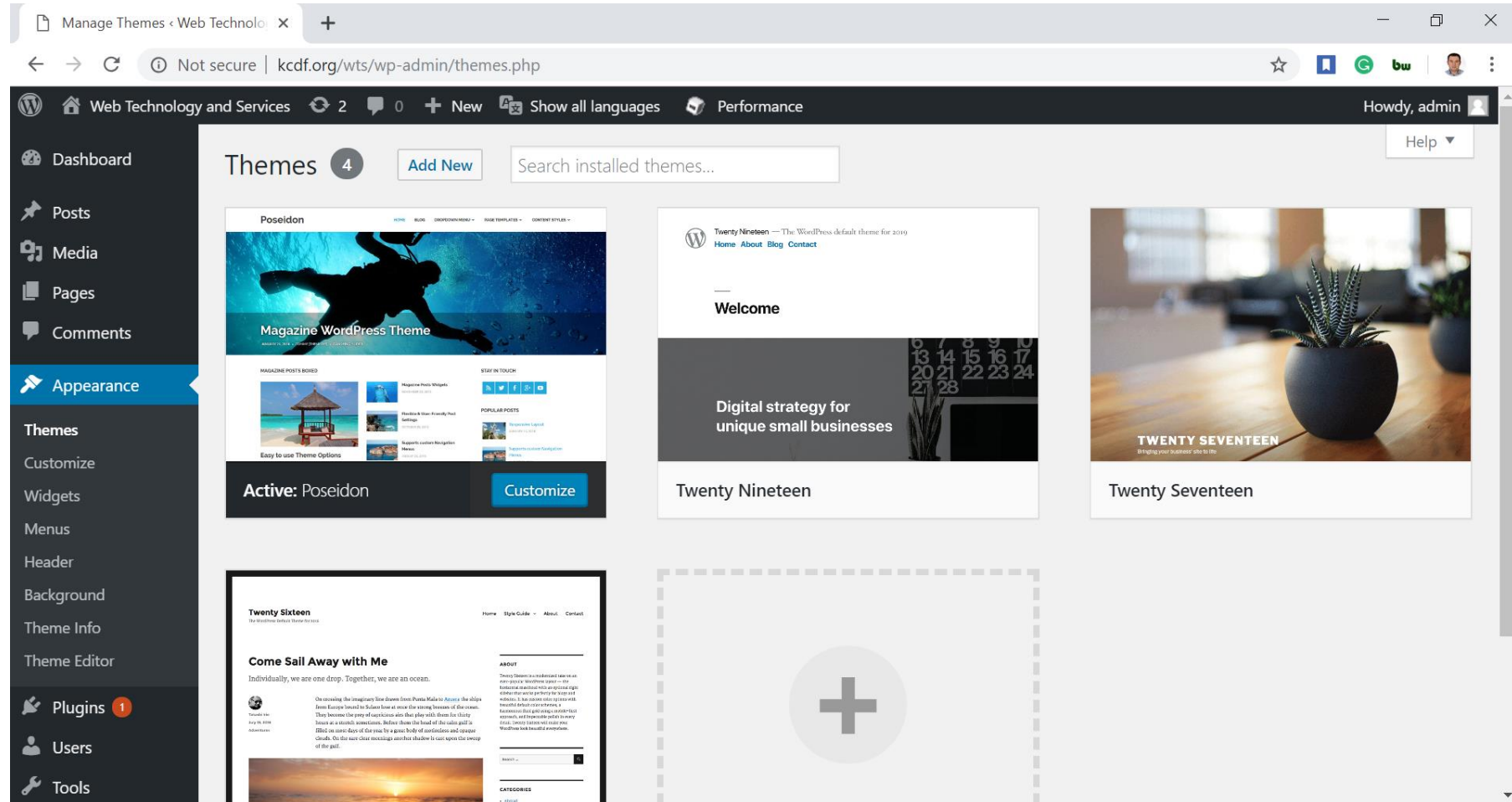


WordPress Installation

Automated Install - Softaculous - Web Hosting

- Automatic Installation
- Advanced options
- Easier upgrades
- Notifications for your site
- Enable Multisite
- Select Theme on Install

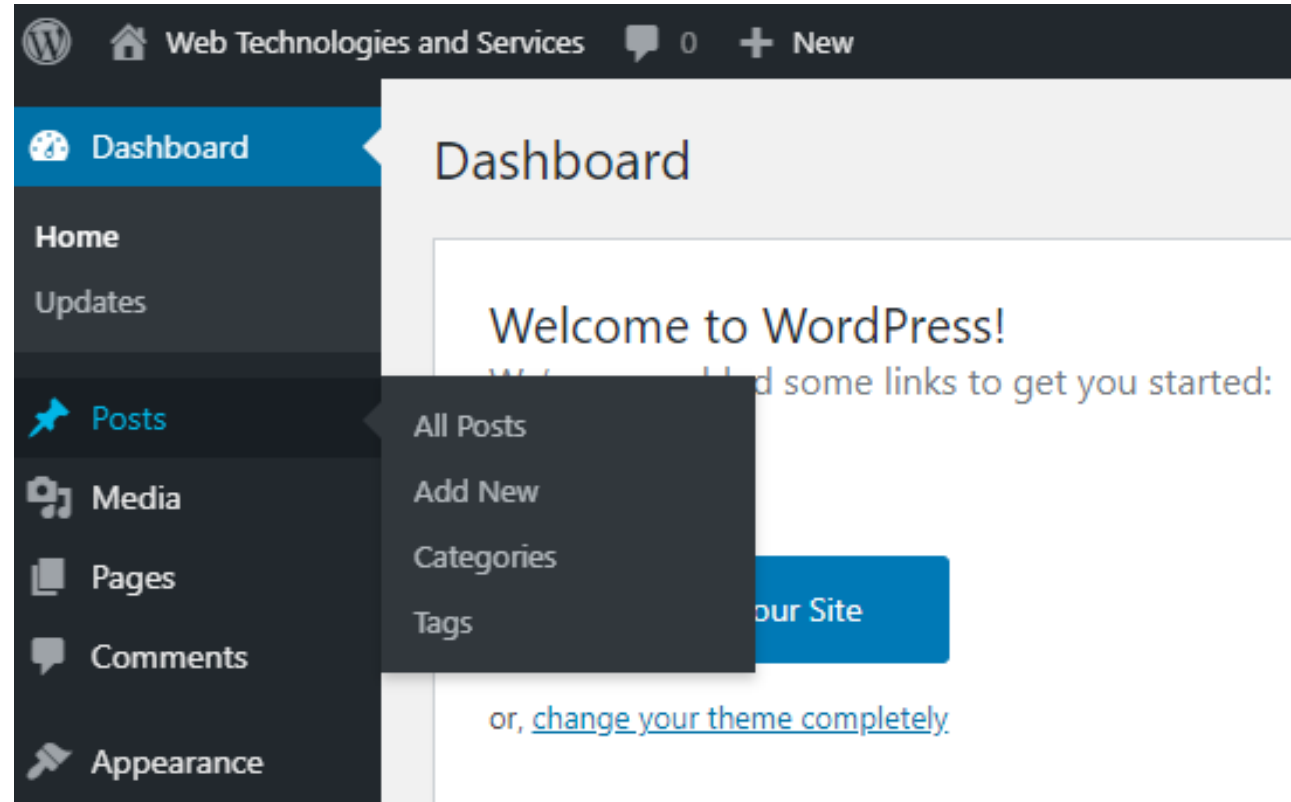
The screenshot displays the Softaculous website's WordPress installation page. The interface is divided into a left sidebar with a search bar and a list of application categories (e.g., SitePad Website Builder, Blogs, Micro Blogs, Portals/CMS, Forums, Image Galleries, Wikis, Social Networking, Ad Management, Calendars, Gaming, Mails, Polls and Analytics, Project Management, E-Commerce, ERP, Guest Books, Customer Support, Frameworks, Educational, DB Tools, Music, Video, RSS, File Management, Others). The main content area is titled 'WordPress' and shows a 5-star rating, version information (5.4, 5.3.2, 5.2.5, 5.1.4, 5.0.8, 4.9.13), and a release date (31-09-2020). Below this is a 'Software Setup' section with a 'Quick Install' button. It includes fields for 'Choose the version you want to install' (set to 5.4), 'Choose Installation URL' (set to https://bitblue.net/wp), and 'Site Settings' (Site Name: My Blog, Site Description: My WordPress Blog, Enable Multisite: unchecked). The 'Admin Account' section has fields for 'Admin Username' (admin) and 'Admin Password' (pass), with a 'Hide' button and a 'Bad (1/8/100)' warning. Below the main content area is a 'Softaculous Apps Installer' section with a yellow banner stating 'There are 3 Update(s) available.' It features a 'Scripts:' row with icons for WordPress, AbanteCart, PrestaShop, Joomla, phpBB, and Open Es, and a 'Categories:' row with icons for Blogs, Micro Blogs, Portals/CMS, Forums, Image Galleries, and Wikis. The bottom of the page is labeled 'Applications'.





Post Type - **Posts**

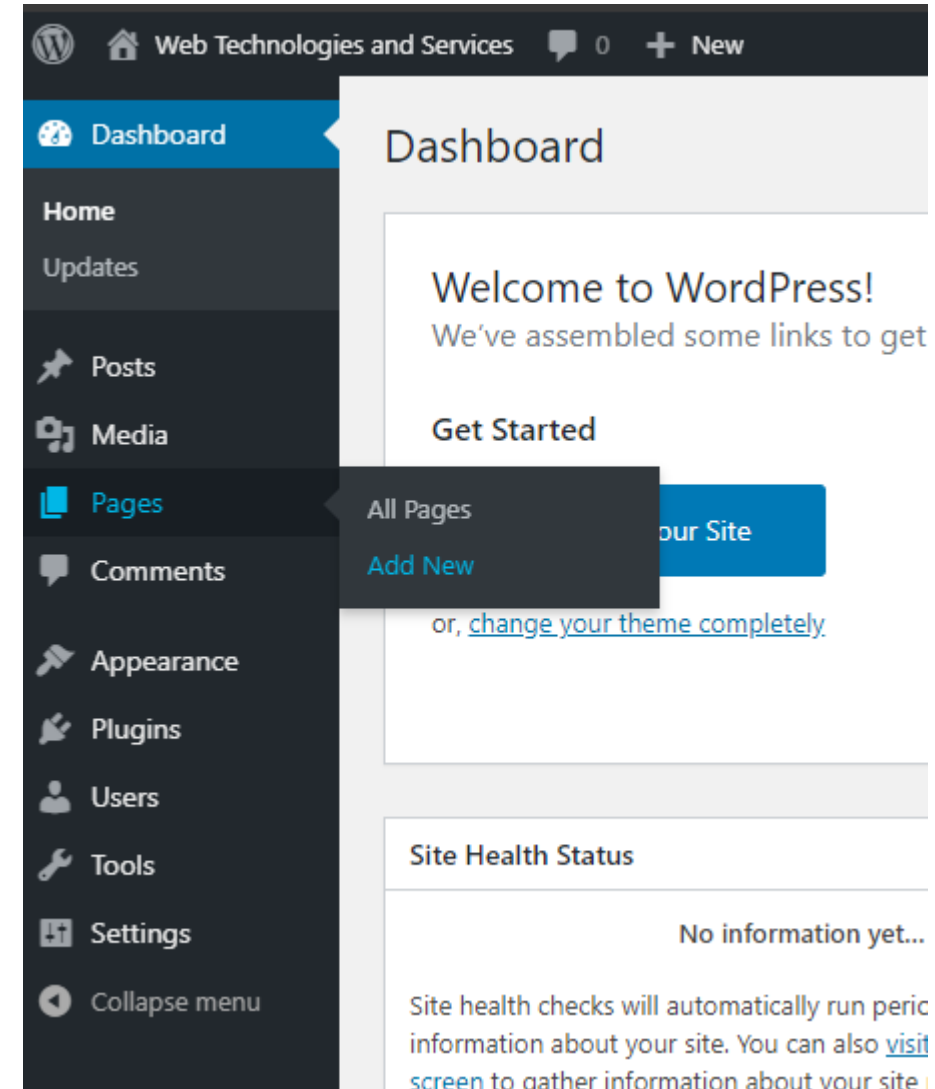
- Used for date based content - News, Blogs, Events
- Listed by date - newest first.
- Can be assigned to Categories and Tags
- Rich on features





Post Type - **Pages**

- Used for static content (About and Contact page)
- Hierarchy to their structure (Career > Job Postings)
- Cannot have taxonomies (categories and tags)



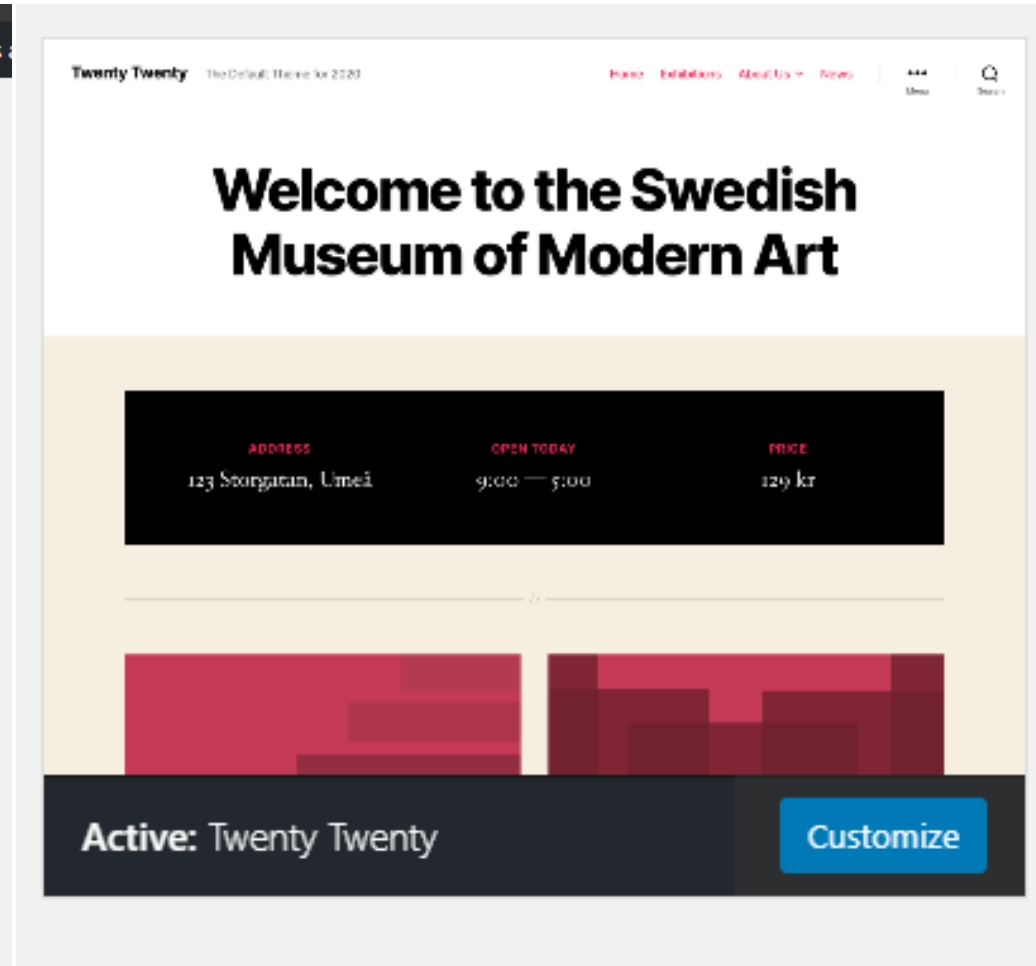
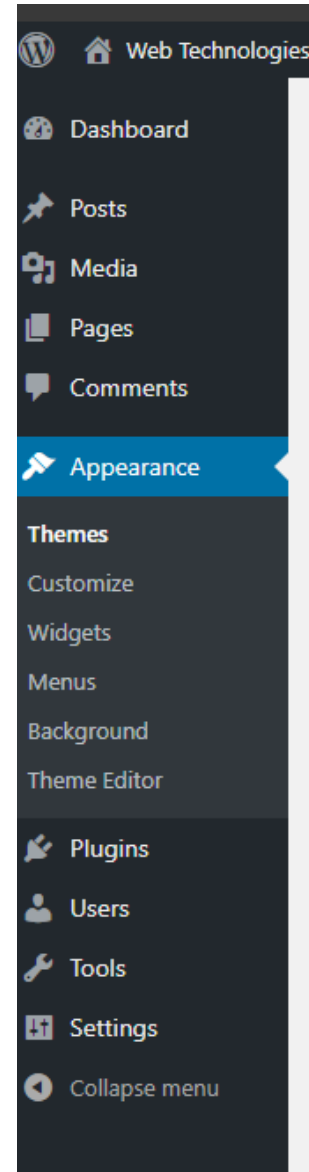


Themes

- Themes are templates that are responsible for styling (visual view of wordpress site)
- Editor
- Options
- Widgets
- Customize

Theme types

- Free themes
- Premium Themes
- Child Themes (modified version of a parent theme)
- Custom Themes, using a starter theme such as Underscores





Plugins

- Extend and add additional functionality to WordPress site without creating something else from scratch
- Many are free and created by other developers and premium from third party companies
- Easily embed new things to WordPress with short code
- Modify and Remove Functionality
- Saves time and makes life easier

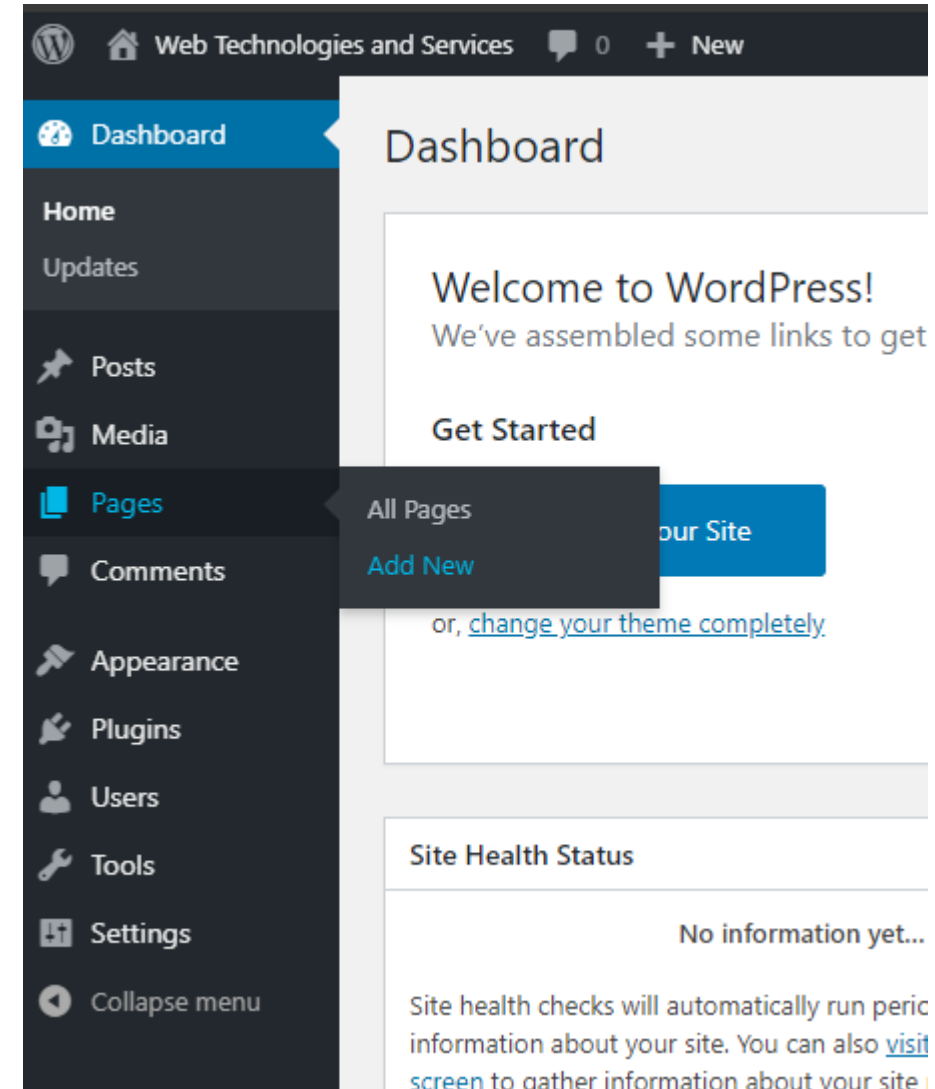
Few examples

- Wordfence Security
- Akismet
- Yoast Seo
- Google XML Sitemaps
- Google Analytics
- WP Smush
- W3 Total Cache



Roles and Capabilities

- Uses a concept of Roles, designed to give the site owner the ability to control what users can and cannot do within the site.
- Super Admin - somebody with access to the site network administration features and all other features. See the Create a Network article.
- Administrator (slug: 'administrator') - somebody who has access to all the administration features within a single site.
- Editor (slug: 'editor') - somebody who can publish and manage posts including the posts of other users.
- Author (slug: 'author') - somebody who can publish and manage their own posts.
- Contributor (slug: 'contributor') - somebody who can write and manage their own posts but cannot publish them.
- Subscriber (slug: 'subscriber') - somebody who can only manage their profile.





Powerful Features

Limitless possibilities. What will you create?



Customizable
Designs



SEO
Friendly



Responsive
Mobile Sites



High
Performance



Manage
on the Go



High
Security



Powerful
Media Management



Easy and
Accessible



WordPress Check List

- Web Hosting

Bluehost | Siteground | Justhost | Namecheap | Hostgator |
Godaddy | Site5 | FlyWheel

- WordPress version

Always install the latest version

- FTP Client

FileZila

- IDE

PHP Storm





- Coming Soon
- Polylang - Multi language plugin
- Google Analytics Plugin
- Broken Link Checker
- Redirection





WordPress Plugin List

- WP-reCAPTCHA
- Contact Form 7
- WP-Optimize
- WP Super Cache
- Block Bad Queries
- Akeeba - BackUp plugin





The 8 Best WordPress Page Builder Plugins Compared 2020

1. Elementor
2. Beaver Builder
3. Divi Builder
4. Thrive Architect
5. SiteOrigin Page Builder
6. WPBakery Page Builder
7. Themify Builder
8. Brizy
9. Visual Composer

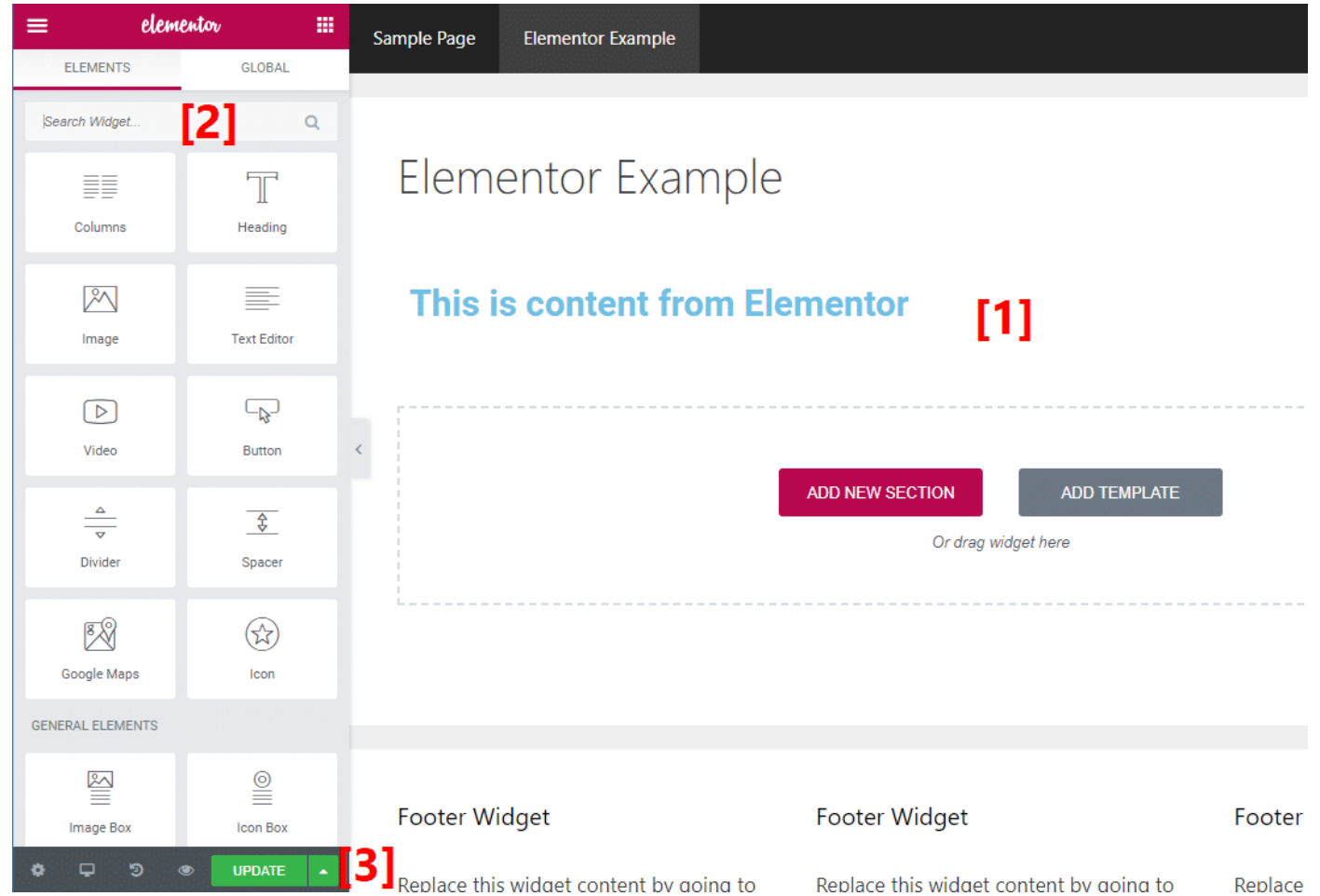




WordPress Page Builders

Elementor

The Elementor interface is divided into two core parts, with a third area for some smaller settings:

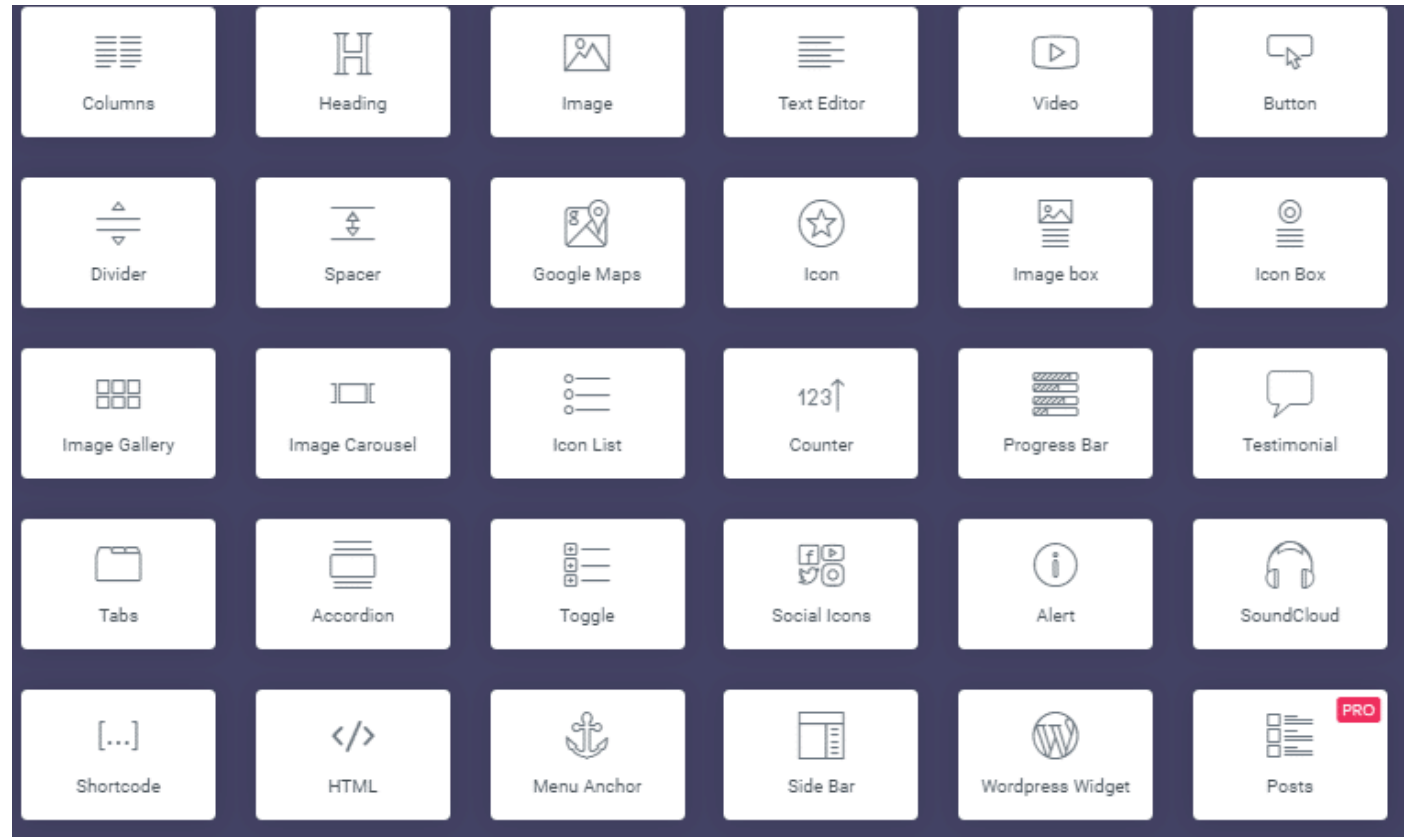




WordPress Page Builders

Elementor

In the free version, Elementor includes **28 free widgets**.
And you can also use all of the core WordPress widgets.

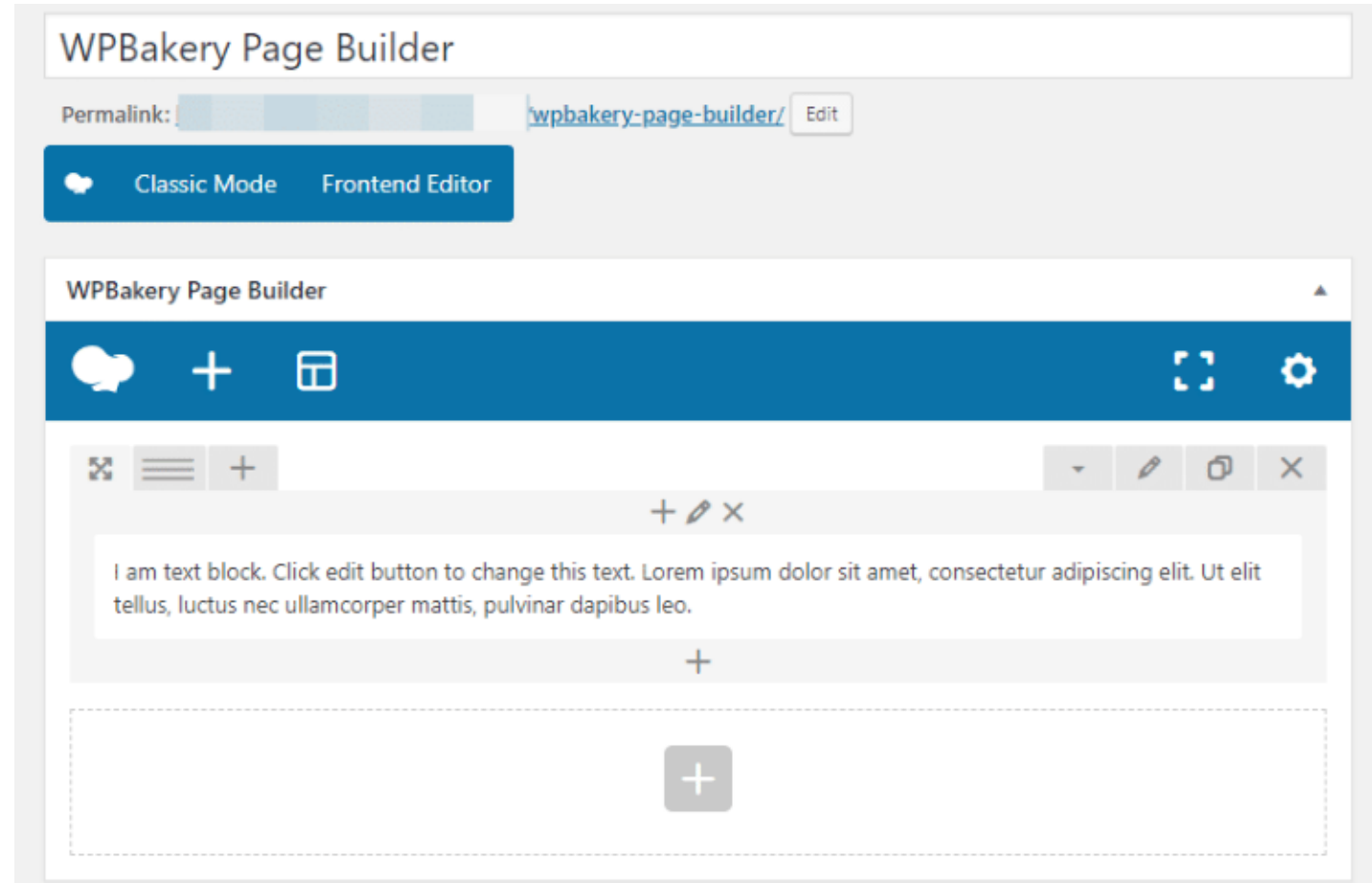




WordPress Page Builders

WPBakery Page Builder

WPBakery Page Builder gives you both visual front end editing, as well as back end editing.





WordPress Page Builders

WPBakery Page Builder

WPBakery Page Builder offers 39 elements, plus all the normal WordPress widgets..

Add Element

Search element by name

AllContentSocialStructureWordPress WidgetsDeprecated

<div></div> <div>Row</div> <div>Place content elements inside the row</div>	<div></div> <div>Text Block</div> <div>A block of text with WYSIWYG editor</div>	<div></div> <div>Section</div> <div>Group multiple rows in section</div>	<div></div> <div>Icon</div> <div>Eye catching icons from libraries</div>	<div></div> <div>Separator</div> <div>Horizontal separator line</div>	<div></div> <div>ZigZag Separator</div> <div>Horizontal zigzag separator line</div>
<div></div> <div>Separator with Text</div> <div>Horizontal separator line with heading</div>	<div></div> <div>Message Box</div> <div>Notification box</div>	<div></div> <div>Hover Box</div> <div>Animated flip box with image and text</div>	<div></div> <div>Facebook Like</div> <div>Facebook "Like" button</div>	<div></div> <div>Tweetmeme Button</div> <div>Tweet button</div>	<div></div> <div>Google+ Button</div> <div>Recommend on Google</div>
<div></div> <div>Pinterest</div> <div>Pinterest button</div>	<div></div> <div>FAQ</div> <div>Toggle element for Q&A block</div>	<div></div> <div>Single Image</div> <div>Simple image with CSS animation</div>	<div></div> <div>Image Gallery</div> <div>Responsive image gallery</div>	<div></div> <div>Image Carousel</div> <div>Animated carousel with images</div>	<div></div> <div>Tabs</div> <div>Tabbed content</div>
<div></div> <div>Tour</div> <div>Vertical tabbed content</div>	<div></div> <div>Accordion</div> <div>Collapsible content panels</div>	<div></div> <div>Pageable Container</div> <div>Pageable content container</div>	<div></div> <div>Custom Heading</div> <div>Text with Google fonts</div>	<div></div> <div>Button</div> <div>Eye catching button</div>	<div></div> <div>Call to Action</div> <div>Catch visitors attention with CTA block</div>
<div></div> <div>Widgetised Sidebar</div> <div>WordPress widgetised sidebar</div>	<div></div> <div>Posts Slider</div> <div>Slider with WP Posts</div>	<div></div> <div>Video Player</div> <div>Embed YouTube/Vimeo player</div>	<div></div> <div>Google Maps</div> <div>Map block</div>	<div></div> <div>Raw HTML</div> <div>Output raw HTML code on your page</div>	<div></div> <div>Raw JS</div> <div>Output raw JavaScript code on your page</div>
<div></div> <div>Flickr Widget</div> <div>Image feed from Flickr account</div>	<div></div> <div>Progress Bar</div> <div>Animated progress bar</div>	<div></div> <div>Pie Chart</div> <div>Animated pie chart</div>	<div></div> <div>Round Chart</div> <div>Pie and Doughnut charts</div>	<div></div> <div>Line Chart</div> <div>Line and Bar charts</div>	<div></div> <div>Empty Space</div> <div>Blank space with custom height</div>
<div></div> <div>Post Grid</div> <div>Posts, pages or custom posts in grid</div>	<div></div> <div>Media Grid</div> <div>Media grid from Media Library</div>	<div></div> <div>Post Masonry Grid</div> <div>Posts, pages or custom posts in masonry grid</div>	<div></div> <div>Masonry Media Grid</div> <div>Masonry media grid from Media Library</div>	<div></div> <div>WP Search</div> <div>A search form for your site</div>	<div></div> <div>WP Meta</div> <div>Log in/out, admin, feed and WordPress links</div>
<div></div> <div>WP Recent</div>	<div></div> <div>WP Calendar</div>	<div></div> <div>WP Pages</div>	<div></div> <div>WP Tag Cloud</div>	<div></div> <div>WP Custom</div>	<div></div> <div>WP Text</div>

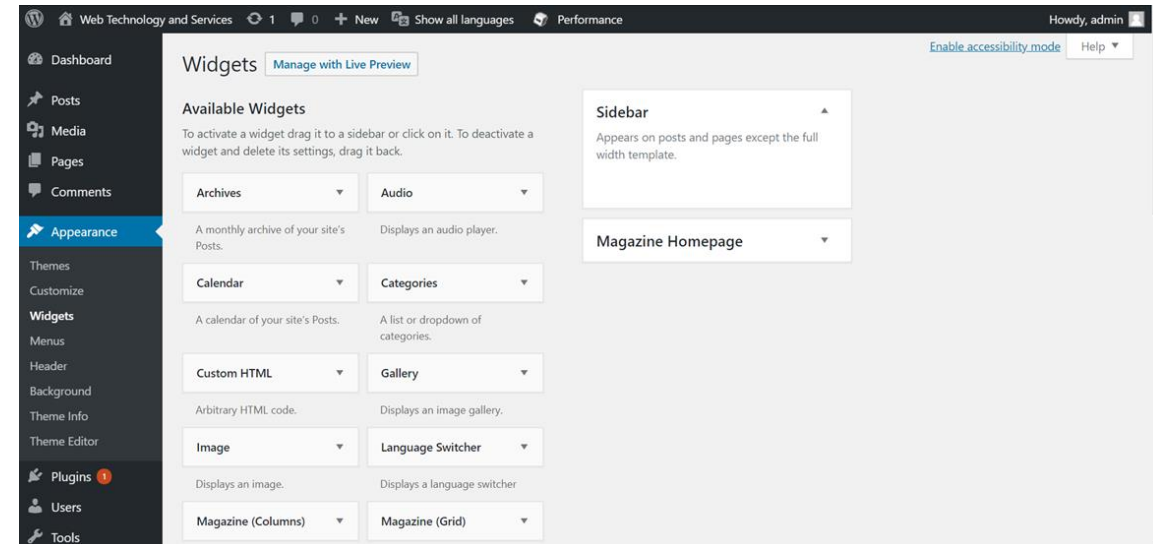


Widgets

Widgets allow you to drag and drop elements into any sidebar or widget ready area of your website.

WordPress widgets contain pieces of code that you can add to your website's sidebars or widget ready areas.

By default, WordPress comes with a standard set of widgets that you can use with any WordPress theme.



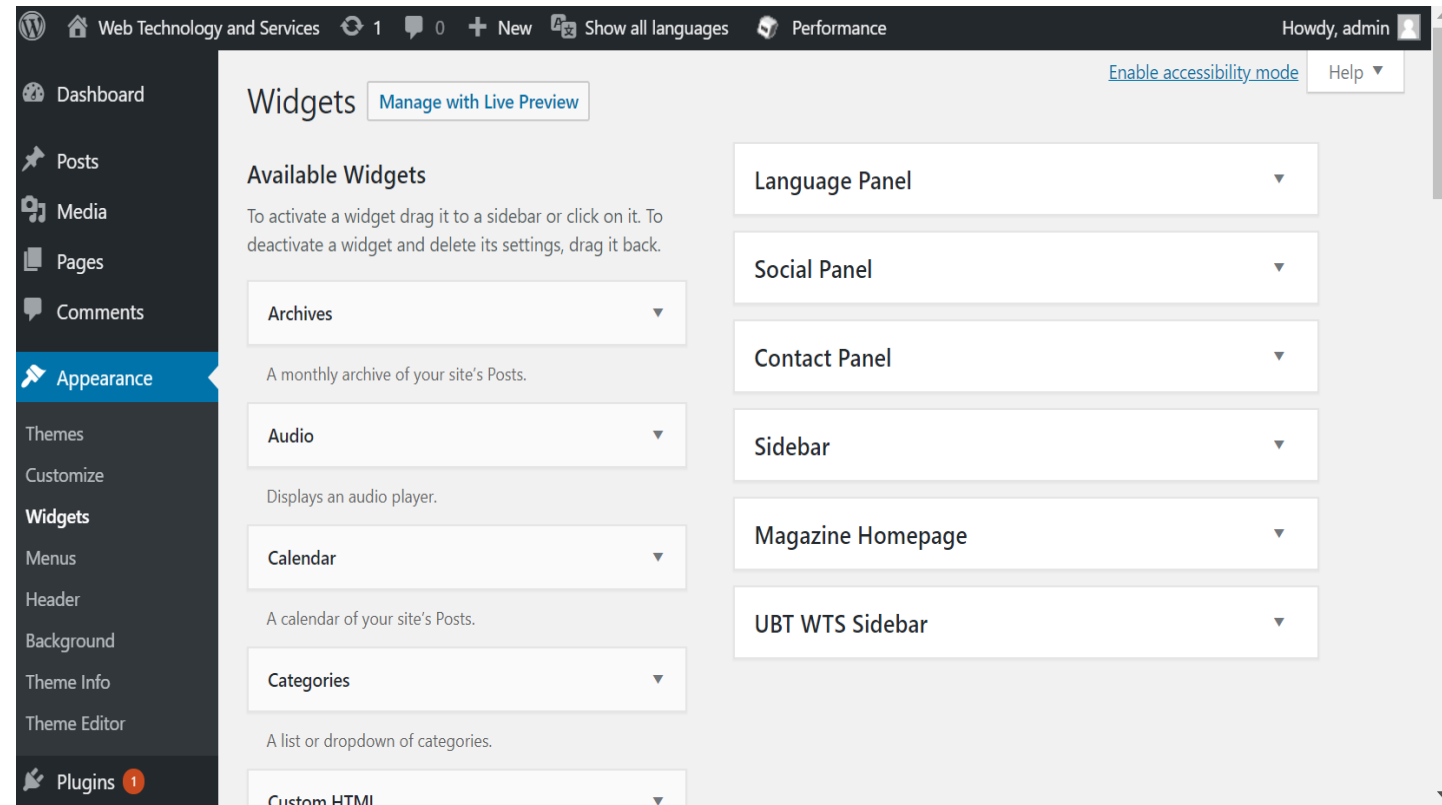


Creating a Custom Widget Area

A WordPress Widget is a small block that performs a specific function.

It is very helpful for you to know how to create a custom widget area.

You can create your own widget area section anywhere you want or according to your client's need.





Creating a Custom Widget Area

Step 1

~/wp-content/themes/<themename>/functions.php

```
function ubt_wts_widgets_init() {
    register_sidebar( array(
        'name' => __( 'UBT WTS Sidebar', 'ubt_wts' ),
        'id' => 'ubt-wts-sidebar',
        'before_widget' => '<div>',
        'after_widget' => '</div>',
        'before_title' => '<h1>',
        'after_title' => '</h1>',
    ) );
}
add_action( 'widgets_init', 'ubt_wts_widgets_init' );
```

Step 2

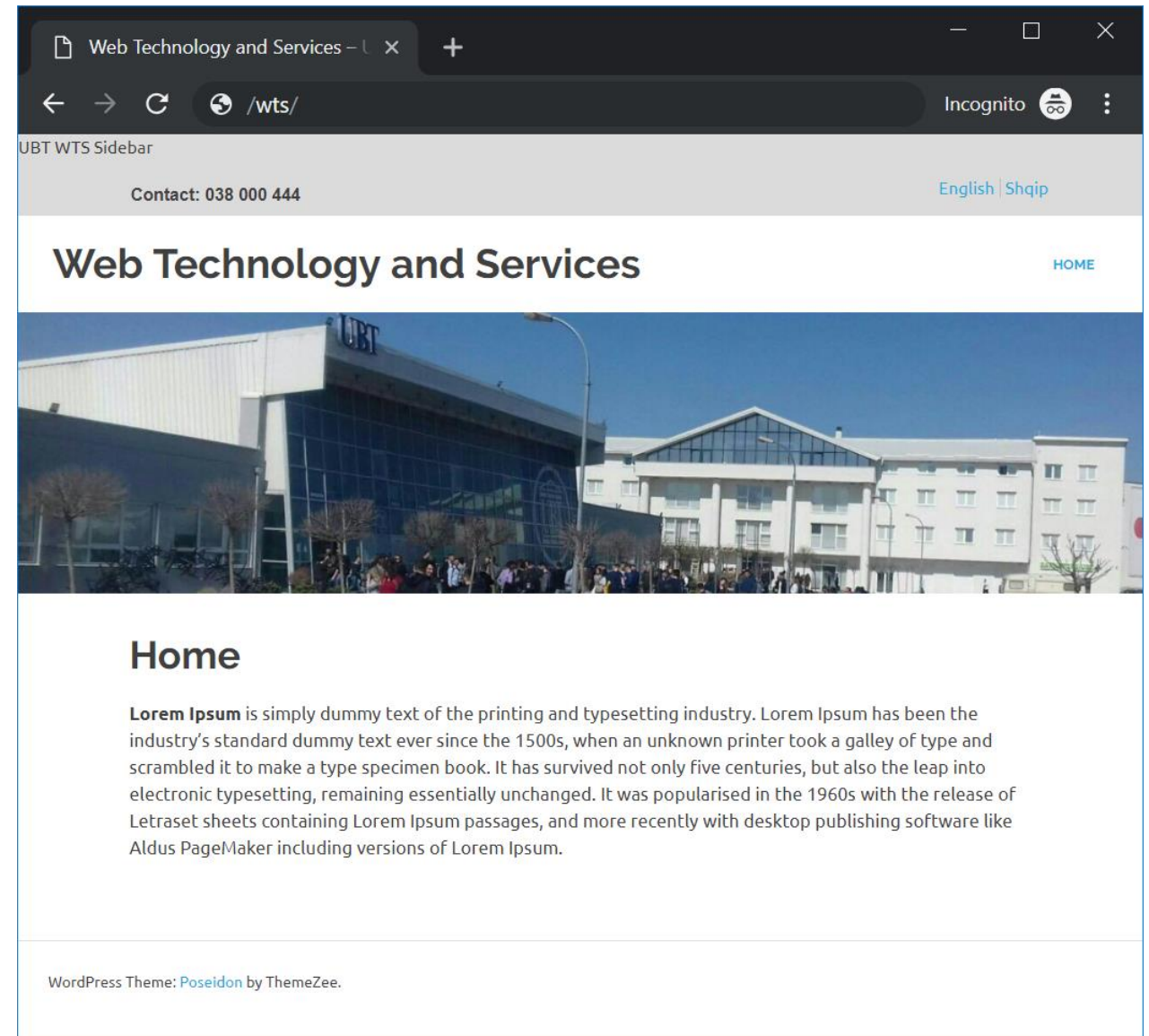
~/wp-content/themes/<themename>/header.php

```
<div class="top-panel">
    <?php if ( !function_exists('dynamic_sidebar') || !dynamic_sidebar(
        'ubt-wts-sidebar' ) ) :
    endif; ?>
    <div class="language">
        <?php dynamic_sidebar( 'Language Panel' ); ?>
    </div>
    <div class="contact-wrap">
        <?php dynamic_sidebar( 'Contact Panel' ); ?>
    </div>
</div>
```



Custom Widget Area

Front area display





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