

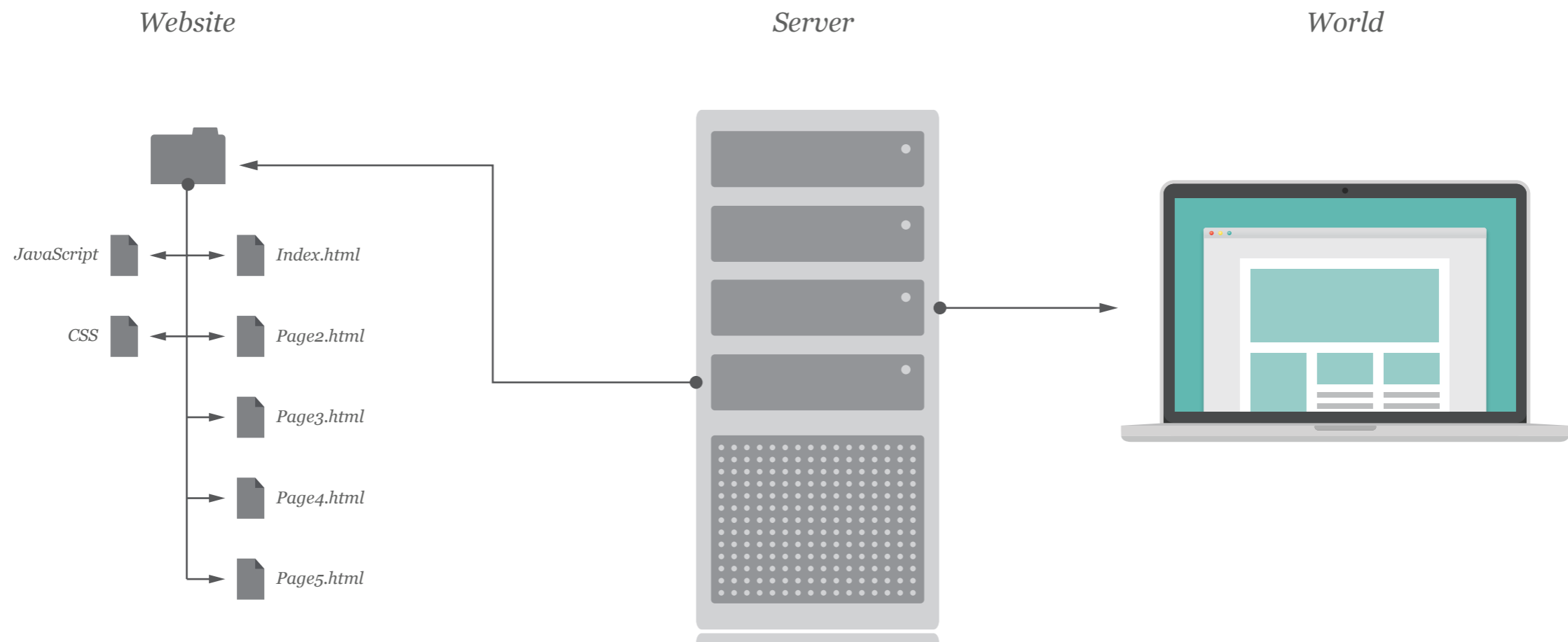
The Anatomy of Wordpress

A beginners Guide to Wordpress Theming

By Ben Gathard

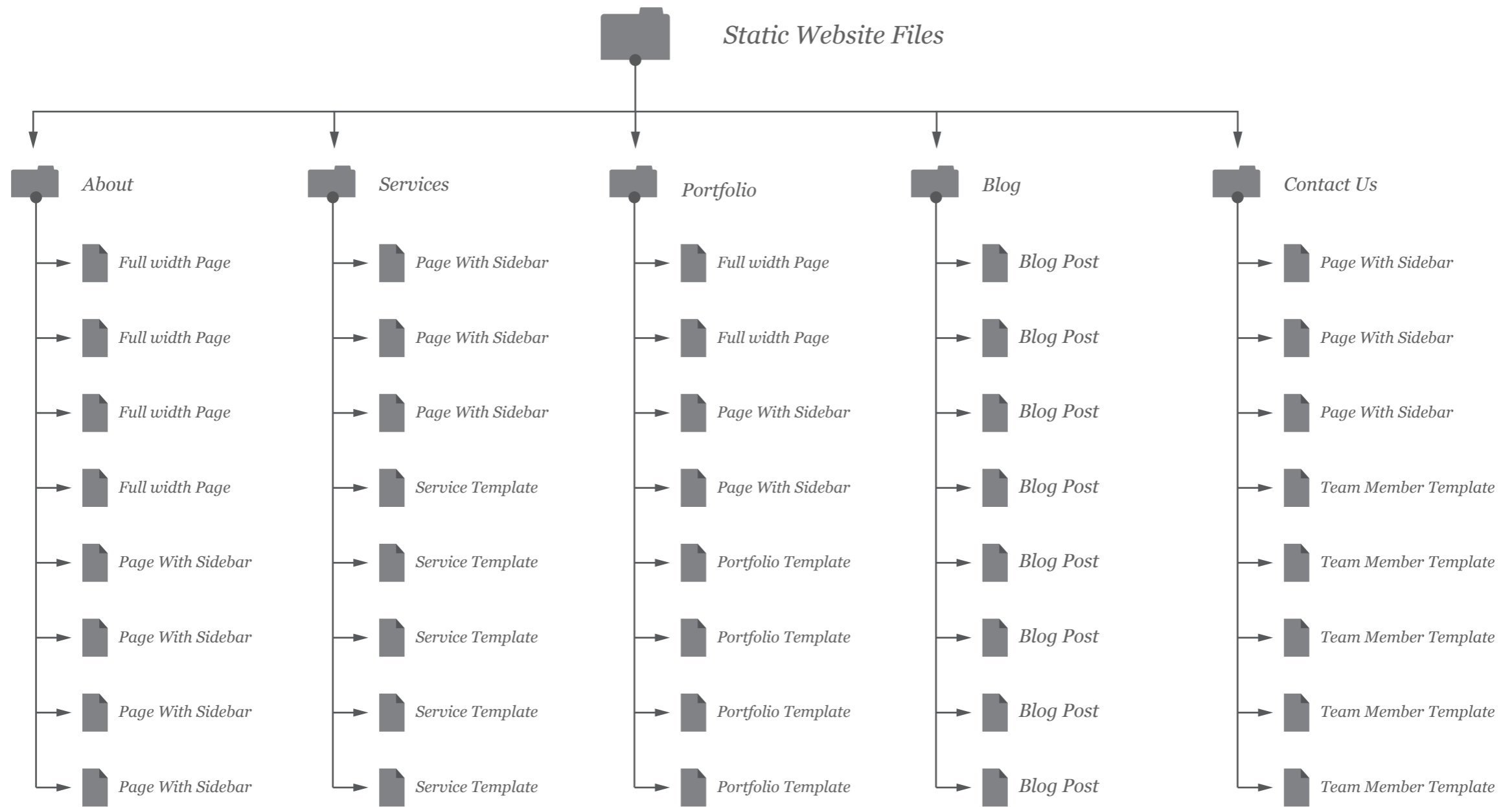
How does a website work?

Host files on a computer that serves them to the world.



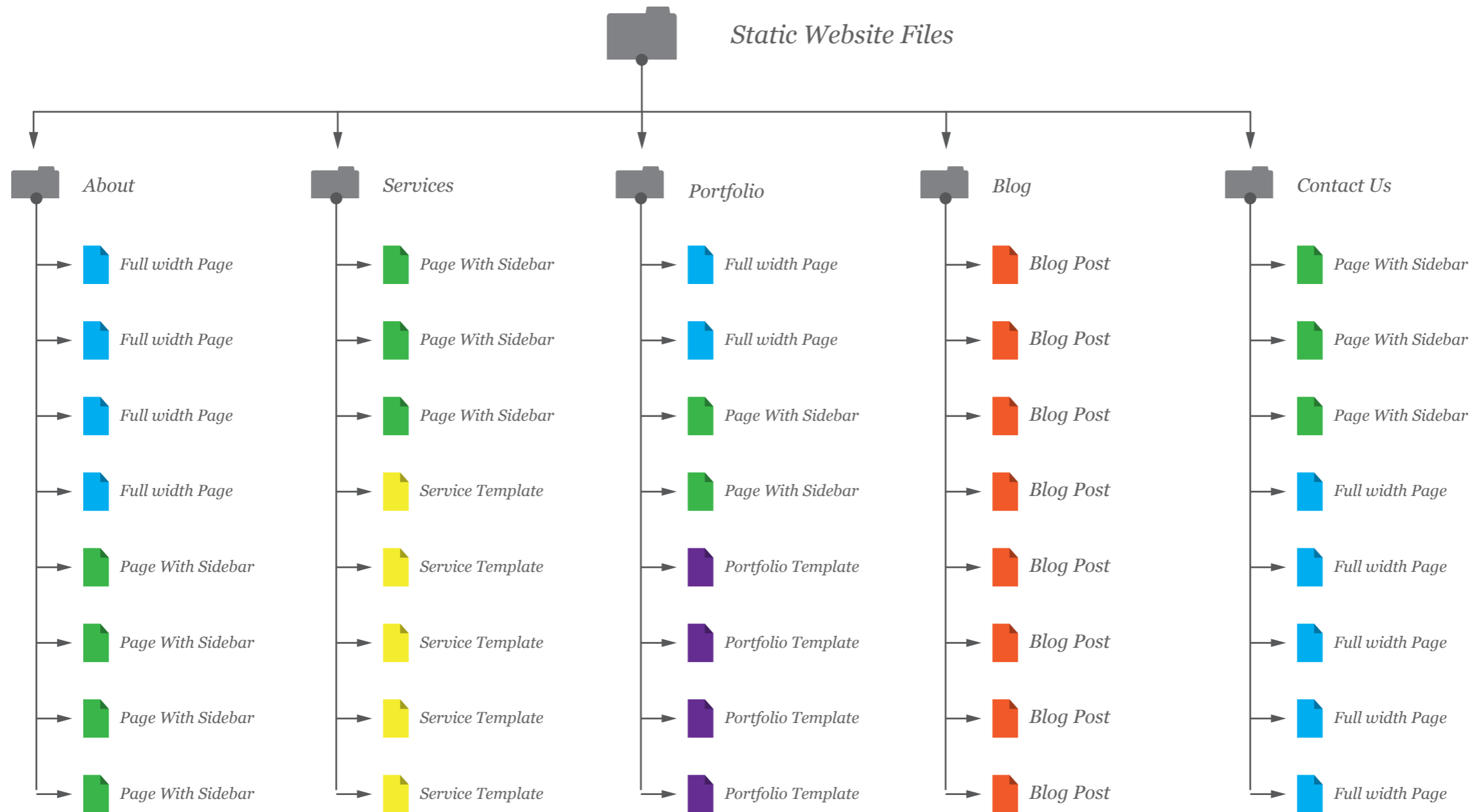
Why is Wordpress awesome for websites?

Because Managing Static Website Files Sucks



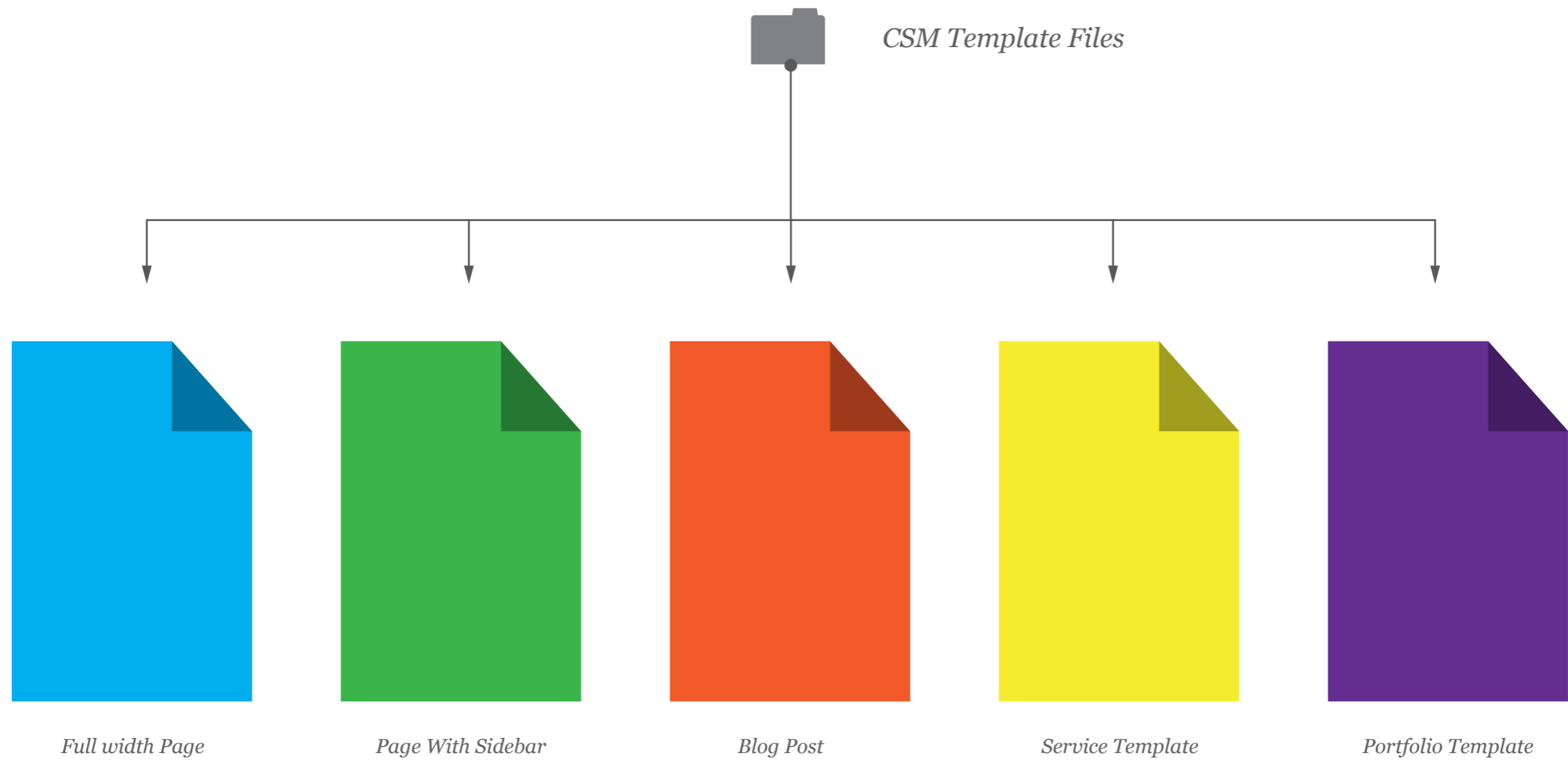
Why is Wordpress Awesome?

It Helps Organize Similar Pages into Templates



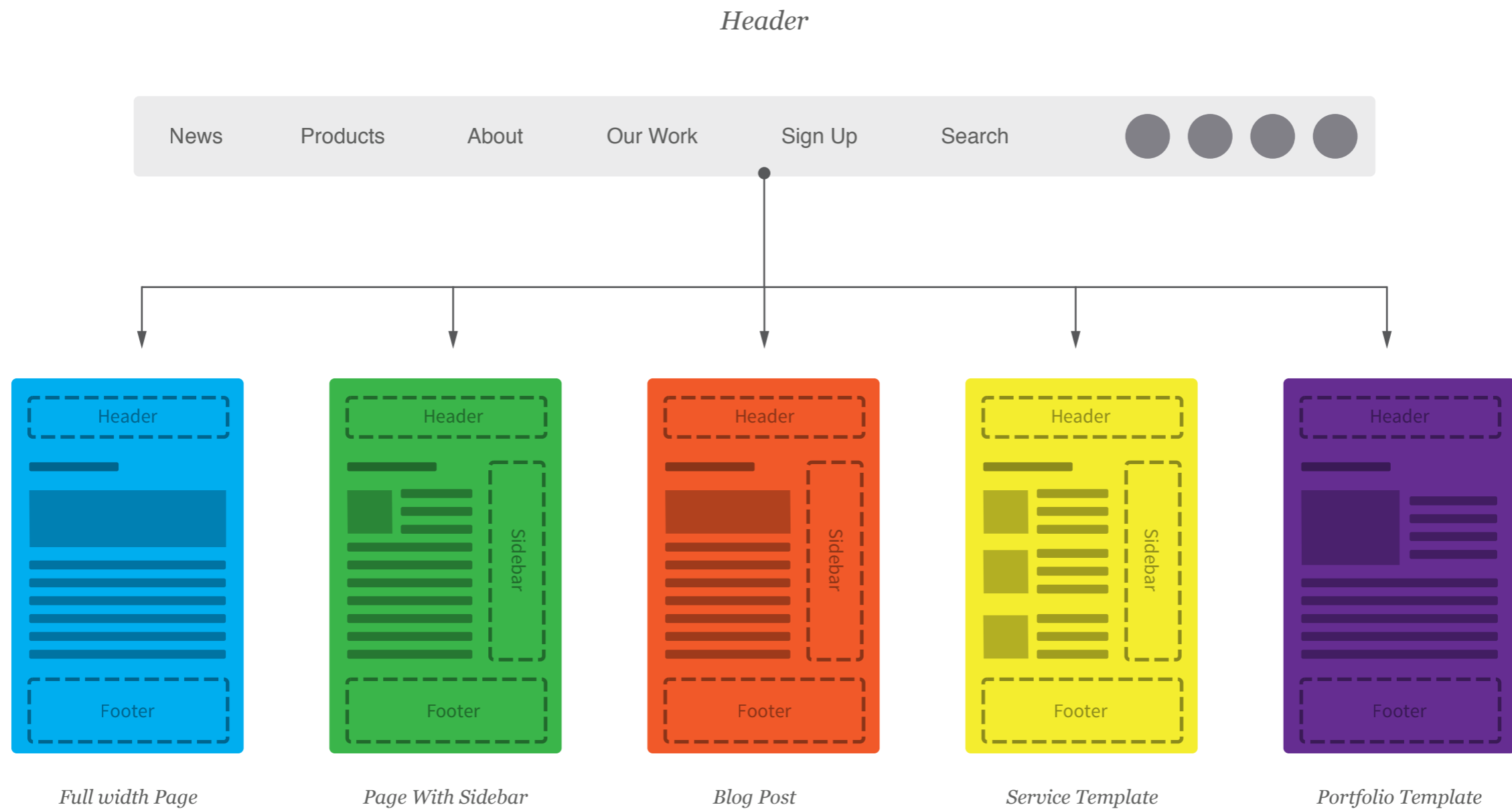
Why is Wordpress Awesome?

Allows you to manage fewer HTML files



Why is Wordpress Awesome?

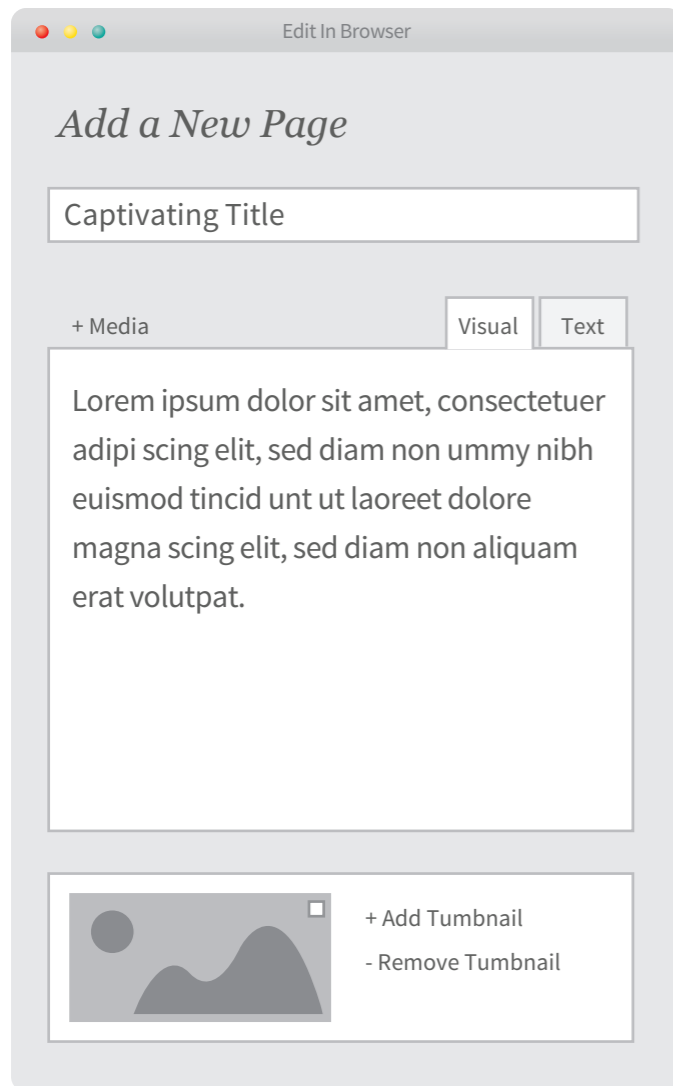
It Separates Universal Elements from Page Templates



Why is Wordpress Awesome?

It has a Graphic User Interface for managing content

GUI Interface



Template File

```
<?php get_header(); ?>

<div id="main">

  <h1><?php the_title(); ?></h1>

  <?php the_post_thumbnail(); ?>

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

</div>

<div id="sidebar">
  <?php get_sidebar(); ?>
</div>

<?php get_footer(); ?>
```

+

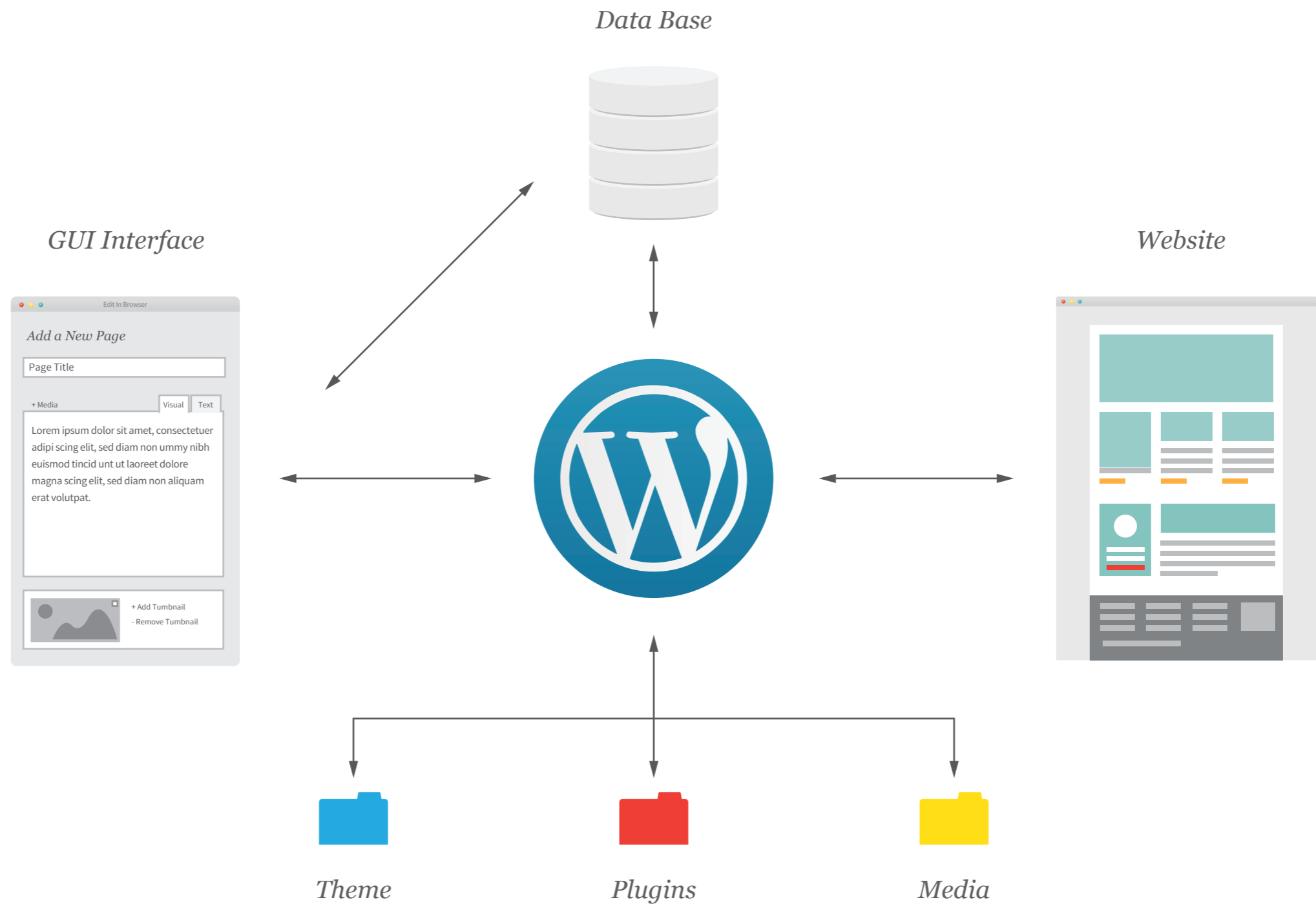
=

Website



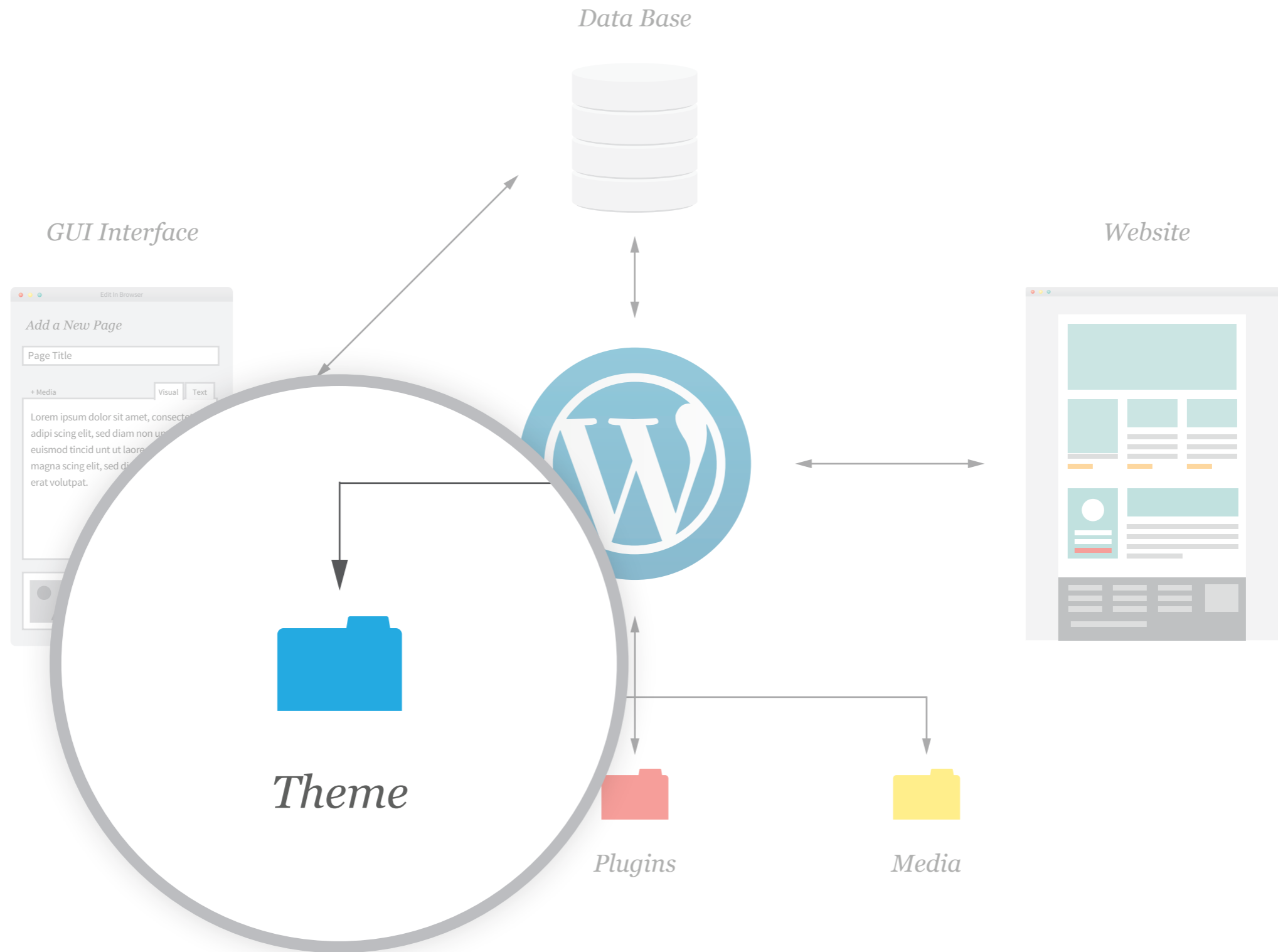
Why is Wordpress Awesome?

It stores all your content, and builds your site for you



How can you start making bad-ass Wordpress sites?

Today we are focusing on Custom Theme Development



How does a Wordpress work?

Think of a Wordpress in terms of human anatomy...

GUI Interface = Mouth

Database = Digestive system

Functions.php = Brain & CNS

Post Types & Loops = Heart

Content/Data = Blood

Taxonomies = Vascular System

Templates = Skin

How does a Wordpress work?

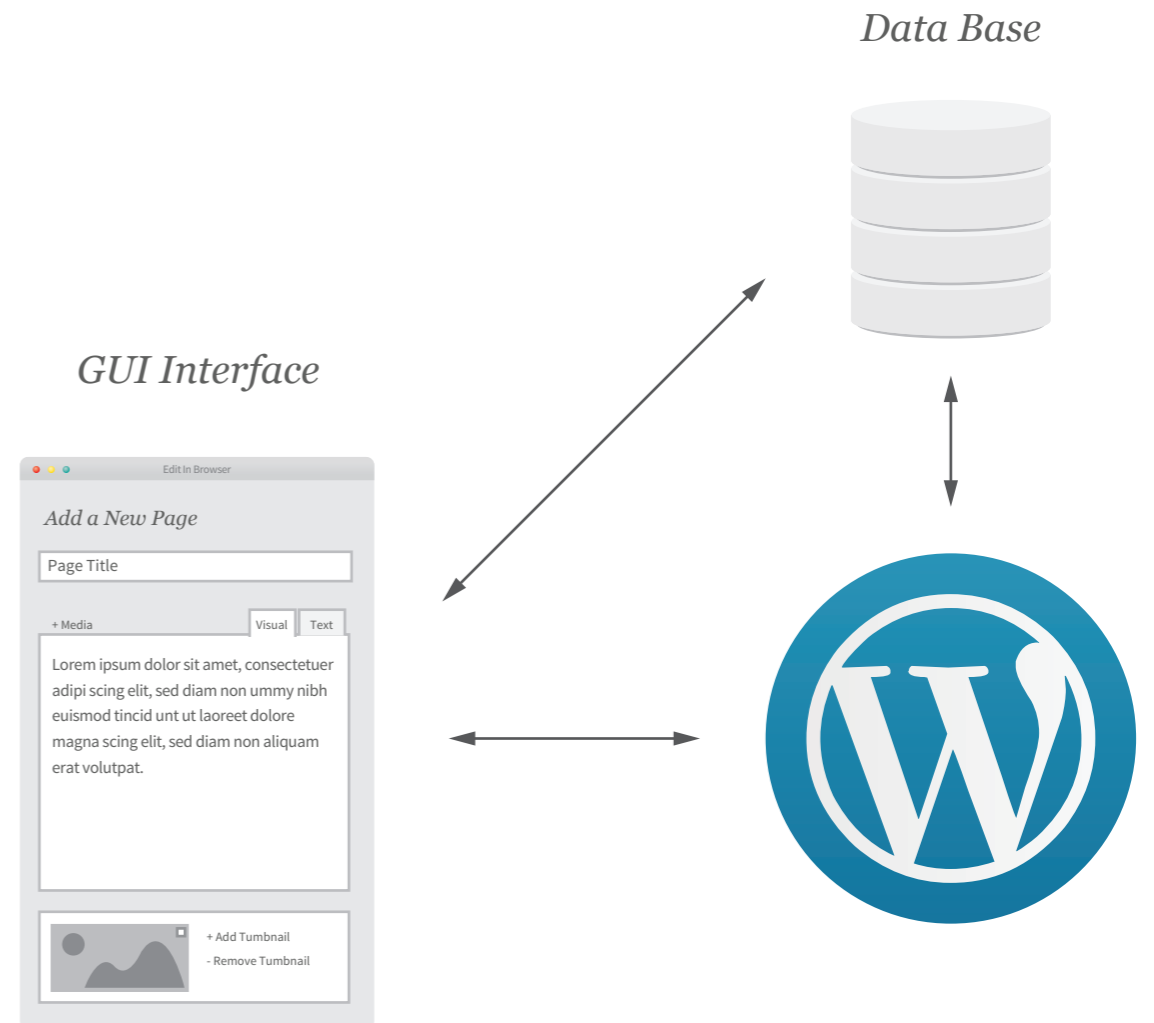
Entering, organizing and distributing your content

GUI Interface = Mouth

- Login using a browser `www.yoururl.com/wp-admin`
- You feed your site content by filling out a series of form fields
- The data collected by the form fields are sent to the Database

Database = Digestive system

- The data is sorted into database tables
- Wordpress use the database to allocate
- When user visits a page the template calls the allocated files from the database and renders them in the browser creating a page

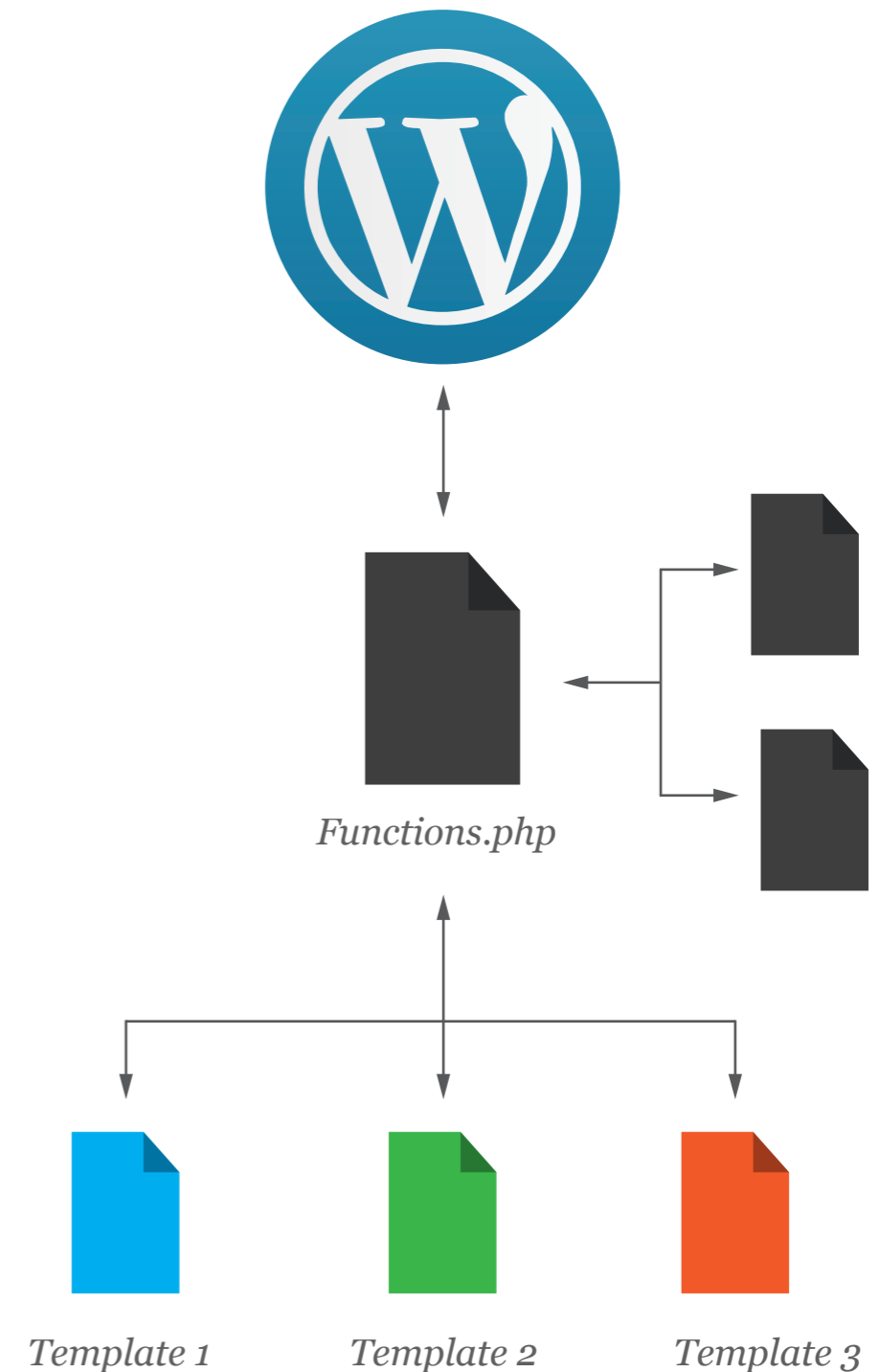


How does a Wordpress work?

Customizing the core functionality of Wordpress

Functions.php = Brain & CNS

- The function file is used to edit Wordpress core functionality*
- It is also used to add additional, theme specific functions*
- If you have a very long and complicated function you can write it in a separate file and link it to the functions.php file*



How does a Wordpress work?

Customizing the core functionality of Wordpress

Functions.php = Brain & CNS

- The rules for the functions are written in the functions.php file and there are snippets of code that live in the other theme files that call and activate those functions when needed*
- These calls be written in to the code manually or inject to the template files with “hooks” can be*

Functions.php

```
function theme_name_widgets_init() {  
    register_sidebar( array(  
        'name'          => __( 'Sidebar', 'theme_name' ),  
        'id'            => 'widget-1',  
        'before_widget' => '<aside id="%1$s" class="widget %2$s">',  
        'after_widget'  => '</aside>',  
        'before_title'  => '<h1 class="widget-title">',  
        'after_title'   => '</h1>',  
    ) );  
}  
add_action( 'widgets_init', 'lazer_vs_machines_widgets_init' );
```

+

Sidebar.php

```
<div id="widget-1">  
    <?php  
    if (!dynamic_sidebar('widget-1')):  
        ?>  
</div>
```

How does a Wordpress work?

Harnessing the power of Wordpress

Post Types = Heart

- *Post are what give wordpress all of its power*
- *Post are clusters of content/data stored in the database that are grouped together with an ID*
- *The post info that gets pulled into the web page is based the template or the loop depending on the post type*
- *By default there are two types of post, Post & Pages*
- *The difference between them is hierarchy*
- **Pages** *are hierarchical, meaning they can be arnged into parent and children and grandchildren and so on...*
- **Post** *are non-hierachical, meaning they exist adjacent to each other and are usually listed in set order and can be sorted by taxonomy*



How does a Wordpress work?

Wait, wait, wait... What is a loop?

Post & Loops

- *Loops are ways of pulling multiple posts into a template using the same repeating HTML code, but pulling different data for the database*
- *This is very, very powerful and it is the corner stone functionality on which Wordpress was built*
- *A loop is given peramiters (or arguments) which it uses to decide which content to pull, how much content to pull, the order it is displayed and much more.*

```
<ul>
<?php
$args = array(
    'posts_per_page' => 5,
    'offset'=> 1,
    'category' => 1 );
$myposts = get_posts( $args );
foreach ( $myposts as $post ) : setup_postdata( $post ); ?>
    <li>
        <?php the_post_thumbnail(); ?>
        <p><?php echo excerpt(25); ?></p>
        <a href="<?php the_permalink(); ?>"><?php the_title(); ?></a>
    </li>
<?php endforeach;
wp_reset_postdata();?>
</ul>
```

=

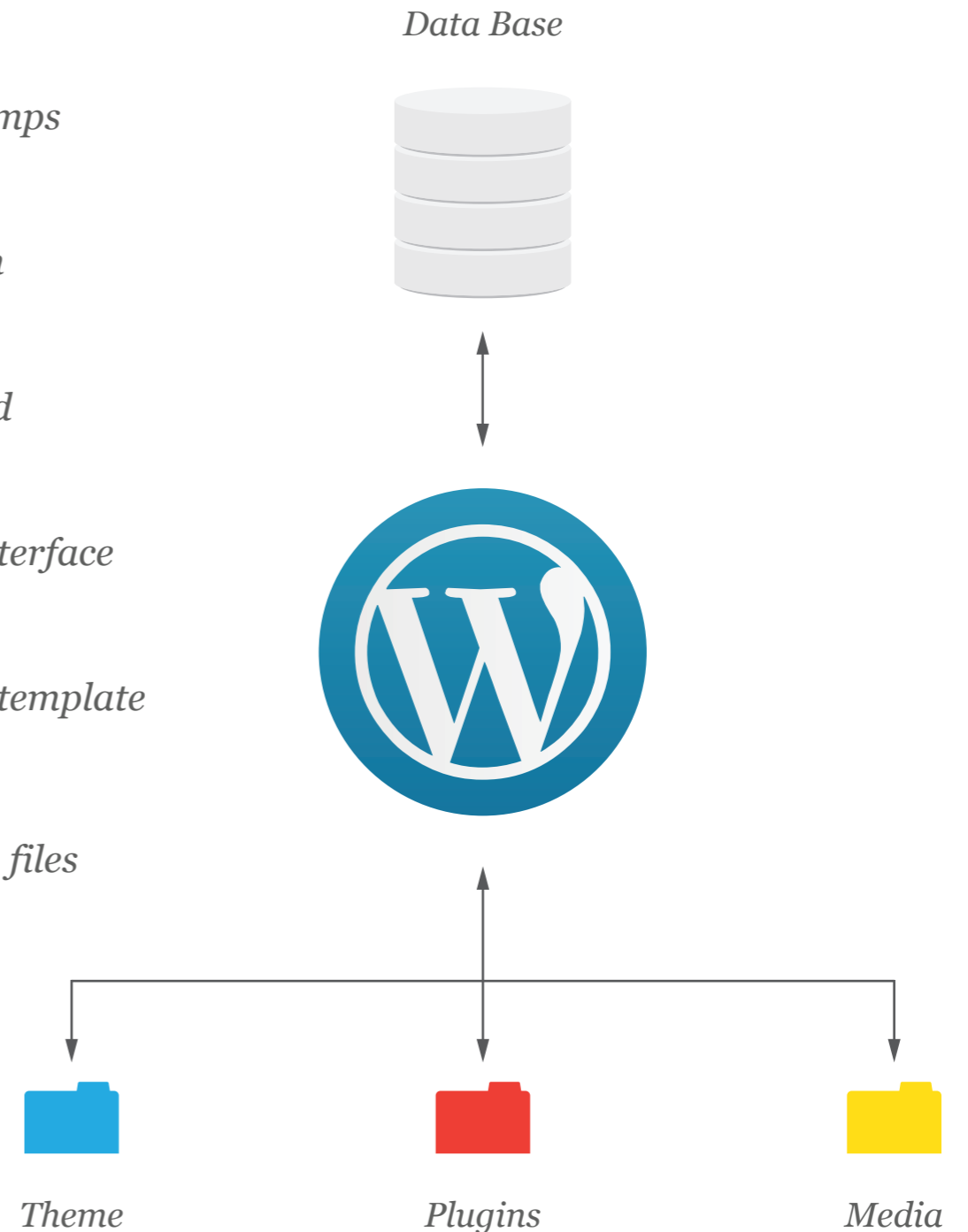


How does a Wordpress work?

Cultivating a healthy, content rich Wordpress Site

Content/Data = Blood

- *So, if the Post type/loop is the heart of Wordpress, the content if pumps out must be the blood that keeps the site alive*
- *This content is stored as data in the database, but can be linked rich media files such as images, audio and video on your server*
- *Oppering outside and adjacent to your theme are your plugin and media files*
- *The files in your media folder are maintained with the same GUI interface as the rest of the content*
- *The database stores the file names and then distributes them to the template files as your theme requires*
- *Wordpress will allow you to automatically or manually edit image files for consitance across a pages using the same template*
- *The rules for this are set in the functions.php file*

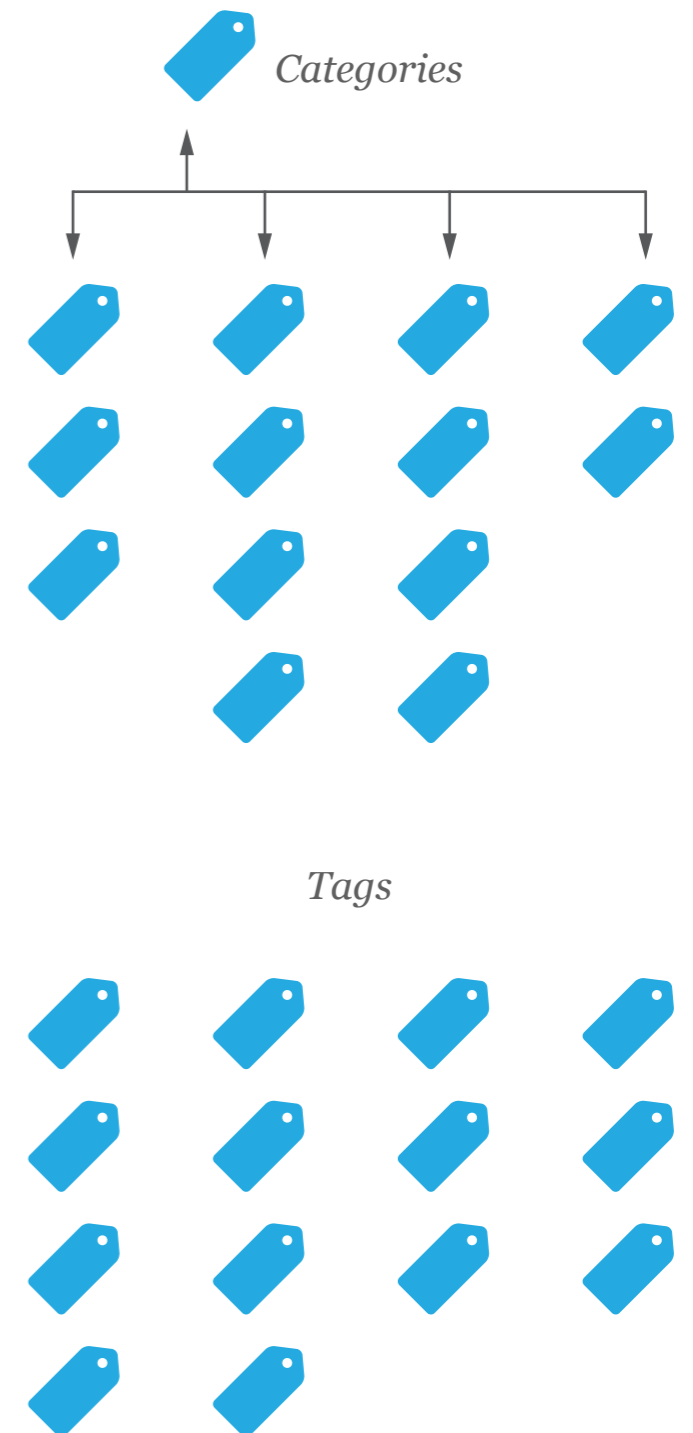


How does a Wordpress work?

Making your content easily accessible

Taxonomies = Vascular System

- *Taxonomies are a way of labeling and archiving you post to allow for easier user accessablity*
- *By default there are two type of taxonomies Categories and Tags*
- *The difference between them is hierarchy*
- *Categories are hierarchical, meaning they can be arnged into parent and children and grandchildren and so on...*
- *Tags are non-hierachical, meaning they exist adjacent to each other*



How does a Wordpress work?

Presenting your content to the World

Templates = Skin

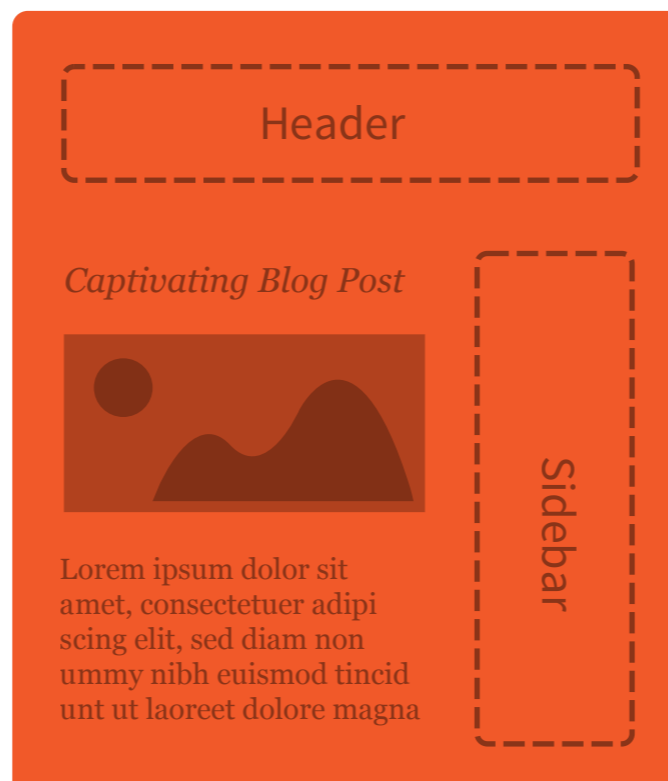
- *Templates are made up of the HTML & CSS that forms and styles the content pulled in by from the database*
- *The template also dictate what content is pulled from the databasss*

Template.php

```
<?php get_header(); ?>

<div id="main">
  <h1><?php the_title(); ?></h1>
  <?php the_post_thumbnail(); ?>
  <div class="entry-content">
    <?php the_content(); ?>
  </div>
</div>
```

Adding Data



Rendered by Browser



What makes up a Wordpress Theme?

Most Wordpress themes are made from the same core files...



<http://underscores.me/>

What makes up a Wordpress Theme?

Style.css

- Aside from containing styles, the Style.css is the identifying document for your theme



CSS

```
/*
Theme Name: Theme Name
Theme URI: http://underscores.me/
Author: Underscores.me
Author URI: http://underscores.me/
Description: Description
Version: 1.0
License: GNU General Public License
License URI: license.txt
Text Domain: theme_name
Domain Path: /languages/
Tags: blue, clean, minimalistic, responsive
```

This theme, like WordPress, is licensed under the GPL.

Use it to make something cool, have fun, and share what you've learned with others.

`lazer_vs_machines` is based on Underscores <http://underscores.me/>, (C) 2012-2014 Automattic, Inc.

Resetting and rebuilding styles have been helped along thanks to the fine work of
Eric Meyer <http://meyerweb.com/eric/tools/css/reset/index.html>
along with Nicolas Gallagher and Jonathan Neal <http://necolas.github.com/normalize.css/>
and Blueprint <http://www.blueprintcss.org/>

```
*/
```

What makes up a Wordpress Theme?

Functions.php



php

```
<?php
/**
 * Theme Name functions and definitions
 *
 * @package Theme Name
 */

/**
 * Set the content width based on the theme's design and stylesheet.
 */
if ( ! isset( $content_width ) )
    $content_width = 640; /* pixels */

if ( ! function_exists( 'brevity_setup' ) ) :

require_once('posttypes.php');
require_once('shortcodes.php');

/**
 * This theme uses wp_nav_menu() in one location.
 */
register_nav_menus( array(
    'mobile' => __( 'Mobile Menu', 'brevity' ),
    'vodka' => __( 'Vodka Menu', 'brevity' ),
    'shop' => __( 'Shop Menu', 'brevity' )
) );

/**
 * This theme resizes and hard crops images for use in templates
 */
add_image_size('feature_page', 940, 380, true);
add_image_size('feature_blog', 700, 380, true);
add_image_size('blog_thumb', 148, 80, true);
```

What makes up a Wordpress Theme?

Header.php



```
<?php
/**
 * The Header for our theme.
 * Displays all of the <head> section and everything up till <div id="main">
 * @package Theme Name
 */
?>
<!DOCTYPE html>
<head>
<meta charset="<?php bloginfo( 'charset' ); ?>">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title><?php wp_title( '|', true, 'right' ); ?></title>
<link rel="pingback" href="<?php bloginfo( 'pingback_url' ); ?>">

<?php wp_head(); ?>
</head>

<body <?php body_class(); ?>>
<div id="page" class="hfeed site">
  <header id="masthead" class="site-header" role="banner">
    <div class="site-branding">
      <h1 class="site-title">
        <a href="<?php echo esc_url( home_url( '/' ) ); ?>" rel="home" <?php bloginfo( 'name' ); ?></a>
      </h1>
      <h2 class="site-description"><?php bloginfo( 'description' ); ?></h2>
    </div>

    <nav id="site-navigation" class="main-navigation" role="navigation">
      <h1 class="menu-toggle"><?php _e( 'Menu', 'theme_name' ); ?></h1>

      <?php wp_nav_menu( array( 'theme_location' => 'primary' ) ); ?>
    </nav><!-- #site-navigation -->
  </header><!-- #masthead -->

  <div id="content" class="site-content">
```

What makes up a Wordpress Theme?

Footer.php

```
<?php
/**
 * The template for displaying the footer.
 * Contains the closing of the #content div and all content after
 * @package Theme Name
 */
?>

</div><!-- #content -->

<footer id="colophon" class="site-footer" role="contentinfo">
  <div class="site-info">
    <a href="<?php echo esc_url( __( 'http://wordpress.org/', 'theme_name' ) ); ?>">
      <?php printf( __( 'Proudly powered by %s', 'theme_name' ), 'WordPress' ); ?>
    </a>

  </div><!-- #colophon -->
</div><!-- #page -->

<?php wp_footer(); ?>

</body>
</html>
```



What makes up a Wordpress Theme?

Page.php

```
<?php
/**
 * Template Name: Full Width
 *
 * A custom page template without sidebar.
 * The "Template Name:" bit above allows this to be selectable
 * from a dropdown menu on the edit page screen.
 *
 * @package Theme Name
 */

get_header(); ?>

<div id="primary" class="content-area">
  <main id="main" class="site-main" role="main">

    <?php while ( have_posts() ) : the_post(); ?>

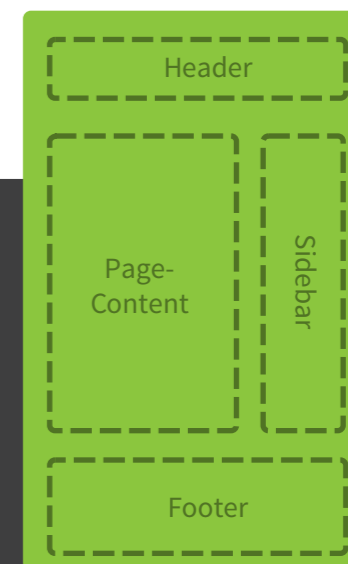
      <?php get_template_part( 'content', 'page' ); ?>

      <?php
        // If comments are open or we have at least one comment, load up the comment template
        if ( comments_open() || '0' != get_comments_number() ) :
          comments_template();
        endif;
      ?>

    <?php endwhile; // end of the loop. ?>

  </main><!-- #main -->
</div><!-- #primary -->

<?php get_sidebar(); ?>
<?php get_footer(); ?>
```



What makes up a Wordpress Theme?

Content-Page.php

```
<?php
/**
 * The template used for displaying page content in page.php
 *
 * @package Theme Name
 */
?>

<article id="post-<?php the_ID(); ?>" <?php post_class(); ?>>
  <header class="entry-header">
    <?php the_post_thumbnail('feature_page'); ?>
    <h1 class="entry-title"><?php the_title(); ?></h1>
  </header><!-- .entry-header -->

  <div class="entry-content">
    <?php the_content(); ?>
    <?php
      wp_link_pages( array(
        'before' => '<div class="page-links">' . __( 'Pages:', 'theme_name' ),
        'after'  => '</div>',
      ) );
    ?>
  </div><!-- .entry-content -->
  <?php edit_post_link( __( 'Edit', 'theme_name' ),
    '<footer class="entry-meta"><span class="edit-link">', '</span></footer>' ); ?>
</article><!-- #post-## -->
```



What makes up a Wordpress Theme?

Sidebar.php



```
<?php
/**
 * The Sidebar containing the main widget areas.
 * @package Theme Name
 */
?>
<div id="secondary" class="widget-area" role="complementary">
    <?php if ( ! dynamic_sidebar( 'sidebar-1' ) ) : ?>

        <aside id="search" class="widget widget_search">
            <?php get_search_form(); ?>
        </aside>

        <aside id="archives" class="widget">
            <h1 class="widget-title"><?php _e( 'Archives', 'theme_name' ); ?></h1>
            <ul>
                <?php wp_get_archives( array( 'type' => 'monthly' ) ); ?>
            </ul>
        </aside>

        <aside id="meta" class="widget">
            <h1 class="widget-title"><?php _e( 'Meta', 'theme_name' ); ?></h1>
            <ul>
                <?php wp_register(); ?>
                <li><?php wp_loginout(); ?></li>
                <?php wp_meta(); ?>
            </ul>
        </aside>

    <?php endif; // end sidebar widget area ?>
</div><!-- #secondary -->
```

What makes up a Wordpress Theme?

Index.php

```
<?php
/**
 * The main template file.
 * @package Theme Name
 */

get_header(); ?>

<div id="primary" class="content-area">
  <main id="main" class="site-main" role="main">

    <?php if ( have_posts() ) : ?>

      <?php /* Start the Loop */ ?>
      <?php while ( have_posts() ) : the_post(); ?>

        <?php get_template_part( 'content', get_post_format() ); ?>

      <?php endwhile; ?>

      <?php theme_name_paging_nav(); ?>

    <?php else : ?>

      <?php get_template_part( 'content', 'none' ); ?>

    <?php endif; ?>

  </main><!-- #main -->
</div><!-- #primary -->

<?php get_sidebar(); ?>
<?php get_footer(); ?>
```



What makes up a Wordpress Theme?

Content.php



```
<?php
/**
 * @package Theme Name
 */
?>

<article id="post-<?php the_ID(); ?>" <?php post_class(); ?>>
    <?php the_post_thumbnail('blog_thumb'); ?>
    <header class="entry-header">
        <h1 class="entry-title">
            <a href="<?php the_permalink(); ?>" rel="bookmark"><?php the_title(); ?></a>
        </h1>

        <?php if ( 'post' == get_post_type() ) : ?>
        <div class="entry-meta">
            <?php theme_name_posted_on(); ?>
        </div><!-- .entry-meta -->
        <?php endif; ?>
    </header><!-- .entry-header -->

    <?php if ( is_search() ) : // Only display Excerpts for Search ?>
    <div class="entry-summary">
        <?php the_excerpt(); ?>
    </div><!-- .entry-summary -->
    <?php else : ?>
    <div class="entry-content">
        <?php the_content( __( 'Continue reading <span class="meta-nav">&rarr;</span>', 'theme_name' ) ); ?>
        <?php
            wp_link_pages( array(
                'before' => '<div class="page-links">' . __( 'Pages:', 'theme_name' ),
                'after' => '</div>',
            ) );
        ?>
    </div><!-- .entry-content -->
    <?php endif; ?>
```

What makes up a Wordpress Theme?

Single.php

```
<?php
/**
 * The Template for displaying all single posts.
 * @package lazer_vs_machines
 */

get_header(); ?>

<div id="primary" class="content-area">
  <main id="main" class="site-main" role="main">

    <?php while ( have_posts() ) : the_post(); ?>

      <?php get_template_part( 'content', 'single' ); ?>

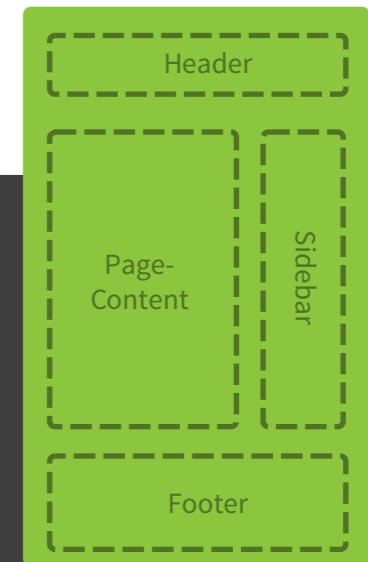
      <?php theme_name_post_nav(); ?>

      <?php
        // If comments are open or we have at least one comment, load up the comment template
        if ( comments_open() || '0' != get_comments_number() ) :
          comments_template();
        endif;
      ?>

    <?php endwhile; // end of the loop. ?>

  </main><!-- #main -->
</div><!-- #primary -->

<?php get_sidebar(); ?>
<?php get_footer(); ?>
```



What makes up a Wordpress Theme?

Single-Content.php

```
<?php
/**
 * @package Theme Name
 */
?>

<article id="post-<?php the_ID(); ?>" <?php post_class(); ?>>
  <header class="entry-header">
    <?php the_post_thumbnail('feature_blog'); ?>
    <h1 class="entry-title"><?php the_title(); ?></h1>

    <div class="entry-meta">
      <?php theme_name_posted_on(); ?>
    </div><!-- .entry-meta -->
  </header><!-- .entry-header -->

  <div class="entry-content">
    <?php the_content(); ?>
    <?php
      wp_link_pages( array(
        'before' => '<div class="page-links">' . __( 'Pages:', 'lazer_vs_machines' ),
        'after'  => '</div>',
      ) );
    ?>
  </div><!-- .entry-content -->
</article><!-- #post-## -->
```



What makes up a Wordpress Theme?

archive.php



```
<?php
/**
 * The template for displaying Archive pages.
 *
 * Learn more: http://codex.wordpress.org/Template_Hierarchy
 *
 * @package theme_name
 */

get_header(); ?>

<section id="primary" class="content-area">
    <main id="main" class="site-main" role="main">

        <?php if ( have_posts() ) : ?>

            <header class="page-header">
                <h1 class="page-title">
                    <?php
                        if ( is_category() ) :
                            single_cat_title();

                        elseif ( is_tag() ) :
                            single_tag_title();

                        elseif ( is_author() ) :
                            printf( __( 'Author: %s', 'lazer_vs_machines' ), '<span class="vcard">' . get_the_a

                        elseif ( is_day() ) :
                            printf( __( 'Day: %s', 'lazer_vs_machines' ), '<span>' . get_the_date() . '</span>'

                        elseif ( is_month() ) :
                            printf( __( 'Month: %s', 'lazer_vs_machines' ), '<span>' . get_the_date( _x( 'F Y',
```

What makes up a Wordpress Theme?

Search.php

```
<?php
/**
 * The template for displaying Search Results pages.
 * @package Theme Name
 *
get_header(); ?>
<section id="primary" class="content-area">
  <main id="main" class="site-main" role="main">

    <?php if ( have_posts() ) : ?>

      <header class="page-header">
        <h1 class="page-title"><?php printf( __( 'Search Results for: %s', 'theme_name' ), '<span>' .
</header><!-- .page-header -->

      <?php /* Start the Loop */ ?>
      <?php while ( have_posts() ) : the_post(); ?>

        <?php get_template_part( 'content', 'search' ); ?>

      <?php endwhile; ?>

      <?php theme_name_paging_nav(); ?>

    <?php else : ?>

      <?php get_template_part( 'content', 'none' ); ?>

    <?php endif; ?>

  </main><!-- #main -->
</section><!-- #primary -->
<?php get_sidebar(); ?>
<?php get_footer(); ?>
```



What makes up a Wordpress Theme?

Content-None.php



```
<?php
/**
 * The template part for displaying a message that posts cannot be found.
 *
 * Learn more: http://codex.wordpress.org/Template\_Hierarchy
 *
 * @package Theme Name
 */
?>

<section class="no-results not-found">
  <header class="page-header">
    <h1 class="page-title"><?php _e( 'Nothing Found', 'theme_name' ); ?></h1>
  </header><!-- .page-header -->

  <div class="page-content">
    <?php if ( is_home() && current_user_can( 'publish_posts' ) ) : ?>

      <p><?php printf( __( 'Ready to publish your first post? <a href="%1$s">Get started here</a>.',
        <?php elseif ( is_search() ) : ?>

      <p><?php _e( 'Sorry, but nothing matched your search terms. Please try again with some different
        <?php get_search_form(); ?>

    <?php else : ?>

      <p><?php _e( 'It seems we can&rsquo;t find what you&rsquo;re looking for. Perhaps searching can
        <?php get_search_form(); ?>

    <?php endif; ?>
  </div><!-- .page-content -->
</section><!-- .no-results -->
```

What makes up a Wordpress Theme?

404.php

```
<?php
/**
 * The template for displaying 404 pages (Not Found).
 * @package Theme Home
 */
get_header(); ?>

<div id="primary" class="content-area">
  <main id="main" class="site-main" role="main">

    <section class="error-404 not-found">
      <header class="page-header">
        <h1 class="page-title">
          <?php _e( 'Oops! That page can&rsquo;t be found.', 'theme_name' ); ?>
        </h1>
      </header><!-- .page-header -->

      <div class="page-content">
        <p><?php _e( 'It looks like nothing was found at this location. Maybe try one of the links' ); ?>

        <?php get_search_form(); ?>

      </div><!-- .page-content -->
    </section><!-- .error-404 -->

  </main><!-- #main -->
</div><!-- #primary -->

<?php get_footer(); ?>
```



What makes up a Wordpress Theme?

Custom Post Type



php

```
add_action( 'init', 'codex_book_init' );

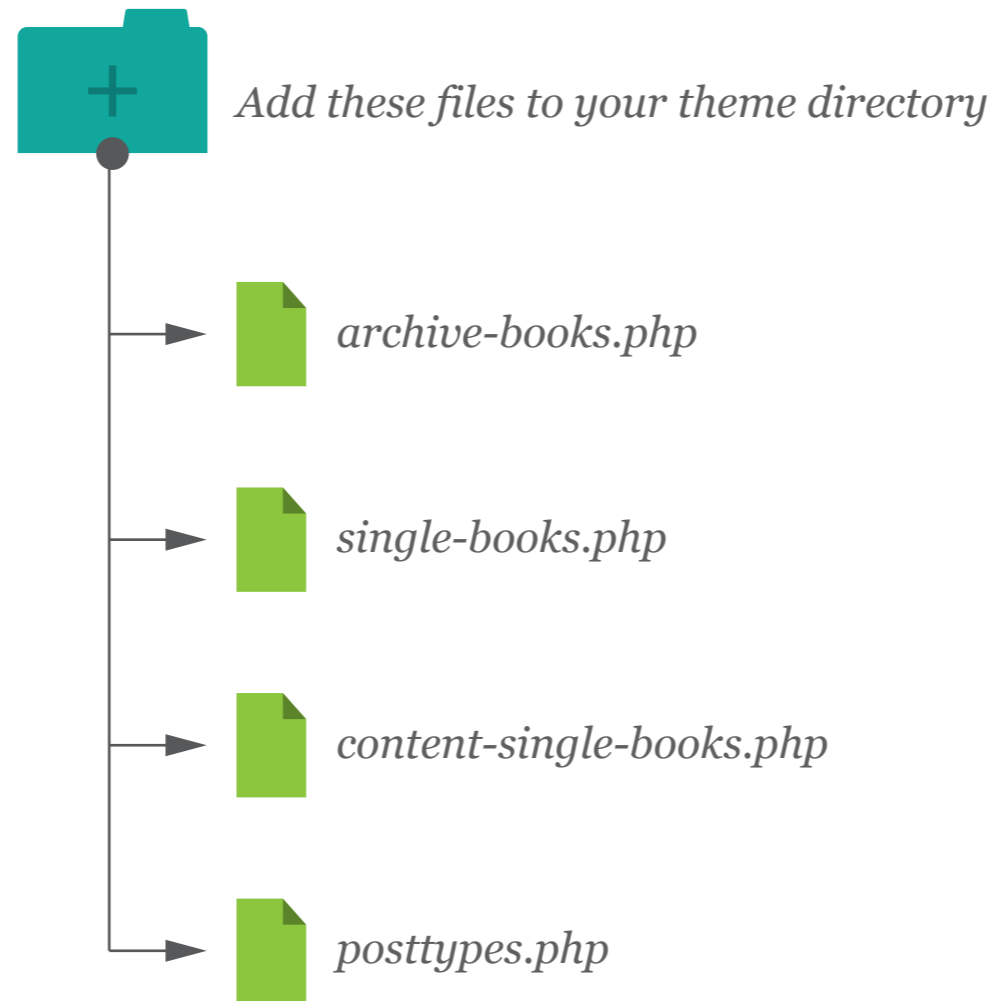
function codex_book_init() {
    $labels = array(
        'name' => _x( 'Books', 'post type general name', 'your-plugin-textdomain' ),
        'singular_name' => _x( 'Book', 'post type singular name', 'your-plugin-textdomain' ),
        'menu_name' => _x( 'Books', 'admin menu', 'your-plugin-textdomain' ),
        'name_admin_bar' => _x( 'Book', 'add new on admin bar', 'your-plugin-textdomain' ),
        'add_new' => _x( 'Add New', 'book', 'your-plugin-textdomain' ),
        'add_new_item' => __( 'Add New Book', 'your-plugin-textdomain' ),
        'new_item' => __( 'New Book', 'your-plugin-textdomain' ),
        'edit_item' => __( 'Edit Book', 'your-plugin-textdomain' ),
        'view_item' => __( 'View Book', 'your-plugin-textdomain' ),
        'all_items' => __( 'All Books', 'your-plugin-textdomain' ),
        'search_items' => __( 'Search Books', 'your-plugin-textdomain' ),
        'parent_item_colon' => __( 'Parent Books:', 'your-plugin-textdomain' ),
        'not_found' => __( 'No books found.', 'your-plugin-textdomain' ),
        'not_found_in_trash' => __( 'No books found in Trash.', 'your-plugin-textdomain' ),
    );

    $args = array(
        'labels' => $labels,
        'public' => true,
        'publicly_queryable' => true,
        'show_ui' => true,
        'show_in_menu' => true,
        'query_var' => true,
        'rewrite' => array( 'slug' => 'book' ),
        'capability_type' => 'post',
        'has_archive' => true,
        'hierarchical' => false,
        'supports' => array( 'title', 'editor', 'author', 'thumbnail', 'excerpt', 'comments' )
    );

    register_post_type( 'book', $args );
}
```

What makes up a Wordpress Theme?

Custom Posttype



What makes up a Wordpress Theme?

Custom Taxonomy



php

```
$labels = array(
    'name'          => _x( 'Genres', 'taxonomy general name' ),
    'singular_name' => _x( 'Genre', 'taxonomy singular name' ),
    'search_items'  => __( 'Search Genres' ),
    'all_items'     => __( 'All Genres' ),
    'parent_item'   => __( 'Parent Genre' ),
    'parent_item_colon' => __( 'Parent Genre:' ),
    'edit_item'     => __( 'Edit Genre' ),
    'update_item'   => __( 'Update Genre' ),
    'add_new_item'  => __( 'Add New Genre' ),
    'new_item_name' => __( 'New Genre Name' ),
    'menu_name'     => __( 'Genre' ),
);

$args = array(
    'hierarchical' => true,
    'labels'        => $labels,
    'show_ui'       => true,
    'show_admin_column' => true,
    'query_var'     => true,
    'rewrite'       => array( 'slug' => 'genre' ),
);

register_taxonomy( 'genre', 'book', $args );
```