FOSSEE Summer Fellowship 2022 Report
ON
DRUPAL (Web Development)

RESPONSIVE IMAGE GALLERY FOR FOCAL
(Inkscape,Synfig Studio)

Submitted By

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Acknowledgments

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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.

ABOUT PROJECT

AIM:

Our goal is to implement responsive web Image gallery and provide a new look to the existing FOCAL website and its image gallery . Also, we use DRUPAL 9 CMS in order to give our project a shape, which is open source and has a large community support. In addition to it it has a lot of contributed modules which makes our life easy and thus give a touch of perfection to our 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 :

Our 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. Our 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 our home page we have presented a carousel (slideshow) 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.

MODULE USED

Following are the modules which need to be downloaded while creating responsive image gallery .

1- View Module

https://www.drupal.org/project/views_bootstrap/releases/8.x-4.3

views_bootstrap 8.x-4.3

Install

Works with Drupal: ^8 || ^9

```
$ composer require 'drupal/views_bootstrap:^4.3'
```

Using Composer to manage Drupal site dependencies

Alternative installation files

Download tar.gz 16.45 KB

Download zip 28.49 KB

2- Asset Injector

https://www.drupal.org/project/asset_injector/releases/8.x-2.10

asset_injector 8.x-2.10

Install

Works with Drupal: ^8.8 || ^9 || ^10

INSTALLATION OF MODULE

1- In the Manage administrative menu, navigate to Extend, click on install new module .

2- select o browse and upload .tar.gz file of view module .

3- select install.

4- click on administration page.

CREATE A CONTENT TYPE

STEPS :

1- In the Manage administrative menu, navigate to Structure,and select *Content type* . The *Content type* page appears.
2- Click on *Add content type*,and *Add content type* page appears.

3-In Name [insert name] ,here i put "File Repository", add little bit of description in Description box .

4-Make following changes in Publising Options

5-Make following changes in Menu Setting.

And left everything as it is.

6- click on Save and Manage Field .

7- click on *Add field* and start adding following fields.

    I.   Rename body as **Description of file** with field type (text, formatted long with summary)

    II.   **Download Editable File** —type: file

            Allowed file extensions: svg, txt, zip

            File directory : [date:custom:Y]-[date:custom:m]

    III.   **Download latest version**— type : link

            Check on required field

            Allowed link type:Both internal and external links

            Allow link text: required

    IV.   **Fixed_content**   —type : text (formatted ,long)

            Click on edit

            Check required field

            In default value :

            Select *source* and text format : ***full html***

            And write this —-----

```
<hr style="border: 0; height: 2px; background-color: #000000;" />
<p>* Download the zip file. Unzip it and edit <br/>
* It is illegal to use registered logos in your project without terms and conditions
and the owner's permission.</p>


<hr style="border: 0; height: 2px; background-color: #000000;" />
```

Click on save setting

V- **Horizontal line**   —type: text(formatted)

   Click on edit

   Check required field

   In default value :

   Select *source* and text format : ***full html***

   And write this —-----

```
<tr> <hr style="border: 0; height: 2px; background-color: #000000;" /> </tr>
```

   Click save setting

VI. **Thumbnail Image** —type: image

   Allowed file extension :png, gif, jpg, jpeg

   File directory :[date:custom:Y]-[date:custom:m]

   Uncheck enable alt field

   Uncheck title field

   Click save setting

VI- **Tutorial-Link** — type :link

   Check on required field

   Allowed link type:Both internal and external links

   Allow link text: optional

   Click save setting

Manage fields ☆

| Edit | Manage fields | Manage form display | Manage display |

Home » Administration » Structure » Content types » File Repository

+ Add field

LABEL	MACHINE NAME	FIELD TYPE	OPERATIONS
Discription of file	body	Text (formatted, long, with summary)	Edit ▾
Download Editable File	field_download_inkscape_editable	File	Edit ▾
Download latest version	field_download	Link	Edit ▾
fixed_content	field_fixed_content	Text (formatted, long)	Edit ▾
horizontal line	field_horizontal_line	Text (formatted)	Edit ▾
Thumbnail Image	field_thumbnail_image	Image	Edit ▾
Tutorial-Link	field_tutorial	Link	Edit ▾

CREATE TAXONOMY

STEPS

1- In the Manage administrative menu, navigate to Structure,and select *Taxonomy* . The *Taxonomy* page appears.

2-Click on *Add Vocablury* and *Add Vocablury* page appears.

3- In Name [insert name] ,here i put "Artwork". And add description in description box. And click on save .

4-Now click on *List terms* ,Artwork [inserted name]page opens up.

5- click on *add term* and start adding following terms.

   I.   blender   URL alias →/focal/blender

  II.   gimp   URL alias →/focal/gimp

 III.   inkscape URL alias →/focal/inkscape

 IV.   scribus   URL alias →/focal/scribus

  V.   synfig   URL alias →/focal/synfig

6- click on save

IMPORTANT : Now add this Taxonomy Term in Field of File repository

7-In the Manage administrative menu, navigate to Structure and click on content types and click on File Repository .

8- click on Add field

Add a new filed : Taxonomy Terms

Label: Type of Artwork

Type of item to reference: taxonomy term

Allowed number of Values: limited

9-click on save field setting

10- Once again go to Manage administrative menu, navigate to Structure and click on content types and click on File Repository .

11- Click on Manage Fields and navigtate to manage form display and click on Type of Artwork and *select Radio button/check boxes.*

12- Now click on save button.

Manage fields ☆

| Edit | Manage fields | Manage form display | Manage display |

Home » Administration » Structure » Content types » File Repository

+ Add field

LABEL	MACHINE NAME	FIELD TYPE	OPERATIONS
Discription of file	body	Text (formatted, long, with summary)	Edit ▾
Download Editable File	field_download_inkscape_editable	File	Edit ▾
Download latest version	field_download	Link	Edit ▾
fixed_content	field_fixed_content	Text (formatted, long)	Edit ▾
horizontal line	field_horizontal_line	Text (formatted)	Edit ▾
Thumbnail Image	field_thumbnail_image	Image	Edit ▾
Tutorial-Link	field_tutorial	Link	Edit ▾
Type of ArtWork	field_artwork	Entity reference	Edit ▾

MANAGE FORM DISPLAY OF FILE REPOSITORY

STEPS

1- In the Manage administrative menu, navigate to Structure,and select Content type ,and go on File Repository row, click on *Manage Field* and then click on *Manage form display* .

2- Go to **Thumbnail image's** widget section and click on setting sign and set Preview Image style : **Large(480*480)**

3-And make sure that **Type of Artwork Work's** widget section and set check boxes /radio button

4- click on save

FIELD	WIDGET		
Content			
Title	Textfield ▾	Textfield size: 60	✿
Promoted to front page	Single on/off checkbox ▾	Use field label: No	✿
Sticky at top of lists	Single on/off checkbox ▾	Use field label: Yes	✿
URL alias	URL alias ▾		
Thumbnail Image	Image ▾	Preview image style: Large (480×480) Progress indicator: throbber	✿
Download Editable File	File ▾	Progress indicator: throbber	✿
Discription of file	Text area with a summary ▾	Number of rows: 9 Number of summary rows: 3	✿
fixed_content	Text area (multiple rows) ▾	Number of rows: 5	✿
Template–video	File ▾	Progress indicator: throbber	✿
Type of ArtWork	Check boxes/radio buttons ▾		
Download latest version	Link ▾	No placeholders	✿
horizontal line	Text field ▾	Textfield size: 60	✿
Tutorial–Link	Link ▾	No placeholders	✿

Disabled

Published	Check boxes/radio buttons ▾
Authored by	Select list ▾
Authored on	Datetime Timestamp ▾

CREATING A VIEW

I- INSTALL VIEW MODULE :

1- In the Manage administrative menu, navigate to Extend

2- search view and check the box of Views Bootstrap 4 ,and click on install.

II- VIEW FOR INKSCAPE GALLERY

STEPS

1- In the Manage administrative menu, navigate to Structure, click on *Menu.*

2- click on Add view ,Add view page opens up

3- set as following :

   I.   *View name* : Inkscape

   II.   *View Setting : **show** → content , **of type** :* file Repository

   III.   *Page setting :*
- Check on click on page
- *Page title:* Inkscape
- *Path:* Inkscape

   Page display setting
- *Display format :* bootstrap grid
- *Item to display :* 9
- Check on use a pager
- Create a menu link
- Menu → navigation link

   IV.   Save and edit

4- Now Inkscape (content) page opens up

5- Go to FORMAT

     I- Go to Format → setting

page: Style options

Grouping field Nr.1

– None –

You may optionally specify a field by which to group the records. Leave blank to not group.

Row class

test1

The class to provide on each row. You may use field tokens from as per the "Replacement patterns" used in "Rewrite the output of this field" for all fields.

☑ Add views row classes

    Add the default row classes like views-row to the output. You can use this to quickly reduce the amount of markup the view provides by default, at the cost of making it more difficult to apply CSS.

Column width of items at 'xl' breakpoint

[None (or inherit from previous) ▾]

Set the number of columns each item should take up at the 'xl' breakpoint and higher.

[**Apply**]   [Cancel]

- Now click on Apply .

- Now goto Htdocs folder in your system ,open you forder in which you've installed Drupal 9 ,click on theme folder and then click on Bootstrap folder and then go " style.css" file ,open in editor and put these following codes.

```css
.test1 {
  /* background-color: green; */
  /* border-style: solid; */
  border:solid black 1px;
  margin:5px;
  padding:10px 5px 10px 5px;
  text-align: center;


}
.test1 .field-content{
  margin:15px
}
```

- And also make change in existing classes by searching them as follows:

```
.col-lg-3 {
   flex: 0 0 auto;
   /* width: 25%; */
   width:32%
 }
.col-md-4 {
   flex: 0 0 auto;
   /* width: 33.33333333%; */
   width: 48%;
 }
.col-sm-6 {
   flex: 0 0 auto;
   /* width: 50%; */
 }
.col-12 {
 flex: 0 0 auto;
 width: 100%;
}
```

● Now In the Manage administrative menu, navigate to Configuration , click on performance
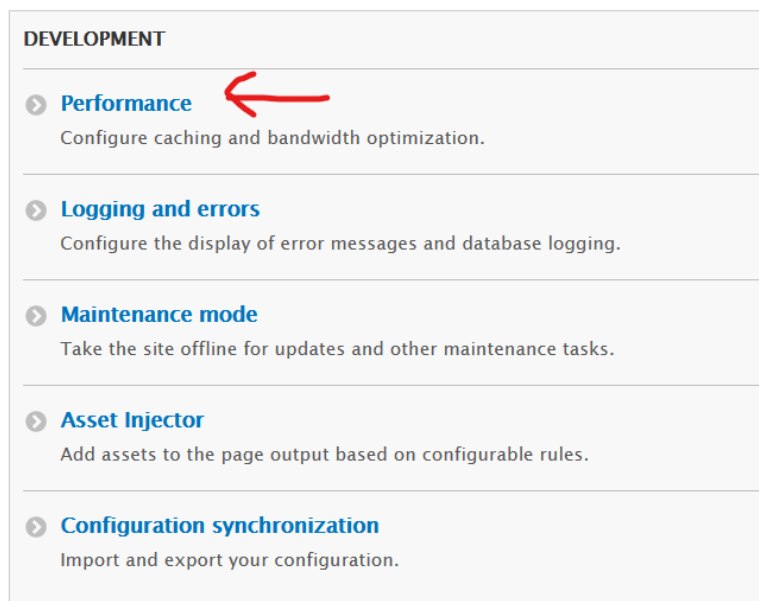
- click on clear chache and then click on save configuration

II- Go to FORMAT→ show : field —> setting → check on provide default field wrapper elements

Inline field : check on content :title

Click on apply

III-Click on Add in front of FIELDS, search thumbnail image in search box.
- Thumbnail image → image style → medium (200*200)
- Link image to→ content
- Style setting : check on add default classes
- Click on apply

IV- Click on FILTER search "content type" → operator (select is on of) and content types →(select file repository) →Click on apply .

V- Click on FILTER search "Type of ArtWork" —> Vocabulary → artwork Selectiontype → autocomplete

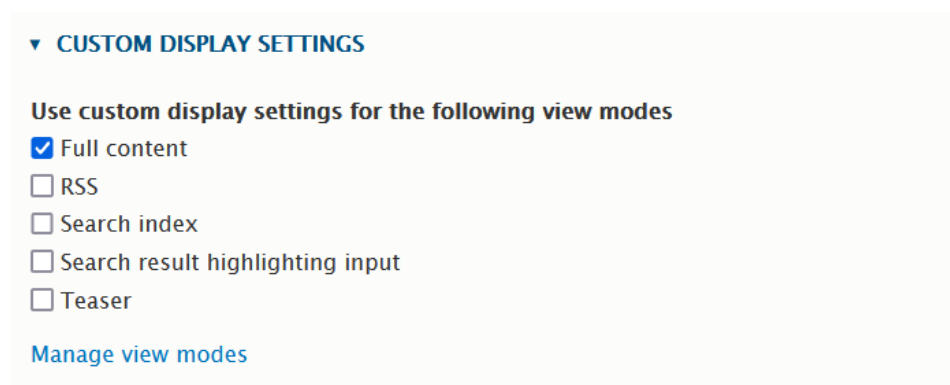Now Inkscape (content) page should be look like this

Similarly create a view for synfig studio.

MANGE DISPLAY OF FILE REPOSITORY

STEPS

1- In the Manage administrative menu, navigate to Structure,and select Content type ,and go on File Repository row, click on *Manage Field* and then click on *Manage display* .

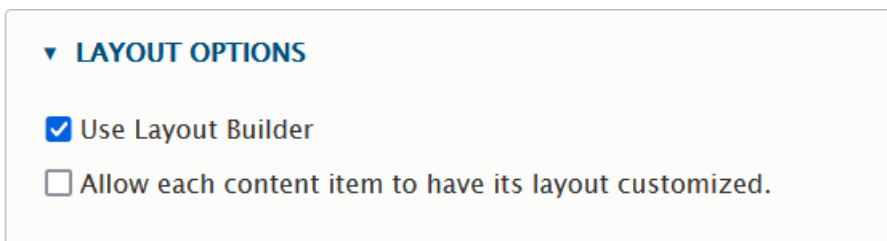2-Click on " CUSTOM DISPLAY SETTING" and check on only full content

▼ CUSTOM DISPLAY SETTINGS

Use custom display settings for the following view modes
- ☑ Full content
- ☐ RSS
- ☐ Search index
- ☐ Search result highlighting input
- ☐ Teaser

Manage view modes

3- Check on Use layout Builder

▼ LAYOUT OPTIONS
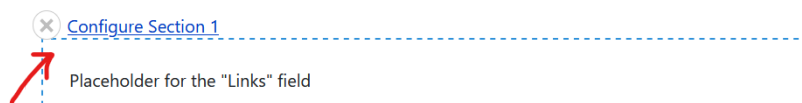
☑ Use Layout Builder

☐ Allow each content item to have its layout customized.

4-click on save

5- Now Manage Display opens up and click on " Full content"
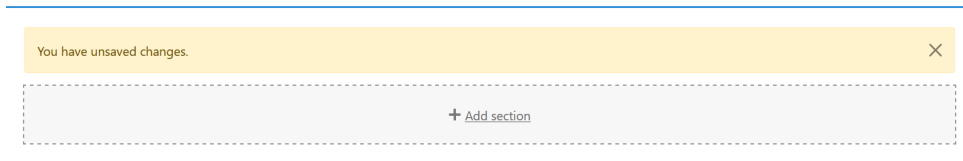
6- Mark check on Use layout builder and click on save and new page opens and then click on " Manage Layout"

7-click on cross on configure section

ⓧ Configure Section 1

Placeholder for the "Links" field

8-click on Remove on right side

9-Now click on "Add section "

You have unsaved changes.   ✕

＋ Add section

10-Click on Two column on righ side

Choose a layout for this section   ✕

One column

Two column

Three column

Four column
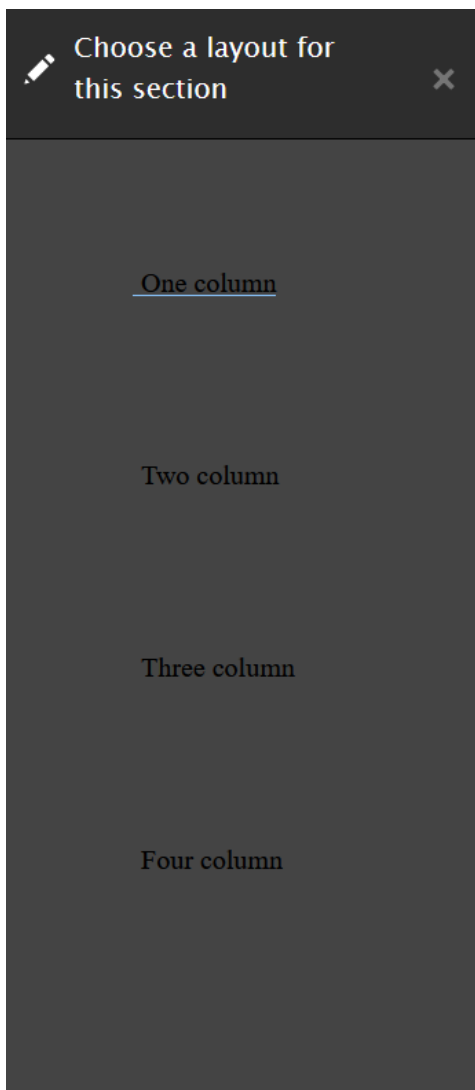
11-Now click on Add Section
12- Now it looks like following

✕ Configure Section 2

＋ Add block   ＋ Add block

13-In left colum : add block → Thumbnail image

In right column —>add block → Description of file , Fixed content,Download latest version ,Tutorial link,Horizontal line ,Download editable file

14- Now click on save layout

USE OF CSS INJECTOR(ASSET INJECTOR) FOR STYLING NODE PAGE

STEPS

1- **INSTALL ASSET INJECTOR MODULE :**
  - In the Manage administrative menu, navigate to Extend
  - search Asset and check the box of Asset Injector ,and click on install.

2- In the Manage administrative menu—>development →asset injector —>css injector—> add css injector ,and new pages opens up .

3-setup following things:
  - label— node
  - advanced options - media –all
  - content types- file repository
  - pages- /node/* , check on Show for the listed pages
  - condition requirements -check on Require all conditions

4 - In code section add following things

```
.layout {
 width: 85%;
 margin: auto;
 background-color: lightyellow;
 padding-top:12px ;
}
```

```css
.img-fluid {

  max-width: 100%;
  height: auto;
}
.layout__region--first .field__label{
  display:none;
}




.field__item{
  margin-left:20px;
  margin-right:20px;
}
.region-content{
  padding-left:10%;
  padding-right:10%;
}
 .col-sm-6 .region-content{
  padding-left:7%;
  padding-right:7%;
}







.layout__region--second{
  margin-top:10px;
```

```css
}
.page-title{
 background-color:#f3eedf;
 margin-top:12px;
}
.container{
 max-width:1520px;
}
.node__meta{
 display:none;
}
.node__content{

 padding-top:8px;
}



@media screen and (max-width: 840px) {
 body {
      background-color: white;
 }
 .region-content {
 padding-left: 5%;
 padding-right: 5%;
}
.layout {
 width: 90%;
 margin: auto;
 background-color: lightyellow;
 padding-top: 12px;
}
}
```

```css
.block-field-blocknodeinkscape-file-repositoryfield-fixed-content
.field__label{
 display:none;
}
.field--name-field-horizontal-line .field__label {
 display:none;


}




@media screen and (max-width: 638px) {
.layout__region--second {
 margin-top: 10px;
 margin-left: 20px;
}
}




.field--name-title{
 color:#004ec4;
}
```

REFERNCES

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. Spoken Tutorials
3. Drupal Stackexchange
4. Ostraining
5. Modules Unraveled
6. Youtube
7. Drupalize.me