



GETTING STARTED WITH WORDPRESS DEVELOPMENT

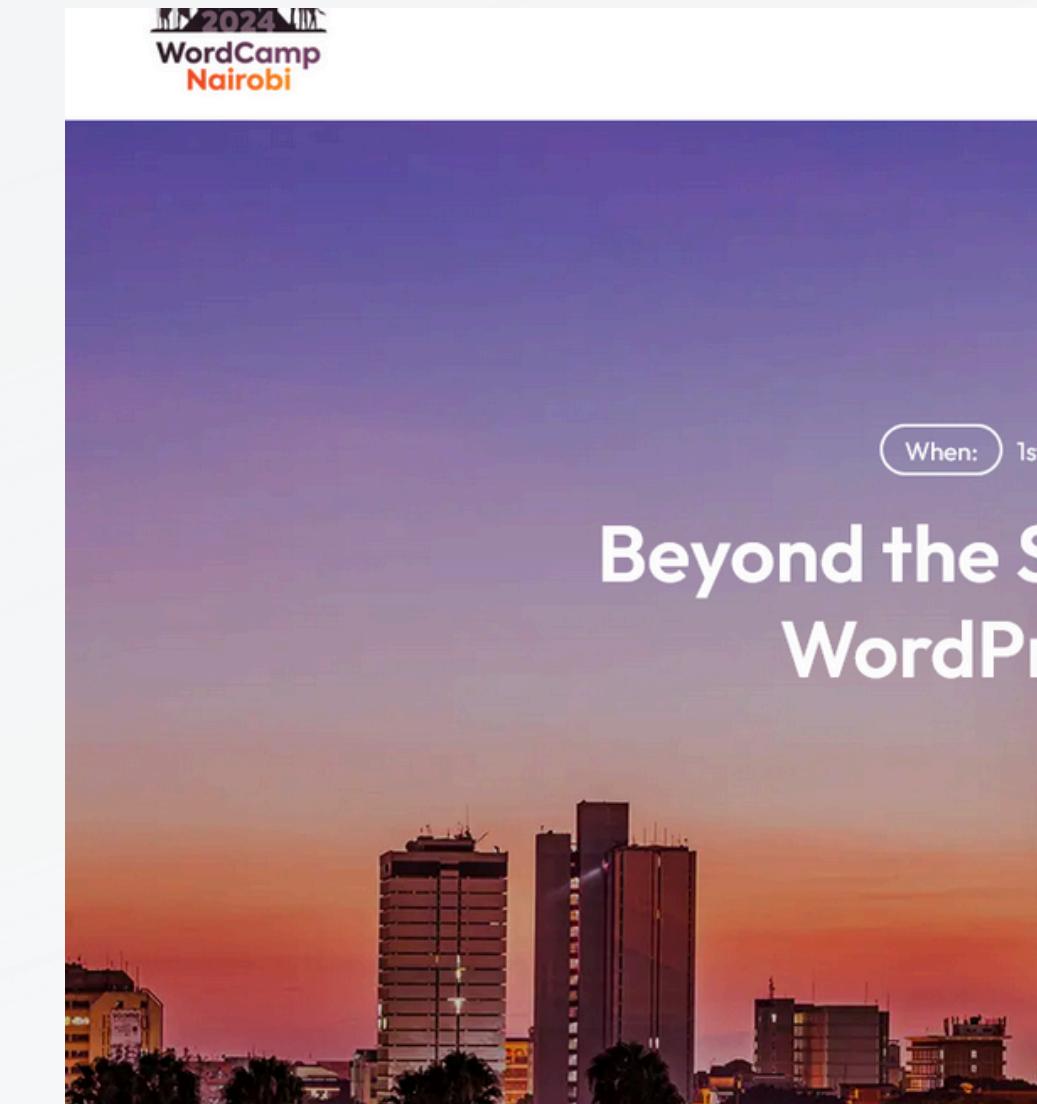
BEYOND THEMES – BUILDING COMPLETE WEBSITES

SAMUEL NZARO

We often hear: "Just choose a theme."
What is the best theme for X
WordPress development is more than themes,
plugins!

My main objective is to get you to understand
better how to get started with WordPress and
move beyond plugging content to theme demos

Today, we'll break down the components of a
website, discuss different types of websites, and
see where and how WordPress fits in.



When: 1st - 2nd November 2024

Beyond the Surface
WordCamp Nairobi 2024

Action Packed With Sessions Across 2 Days

Connect with WP Enthusiasts From 10+ Countries

ABOUT WORDCAMP
Africa's Premier WordPress Summit, WordCamp Nairobi 2024



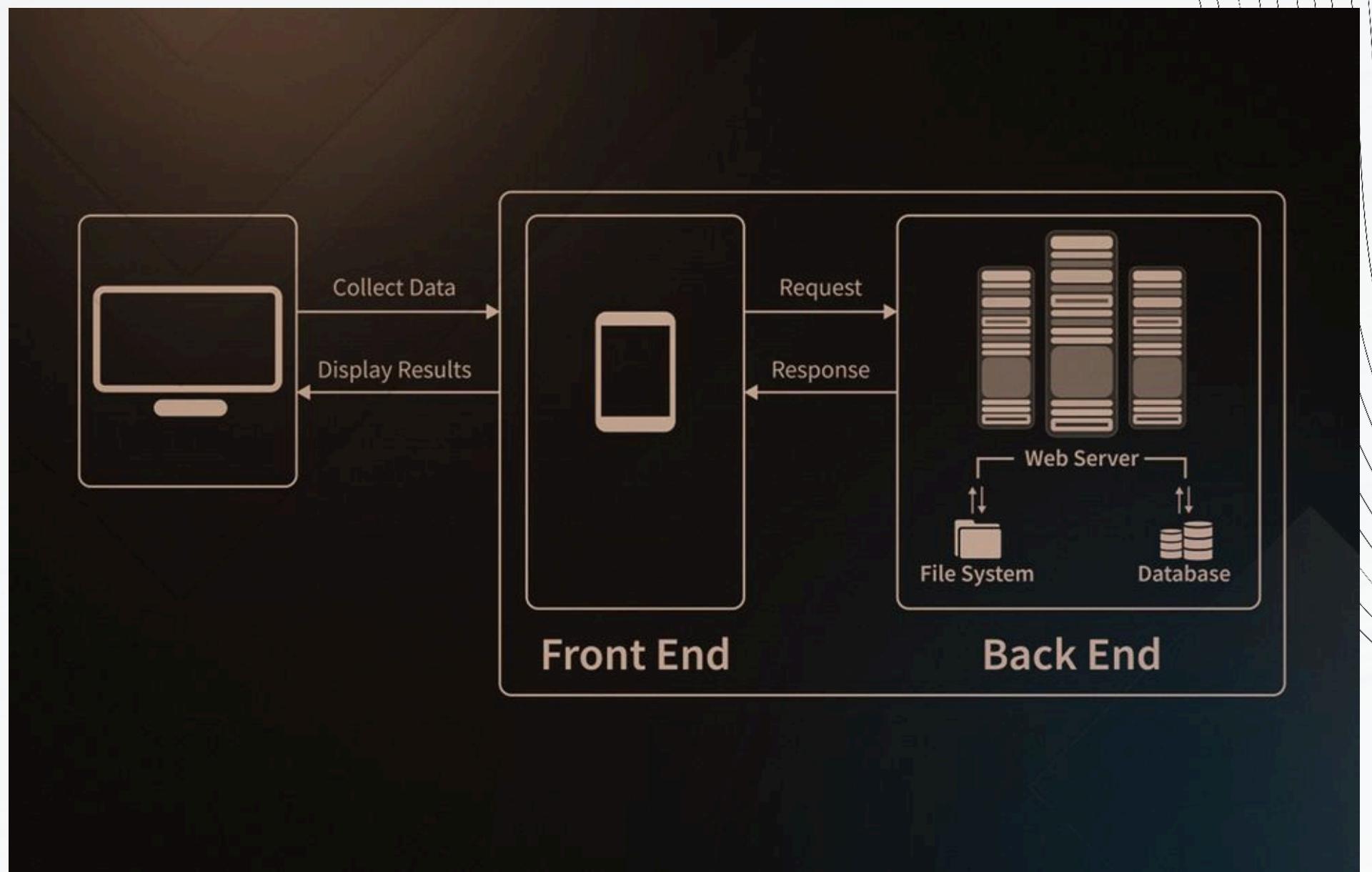
**WHAT IS A
WEBSITE?**

ACTIVITY



COMPONENTS

- Text:
 - Front-End:
 - What users see (HTML, CSS, JavaScript)
- Back-End:
 - Where the magic happens (Database, Server, PHP)
- Content Management System (CMS):
 - Wordpress
 - Ghost
 - Strapi





WHERE DOES
WORDPRESS FIT
IN?

According to W3Techs, WordPress's share of the CMS market has grown from 51% to 65% in just ten years. It also powers 43.2% of all websites, and 34.68% of the top 1 million websites on the web.

WordPress remains the most popular because it's powerful, affordable, and versatile – its huge library of themes and plugins give it a lot of flexibility. It has a built-in blogging platform and provides support for most languages. It is also especially strong in SEO. Additionally, you have the rights to your own content and can download it at any time. Plus, you can host your site wherever you want.

The WordPress philosophy guides this and makes it possible for us to build on WordPress.

The screenshot shows the WordPress dashboard with a dark theme. At the top, there's a notification bar with the message "WordPress 6.6.2 is available! Please update now." Below the header is the "Dashboard" menu with options: Home, Updates (7), Posts, Media, Pages, Comments (1), Appearance, Plugins (3), Users, Tools, Settings, and Collapse menu. The main content area features a large "Welcome to WordPress!" banner with a link to "Learn more about the 6.5.3 version." To the right of the banner are two cards: one for "Author rich content with blocks and patterns" and another for "Customize your entire site with themes". Below these are sections for "Site Health Status", "At a Glance", "Activity", and "Recent Comments". The "Activity" section shows posts, pages, comments, and a comment in moderation. The "Recent Comments" section shows a comment from "A WordPress Commenter" on the post "Hello world!". At the bottom, there are links for "All (1) | Mine (0) | Pending (1) | Approved (0) | Spam (0) | Trash (0)". On the right side, there are sidebar sections for "Quick Draft" (with fields for Title and Content), "Your Recent Drafts" (listing "Hello world!"), and "WordPress Events and News" (listing "WordCamp Rochester" and "Want more events? Help organize the next one!").

The foundation of WordPress is posts and pages

- Posts are used for publications related to a given date, event or theme.
- Pages are just that, pages

On top of posts, you can extend the CMS by the various hooks and functions

These can then be manipulated in the front end by CSS, Javascript

By default, Wordpress ships with user management, posts, pages, menus, widgets.

This is technically what makes it possible to get started and ship without having to worry about it

On top of this, driven by the philosophy and open source nature, themes and plugins are readily available from the market

The screenshot shows the WordPress dashboard with a dark theme. The left sidebar includes links for Home, Updates (7), Posts, Media, Pages, Comments (1), Appearance, Plugins (3), Users, Tools, Settings, and Collapse menu. A notification at the top right says "WordPress 6.6.2 is available! Please update now." The main content area features a large "Welcome to WordPress!" heading and a link to "Learn more about the 6.5.3 version." Below this, there are two sections: "Author rich content with blocks and patterns" (with a "Add a new page" link) and "Customize your entire site with themes" (with a "Open site editor" link). The "At a Glance" section shows 2 Posts, 3 Pages, 0 Comments, and 1 Comment in moderation. The "Activity" section lists "Recently Published" posts: "Hello world!" on May 22nd, 8:20 am, and another "Hello world!" on Feb 13th, 4:43 pm. The "Recent Comments" section shows a comment from "A WordPress Commenter" on "Hello world!" which is pending moderation. Navigation links at the bottom include All (1), Mine (0), Pending (1), Approved (0), Spam (0), and Trash (0).

THEMES & PLUGINS

A **theme** controls the appearance of a site, but that's just one part.

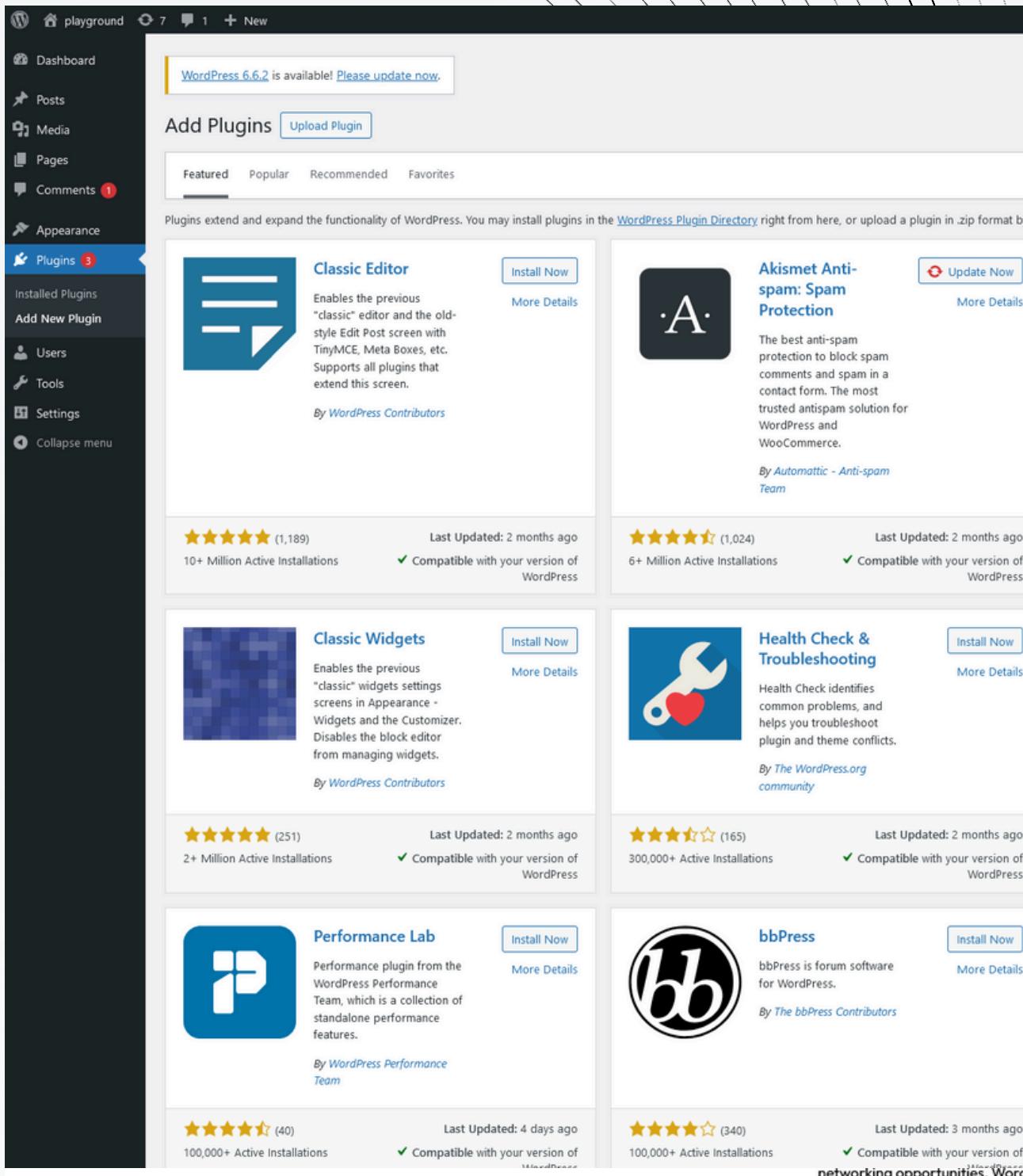
Functionality comes from plugins or custom code

Performance depends on optimization (not just the theme),

Server setup ie Apache vs Nginx vs Litespeed

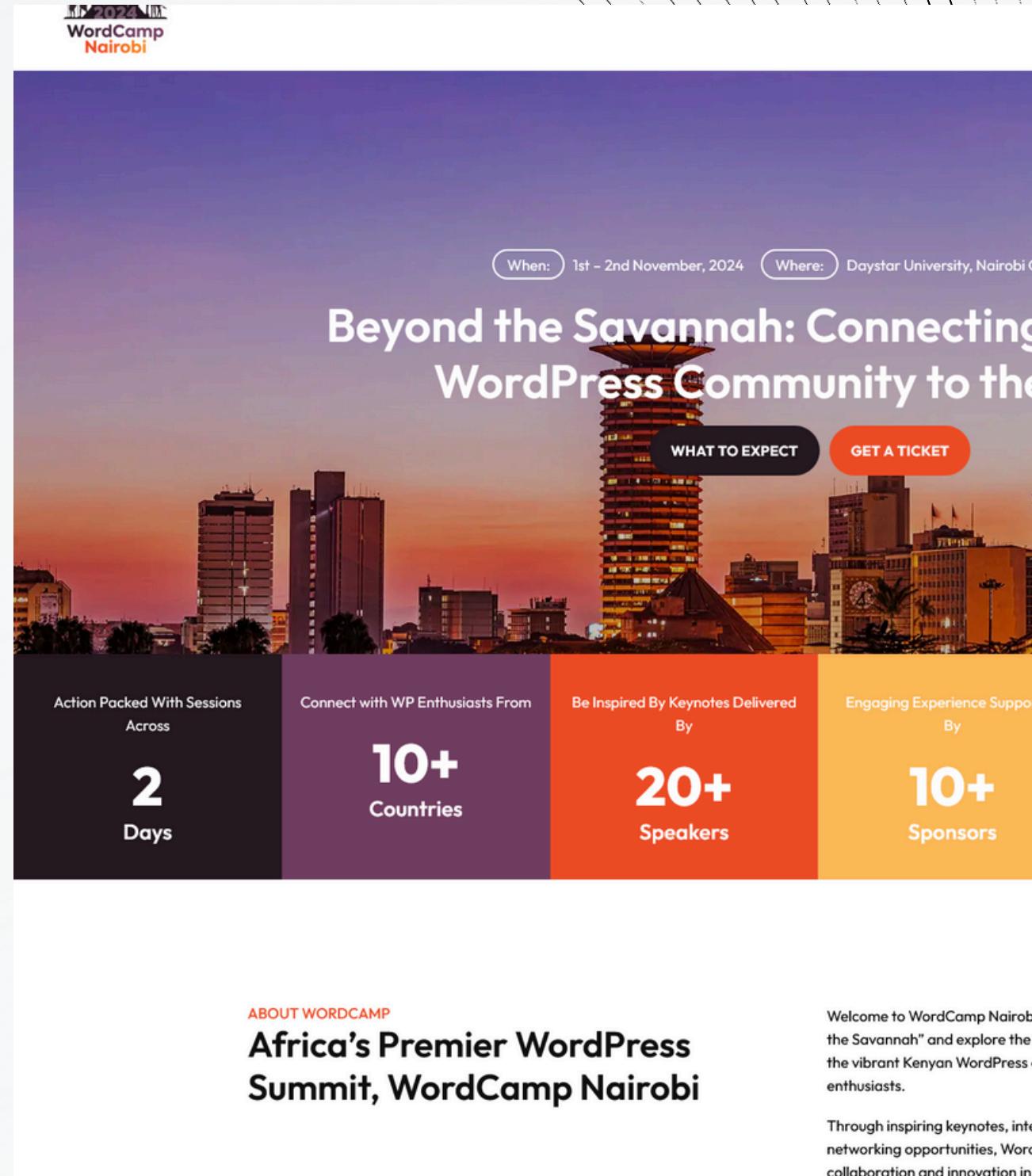
Plugins code snippets packaged to extend/improve the functionality of WordPress

Combine your theme and plugins to build a complete website



EXAMPLES

- Tour/Hotel Theme:
 - Looks great, but you need booking plugins, payment integrations, and map functionality.
- School Website:
 - A theme can create the structure, but you'll need events, class listings, and student login features.
- eCommerce Store:
 - A theme defines product layouts, but WooCommerce powers your cart, checkout, and product features.



The screenshot shows the WordCamp Nairobi 2024 website. At the top, it says "WordCamp Nairobi 2024". Below that, there's a banner with a sunset over a city skyline. To the right of the banner, it says "When: 1st - 2nd November, 2024" and "Where: Daystar University, Nairobi". The main title "Beyond the Savannah: Connecting WordPress Community to the" is displayed prominently. Below the title are two buttons: "WHAT TO EXPECT" and "GET A TICKET". On the left side, there's a dark box with the text "Action Packed With Sessions Across 2 Days". In the center, there's a purple box with "Connect with WP Enthusiasts From 10+ Countries". To the right, there's an orange box with "Be Inspired By Keynotes Delivered By 20+ Speakers". On the far right, there's a yellow box with "Engaging Experience Supplied By 10+ Sponsors". At the bottom, it says "ABOUT WORDCAMP Africa's Premier WordPress Summit, WordCamp Nairobi". To the right of that, there's some descriptive text about the summit and its location.

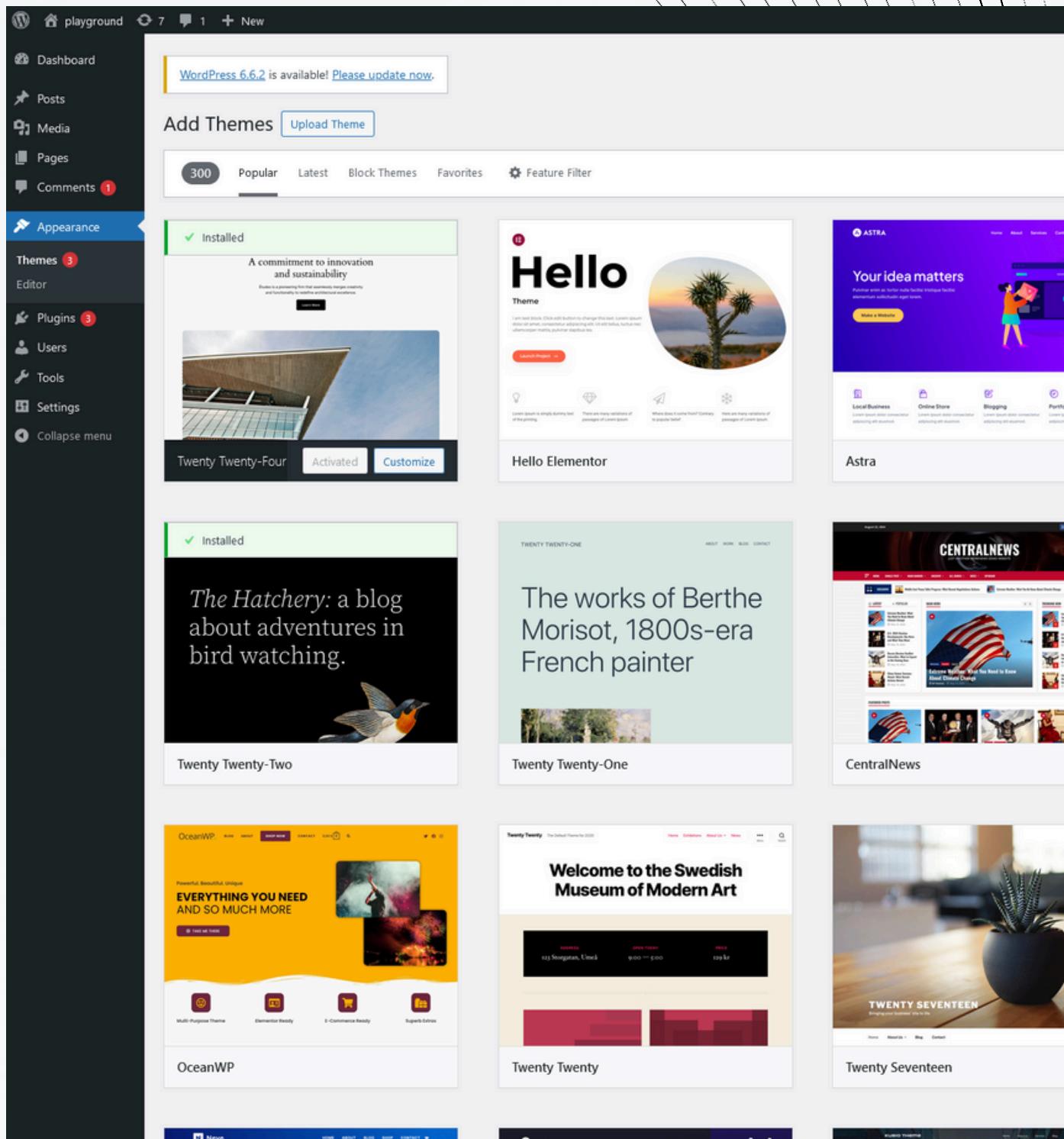
START

Purpose: Know what the website is for (blog, business, store, directory)

Features: Look for themes that can handle your site's needs (e.g., built-in WooCommerce, LMS, support,)

Customization: Pick a theme that offers flexibility (or build a custom theme)

Experiment and play a lot!



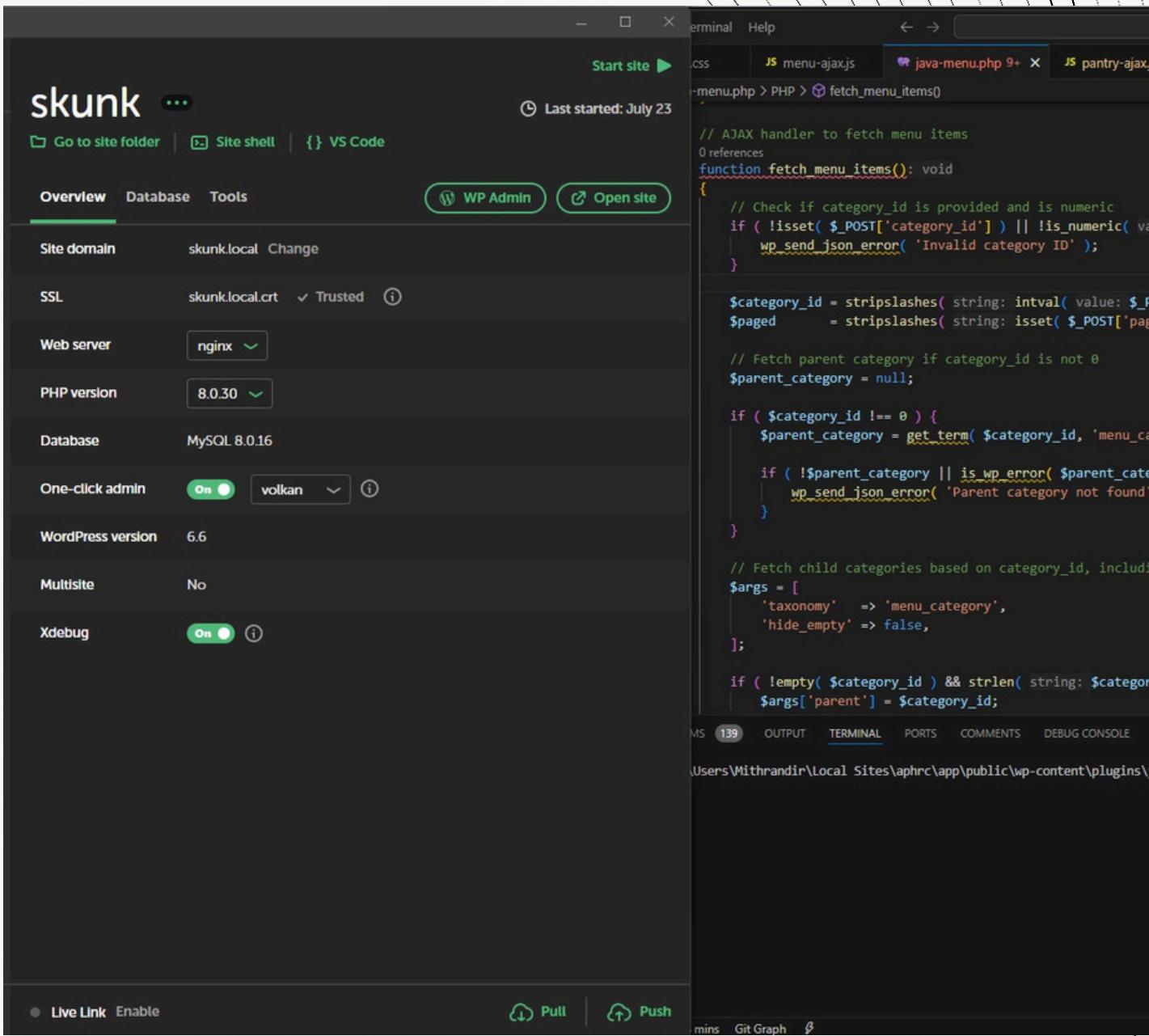
DEVELOPMENT ENV

Local Development Environment: Using tools like Local, WAMP, or MAMP to create a local server for running WordPress.

Install WordPress Locally: Download WordPress from [WordPress.org](https://wordpress.org) and configure it with your local setup.

Recommended Tools:

- Code Editor: VS Code, Sublime Text, or Atom are great options with WordPress-specific plugins.
- Version Control: Git (GitHub or GitLab) for version tracking.
- WP-CLI
- Browsers and Debugging Tools: Chrome DevTools, Firefox Developer Edition, or Safari's Web Inspector can help with debugging.



The screenshot shows the skunk dashboard interface. On the left, there's a sidebar with 'Overview', 'Database', and 'Tools' tabs, and buttons for 'WP Admin' and 'Open site'. The main area displays site configuration details: Site domain (skunk.local), SSL (skunk.local.crt), Web server (nginx), PHP version (8.0.30), Database (MySQL 8.0.16), One-click admin (volkan), WordPress version (6.6), Multisite (No), and Xdebug (On). On the right, a code editor window is open, showing a file named 'menu-ajax.js' with the following content:

```
// AJAX handler to fetch menu items
function fetch_menu_items(): void {
    // Check if category_id is provided and is numeric
    if ( !isset( $_POST['category_id'] ) || !is_numeric( $_POST['category_id'] ) ) {
        wp_send_json_error( 'Invalid category ID' );
    }

    $category_id = stripslashes( string: intval( value: $_POST['category_id'] ) );
    $paged       = stripslashes( string: isset( $_POST['paged'] ) ? $_POST['paged'] : 1 );

    // Fetch parent category if category_id is not 0
    $parent_category = null;

    if ( $category_id !== 0 ) {
        $parent_category = get_term( $category_id, 'menu_categories' );
        if ( !$parent_category || is_wp_error( $parent_category ) ) {
            wp_send_json_error( 'Parent category not found' );
        }
    }

    // Fetch child categories based on category_id, including the parent
    $args = [
        'taxonomy'  => 'menu_category',
        'hide_empty' => false,
    ];

    if ( !empty( $category_id ) && strlen( string: $category_id ) ) {
        $args['parent'] = $category_id;
    }

    $categories = get_terms( $args );
    wp_send_json_success( $categories );
}
```

At the bottom of the dashboard, there are buttons for 'Live Link' (disabled), 'Pull', and 'Push', along with a 'Git Graph' link.

THEMES

Premade Themes: If customization is minimal, you may choose a high-quality theme from the WordPress Theme Directory or marketplaces like ThemeForest.

When you need more, extend with custom functionality for unique needs using the child theme

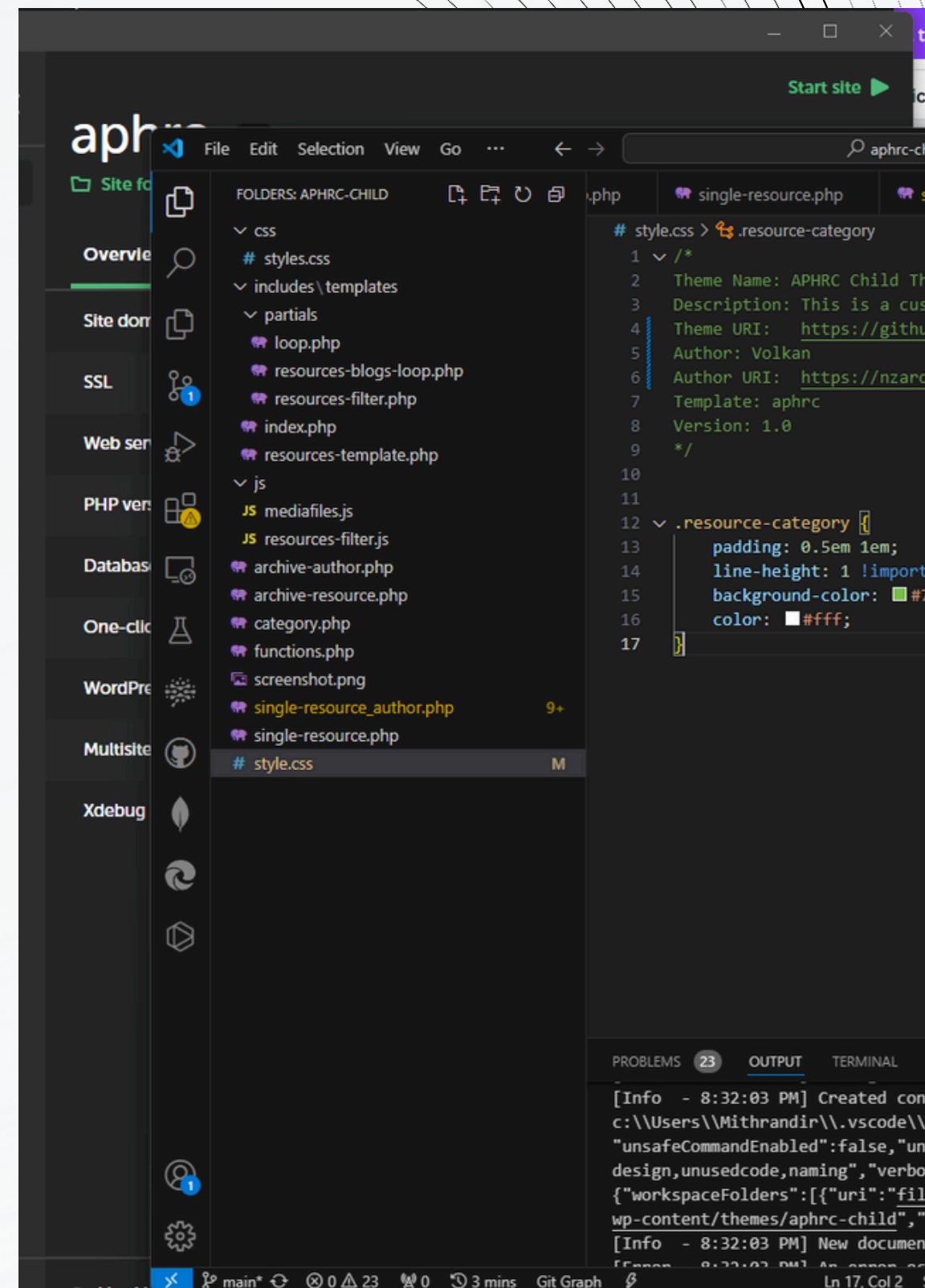
Themes are PHP/JS files stored in the wp-content/themes/ directory.

Custom Theme Development:

Starter Themes: Use a starter theme like [_S \(Underscores\)](#), [Bootscore](#), [GeneratePress](#) plus [GenerateBlocks](#) (blocks) and [Frost \(FSE theme\)](#) to simplify development.

Basic Files: A custom theme must have at least an index.php and style.css file, but additional templates like header.php, footer.php, and functions.php provide more structure.

Template Hierarchy: WordPress has a template hierarchy that dictates which file is used for a given type of page (e.g., single.php for individual posts).



The screenshot shows a code editor interface with a dark theme. On the left is a sidebar with various icons and labels: Site fc, Overview, Site domain, SSL, Web server, PHP version, Database, One-click, WordPress, Multisite, and Xdebug. The main area shows a file tree under 'APHRC-CHILD' with folders like css, includes\templates, partials, js, and others. Below the file tree is a code editor window displaying a portion of a CSS file named '# style.css'. The code includes a comment block, theme metadata (Theme Name: APHRC Child Theme, Description, Theme URI, Author, Author URI, Template, Version), and a class definition for '.resource-category' with properties like padding, line-height, background-color, and color. At the bottom of the editor, there are tabs for 'main*' and other files, along with status bars for Git Graph, 3 mins, and Ln 17, Col 2.

```
# style.css > .resource-category
1  /*
2  Theme Name: APHRC Child Theme
3  Description: This is a custom child theme for APHRC.
4  Theme URI: https://github.com/nzardos/aphrc-child-theme
5  Author: Volkan
6  Author URI: https://nzardos.com
7  Template: aphrc
8  Version: 1.0
9  */
10
11 .resource-category {
12   padding: 0.5em 1em;
13   line-height: 1 !important;
14   background-color: #fff;
15   color: #fff;
16 }
17 }
```

PLUGINS

Can be made using starter plugins or generators

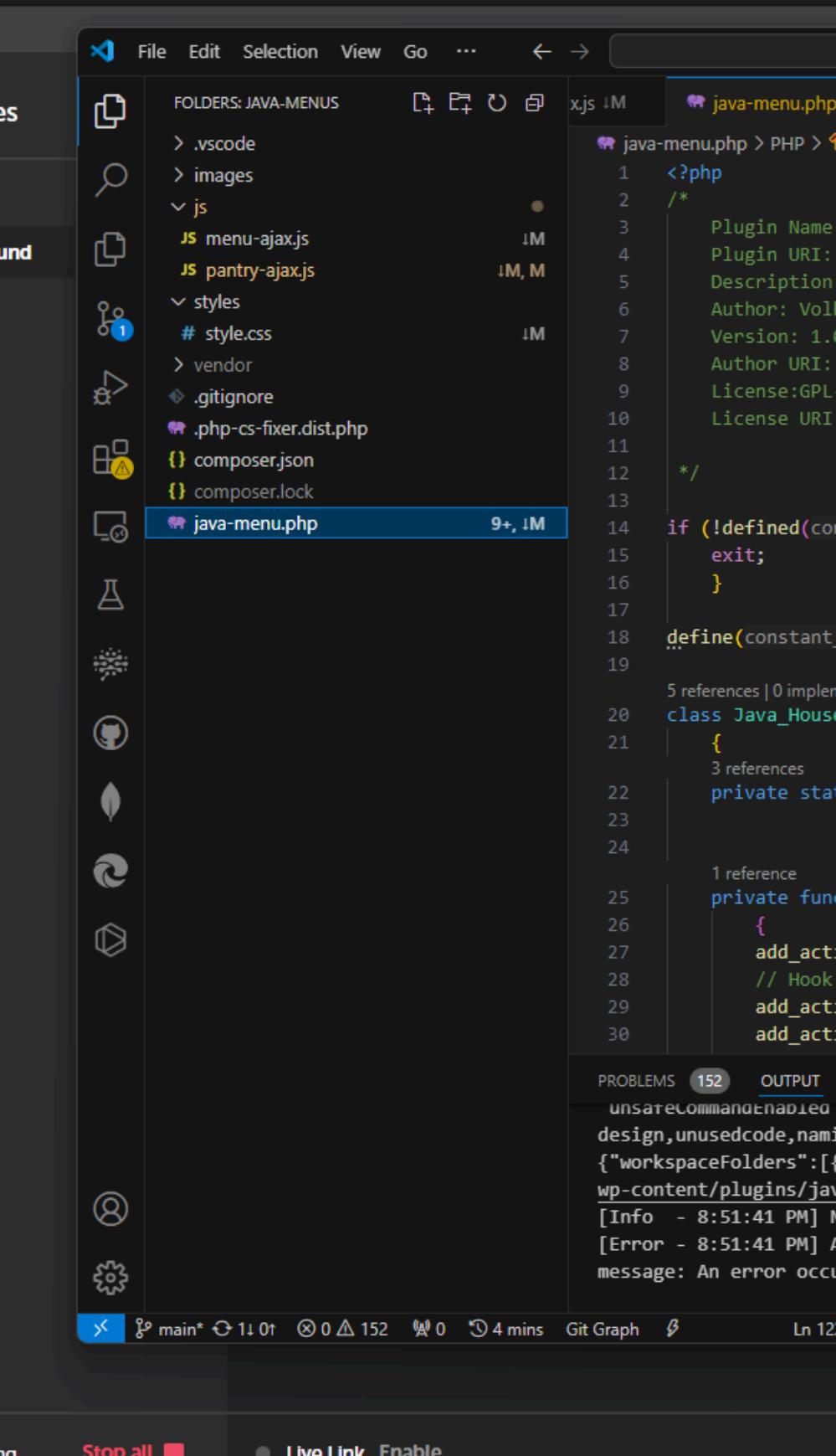
Plugins are PHP/JS files stored in the wp-content/plugins/ directory.

WordPress provides actions and filters that allow you to “hook” into various parts of WordPress to execute custom code.

For example, `add_action('init', 'my_custom_function');` will run `my_custom_function` when WordPress initializes.

Template Tags: Functions like `the_title()`, `the_content()`, and `the_post_thumbnail()` are key to outputting content dynamically within templates.

The Loop: This is the code WordPress uses to display posts on a page. Understanding and customizing The Loop is fundamental to displaying content in various layouts.



A screenshot of a dark-themed code editor, likely Visual Studio Code, showing a file structure in the sidebar and a code editor window. The sidebar shows a folder named 'JAVA-MENUS' containing '.vscode', 'images', and a 'js' folder which contains 'menu-ajax.js', 'pantry-ajax.js', and 'style.css'. The code editor window displays the contents of 'java-menu.php':

```
<?php
/*
Plugin Name: Java Menu
Plugin URI: https://example.com/java-menu
Description: A simple plugin to demonstrate WordPress hooks.
Author: Volker
Version: 1.0
Author URI: https://volkerwagner.de
License: GPL v2
License URI: https://www.gnu.org/licenses/gpl-2.0.html

if (!defined('ABSPATH')) exit;

define('constant_name', 'value');

class Java_House {
    private static $instance;
    ...
}

private function add_action() {
    add_action('init', 'add_action');
    // Hook
    add_action('init', 'add_action');
    add_action('init', 'add_action');
}

public function __construct() {
    add_action('init', 'add_action');
}

}
$house = new Java_House();
$house->__construct();

if (is_admin()) {
    add_action('admin_menu', 'add_menu');
}

function add_menu() {
    add_menu_page('Java House', 'Java House', 'administrator', 'java-house', 'java_house::display');
}

function display() {
    echo 'Hello, Java!';
}
```

The code editor window also shows a 'PROBLEMS' panel with 152 errors, a 'OUTPUT' panel, and a status bar at the bottom.

REST API

The REST API provides a set of endpoints (URLs) that correspond to different types of data in WordPress. Each endpoint URL is associated with a specific type of resource, such as:

- /wp-json/wp/v2/posts for posts
- /wp-json/wp/v2/pages for pages
- /wp-json/wp/v2/users for users
- /wp-json/wp/v2/categories for categories
- /wp-json/wp/v2/tags for tags

These endpoints support standard HTTP methods like:

- GET: Retrieves data (e.g., a list of posts).
- POST: Creates new data (e.g., a new post).
- PUT or PATCH: Updates existing data (e.g., editing a post).
- DELETE: Deletes existing data.



Jamstack

- Home
- Glossary
- Jamstack TV
- Site Generators
- Headless CMS
- Community Survey

- Who's doing the building?
- What is the Jamstack Community building?
- How are we building?
- Emerging Trends in the Jamstack Community

Open Source Type: API Driven Supported

WordPress

↑ <https://wordpress.org/> 🐻 [WordPress/Wo...](#)

What Is WordPress?

WordPress is currently the most popular CMS on the market, used by millions of websites across agencies and complex enterprises. Using the built-in editor, WordPress allows content editors and managers an extensible and flexible way to build websites.

Using WordPress as a Headless CMS

The WordPress CMS already gives site developers the ability to build sites using their own frontend technologies. In addition, the platform also offers a robust and extensible REST API for building headless sites.

REST API

The [WordPress REST API](#) has been a stable feature since version 4.7. It allows developers to interact with the WordPress database and settings over HTTP. Using existing patterns, developers can build custom applications that support any use case that can be created with the REST API.

WPGraphQL

Using the extensible nature of WordPress' plugin API, developers can build custom GraphQL schemas and interact with their site's content using GraphQL.

Find more [headless content management systems](#).

REST API

Headless CMS: WordPress can serve as a backend CMS, while you use frameworks like React or Vue to handle the front end.

Integrate with External Services: For instance, you could integrate with an eCommerce platform to display product data directly on your WordPress site.

Mobile Apps: REST API allows you to build mobile apps that interact with your WordPress content, making updates to content directly in the app.

Custom Dashboard Widgets: Build a custom admin dashboard that fetches data from other APIs or shows WordPress statistics.

Wordpress

Home <https://wordpress.org/> GitHub WordPress/Wo

Open Source Type: API Driven Supported

What Is WordPress?

WordPress is currently the most popular CMS on the market, used by millions of websites across agencies and complex enterprises. Using the built-in content editors and managers, it offers an extensible and flexible platform for website development.

Using WordPress as a Headless CMS

The WordPress CMS already gives site developers the ability to build custom frontends using various frontend technologies. In addition, the platform also offers a robust and extensible REST API for building mobile apps and custom dashboard widgets.

REST API

The [WordPress REST API](#) has been a stable feature since version 4.7. It allows developers to interact with the WordPress database and settings over HTTP. Using existing patterns, developers can quickly build mobile apps and custom dashboard widgets that support any use case that can be created with the REST API.

WPGraphQL

Using the extensible nature of WordPress' plugin API, developers can now build custom frontends that interact with their site's content using GraphQL.

Find more [headless content management systems](#).

ACTIVITY



BEST PRACTICE

Because

- Security
- Maintenance

During routine upgrades and improvements

After all, WordPress is a software product and should go through the normal SDLC like other software

- Follow WordPress Coding standards
- Use proper hooks
- Database Management, wpdb
- Leverage WordPress APIs
- Comment/document your modifications and functions

The screenshot shows the Skunk web application interface. On the left, there's a sidebar with 'Overview', 'Database', and 'Tools' tabs. Under 'Overview', it displays the site domain as 'skunk.local', SSL status as 'skunk.local.crt Trusted', Web server as 'nginx', PHP version as '8.0.30', Database as 'MySQL 8.0.16', One-click admin as 'On' (volkan), WordPress version as '6.6', Multisite as 'No', and Xdebug as 'On'. On the right, there's a code editor window titled 'menu-ajax.js' showing PHP code for fetching menu items. The code includes checks for category ID, parent category, and child categories, along with JSON responses. Below the code editor, there are 'Pull' and 'Push' buttons, and a status bar showing 'MS 139 OUTPUT TERMINAL PORTS COMMENTS DEBUG CONSOLE'.

```
// AJAX handler to fetch menu items
function fetch_menu_items(): void {
    // Check if category_id is provided and is numeric
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    $paged       = stripslashes( string: isset( $_POST['paged'] ) ? $_POST['paged'] : null );

    // Fetch parent category if category_id is not 0
    $parent_category = null;

    if ( $category_id !== 0 ) {
        $parent_category = get_term( $category_id, 'menu_item' );
        if ( !$parent_category || is_wp_error( $parent_category ) ) {
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        }
    }

    // Fetch child categories based on category_id, including the parent
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        'taxonomy'  => 'menu_category',
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    ];

    if ( !empty( $category_id ) && strlen( string: $category_id ) ) {
        $args['parent'] = $category_id;
    }

    $menu_items = get_terms( $args );
}
```

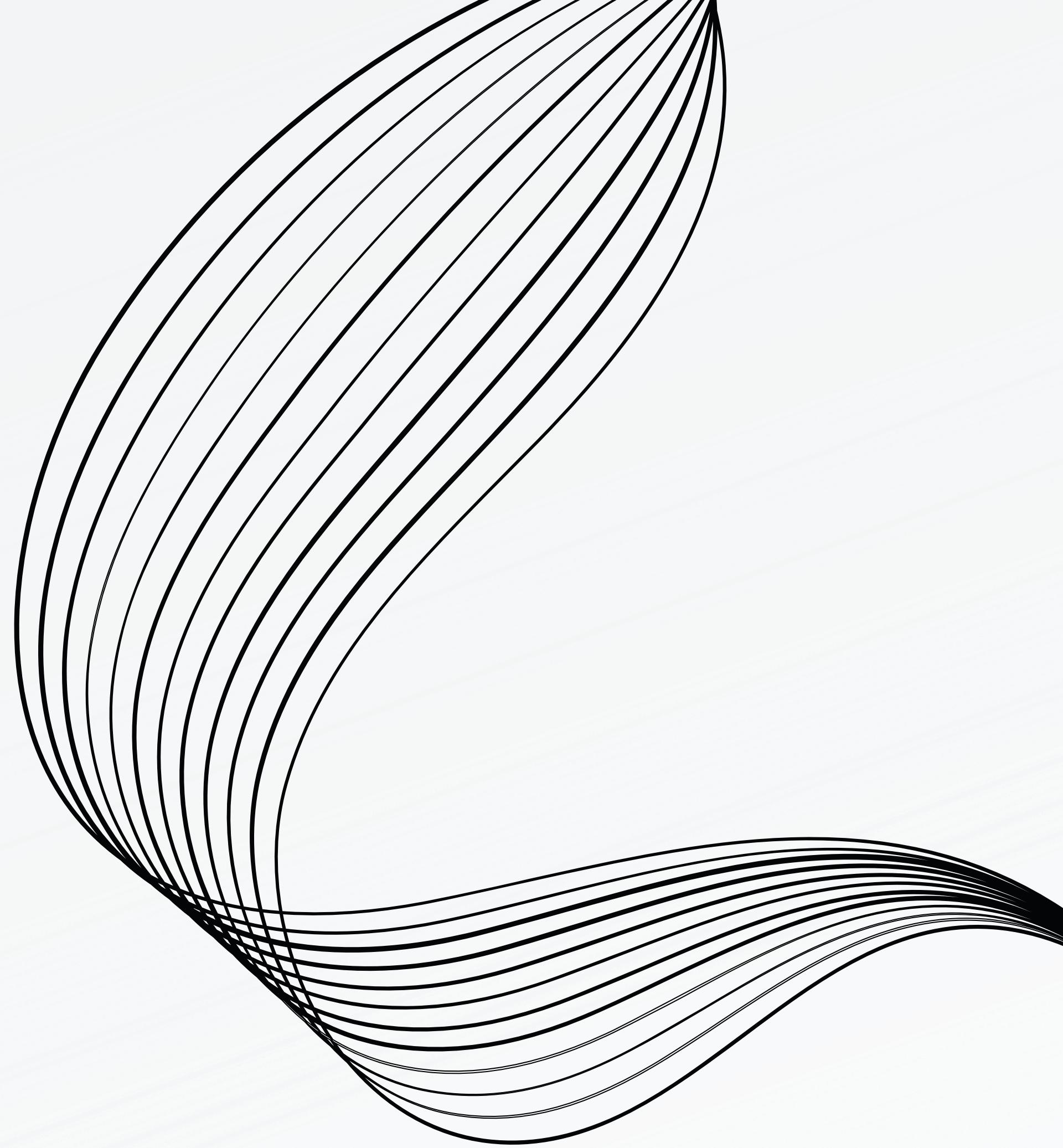


Q/A

RESOURCES LIST



ASANTENI



hello guys, can any one assist with Church and event wp theme or link to it. thanks in advance.

10:02

Morning guys. Anyone with a betting WordPress theme.

08:04

Hey guys ,please help me with th
a laundry cleaning company .Cl

10:20

Hello guys,

What's the best theme for job posting? With a great , both candidates and employers can log in with a eat dashboard

modern and affordable

itness and wellness

Hello guys who has a good theme for use for a dating website, kama za nairobi raha

10:20

Hey guys. A
nulled 😊

18:28

Hello guys, for those who have done blog websites before, which blog theme would you suggest?

15:06

I'll be following up on themes for NGOs.

Can someone recommend a theme like this.

19:48

Any theme on therapy/counseling service for Elementor?

18:58

Hi guys .Which is the best theme ,that has a good looking UI that you can recommend for an audit and accounting firm?

15:24

Guys with envato elements, please suggest an ecommerce theme you have successfully used and looks great , professional and light weight using?

14:10

And themes for real estate ??

15:08

Hi guys which is the best real estate theme you can recommend someone to use?

15:50

which is
erce things

13:41

Hi good people.

I am looking for a good Non-Profit Theme that works tor.

, available?

23:29

commerce themes are you

03:56