RESPONSIVE DRUPAL WEBSITE FOR FOCAL

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From 12th May 2022 to 12th July 2022

Acknowledgments

I am highly indebted to **Professor Kannan M Moudgalya, IIT Bombay** for making it possible for me to have the opportunity to work on this project. I would like to extend my sincere thanks to my mentors- **Mr. Khushalsingh K. Rajput (FOCAL Lead and Sr. Software Engg. FOSSEE, IIT Bombay)** - without whom this project would not have been possible. He has provided his constant guidance and supervision throughout the project. I thank him for his support. I would also like to express my gratitude towards my co-interns for their kind cooperation and encouragement which helped me in the completion of this project.

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INTRODUCTION

Drupal is a free, open-source content management system (CMS) with a large, supportive community. This guide is for people who are just sorting out what Drupal is and what you can do with it. It focuses on resources that provide an informative overview instead of hands-on tutorials. It is designed to give some context and history of the Drupal project, along with the major concepts involved in building a site with it. If you want to begin learning Drupal hands-on, the best start is the Drupal 8 User Guide, which walks you through the foundations of working with Drupal.

The two code sets used by every Drupal site: Codebase, and Database

Codebase: These are the files and folders you get when you download Drupal. These files in the codebase are responsible for creating and managing all of your site's content, such as articles, or user comments, The content itself (as well as settings and config) is stored in the database.

When you want to duplicate, or move a Drupal site, you need to grab a copy of both the codebase, and database.

Flexibility, meet Simplicity

Solutions for content management struggle to balance flexibility and simplicity. If a solution is simple, it can only be used for a single purpose and if it is flexible, it may be too difficult for newcomers to learn.

The average content management system (CMS) is like a toy truck—specific assumptions have been made about how it will be used,
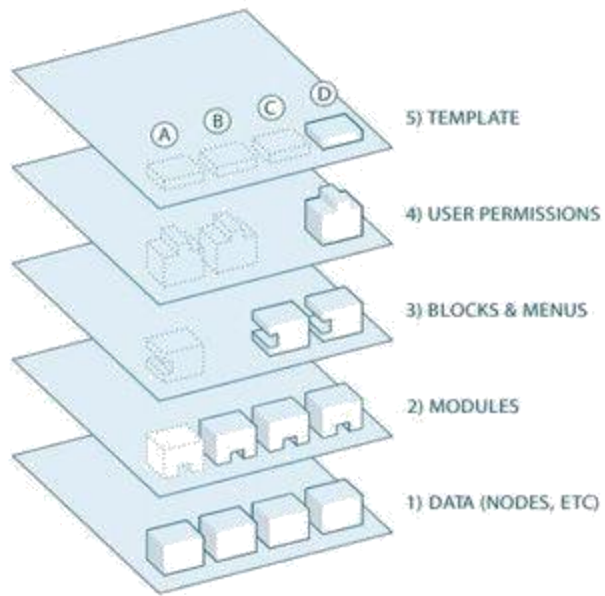
and these assumptions are difficult to override. Content management frameworks, on the other hand, are like the raw materials needed to make any toy—no assumptions have been made about how they'll be used and the builder needs expert technical knowledge in order to make anything at all.

Drupal is designed to be the perfect content management solution provider for non-technical users who need both simplicity and flexibility. It accomplishes this through its modular approach of site building. Unlike other CMSs, Drupal isn't a prefabricated toy truck, but rather a collection of wheels, windshields, axles, frames, etc. that a toy-maker can easily connect together. With Drupal, a maker could create a toy truck and similarly can also create a toy such as an airplane, submarine, or robot. For this reason, Drupal may be described as both a content management system and a content management framework—one unified system that strives to have the strengths of both, without their deficiencies.

So, whether a site builder is looking to create a news site, online store, social network, blog, wiki, or anything else, it's just a matter of combining the right modules. The only limitations are the creator's imagination.

The Drupal flow

If you want to go deeper with Drupal, you should understand how information flows between the system's layers. There are five main layers to consider:

5) TEMPLATE
4) USER PERMISSIONS
3) BLOCKS & MENUS
2) MODULES
1) DATA (NODES, ETC)

Dependency manager for PHP

The role of Composer

Drupal 8 and each minor version introduces new features and functionality: everything from moving the most commonly used third-party modules into its core to the introduction of an object-oriented PHP framework. These improvements also introduced the **Symfony framework** that brings in the ability to use a dependency management tool called Composer.

Composer (https://getcomposer.org/) is a dependency manager for PHP that allows us to perform a multitude of tasks: everything from creating a Drupal project to declaring libraries and even installing contributed modules, just to name a few. The advantage of using Composer is that it allows us to quickly install and update dependencies by simply running a few commands. These configurations are then

stored within a composer.json file that can be shared with other developers to quickly set up identical Drupal instances.

If you are new to Composer, let's take a moment to discuss how to go about installing Composer for the first time within a local environment.

Installing Composer locally

Composer can be installed on Windows, Linux, Unix, and OS X. For this example, we will be following the install found at https://getcomposer.org/download/.Ensure that you take a look at the Getting Started documentation that corresponds with your operating system.

Begin by opening a new Terminal window. By default, our Terminal window should place us in the user directory. We can then continue by executing the following four commands:

1.Download Composer installer to the local directory:

php -r "copy('https://getcomposer.org/installer', 'composersetup. php');"

2.Verify the installer:

Since Composer versions are often updated, it is important to refer to the date on the

Download Composer page to ensure that the preceding hash file is the most current one.

3.Run the installer:

php composer-setup.php

4.Remove the installer:

php -r "unlink('composer-setup.php');"

5.Composer is now installed locally, and we can verify this by executing the following command within a Terminal window:

php composer.phar

The challenge with having Composer installed locally is that it restricts us from using it outside the current user directory. In most cases, we will be creating projects outside of our user directory, so having the ability to globally use Composer quickly becomes a necessity.

ABOUT PROJECT-

AIM :

Our goal is to implement a responsive web gallery in bootstrap 5 theme for DRUPAL 9 and provide a new look to the existing FOCAL website. We are using DRUPAL 9 in order to give our project a shape, which is open source and has a large community support. In addition to this, it has a lot of contributed modules which give a touch of perfection to the website.

ABOUT FOCAL :

FOCAL (Free and open-source creative art library) is an initiative by FOSSEE, IIT Bombay. This is a project from the Open Source Community, which aims at providing ample opportunity and platform for students and technicians to use open source softwares for Computer Graphics.

OBJECTIVE :

- To encourage students and entrepreneurs to use Open Source Software in computer graphics.
- To promote the learning of open-source graphics and animation software, like

    - Inkscape (cross-platform open-source vector design software)
    - GIMP (cross-platform open-source photo/image editing software)
    - Scribus (cross-platform open-source desktop publishing software)
    - Synfig Studio (cross-platform open-source 2d animation software)
    - Blender (cross-platform open-source 3d animation software)

- To publish users' artwork/computer graphics design in Open Source.

CONTENT :

The website basically contains five main content types which correspond to each of the open source animation softwares i.e. **Inkscape, Blender, Scribus, Synfig studio and GIMP.** Each of the content types contains respective fields such as rendered artwork , creator name , links for tutorial and softwares, video samples along with title , introduction and some short notes.

Each of the content type has a gallery of its own where thumbnails of the artworks and their samples are rendered in a responsive 3 x 3 layout. These gallery views have a menu link in the main navigation.

The website also contains quick links, contact information, disclaimer and social media links in the footer region. Whole website is clean and eye-catching. On the top of home page, a carousel (slideshow) is presented of some of the artworks which gives a glimpse into the samples and content inside.

At last, there are few blogs concerned about various softwares and their related artworks . They describe the experiences people have shared using some of these FOCAL based softwares.

THEME

What is a Theme?

A theme is a set of files that define the visual look and feel of your site. The core software and modules that run on your site determine which content(including HTML text and other data stored in the database, uploaded images, and any other asset files) is displayed on the pages of your site. The theme determines the HTML markup and CSS styling that wraps the content.

The core software provides several basic themes with the core distribution. These themes have largely been designed and built by the community over the last several years and will all be good choices for building your first sites and becoming more familiar with how the core software works.

Drupal is a well-established CMS so the market for 3rd party themes - both free and paid - is very robust.

If none of the 3rd party options suit your needs, you'll need to create a custom theme. A custom theme can be as simple as a single CSS file that adds styling to the markup provided by the core software. Guidance for creating custom themes in Drupal 8 can be found in the Drupal.org community documentation page "Theming Drupal".

Finding Themes

Steps

1. *Go to* https://www.drupal.org, *and navigate to* Download & Extend *> Themes*(https://www.drupal.org/project/project_theme).
2. Filter your search using the categories on the theme search page.

309 themes match your search

Maintenance status	Actively maintained ⌄
Development status	- Any - ⌄
Core compatibility	8.x ⌄
Status	Full projects ⌄
Stability	All projects ⌄
Security advisory coverage	All projects ⌄
Search themes	
Sort by	Most installed ⌄

Search

3.Click *Search*. Search results will appear.

Bootstrap

Posted by wundo on *18 May 2008*, updated *15 December 2016*

II Sleek, intuitive, and powerful mobile first front-end framework for faster and
easier web development. Bootstrap has become one of the most popular front-
end frameworks and open source projects in the world.

This base theme bridges the gap between Drupal and the Bootstrap Framework.

Features

- jsDelivr CDN for "out-of-the-box" styling and
  faster page load times.
- Bootswatch theme support, if using the CDN.
- Glyphicons support via Icon API.
- Extensive integration and template/preprocessor overrides for most of the
  Bootstrap Framework CSS, Components and JavaScript
- Theme settings to further enhance the Drupal Bootstrap integration:
  - Breadcrumbs
  - Navbar
  - Popovers
  - Tooltips
  - Wells (per region)

Documentation

Visit the project's official documentation site or the markdown files inside the `./docs`
directory.

Supported modules

Drupal 8

- Bootstrap Layouts

Drupal 7

- Bootstrap Core
- jQuery Update
- Icon API
- Picture
- Views *(partial support)*
- Webform *(partial support)*

5 Year Evolution (gource)

https://youtu.be/Cvq6MPJp2dI

4. To further evaluate a theme, click its title in the list of search results to visit its project page.

Some aspects to pay attention to while evaluating themes:

- Introduction: The description of the theme on its project page should be clear and useful. A screenshot of the theme helps your evaluation as well.
- Project information: There may be warnings in this area of the page, such as if a theme is no longer being developed, or is not covered by the security advisory policy.
- Project information > Reported installs, downloads: You can see how many people have downloaded and how many sites use the theme.
- Issues: See if there are any open issues, potential problems with the theme. Check the Statistics to see how regularly issues are responded to.
- Documentation, Resources: Check if the theme has documentation or a README file, that can help you install, configure, explore, and test it.

Downloading and Installing a

Theme- Steps:

You can use the administrative interface to download and install a contributed theme. If you are installing a custom theme rather than a contributed theme, if you see a message saying *Installing modules and themes requires FTP access to your server*, or if the steps below do not work to download and unpack the theme files, follow the steps in to manually install them. If you are using Composer to manage the files in your site, follow the steps for downloading in **Using Composer to Download and Update Files**.

Using the administrative interface

1. On the theme's project page on drupal.org (for example, *https://www.drupal.org/project/mayo*), scroll to the *Downloads* section at the bottom of the page.
2. Right-click *tar.gz* to copy the address.

   8.x-1.3 released 9 May 2016
   ✓ Recommended by the project's maintainer.
   ↓ tar.gz (437.31 KB) | zip (486.26 KB)

   Development version: 8.x-1.x-dev updated 27 Apr 2016 at 21:14 UTC

   7.x-2.6 released 11 November 2015
   ✓ Recommended by the project's maintainer.
   ↓ tar.gz (411.91 KB) | zip (441.6 KB)

   Development version: 7.x-2.x-dev updated 11 Feb 2016 at 17:13 UTC

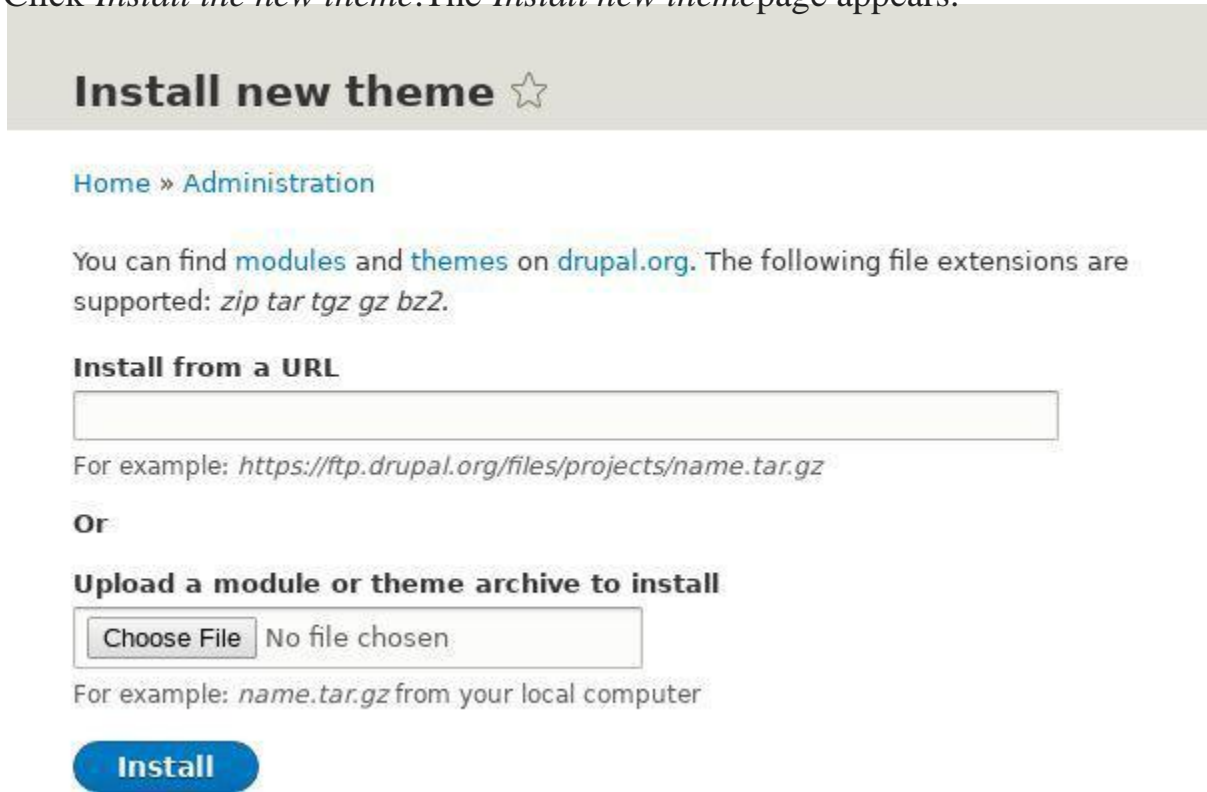   **7.x-1.4** released 11 November 2015
   ↓ tar.gz (386.35 KB) | zip (403.15 KB)

   View all releases

3. In the *Manage* administrative menu, navigate to *Appearance* (*admin/appearance*). The *Appearance* page appears.

4. Click *Install the new theme*.The *Install new theme*page appears.

5. In the field *Install from a URL*,paste the copied download link. This value could look like https://ftp.drupal.org/files/projects/mayo-8.x-1.3.tar.gz.

6. Click *Install*to upload and unpack the new theme on the server. The files are being downloaded to the *themes*directory.

7. Click *Install newly added themes*to return to the *Appearance*page. If you used the manual uploading procedure mentioned earlier, then you can continue with this step, and reach the *Appearance*page by using the *Manage* administrative menu and navigating to *Appearance*(*admin/appearance*).

8. Locate the new theme under *Uninstalled themes*and click *Install and set as default*to use it. All non-administrative pages on the site will now use this new theme.

Our Theme (Bootstrap5 -1.1.3)

Bootstrap5 Drupal Theme is a fully Responsive Drupal 9 theme built on the powerful Bootstrap 5.x Framework.

Features

- Bootstrap 5 library ([5.1.3](#) and [5.0.2](#)). jQuery is no longer required.
- Bootstrap 5 style guide (view all Bootstrap library components on one page)
- Bootstrap 5 breakpoints
- Bootstrap 5 integration with CKEditor
- Bootstrap 5 configuration within admin user interface
- Interface for creating subtheme
- Can be used as is (subtheme is required for template overrides)
- Drupal 8 and 9 compatible
- HTML5 & CSS3
- Powerful grid system - Bootstrap 5.x
- 1 column, 2 columns, 3 columns and 4 columns layout

Installation

1.Login to your Drupal 8 site and click on "Appearance" in the top administration menu.
2.Now, click on "+Install new theme" button and choose any of the 2 available options to install the theme.
3. Click on "Install and set as default" next to Bootstrap theme.

RESPONSIVE WEB DESIGN

In the field of Web design and development, we're quickly getting to the point of being unable to keep up with the endless new resolutions and devices. For many websites, creating a website version for each resolution and new device would be impossible, or at least impractical.It's practically essential after all: one design for the BlackBerry, another for the iPhone, the iPad, netbook, Kindle — and all screen resolutionsmust be compatible, too.

What Is Responsive Web Design?

Responsive Web design is the approach that suggests that design and development should respond to the user's behaviour and environment based on screen size, platform and orientation.

The practice consists of a mix of flexible grids and layouts, images and an intelligent use of CSS media queries. As the user switches from their laptop to iPad, the website should automatically switch to accommodate for resolution, image size and scripting abilities. One may also have to consider the settings on their devices; if they have a VPN for iOS on their iPad, for example, the website should not block the user's access to the page. In other words, the website should have the technology to automatically *respond*to the user's preferences. This would eliminate the need for a different design and development phase for each new gadget on the market.

MODULES

The basic functionality needed to develop a website is provided by Drupal in its core itself. The user just needs to enable it from the extension. The core modules make it easy to add content, publish them and create pages.

The module gives the user full control over how they want their website's functionality.

A module is a set of PHP, JavaScript, and/or CSS files that extends site features and adds functionality. All the additional functions user need in his site are provided by Drupal in the form of modules. Modules are the elements which provide Drupal with its flexibility and make it one of the best CMS out there.

The user can turn the features and functionality on by installing the module and can turn it off by uninstalling the module but before uninstalling, the user may need to remove data and configuration related to the feature or functionality. Each module that is installed adds to the time needed to generate pages on your site, so it is a good idea to uninstall modules that are not needed.

Hence to improve the features and functioning of our website here are some of the contributed modules we worked on for resolving the issues.

VIEW BOOTSTRAP MODULE

ABOUT:

Views Bootstrap module enables you to create components following the theme structure of the Bootstrap framework all within the configuration settings of [Views](#) module (Drupal 7) or in core Drupal 8.

VERSIONS:

View-bootstrap is a popular module in Drupal for responsive gallery views. There are many versions available in the drupal community for drupal 7, 8 and 9. It required different versions of bootstrap theme with it. The 7.x-2.x and 7.x-3.x versions support bootstrap-2.x and 3.x while 8.x-3.x and 8.x-4.x versions support bootstrap-3.x and 4.x respectively.

EXAMPLE TASKS:

● 	You can use this module to make a gallery view for your custom content type and make it responsive.

USAGE:

View-bootstrap module was used to make gallery views for the content of the Blender and Synfig studio pages in the focal website.

Supports:

- Accordion
- Carousel
- Dropdown
- Grid
- List group
- Media object
- Panels
- Tables
- Thumbnail
- Tabs

Requirements:

- Views module
- Bootstrap theme
- jQuery Update (jQuery 1.7+)

VIDEO MODULE

ABOUT:

Video moduleallows you to upload video in any format, **play**video in **any format**, transcode video to **H.246, Theora, VP8**(Web compatible formats) using **Zencoder**or **FFMPEG**automatically creates video thumbnails, copy and deliver videos from cloud file systems like Amazon S3.

Module provides a reliable API for converting videos and creatingthumbnails, embed video to node body using WYSIWYG module (D7 only) and many more.

SUPPORTING EMBEDDED PROVIDERS:

* YouTube

* Vimeo

INSTALLATION:

* Install the [insert name] module as you would normally install a

  contributed Drupal module.

CONFIGURATION:

1. Navigate to Administration > Extend and enable the module.

2. Navigate Administration > Structure > [Content type to edit] and add

a field.

3. Choose "Video" from Reference.

4. Save and continue with the rest of the steps.

5. Navigate to "Manage form display" and choose "Video Upload" widget.

USAGE:

Video module helps us to upload all types of videos to our "video" fields in our Synfig and Blender type contents. It facilitates uploading local videos (video files from our system) as well embedded videos from Vimeo and YouTube. It supports almost all types of videos.

It was used in demo content when making the view for a content type which has videos in it ex- Blender page.

DISPLAY SUITE MODULE

ABOUT:

Display Suite allows you to take full control over how your content is displayed using a drag and drop interface. Arrange your nodes, views, comments, user data etc. the way you want without having to work your way through dozens of template files. A predefined list of layouts is available for even more drag and drop fun!

By defining custom view modes, you can define how one piece of content should be displayed in different places such as teaser lists, search results, the full node, views etc.

Advanced options

- Add your own custom fields in the backend or in your code
- Add custom layouts in your theme
- Change labels, add styles or override field settings (semantic fields).
- Full integration with Views and Panels (D7)
- Extend the power of your layouts by installing Field Group
- Different layouts per node with the Switch View Mode feature in the Extras module
- Optimal performance with Entity cache(D7) integration

MODULES INCLUDED:

- Display Suite: The main module to rearrange your fields.
- Search: extend the search results for Drupal core or Apache Solr.
- Extras: extra functionality like semantic fields, region to block, hide page title etc.
- Forms: style the layout of forms.
- Format: provides a PHP filter with entity context (only 7.x-2.x and higher)
- UI: Manage custom fields, classes and view modes through UI (only 7.x-2.x and higher)

FIELD	REGION	LABEL	FORMAT
Left			
⊹ Author	Left ▼	<Hidden> ▼	Author ▼
⊹ Body	Left ▼	<Hidden> ▼	Default ▼
Right			
⊹ Tags	Right ▼	<Hidden> ▼	View mode: Taggy ▼
⊹ Post date	Right ▼	<Hidden> ▼	Long ▼
Disabled			
⊹ Read more	Disabled ▼	<Hidden> ▼	Default ▼
⊹ User picture	Disabled ▼	<Hidden> ▼	Thumbnail ▼
⊹ Comments	Disabled ▼	<Hidden> ▼	Default ▼

CONFIGURATION AND INSTALLATION:

Display Suite module can be installed manually similar to other modules. It then attaches to the Drupal core and then get configured.

USAGE:

Display Suite module helps us in providing lot of text formatting options and various content body layouts which can be manipulated as per our preferences. It is beneficial in arranging fields over a content in a particular manner as well hiding certain elements, assigning parent fields and row weights.

LAYOUT BUILDER MODULE

ABOUT:

Layout Builder module allows content editors and site builders to easily and quickly create visual layouts for displaying content. Users can customize how content is arranged on a single page, or across types of content, or even create custom landing pages with an easy-to-use drag-and-drop interface.

Layout Builder offers a visual design tool for the following use cases:

1. **Layouts for content.** The creation of "layout templates" that will be used to layout all instances of a specific content type (e.g. blog posts, product pages). Replaces the default "Manage display" feature for determining what fields, and what field formatters, are shown, with a more powerful tool that can also place blocks in addition to fields.

2. **Customizations to templated layouts.** The ability to override these layout templates on a case-by-case basis (e.g. the ability to override the layout of a standardized product page for one specific product).

CONFIGURATION AND INSTALLATION:

Layout builder module can be turned on in Extend-> search Layout builder and check the tick mark next to it. It then attaches to the Drupal project and then get configured.

ABOUT:

The Layout builder module was used to arrange the text, image and video elements inside a content type of the Blender and Synfig Studio pages.

REFERENCE

For summing up the report the following resources were of great help , thus the above listed sites and links are truly up for consideration in order to build a website

1. **Drupal.org**

2. **groups.drupal.org**

3. **Drupal Stackexchange**

4. **WebWash.net**

5. **Modules Unraveled**

6. **Youtube**

7. **Drupalize.me**