

# Themes

## WORDPRESS ANATOMY BASICS

by Eagle

# What is a Theme?

- 🌐 A set of image, JavaScript, PHP, and CSS style sheet files.
- 🌐 A folder of template files, each of which controls a specific piece of your theme.
- 🌐 These template files govern how your site looks.



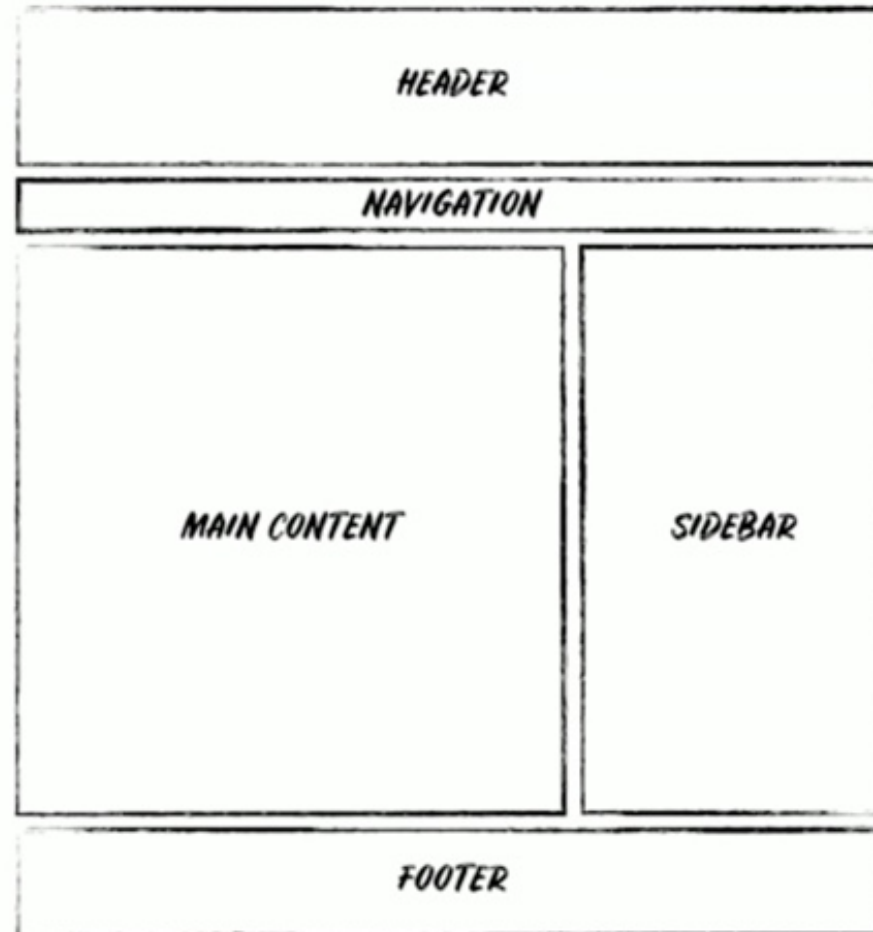
# Theme → Templates files

- 🌐 A folder of template files
- 🌐 header.php, footer.php, index.php, single.php, page.php, sidebar.php, archive.php, category.php, search.php, 404.php, comments.php, comments-popup.php, style.css
- 🌐 Each file controls a specific piece of your theme
- 🌐 Elements of a site that remain static on all pages are controlled by header, sidebar and footer files.
- 🌐 **index.php** and **style.css** are the most important files and are the bare minimum requirements for making a WordPress theme
- 🌐 PHP and CSS files add additional functionalities to your website.

# Themes Render Viewport

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- Header
- Menu
- Content
- Sidebar
- Footer





# The Loop Displays Content

- 🌐 The display of contents of the main area of your site are controlled by individual WordPress theme template files using what's called “the loop”.
- 🌐 By default it is a loop that queries and then displays the most recent blog posts, with a link in the bottom to view previous posts.

# Choosing a Theme

- 🌐 Evaluate Your Needs.
- 🌐 What are your business goals and how well does the theme match up with them?
- 🌐 What's your brand and how will it be displayed in the theme?
- 🌐 Who's your competition and how will this theme help you destroy them?
- 🌐 What content will delight my audience and support my business goals?
- 🌐 What site structure will support my content?
- 🌐 How will visitors flow through the site?



# Keeping it Presentational

- 🌐 Ask yourself: “If I changed themes, would I lose lots of *data*, or would things just *display* differently?”
- 🌐 It should be the latter.
- 🌐 Presentational changes don’t alter the site’s underlying data, things like:
  - 🌐 post content
  - 🌐 registered users
  - 🌐 custom post types
  - 🌐 taxonomies such as tags and categories
  - 🌐 sitewide data like “site title” or “customer discount codes.”

# Question to Ask

- How easy is the setup?
- What are developers saying in Facebook discussion groups?
- Who will maintain it?
  - look for companies that have been around for a year or more, so you aren't left out in the cold.
- How easy is it to customize?
  - Does the theme take full advantage of the theme customizer.
- Is the theme mobile responsive?
  - You should only be shopping for mobile responsive themes, no exceptions.



# Compatibility

- Major plugins
- WooCommerce
- Events Calendar
- Page builders
- Specialized plugin for your site requirements
- Specialized photo galleries
- Lead generation – 3<sup>rd</sup> party

# Personal experience

- 🌐 Video theme
- 🌐 Amazing features – video lightbox, video controls, etc.
- 🌐 coded in a functions file and enqueued JavaScript classes
- 🌐 No customization via the theme customizer
- 🌐 All customization required working with theme developer
- 🌐 This theme would forever lock you out of the ability to change “look and feel” – without going back to the developer.



# Theme - Main files

- *header.php* - Global file, displays headers and navigation.
- *footer.php* - instructions for global footer and closes HTML tags.
- *sidebar.php* - *Sidebar display is controlled in this file.*
- *index.php* – controls what homepage of your theme looks like.
- *page.php* – *individual pages*
- *single.php* – *individual posts*
- *archive.php, category.php, tag.php* – *archive pages*
- *functions.php* - modify core elements of your theme
- *comments.php* - controls the output of comments
- *style.css* - stylesheet for your theme

# header.php

- 🌐 Displays headers.
- 🌐 Global file - rendered in every instance of the website.
- 🌐 First file that is called.
- 🌐 Sets up the nav-bar (navigation) for site.
- 🌐 Sets up the site metadata (SEO), header scripts and opening HTML tags.
- 🌐 Contains all the HTML tags and theme related tags.

# footer.php

- Global file.
- Displays instructions for global footer.
- Closes HTML tags.
- Theme developers will often include links to their sites in the footer.



# Other templates

- 🌐 sidebar.php - Generates HTML output for the sidebar section.
- 🌐 comments.php - dictates how the comments are displayed in post or page
- 🌐 searchform.php - renders the search form and search result
- 🌐 404.php – display a custom 404 Not Found template

# header.php, footer.php, sidebar.php

- 🌐 Every page and post template file calls header, footer, and sidebar template files using
  - 🌐 get\_header()
  - 🌐 get\_footer()
  - 🌐 get\_sidebar()

# index.php

- Index.php is the single most important template file of the theme.
- the main template file for rendering every page type of the website if that specific is not found.**
- Contains a loop that queries, then displays the most recent blog posts
- For home page rendering, WordPress will look for front-page.php and then for home.php but if both are not found then it will look for index.php for guidance.
- The process is similar for inner pages, single pages, comment pages, etc.
- Can specify in wp-admin -> settings -> reading to have the home page be a page you created yourself in WordPress.
  - In that case, you specify a different page/URL for the regular blog posts to appear on, and that page is generated by index.php.

# Rendering home page

front-page.php >> home.php >> index.php

- front-page.php - the first template that WordPress looks for when rendering the website followed by home.php followed by index.php.
- The front page template is always used as the site front page if it exists, regardless of what settings on Admin > Settings > Reading.
- home.php
  - displays excerpts from the recent posts and contains the index of all the blog posts.
  - Dictates what the blog index page will display.
    - the file uses for rendering blog's post-index page.
  - Comes after front-page.php in hierarchy for rendering first page
  - If front-page.php is not present, this template is the front page by default.



# The Loop

- 🌐 Controls the display of contents of the main area of your site.
- 🌐 A loop queries and then displays the most recent blog posts, with a link in the bottom to view previous posts.
- 🌐 The loop starts with a query (which determines which posts or pages to grab), and ends with a PHP “endwhile” statement.
- 🌐 You can specify the output of titles, post content, metadata, custom fields and commenting all within the loop and each element is output for each post or page until the query is done.

# page.php

- 🌐 Renders Static Pages
- 🌐 **page.php** is the template that WordPress goes to when it does not find any other custom template for rendering WordPress pages.
- 🌐 Controls what static pages look like.
- 🌐 You can choose to eliminate sidebars or other elements, add other unique elements for pages alone.
- 🌐 Can create different page templates within your WordPress theme for different types of pages.

# Custom Page Templates

- WP selects page template based on hierarchy
- WordPress uses query string to decide template used to display page.
- Looks for template files with specific names in theme directory – uses first matching template file.
  - For example: Your About page
  - has a slug of 'about' and an ID of 6.
  - file named **page-about.php** or **page-6.php**
- If specific named template file is not found skips to next file in hierarchy
- If no matching files uses **index.php**

# Page Template Hierarchy

- 🌐 **Page Template** — If the page has a custom template assigned, WordPress looks for that file and, if found, uses it.
- 🌐 **page-{slug}.php** — If no custom template has been assigned, WordPress looks for and uses a specialized template that contains the page's slug.
- 🌐 **page-{id}.php** — If a specialized template that includes the page's slug is not found, WordPress looks for and uses a specialized template named with the page's ID.
- 🌐 **page.php** — If a specialized template that includes the page's ID is not found, WordPress looks for and uses the theme's default page template.
- 🌐 **index.php** — If no specific page templates are assigned or found, WordPress defaults back to using the theme's index file to render pages.



# Display Single Post Page

- single.php
  - Controls display of individual posts in your WordPress
  - queries a single post and displays it.
  - sidebars specifications - if you want it to look different than the other pages on the site.
  - the template that WordPress goes to when it does not find attachment.php, single-<post type>.php, or single-post.php.
- As per hierarchy these templates take precedence over single.php
  - attachment.php -- used to display attachment posts
  - single-<post type>.php -- used to display custom post types
  - single-post.php -- used to display posts on a single page

# Rendering Archive pages

- Control the look and feel of different archives using template files also.
- If there is no archive file, the archives will look like index.php
- Create an archive.php to override that
- Create a file called category.php, it will override archive.php for categories only.
- Create a tag.php, you can override it for tag archives only.

# How to set up Blog Page

- 🌐 In WP, Blog should be displayed by default on front page.
- 🌐 If you have chosen to use Home Page as a static page you will have to setup blog page separately.
- 🌐 Create a new Page and name it “Blog” or “Articles” or whatever you feel right.
- 🌐 Go to **Setting – Reading** and select “**A static page (select below)**”
- 🌐 Now select the previously created Page as “**Posts page:**”

# Essential background files

- 🌐 These files are modified to affect the custom look & functionality of your site
- 🌐 `comments.php`
- 🌐 `functions.php`
- 🌐 `style.css`



# comments.php

- 🌐 Controls the output of comments, which can be included in the loop if you allow comments on your theme.
- 🌐 Can be overridden by comment-plugins
- 🌐 Dictates how comments are displayed in post or page.
- 🌐 Every page and post template that wishes to display comments, calls this template to render the comment list.

# functions.php

The brains of a theme, you should see,  
Is one file: functions.php.  
It adds crucial functions  
At just the right junctions,  
And it tells scripts and styles where to be.

# functions.php

- Custom PHP code to modify core elements of your theme.
- Register globally needed JavaScript files and CSS stylesheets.
- Dictates all kinds of *presentational functionality* for the theme.
  - php functions that control how things display, rather than the site's underlying data.
- Adds custom functionality to the theme and site.
  - Small bits of php code that add or change functionality across the site.
- WP executes the code in functions.php during its normal PHP processing.
- Loads before the pages in the template hierarchy – functions are available to templates as they load.

# The “Brain”

🌐 Functionality additions should all be *presentational* in nature. Examples include:

- 🌐 Enqueueing CSS stylesheets
- 🌐 Enqueueing presentational javascript files,
- 🌐 Enabling featured images
- 🌐 Registering custom image sizes
- 🌐 Registering navigation menus and widget areas
- 🌐 Specify multiple sidebars
- 🌐 Change the number of characters in the excerpt
- 🌐 Add custom admin panel options.
- 🌐 Sidebars - multiple sidebars
- 🌐 Navigation menus
- 🌐 Post thumbnails
- 🌐 Post formats
- 🌐 Number of characters in the excerpt
- 🌐 Custom headers
- 🌐 Custom backgrounds
- 🌐 Customizer choices
- 🌐 Custom admin panel options

# style.css

- Theme MUST contain a style.css file
- Main CSS style sheet for your theme.
- WordPress directly takes the theme information from file.
- Contains a detailed description about the theme in the top section of the CSS sheet.
- Contains Theme's name, Theme's external URL, Theme author URL, a small description of theme, Author name, version, relevant WordPress theme tags, license information, and license's URL.



# Child Theme

- 🌐 Use to customize the look and feel of your current theme.
- 🌐 By creating a child theme, you create a separate set of files that you can use to customize the theme without affecting the original theme at all.
- 🌐 Not only does this make updating easier, it also makes sure that you will never ruin your original theme as you are never actually modifying the files. You can always turn off your child theme and fall back on the original.

# myTheme-child

 styles.css

```
/*
```

```
Theme Name: myTheme Child Theme
```

```
Theme URI: https://<mytheme-website>
```

```
Description: myTheme Child Theme
```

```
Author: <Author's Name>
```

```
Author URI: https://<Author's URL>
```

```
Template: mytheme
```

```
Version: 1.0.0
```

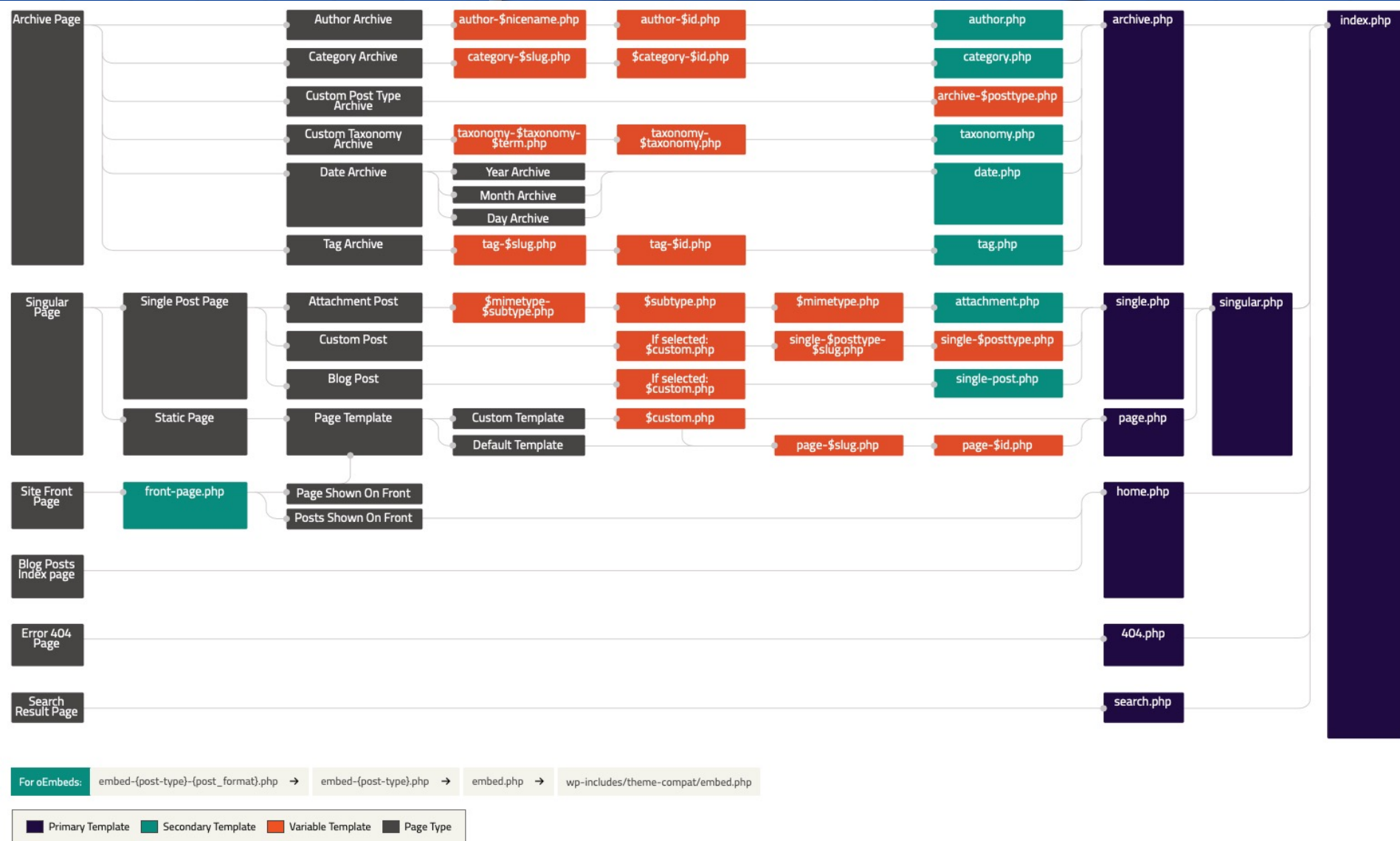
```
*/
```

```
/* Theme customization starts here */
```

# Hierarchy Of Template Files



# Template Hierarchy



# Template Hierarchy

- 🌐 <https://wphierarchy.com>
- 🌐 This hierarchy is controlled by the template-load.php that can be found in wp-includes folder of WordPress. The template functions are defined in theme.php that is located in the same folder.
- 🌐 <https://developer.wordpress.org/files/2014/10/template-hierarchy.png>



# Posts are writings...

- 🌐 Displayed on the blog home page or on the posts page if you have set one in [settings](#) → [reading](#).
- 🌐 Listed in reverse chronological order.
- 🌐 Are timely - date driven (time stamped).
- 🌐 Organized with categories & tags (have taxonomy),
- 🌐 Collected on archive pages (date, category, tag).
- 🌐 Are social – can be syndicated via an RSS feed.

# Pages are Static Content

- 🌐 Are hierarchical.
- 🌐 Do not use tags or categories (normally).
- 🌐 Are ordered – page number value < pageID>.
- 🌐 Not part of the date-driven post stream, they are static, they are timeless.
- 🌐 Not listed by date.
- 🌐 Are not social (not syndicated).

# *Themes in my toolkit*

- 🌐 Astra Theme
- 🌐 BeaverBuilder Theme & child Theme
- 🌐 GeneratePress Premium
- 🌐 Studio Press - Genesis Framework
  - 🌐 Genesis Child Themes
    - 🌐 Genesis sample theme
    - 🌐 Utility Pro – This is a super-flexible child theme for Genesis. It meets WCAG 2.0 accessibility standards and offers a lot of advanced developer features.
    - 🌐 GBeaver – Genesis integrated with BeaverBuilder
- 🌐 OceanWP

# Don't Cut Corners on Your Themes and Plugins

- 🌐 look through the ratings and reviews
- 🌐 stick with reputable developers
  - 🌐 nearly 50% of the plugins in the repository haven't been updated in over 2 years
- 🌐 Beware of third-party source that is bundling up premium plugins into one low bundled price
  - 🌐 Discovered plugin vulnerabilities might be patched next day
  - 🌐 bundled plugin users must wait for theme developer to publish a theme update.
- 🌐 Use free themes with caution - may contain hidden security – check status in wordpress.org repository  
versions tested for, last update, installed base, user recommendations.

# Theme Customization

- Customizer - Changes the appearance of your site
- For Code changes, custom CSS
  - Create / Use a Child theme for custom theme edits and CSS
  - A child theme is a theme that uses the core “parent” theme files, unless one of those files (in the root directory of the parent theme) are copied and added to the child theme.
  - In that case, the copied file is used on your website so you can make changes to it without touching the parent theme



# Theme Design Tools

- BeaverBuilder
  - Free version - [BeaverBuilder Lite](#)
- BeaverThemer
- BeaverBuilder PowerPack
- Genesis Dambuster (for use with Genesis Themes)

# Theme Editing Tools

- 🌐 Code Development Environments (IDE)
  - 🌐 NetBeans
  - 🌐 pHPStorm
- 🌐 Espresso (Mac) – for CSS editing
- 🌐 Text editors – BBEdit, SublimeText, Visual Studio Code

# SEO

- 🌐 *Front-page title*
- 🌐 *Metadata tags*
  - 🌐 *title and description*
  - 🌐 *HTML elements that provide information about a web page for search engines and website visitors.*
- 🌐 *Page titles - H1 headings*
- 🌐 *Page/post slug*
- 🌐 *Keywords in title - Keywords in content*
- 🌐 *Timeless content (blog posts) ranks higher*
- 🌐 *Latest posts get priority in ranking*
- 🌐 *Domain registration affects ranking (  $\geq 3$  years)*
- 🌐 *Time user spends on page view affects ranking (bounce rate)*

# Documentation

- 🌐 <https://codex.wordpress.org>
- 🌐 Spend time with the codex.
- 🌐 Hang out.
- 🌐 Become best friends.
- 🌐 <https://yoast.com/wordpress-theme-anatomy/>

# Tutorials

- 🌐 [https://codex.wordpress.org/WordPress\\_Lessons](https://codex.wordpress.org/WordPress_Lessons)
- 🌐 <http://www.wpbeginner.com/category/wp-tutorials/>
- 🌐 <https://www.w3schools.com>
- 🌐 <https://make.wordpress.org/core/handbook/best-practices/coding-standards/accessibility-coding-standards/>
- 🌐 Search Google and YouTube for WordPress Tutorials





# EAGLE

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# style.css

```
/*  
Theme Name: Simple Style Theme  
URI: <web address of authors site or support site>  
Description: Theme description  
Author: <authors name>  
Version: 1.0.4  
Tags: white, blue, one-column, fixed-width, sticky-post,  
translation-ready, one-column, custom-menu, light, gray  
License: GNU/GPL Version 2 or later License  
URI: http://www.gnu.org/licenses/gpl.html  
*/
```



# Beaver Builder Theme

/\*

Theme Name: Beaver Builder Theme

Theme URI: [http://www.wpbeaverbuilder.com/?utm\\_medium=bb-pro&utm\\_source=bb-theme&utm\\_campaign=themes-admin-page](http://www.wpbeaverbuilder.com/?utm_medium=bb-pro&utm_source=bb-theme&utm_campaign=themes-admin-page)

Version: 1.7.0.3

Description: A customizable theme with a simple yet robust set of theme options.

Author: The Beaver Builder Team

Author URI: [http://www.wpbeaverbuilder.com/?utm\\_medium=bb-pro&utm\\_source=bb-theme&utm\\_campaign=themes-admin-page](http://www.wpbeaverbuilder.com/?utm_medium=bb-pro&utm_source=bb-theme&utm_campaign=themes-admin-page)

License: GNU General Public License v2.0

License URI: <http://www.gnu.org/licenses/gpl-2.0.html>

Text Domain: fl-automator

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