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Lab 5: Wordpress Environment Setup with Local WP

ENSE 271 - People-Centred Design - Laboratory

University of Regina - Engineering and Applied Science - Software Systems Engineering

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1.0 Introduction



Wordpress is a free open source (FOSS) content management system (CMS) for the web, used historically to create blogs, but has since found wider use, including static and e-commerce sites. It can be extended with plugins and themes, either created by others or customized yourself.



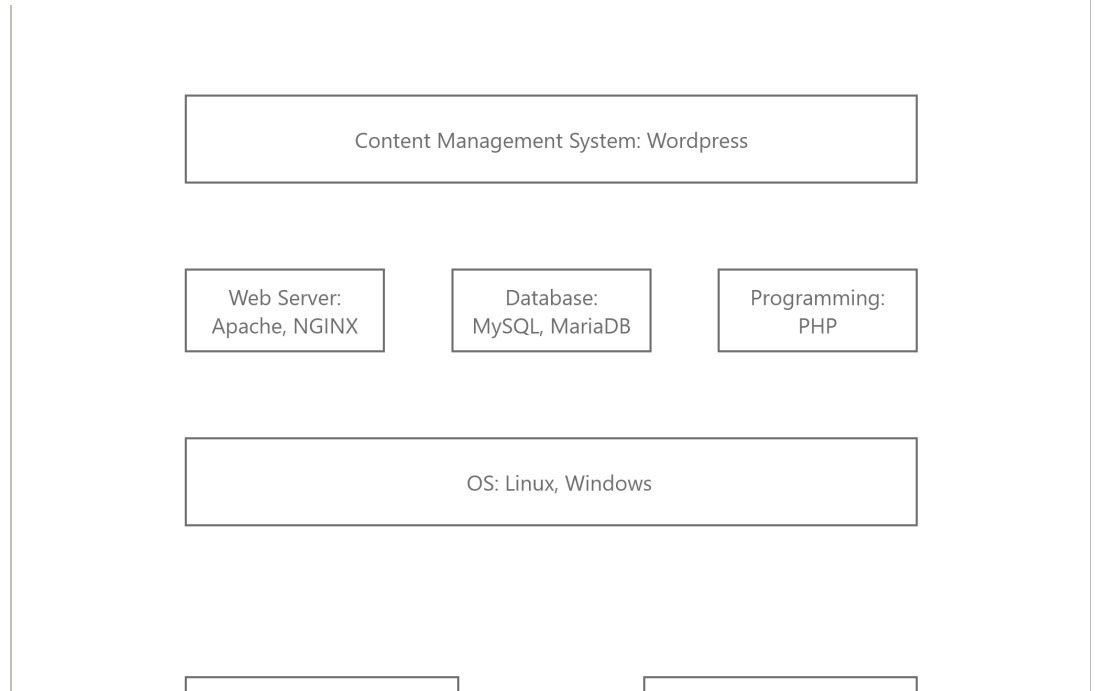
Typically Wordpress is installed on a remote server running a LAMP stack: Linux, Apache, MySQL and PHP, though some components may be interchanged, such as Windows for Linux or NGINX for Apache. If you have already taken ENSE 353 you have created such a stack, where a completed wordpress installation could be deployed.

For this course we will use an application called “Local WP” to install a local wordpress development site, which can be used for single-user prototyping and testing on your local machine without a server. Historically, one would use a streamlined LAMP



help people learn, hoping you will later host your site with them, but there is no obligation to do so. Local encapsulates the server and database applications needed by Wordpress, allowing you to quickly start the needed services on demand.





2.0 Installing Local WP

—

[Download Local WP](#)





The screenshot shows a web form titled "Download Local" with the subtitle "It's free and always will be." The form is enclosed in a dark green border. A large green button labeled "GET IT NOW!" is at the bottom. The form fields are: "Please choose your platform" (a dropdown menu), "First Name", "Last Name", "Work Email", and "Phone Number". A black box highlights the "Work Email" field. A black arrow points from the top right corner of the form to the "Work Email" field. Another black arrow points from the "Work Email" field to the "GET IT NOW!" button. On the right side of the form, there are three icons: a pencil, a calendar, and a blue square icon.

Download Local

It's free and always will be.

Please choose your platform

First Name

Last Name

Work Email

Phone Number

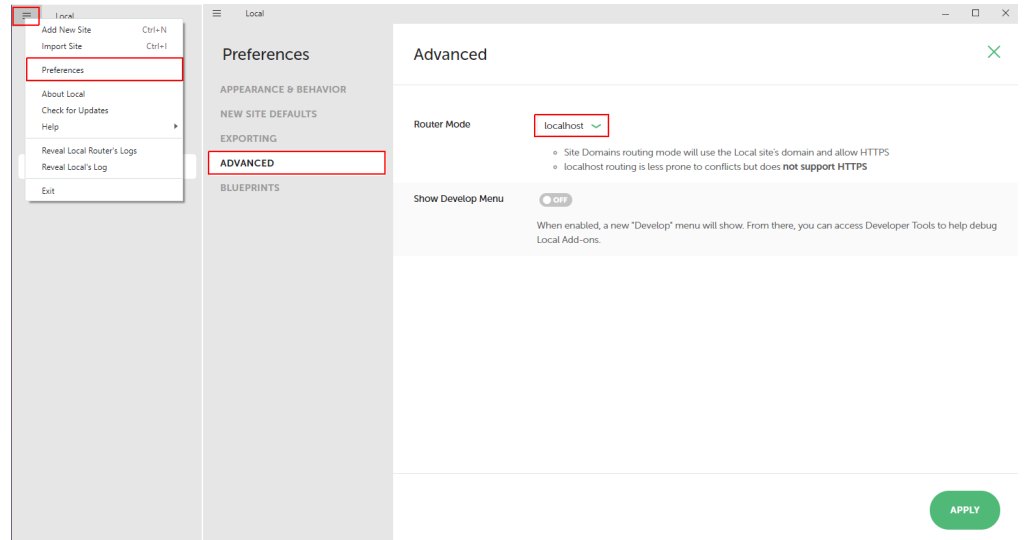
GET IT NOW!

You do not need to provide a real email if you do not want to be contacted by the developers!

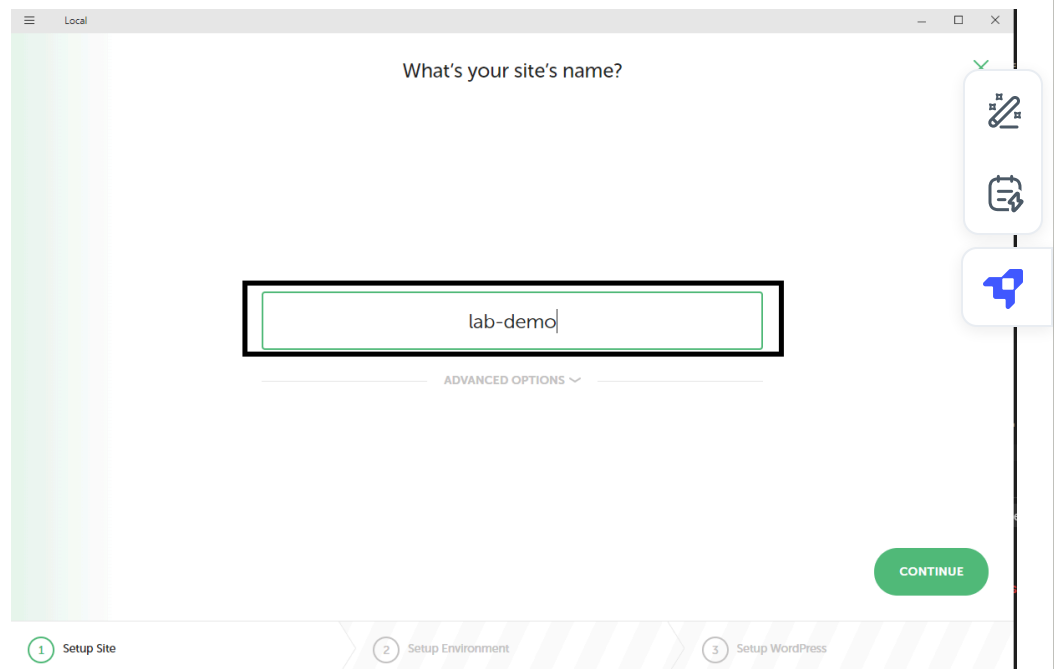
Follow the installer. If you are on mac, you may need to move the executable to your Applications folder. See the video in references for more information.



domains, however, this requires admin privileges, which you will not have in the lab. To get around this, we can instead run our sites on localhost, by changing the following setting:



3.0 Creating a new site



Local invokes multiple services / daemons. You may wish to grant admin privileges.



adjusting settings and installing and configuring plugins and themes, and then make a copy of this which can later be reused, called blueprints.

lab-demo

ADVANCED OPTIONS ^

Local site domain

labdemo.local

Local site path

~\Local Sites\labdemo

BROWSE

Create site from Blueprint?

Don't use a Blueprint ✓

If you know the specific configuration of software needed for your server, you may configure the environment, but for our purposes the preferred configuration is fine for development.

Choose your environment

Preferred Custom ✓

PHP Version

7.3.5 ✓

Web Server

nginx 1.16.0 ✓

Database

MySQL 10.4.10 ✓

GO BACK

CONTINUE

Wordpress has two web interfaces, one for the public which is available to all to see, and one for the admin used to perform administration, such as adding new content. The admin account



forget them you will need to manually edit your database to reset this. The email you enter will occasionally get messages from Wordpress, letting you know if themes or plugins have been updated.

Setup WordPress

WordPress Username

WordPress Password

WordPress Email

dev-email@flywheel.io

ADVANCED OPTIONS ▾

GO BACK

ADD SITE

The advanced option allows mutli-site instances, which allow wordpress to host multiple sites on a single server. This can be useful to host several personal websites, like personal CVs and portfolios, for managing costs. However, it does reuse the same database for all sites, making migration later on a hassle.

Finally, click on Add Site. You may need to give Administrator privileges to start up web hosting daemons. It may take a while for your site to initialize, and then show the dashboard:





3 OVERVIEW DATABASE UTILITIES TOOLS

2 ADMIN OPEN SITE

1 site running STOP ALL Live Link Enable CONNECT HOST

Site Domain	labdemo.local	CHANGE
SSL	labdemo.local.crt	TRUST ⓘ
Web Server	nginx	▼
PHP Version	7.3.5	▼ ⓘ
Database	MySQL 8.0.16	
One-click Admin	Disable	▼ ⓘ
WordPress Version	5.6.2	
Multisite	No	

1. Here you can see if the site is running. You can stop or reload your server here. If you stop development and want to resume later, make sure you start up your local server.
2. You can open links to your site here, either the public facing site or the admin portal. By default, the admin portal is found at the subdirectory:

Copy

```
<your site>/wp-admin/
```

Or, if you are using localhost:

Copy

```
...
localhost/wp-admin/
...
```

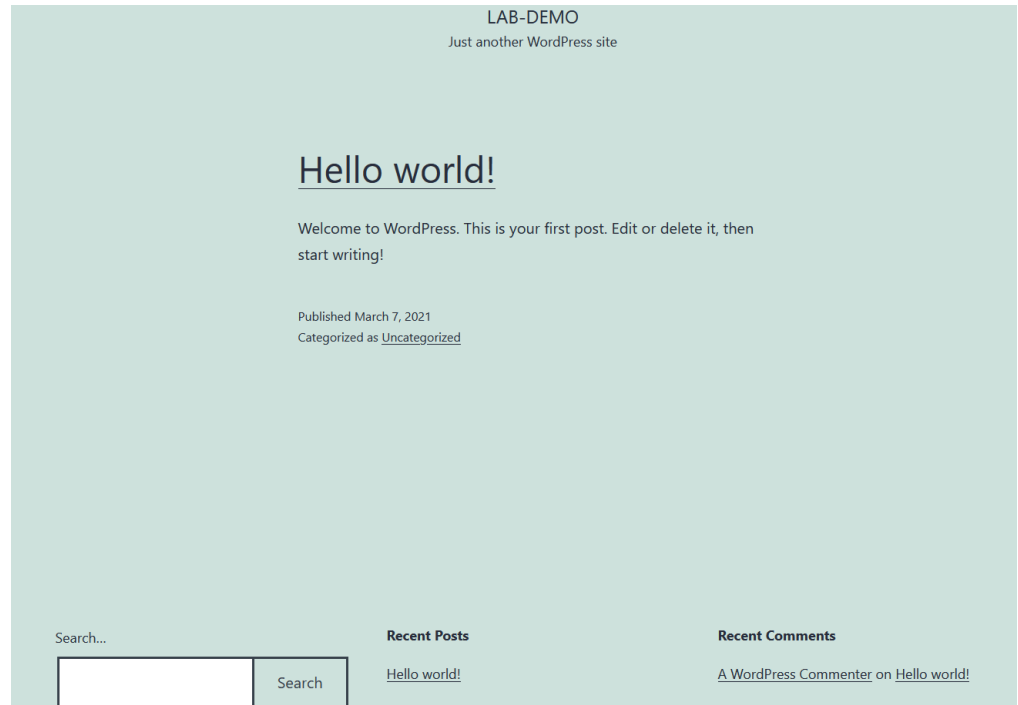
1. Here you can click through to see different aspects of the site system, including database and utilities.

4.0 A brief tour of Wordpress

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This minimalist, placeholder site appears when you start up a new site, updated each year to demonstrate the current wordpress theme. Your theme will likely be newer than the following:

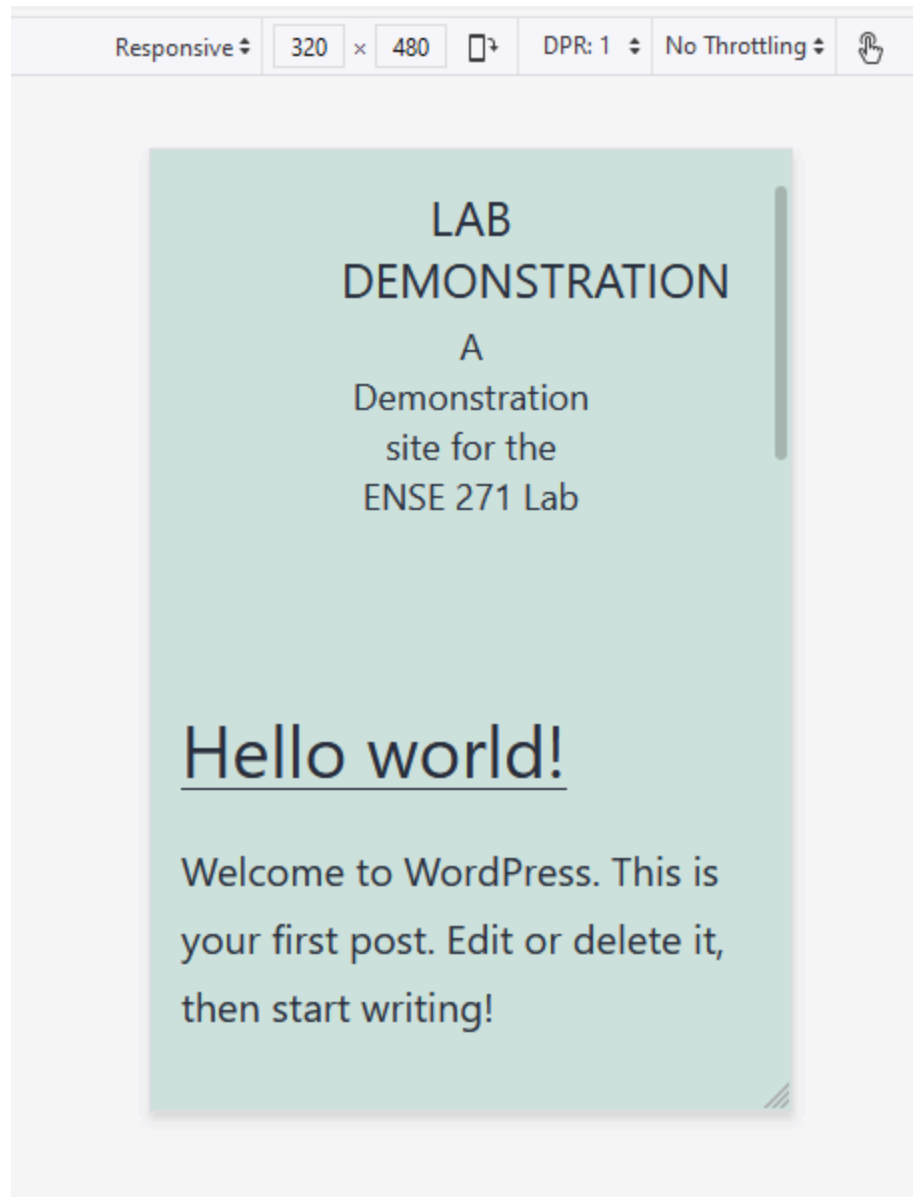


A Wordpress theme is a basic site design. It groups together elements like page templates, colors and other CSS styles, and modules coded in PHP. The guiding principle of a theme is to make your wordpress page look good out of the box, so that a developer can focus on generating content rather than fine tuning visual design, though a certain amount of broad customization is possible, and strongly required to give your site a unique visual identity.

Each year wordpress updates the default theme to echo some contemporary web-design paradigms and popular techniques. A prominent paradigm today is the “site-builder” approach, modular sites which the user builds by selecting components and dropping them in place. This is the paradigm they are embracing with the “twenty-twenty-one” theme - you can modify your site layout by adding “blocks”. Other plugins have existed to this historically, which are Elementor, WPBakery and BeaverBuilder. Generally speaking, these tools are very



Wordpress themes are typically responsive by design, that is, the content reflows automatically for mobile devices. To see what the site looks like on a mobile, you can use mobile view in firefox: Ctrl+Shift+M



Let's check out the Admin portal next...




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OVERVIEW DATABASE UTILITIES TOOLS

ADMIN OPEN SITE



Username or Email Address

Password

☐ Remember Me

Log in with the password you set earlier.

lab-demo New

Dashboard

Welcome to WordPress!

We've assembled some links to get you started:

Get Started

[Customize Your Site](#)

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
- Manage menus
- Turn comments on or off
- Learn more about getting started

Site Health Status

No information yet...

Site health checks will automatically run periodically to gather information about your site. You can also [visit the Site Health screen](#) to gather information about your site now.

At a Glance

- 1 Post
- 1 Page
- 1 Comment

WordPress 5.6.2 running Twenty Twenty-One theme.

Activity

Recently Published

Today, 4:33 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 [WordPress Support page](#).

Quick Draft

Title

Content

What's on your mind?

[Save Draft](#)

WordPress Events and News

Enter your closest city to find nearby events.

City Cincinnati [Submit](#) [Cancel](#)

The Month in WordPress: February 2021

WordPress 5.7 Release Candidate 2

Post Status: Angela Jin on WordPress US 2020 Cancellation and the Future of WordPress Education

[WordPress: User-Friendly Methods for Testing Gutenberg](#)

Our first step should be heading through settings, and configuring things as we like...



In a few words, explain what this site is about.

WordPress Address (URL)

Site Address (URL)

Enter the address here if you [want your site home page to be different from your WordPress installation directory](#).

Administration Email Address

This address is used for admin purposes. If you change this, we will send you an email at your new address to confirm it. The new address will not become active until confirmed.

Membership ☐ Anyone can register

New User Default Role

Site Language

Timezone

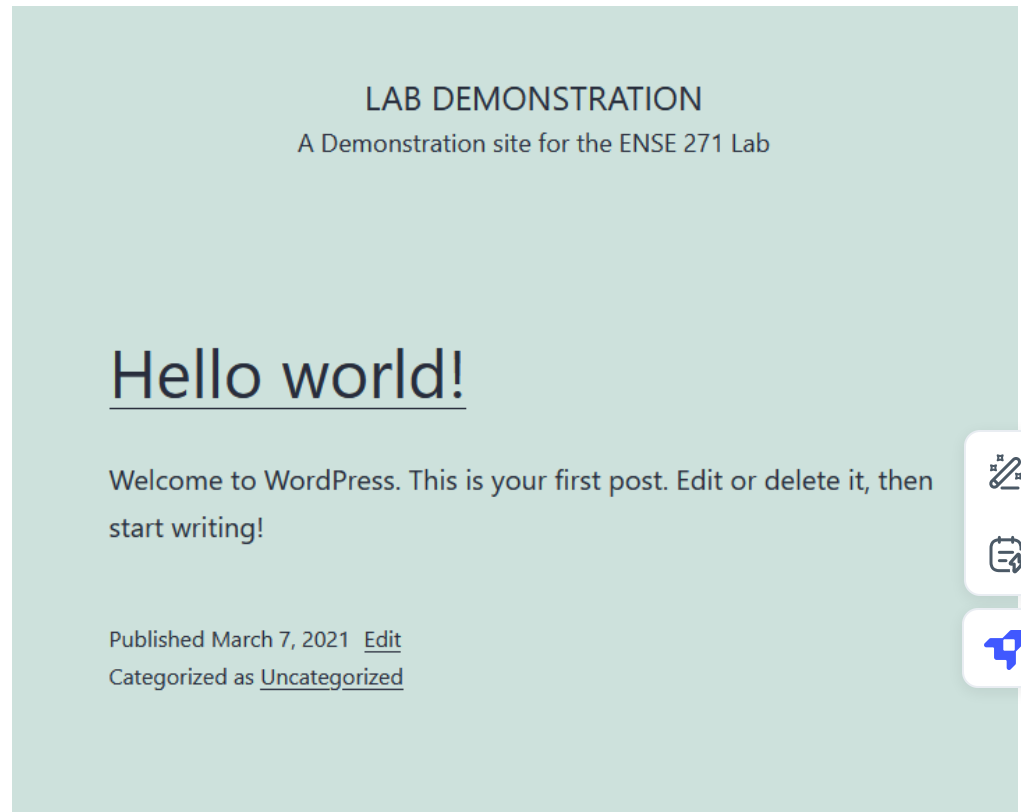
Choose either a city in the same timezone as you or a UTC (Coordinated Universal Time) time offset.

Universal time is **2021-03-07 17:17:43**. Local time is **2021-03-07 11:17:43**.

This timezone is currently in standard time.

This timezone does not observe daylight saving time.

After this, if you reload the page, you should see some simple changes.



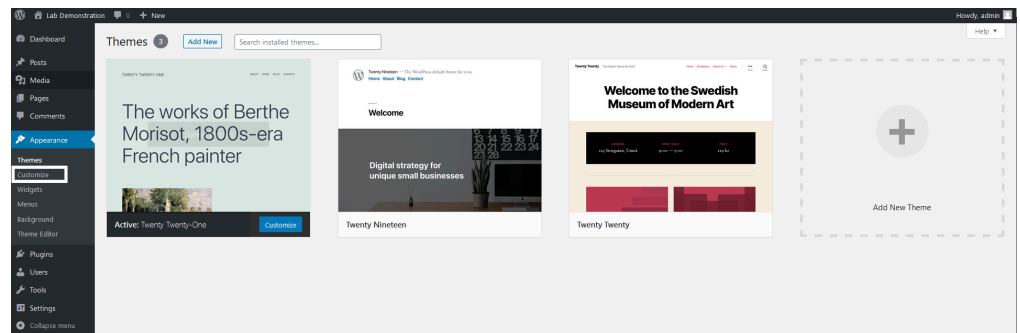
5.0 Design: Fine Tuning or Starting Fresh?



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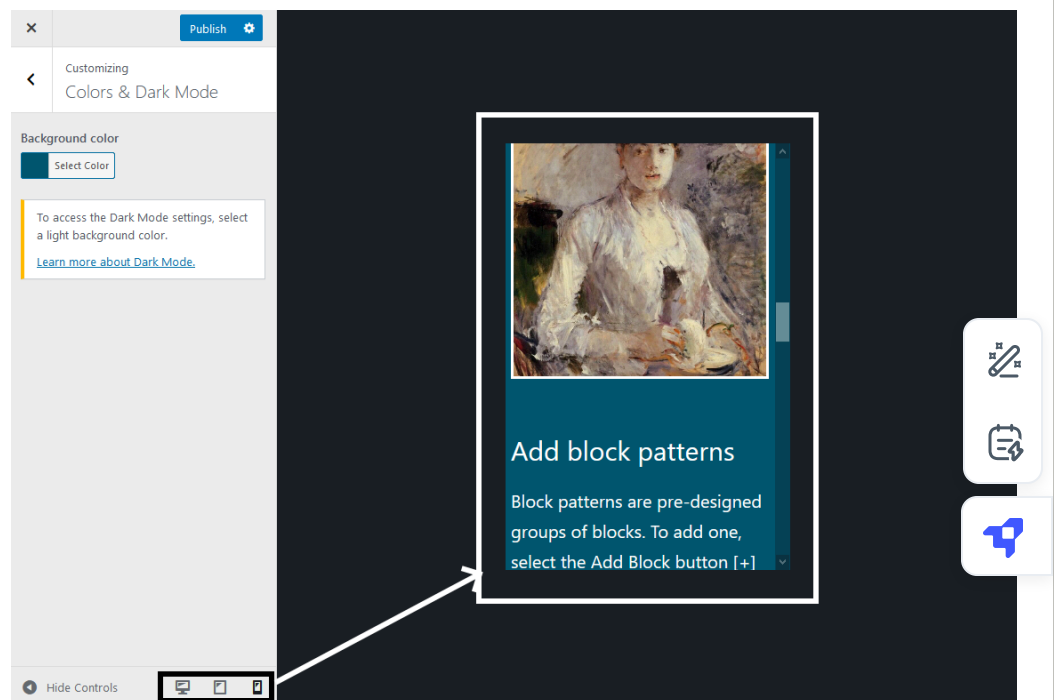


choose a new theme. However, let's see what we can do to customize this theme first...



Click through the different pages to see what you can edit.

You can also see what it will look like on a mobile device using the controls in the bottom right...



Let's try adding some content...

6.0 Adding Content



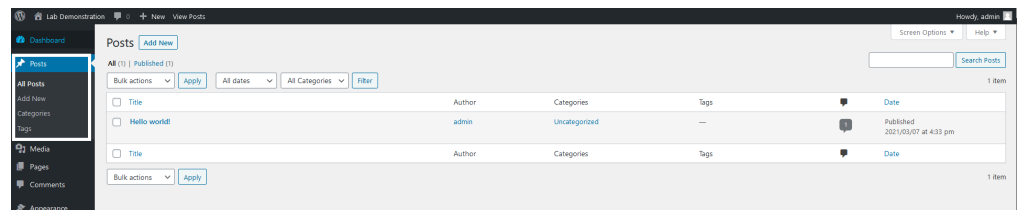
You can add static pages from this menu



Add a few pages here. You can also delete some of the automatic pages if you don't need them anymore.

Dynamic Blogs

Blogs posts - You can add dynamic blog posts from this menu:

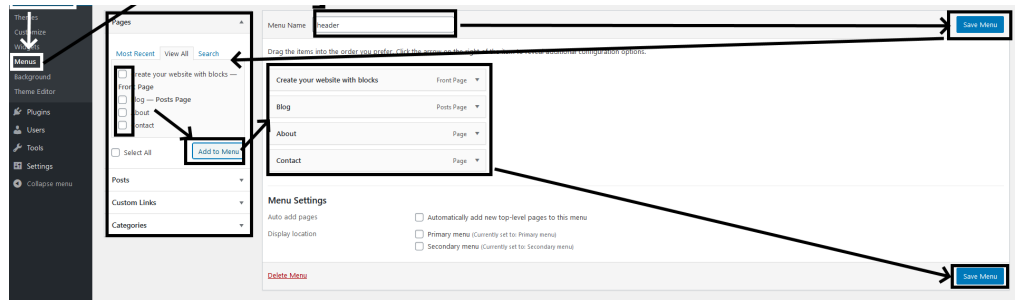


These by default will appear on the blog page, but could be moved to be on the main page.

Menus

You may wish to have different menus in different places, for example in the top header menu and the footer menu. The menu section lets you tailor these to your liking:





To create a new menu...

- Add a new menu
- Name it
- Save it
- Select pages to add
- Add the pages
- Save the menu

Images

Images in wordpress are uploaded and stored in the local site files.

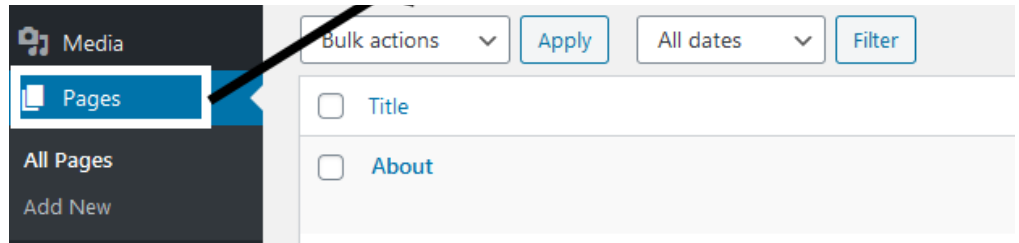


7.0 Editing Static Pages and Site Building with Blocks

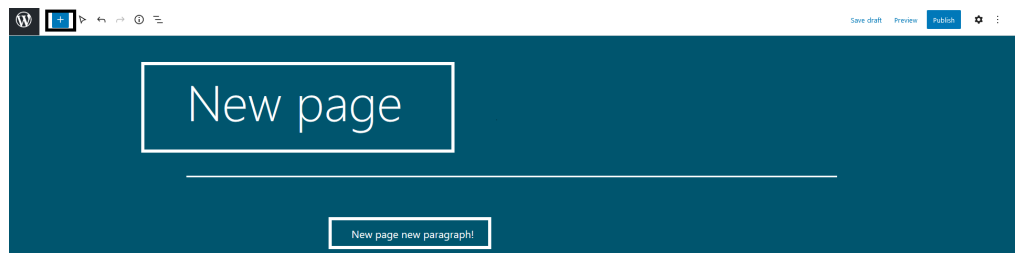
We'll look at dedicated plugins for this in next weeks lab, but for now let's take a peek and see how blocks work in the twenty-one theme...



Laboratory ▾



You can change the title and the paragraph. You can add new blocks using the top bar...



You can add blocks, which are like individual components, and patterns, which put smaller components together to make something useful. Always publish your pages when done to save changes.

Save draft

Preview

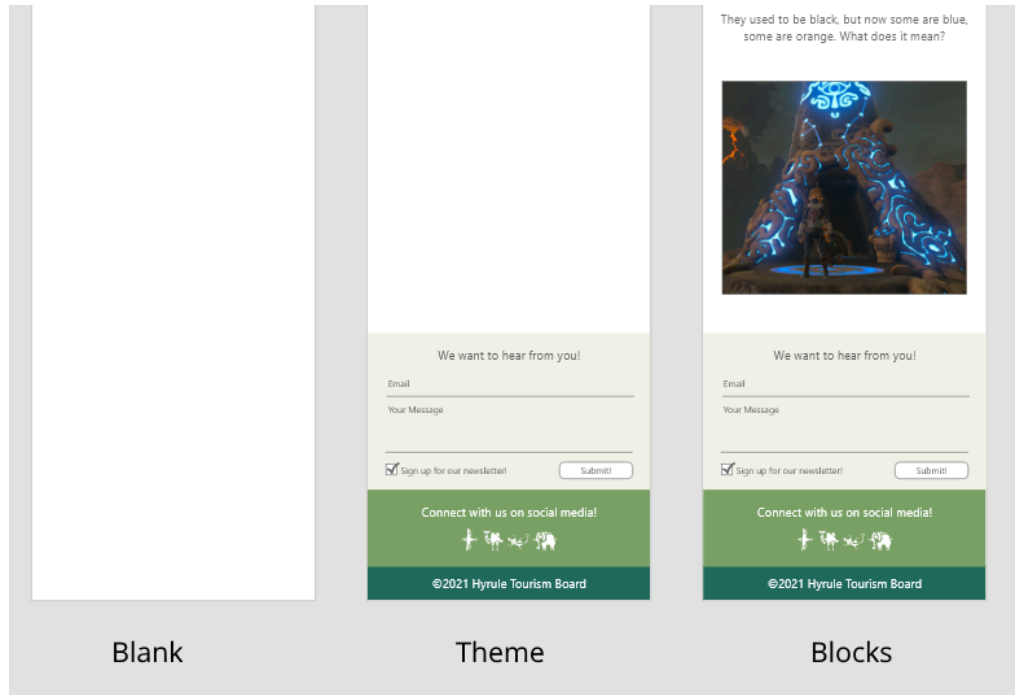
Publish



8.0 Templates

In this section we are going to use a plugin called `Starter Templates` to give us a working site to iterate on. However, first it is useful to understand how a wordpress page is composed.

Pages are visually composed of themes and content (blocks)



The website's theme defines the colors, fonts and layouts.

- Themes have some styling out-of-the-box and can then be further customized using the customize option.
- The theme implements a consistent visual framework across pages, i.e., header and footer that appear on all or most pages,
 - Today, it is popular to find a lightweight theme which implements this and little more
- Suggestions:
 - Astra
 - GeneratePress
 - WPOcean
- A major benefit of a theme is when new pages are added by the client, they will automatically have these styles added
- You can also turn off elements for certain pages, such as the Landing page

We will automatically get the Astra theme when we use Starter Templates .

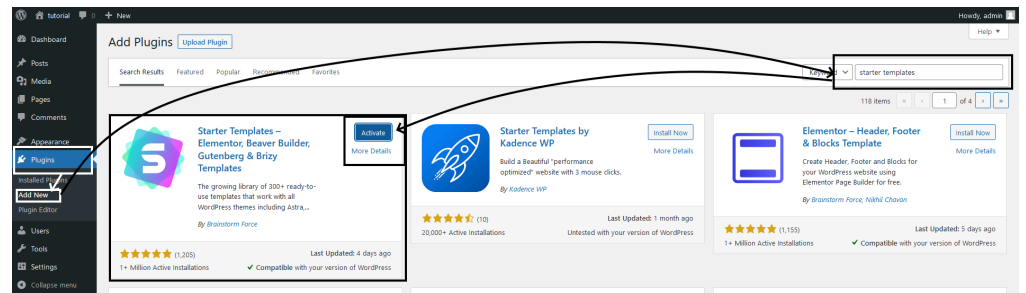




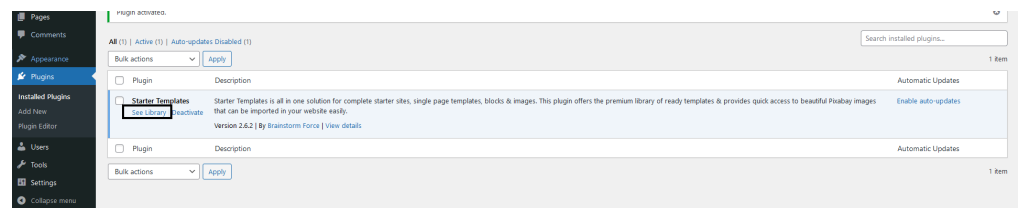
Gutenberg). We're going to use WP Blocks, as this is the default block editor for wordpress, and so far seems to be the best performing.

Starter Templates

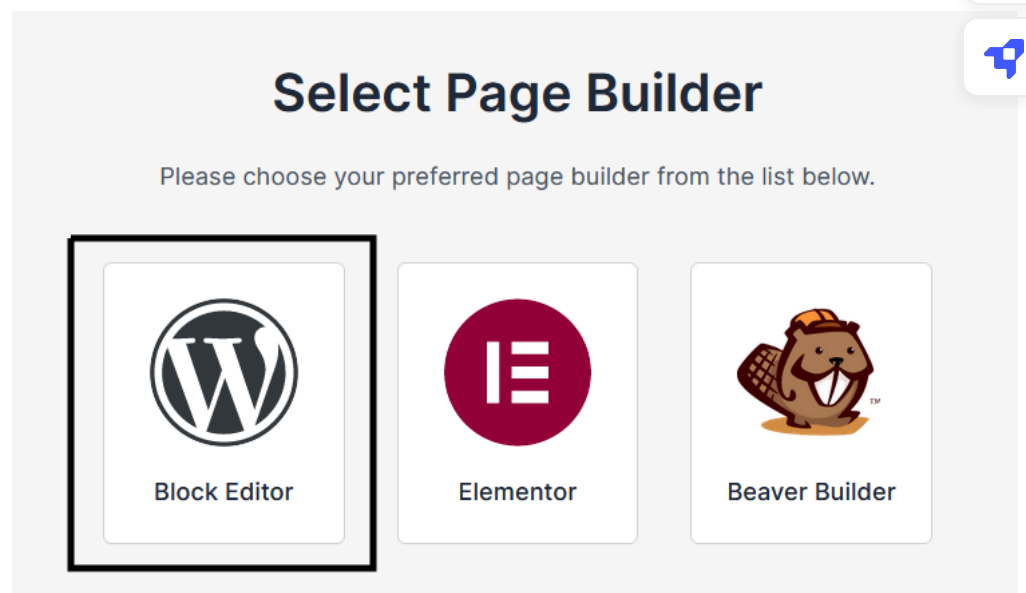
Let's install and activate the starter templates plugin...

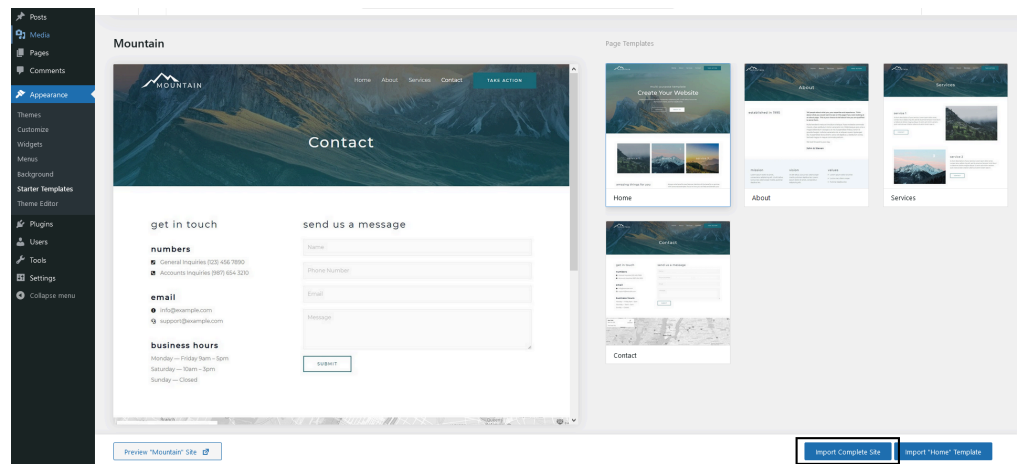


Browser the library...



The templates have been created using a number of page builders. We will work with the Gutenberg editor.





Let's import the complete site, to give us several starting pages, as well as sample content. The plugin will automatically download some plugins to ensure the site looks and acts as intended.





Tell us a little bit about yourself

☐ I agree to receive your newsletters and accept the data privacy statement.

Advanced Options ^

☒ Delete Previously imported sites ?

☒ Import Customizer Settings ?

☒ Import Widgets

☒ Import Content ?

☐ Share Non-Sensitive Data ?

Submit & Build My Website →

To actually fill our page, we need some content

There are three types of content in wordpress: Post, Pages and Media

- Posts are dynamic - update with more blog entries, typically newest at the top
- Pages are static - set it and forget it
- Media - saved separately in a database, but typically also embedded on to pages. Can be uploaded once and reused multiple times.

Our selected theme does not include a blog page by default, but we can create one.





9.0 Personas

For this lab, we are going to create a personal website for a fictional Persona.

A persona is a UX exercise in which we create a fictional, yet realistic, description of a target user. This is an archetype of a user, but we describe them as if they were a real person.

The description should focus on needs, concerns, goals, as well as demographic information such as gender, age, occupation. We wish to foster empathy for the users for which we are designing. The persona should focus on the attributes of life which influence our design.

The psychology behind personas is that humans design better for other humans, (e.g. you neighbor) rather than broad profiles or statistical information (e.g. women aged 35-65).

Personas can be presented in a number of ways, but are typically represented in a single page dashboard or infographic style. Common sections include a (stock) photo, name, age, location, occupation, tag line, about, goals, tasks, and pain points. Avoid extraneous details which will have no impact on design.





Unemployed

Age: 26

Location: Saskatoon, Sk.

Jon is a new graduate from Software Systems Engineering. He is excited to start work at a new company or start up with high potential for growth!

"I want to get in on an exciting company from the ground floor. I'm willing to work for less now for big growth in the future!"

"I need to work in an environment where I can try lots of different things, but also need support in case I can't figure out what to do!"

Needs

- He needs to be able to identify organizations with high potential for growth
- Is interested in the culture of the company
- May need to try multiple companies before he finds one which suits his needs

Frustrations

- Is bothered when there is insufficient information about the company's growth potential
- Would like to challenge and grow as a developer, but is too new to know what he is able to handle on his own

Goals

- Discover a start-up with high growth potential
- Be able to research the company further to see if it is a good fit

Tasks

- Search company's by age
- See other positions at the company to get an idea for who he will be working with
- Read comments and reviews from other employees to know this will be a good fit

This persona is somewhat suspicious. Why? Personas should be based on *User Research*, ideally reflecting real-world data which you have captured, through field studies and interviews. With doing this important work, personas at best become aspirational of real world users, and at worst become stereotypes which may incorporate the bias of the creator. As with all tools, use with care!



Assignment

You will complete this lab in two steps.



- Consider the types of users who buy tickets for concerts
 - What type of concert?
 - What age range?
 - What is their preferred way of paying, etc.
- Create this persona in figma, either using my persona template or something similar

Part 2: Pretending that you are that Persona which you created, create a personal home page / blog.

- The purpose of this web page is to express elements of that user's traits and personality in a unique way
- To complete this, you must create a new wordpress site in Local
- (Optional) You may install a different starter template than the one we looked at
 - This is optional as you may need to configure a lot of the template to work with your persona, and we won't look at this in too much depth until next lab!
- Create the framework for the personal website, which should include:
 - A home page which captures the most important elements of your persona's personality
 - Three static page, each of which conveys additional details about this persona
 - You must use three different blocks on each page. Experiment and see how many you can try. Don't worry too much on style and looking good at this point, just functionality is fine.
 - e.g. If your persona is a concertgoer, what kind of music do they like?
 - Make a blog page with three entries





tickets in the past, what

Submission

—

- For this lab, please submit screenshots of your work, rather than your complete installation.
- Please submit both the completed Persona template, as well as the screenshots of the website,
 - At the minimum, include screenshots of the home page, the three static pages, the blog

References

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WPLearningLab. [How To Install WordPress Locally - Make A WordPress Local Development Environment](#). Updated 2021.



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