

# CPNT-200

## CONTENT MANAGEMENT SYSTEMS

# **CMS BASICS & WORDPRESS INSTALLATION**

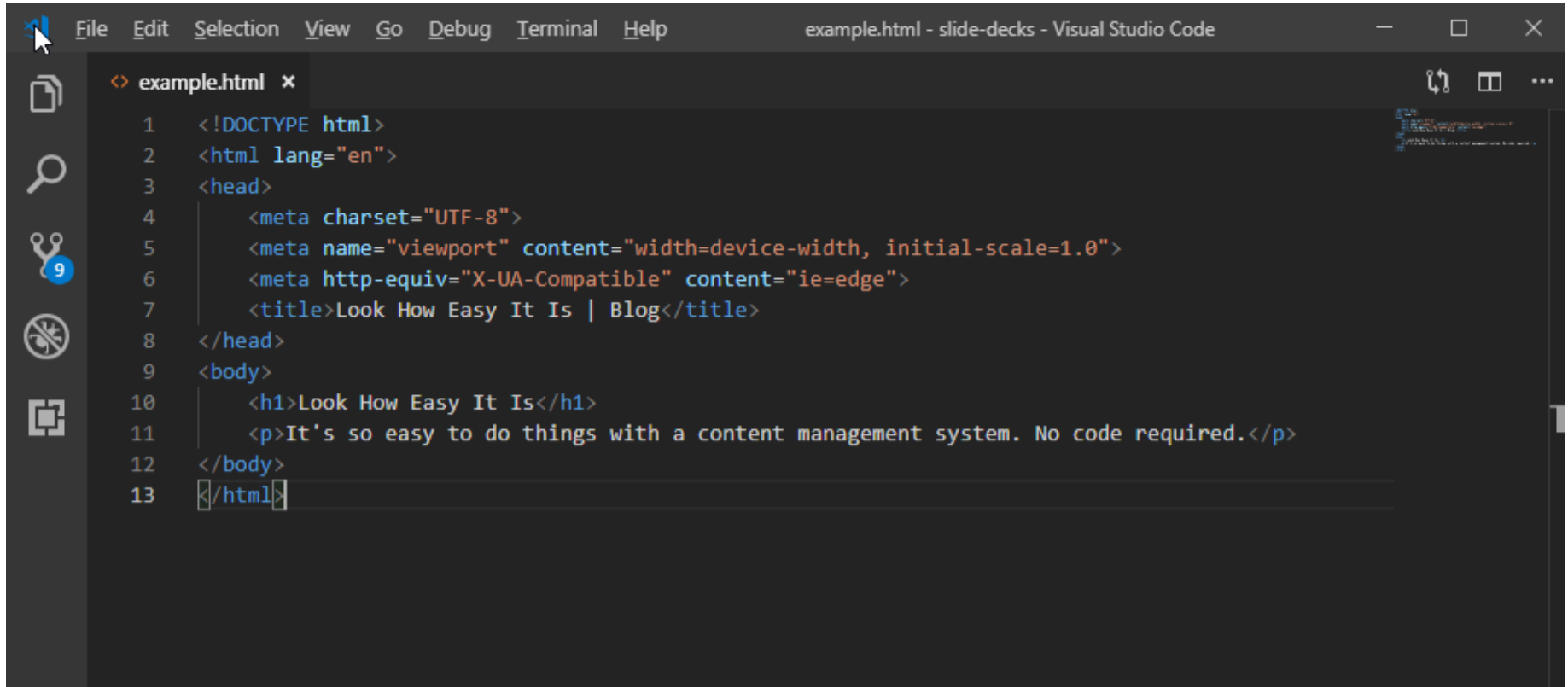
# WHAT IS A CMS?

- Content Management System (CMS)
- helps users create, manage, and modify content on a website without the need for specialized technical knowledge



# HOW DOES A CMS WORK?

- Creating a piece of content in HTML

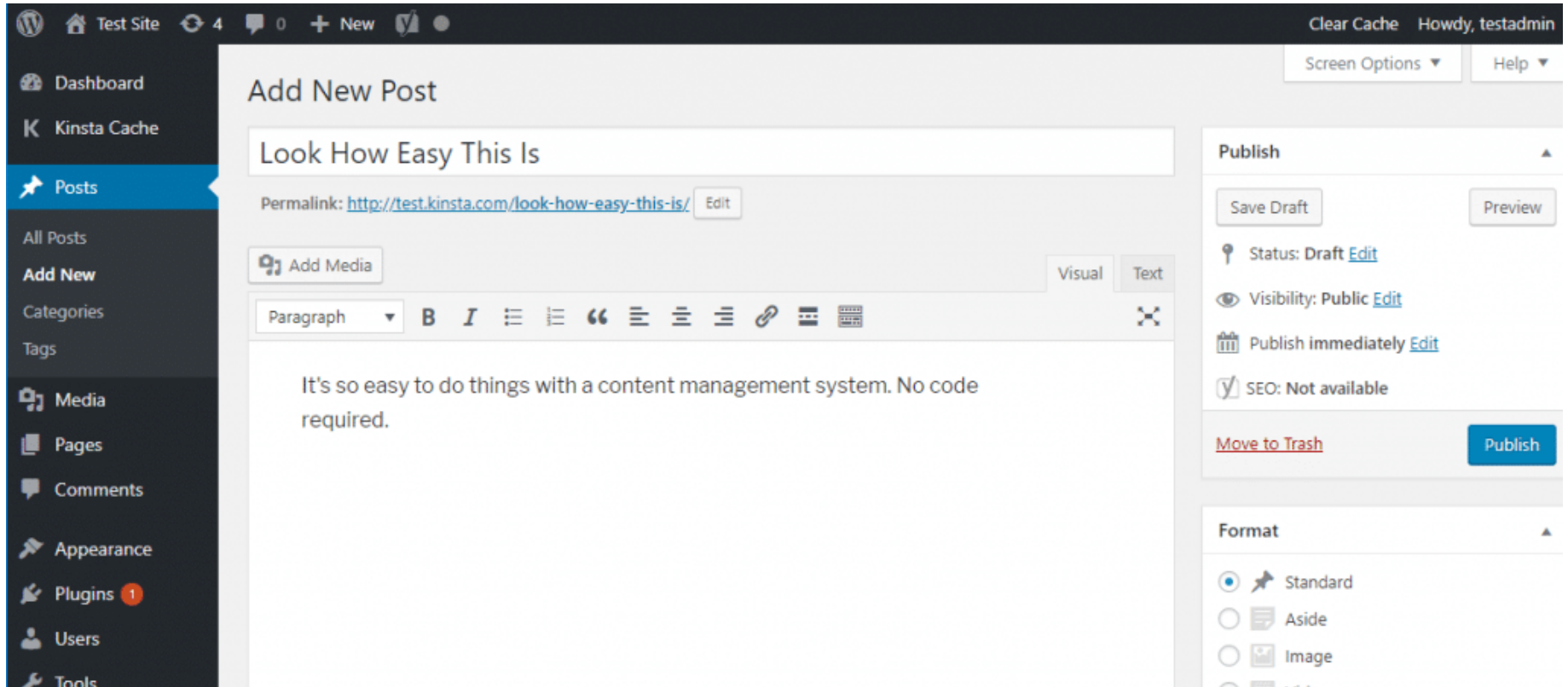


```
File Edit Selection View Go Debug Terminal Help example.html - slide-decks - Visual Studio Code

<> example.html x
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <meta http-equiv="X-UA-Compatible" content="ie=edge">
7   <title>Look How Easy It Is | Blog</title>
8 </head>
9 <body>
10   <h1>Look How Easy It Is</h1>
11   <p>It's so easy to do things with a content management system. No code required.</p>
12 </body>
13 </html>
```

# HOW DOES A CMS WORK? PART 2

- Creating a piece of content in WordPress



# WHAT MAKES UP A CMS?

## 2 Core Parts

1. **Content Management Application (CMA)** - this is the part that allows you to actually add and manage content on your site
2. **Content Delivery Application (CDA)** - this is the backend, behind-the-scenes process that takes the content you input in the CMA, stores it properly, and makes it visible to your visitors

# WHAT CAN YOU BUILD WITH A CMS?

Flexible. You can build most types of websites.

- Static websites
- Blogs
- eCommerce
- Forums
- Social networks
- Online courses
- Membership sites
- Portfolios
- and more!

# WORDPRESS

- One of the most popular open source content management systems available.
- 33% of all websites are powered by WordPress
- Built in 2003 by Matt Mullenweg and Mike Little
- Licensed under the GPL, version 2



# WHAT YOU NEED TO KNOW

Before installing WordPress, you generally need:

- Access to your web server (we're installing locally today)
- Ability to create MySQL databases (where information from our site is stored)
- A text editor
- An FTP client
- Your web browser of choice

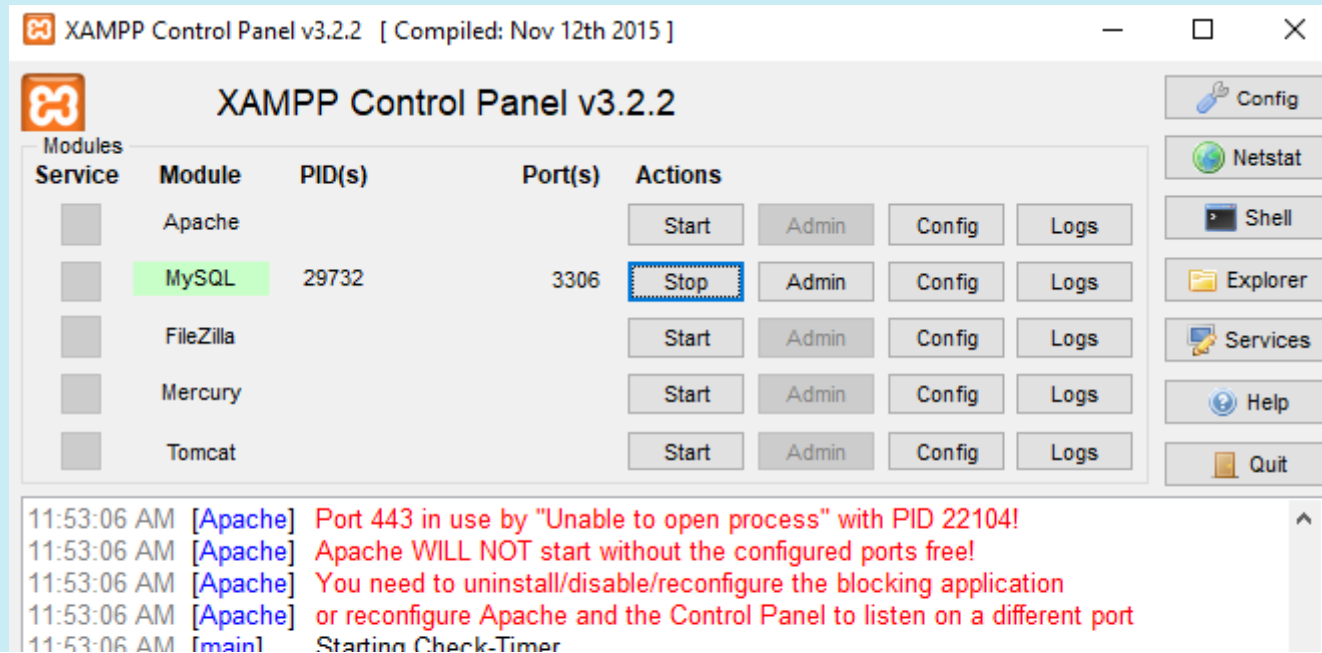
# LOCAL INSTALLATION

1. Install XAMPP
2. Create a database and give it a user
3. Download WordPress
4. Edit wp-config.php
5. Add WordPress files to htdocs inside XAMPP folder
6. Run the installation script

# ACTIVITY: DOWNLOAD AND INSTALL XAMPP

- Go to <https://www.apachefriends.org/download.html> and download and install the 7.3.2 version of XAMPP.
- Open XAMPP Control Panel
- Start MySQL and Apache
- Type localhost into your browser.

**You should see a welcome message. If you don't, let me know.**

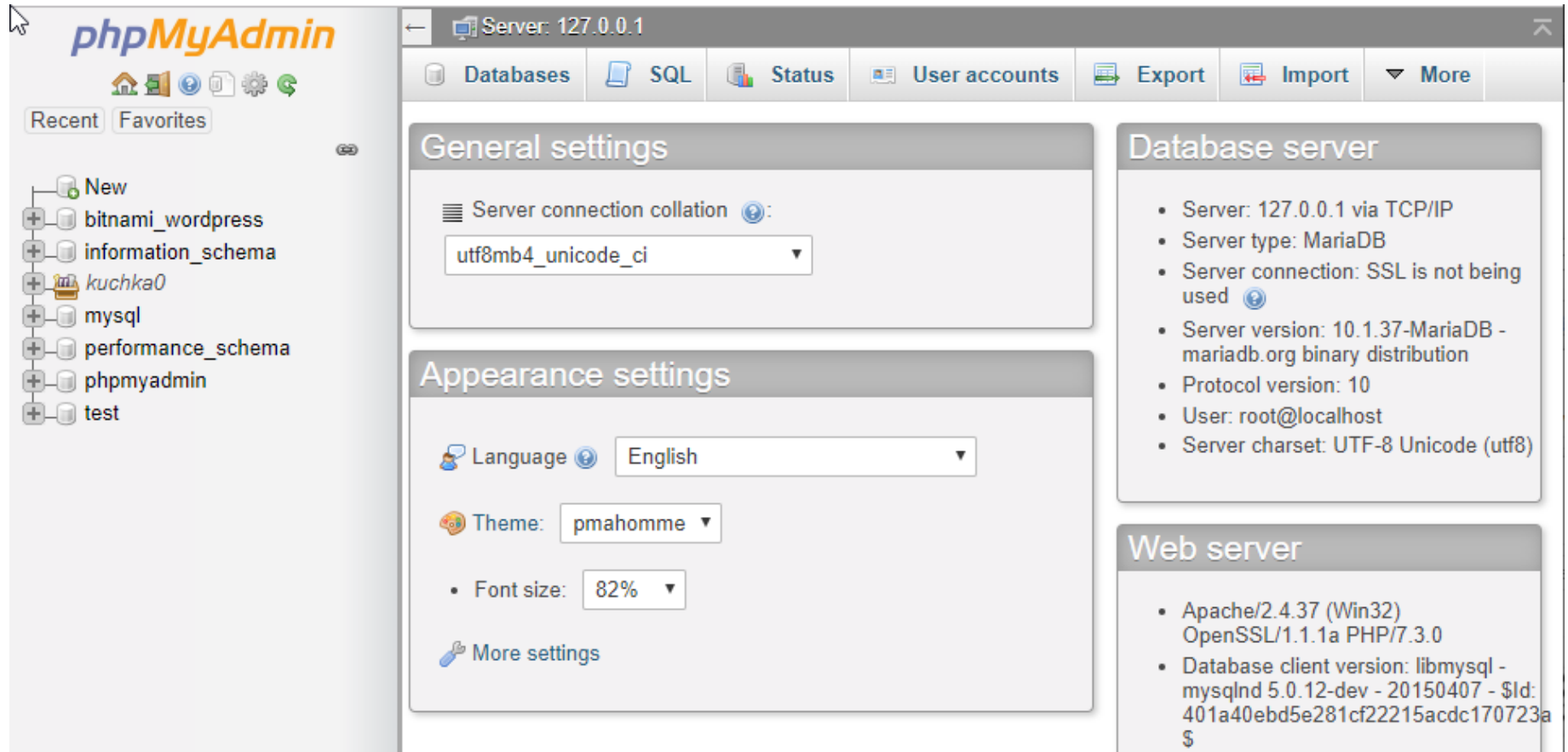


# ERRORS WITH RUNNING APACHE

- You may get an error saying that Apache won't start because ports are being used by another program.
- If that happens to you, click on Config next to Apache, choose `httpd.conf` and change Port 80 to Port 8080. Then click Config again and choose `httpd-ssl.conf` and change Port 443 to Port 4433.

# CREATING A DATABASE

Now that XAMPP is running, click Admin next to MySQL





The screenshot displays the phpMyAdmin web interface for a MySQL server at 127.0.0.1. The interface is divided into several sections:

- Left Sidebar:** Contains navigation links for 'Recent' and 'Favorites', and a tree view of databases including 'bitnami\_wordpress', 'information\_schema', 'kuchka0', 'mysql', 'performance\_schema', 'phpmyadmin', and 'test'.
- Top Navigation Bar:** Includes tabs for 'Databases', 'SQL', 'Status', 'User accounts', 'Export', 'Import', and 'More'.
- General settings:** Shows 'Server connection collation' set to 'utf8mb4\_unicode\_ci'.
- Appearance settings:** Includes 'Language' set to 'English', 'Theme' set to 'pmahomme', and 'Font size' set to '82%'. A 'More settings' link is also present.
- Database server:** A list of server details:
  - Server: 127.0.0.1 via TCP/IP
  - Server type: MariaDB
  - Server connection: SSL is not being used
  - Server version: 10.1.37-MariaDB - mariadb.org binary distribution
  - Protocol version: 10
  - User: root@localhost
  - Server charset: UTF-8 Unicode (utf8)
- Web server:** A list of web server details:
  - Apache/2.4.37 (Win32) OpenSSL/1.1.1a PHP/7.3.0
  - Database client version: libmysql - mysqlnd 5.0.12-dev - 20150407 - \$Id: 401a40ebd5e281cf22215acdc170723a\$

# CREATING A DATABASE, PART 2

1. Click New
2. Add your database name (sait\_wordpress) and click Create.

## Databases

 Create database 

# INSTALLING WORDPRESS

- Go to <https://wordpress.org/download/> and download the latest version of WordPress
- Unzip this folder into C:/Program Files/XAMPP/htdocs
- Rename the wordpress folder to sait-wp

**Notes:** This `sait-wp` folder will be used for all in-class activities. You will need to create new wordpress installations for each site you create.

# EDITING WP-CONFIG.PHP

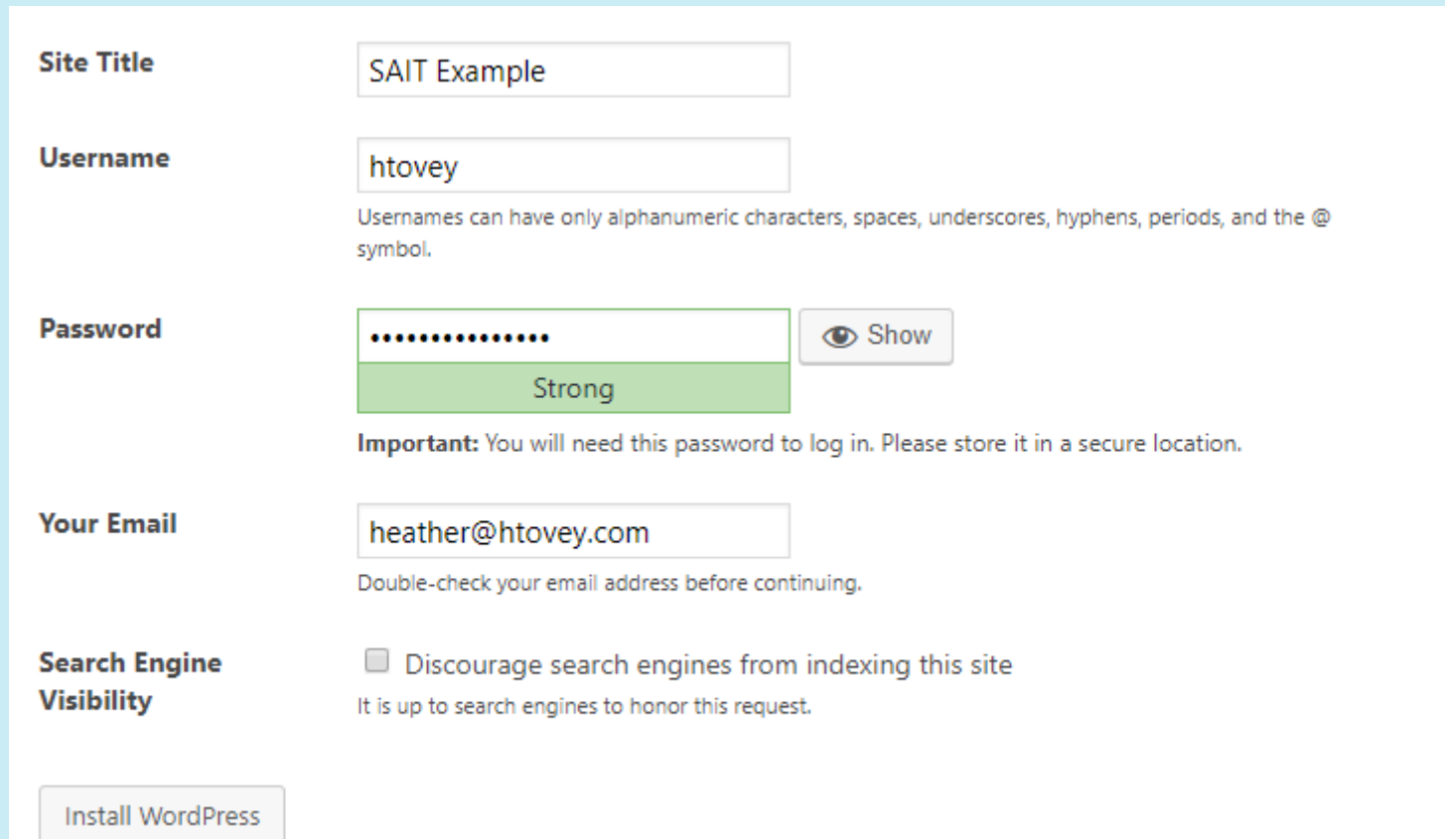
- In your WordPress files, you'll find a file called wp-config-sample.php. Rename this file to wp-config.php.
- Open it up in VS Code to edit it. Add your database name, change user to root, and leave password blank.

```
// ** MySQL settings - You can get this info from your web host ** //  
/** The name of the database for WordPress */  
define( 'DB_NAME', 'sait_wordpress' );  
  
/** MySQL database username */  
define( 'DB_USER', 'root' );  
  
/** MySQL database password */  
define( 'DB_PASSWORD', '' );  
  
/** MySQL hostname */  
define( 'DB_HOST', 'localhost' );  
  
/** Database Charset to use in creating database tables. */  
define( 'DB_CHARSET', 'utf8' );  
  
/** The Database Collate type. Don't change this if in doubt. */  
define( 'DB_COLLATE', '' );
```



# ACTIVITY: FINALLY INSTALL WORDPRESS

- Open up your browser and go to `localhost/sait-wp`.
- You should see an installer with a list of languages.
- Go through each step creating a website with a title, username, password, email of your choice.



The image shows the WordPress installation form. It includes fields for Site Title, Username, Password, and Your Email. The Password field has a strength indicator showing 'Strong' and a 'Show' button. There is also a checkbox for 'Search Engine Visibility'.

**Site Title**

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

**Password**    
**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.

# LOG IN!

- Now you should be able to log in with the username and password you just created.

Congratulations! You installed WordPress!!!

# DASHBOARD TOUR

The screenshot displays the WordPress Dashboard interface. At the top, the header bar shows the WordPress logo, the site name 'SAIT Example', and a user profile 'Howdy, htovey'. The left sidebar contains a menu with options like Dashboard, Home, Updates, Posts, Media, Pages, Comments, Appearance, Plugins, Users, Tools, Settings, and Duplicator. The main content area features a large 'Welcome to WordPress!' message with a 'Customize Your Site' button. Below this, there are three columns: 'Get Started' with a 'Customize Your Site' button, 'Next Steps' with a list of tasks like 'Write your first blog post', and 'More Actions' with links like 'Manage widgets or menus'. The dashboard also includes several widgets: 'At a Glance' showing site statistics, 'Quick Draft' for creating new posts, and 'WordPress Events and News' with a search bar and a list of recent events. The bottom right of the dashboard has two large dashed boxes for additional content.

WordPress Dashboard Interface:

- Header:** WordPress logo, SAIT Example, 0 notifications, + New, Howdy, htovey, Screen Options, Help.
- Left Sidebar:** Dashboard, Home, Updates, Posts, Media, Pages, Comments, Appearance, Plugins, Users, Tools, Settings, Duplicator, Collapse menu.
- Main Content Area:**
  - Welcome to WordPress!** (Dismiss)
    - We've assembled some links to get you started:
    - Get Started:** Customize Your Site (button), or, change your theme completely.
    - Next Steps:** Write your first blog post, Add an About page, Set up your homepage, View your site.
    - More Actions:** Manage widgets or menus, Turn comments on or off, Learn more about getting started.
  - At a Glance:** 1 Post, 1 Page, 1 Comment, WordPress 5.1 running Twenty Nineteen theme.
  - Activity:** Recently Published (Today, 7:28 pm: Hello world!), Recent Comments (From A WordPress Commenter on Hello world! Hi, this is a comment. To get started with moderating, editing, and deleting comments, please visit the Comments screen in...).
  - Quick Draft:** Title, What's on your mind?, Save Draft (button).
  - WordPress Events and News:** Enter your closest city to find nearby events. (City: Cincinnati, Submit, Cancel), The Month in WordPress: February 2019, Gary: Authentication in WordPress, WPTavern: Global WordPress Translation Day Set for May 11, 2019, WPTavern: Freemius Patches Severe Vulnerability in Library Used by Popular WordPress Plugins.

# CREATE A CHILD THEME

- Never edit directly on a WordPress theme. Create a child theme so that your changes aren't overwritten when the theme gets an update.
- Inherits the look and feel of the parent theme and all of its functions, but can add modifications.

# STEP 1: CREATE A CHILD THEME FOLDER

1. Create a child theme folder in wp-content/themes
2. Name it based on the name of your parent theme `parentTheme-child`

For this class, we're using the Twenty Nineteen theme, so name your child theme `twentynineteen-child`.

## STEP 2: CREATE A STYLESHEET

1. Inside your child theme folder, create a stylesheet file named `style.css`.
2. Add the following required header information and replace with your information. **Theme Name** needs to be unique. **Template** and **Text Domain** must be the same as the parent theme.

```
/*
Theme Name:      Twenty Nineteen Child
Theme URI:       http://example.com/twenty-nineteen-child/
Description:     Twenty Nineteen Child Theme
Author:          John Doe
Author URI:      http://example.com
Template:        twentynineteen
Version:         1.0.0
License:         GNU General Public License v2 or later
License URI:     http://www.gnu.org/licenses/gpl-2.0.html
Tags:            one-column, flexible-header, accessibility-ready, custom-colors,
custom-menu, custom-logo, editor-style, featured-images, footer-widgets, rtl-
language-support, sticky-post, threaded-comments, translation-ready
Text Domain:     twentynineteen
*/
```

# STEP 3: ENQUEUE STYLESHEET

1. Create a `functions.php` file.
2. Add the following code which makes sure that your parent stylesheet AND your stylesheet are both used and that your stylesheet is loaded after the parent stylesheet.

```
<?php
add_action( 'wp_enqueue_scripts', 'my_child_enqueue_styles' );
function my_child_enqueue_styles() {

    $parent_style = 'parent-style'; // This is 'twenty十九-style' for the Twenty
    Nineteen theme.

    wp_enqueue_style( $parent_style, get_template_directory_uri() . '/style.css' );
    wp_enqueue_style( 'child-style',
        get_stylesheet_directory_uri() . '/style.css',
        array( $parent_style ),
        wp_get_theme()->get('Version')
    );
}
```

# DETECTIVE WORK FOR FINDING \$HANDLE

1. Replace parent-style with the same \$handle used in the parent theme when it registers its stylesheet.
2. Find this by searching for `get_stylesheet_uri()` in the parent theme's functions.php. Just before this, the handle name is in single quotes.

```
/**
 * Enqueue scripts and styles.
 */
function twentyineteen_scripts() {
    wp_enqueue_style( 'twentyineteen-style', get_stylesheet_uri(), array(), wp_get_theme()
        ->get( 'Version' ) );
}
```



# LAST BIT TO ENQUEUE

1. Replace all `my_` occurrences in the code with your child theme text domain.

# UPLOAD AND ACTIVATE YOUR CHILD THEME

1. Create a .zip file of your new child theme
2. Upload it on Appearance -> Theme.
3. Activate your theme!

# ACTIVITY: CREATE A CHILD THEME

1. Create a child theme for your WordPress site
2. Add some styles to your child theme's style.css. Make sure the changes work!