

# Python Software Foundation

## Sub-org: EOS Design System

Project: Icons and EOS web page

By - Abhinandan Sharma

### **About Me:**

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## **Code Contribution :**

Pull requests:

https://gitlab.com/SUSE-UIUX/eos-icons/merge\_requests/135 [Merged]

More coming soon

**Issues Created:** 

https://gitlab.com/SUSE-UIUX/eos-icons/issues/5

## **Project Information**

## Sub-org: EOS Design System **Project Abstract :**

EOS delivers a set of icons that are made 1-to-1 following Material Design Icons. They are currently published at <u>https://suse-uiux.gitlab.io/eos-icons/</u>. The problem with this page is that it lacks engagement and information about the project: how to contribute new icons, how to submit icons request, how to install it, etc. On the other hand, EOS has a landing page that is more engaging, but there is a lot of useful information missing too. The EOS landing page could benefit from a section with a more automated way to scale the sub-pages and content with a CMS. Also, this project requires a web interface for EOS icons and EOS Design System, where both are aligned in terms of UX/UI and ideally can be managed with a headless CMS, such as Strapi [this is the currently used and preferred CMS at EOS].

#### Synopsis :

With help of mentors, I am planning to enhance every part of EOS icons which need to be improved and add astonishing details which will not only improve EOS Icons but also give a good competition to our competitors that provide paid services instead of providing them free to the users. My main motives are:

- Add various feature to EOS icons like buttons and modals and much more.
- Completely Redesign EOS-Icons.
- Deliver a web interface for EOS icons.
- Implement a CMS(Strapi) for EOS landing page and EOS icons.

You will like this project because this project is very important for EOS's future. Some of these features are already present in most of the top icons websites, so this becomes a necessity for us to implement these and take EOS to great heights and also improve quality of the product to the best.

I am qualified to do this project because it's not that tough to add those features, anyone can learn and implement those from the internet. The most important part here is to understand how EOS and EOS icons work i.e the codebase which I am already familiar with because of the time that I have spent here.

Also, I have a designer brain and most of the work here is about thinking something new which I think I am capable of and I will demonstrate this shortly. Plus I am familiar with Adobe XD so, it will come handy whenever I'll need to design something. Also, I have already started learning technologies that are required for this project like bootstrap, SCSS and by the time I need them, I'll be ready.

#### Which of the published tasks are you interested in? What do you plan to do?

I am interested in project 1 of EOS Design system that is "Icons and EOS web page". I have already written the abstract of the project above.

#### **Project Plan:**

According to me, this project can mainly be divided into four parts:

**1)** First of all the problem with <u>EOS icons demo page</u> is that it lacks engagement and information about the project like  $\rightarrow$ 

• How to contribute new icons:

Currently, there is no way to contribute new icons to EOS icons webpage. There is a small guide on <u>how to add your icons to the iconic font</u> but its not sufficient. My plan is to add a button on the EOS icons page from where contributors will be redirected to a new page where I would have written few rules and regulations and also tips on how to contribute new icons. Then from there, contributors can either be redirected to create new PR's for their icons(if they are familiar with git) or they can be redirected to issues page from where they can create a new issue and add the icon file that they have created in the description.

#### • How to install those icons:

Currently, EOS icons page lacks information about how to install icons that are currently available on EOS icons demo page. We have a <u>installation guide</u> though but that is not properly understandable and also not sufficient.

I will improve the installation guide so that anyone can understand it even if they are from a non-technical background. Also, I will add that guide to the EOS icons demo page so that users can access it easily.

#### 2) Design a whole new EOS icons Page:

Currently, EOS icons webpage lacks behind EOS Design Systems webpage in terms of web interface and UI/UX. The solution to these is using bootstrap and then add features very easily. There are libraries made for almost everything in bootstrap so we can easily import features on our website doesn't matter whether it is HTML, CSS or Javascript.

#### Reasons to use Bootstrap:

- **Easy to use:** Basic knowledge of HTML and CSS is required to use bootstrap.
- **Responsive features:** Responsive CSS made with Bootstrap adjusts to phones, tablets and desktops.

• **Browser compatibility:** Bootstrap is compatible with all modern browsers like Chrome, Firefox, Edge, Opera, Safari, Internet Explorer.

Also, I may use JQuery which makes things like HTML document traversal and manipulation, animation, event handling and Ajax much simpler with an easy-to-use API that works across every browser.

#### Reasons to use JQuery:

- 1. Large library i.e a lot of functions as compared to javascript.
- 2. This keeps the code clear, simple and reusable.
- 3. Ajax support. Templates can be developed easily.
- **4.** Great documentation which makes it really easy to understand and use as per needs.
- **5.** Eradication of the requirements of writing repetitious and complex loops and DOM scripting library calls.

There are a lot of design options that we can use for EOS icons. I will take references from <u>Streamline icons</u>, <u>FontAwesome</u>, and <u>Material Icons</u>.

#### Main features that I am going add to EOS icons:

• Redesign EOS icons footer and add more details to it. A sample is shown below:



This reference is taken from <u>FontAwesome</u>. More samples <u>here.</u>

• Make groups and subgroups for a different type of icons like EOS, extended and animated icons that EOS icons already use and display them better as shown below:

MATERIAL DESIGN						Design Develop	Tools
Q. Filter by name	vpn_lock wc	wifi wifi_off					
THEMES	Places						
Outlined	* 🖶	ell inclusive beach access		child care child friend	fitness cente		
Rounded		XT X*		<u></u> <u></u>			
Sharp	kitchen meeting_roo	m no_meeting_ro pool	room_service rv_hookup	smoke_free smoking_roor	ns spa		
CATEGORIES	Social						
All	📥 🗈	***	<b>i</b> 🙂	ف 😧	Ϋ́	× ¢	
	cake domain	group group_add	location_city mood	mood_bad notifications	notifications notificatio	ns notifications notifications	S
	pages party_mode	people people_outlin.	person person_add	en erson_outlin plus_one	poll public	school sentiment_di	is
	sentiment_satsentiment_ve	E sentiment_ver share	thumb_down_al thumb_up_alt	Whatshot			
	Togola						
	i vigne		•	sh 🔸			
	check box check box ou	t indeterminate radio button .	radio button star	star border star half	togale off togale	n	

Reference is taken from Material Icons.

• Improve complete UI and layout of the webpage(initially designing on Adobe XD and then implement it later) like redesigning top bar, changing the position of different elements on the webpage and make EOS icons responsive so that users can access it even from a phone or a tablet(using bootstrap).

#### 3) Documentation page for EOS landing page:

Secondly, EOS has a <u>landing page</u> that is more engaging, but there is a lot of useful information missing. All it needs is a documentation page which will contain every

detail about EOS. I want to create this Documentation page for EOS and add details to this page with a great layout and make it look more professional. There are a lot of features that we can add to this page for eg -

We can add a side navigation bar as shown below:

Introduction Material studies	Design Tools for picking colors Iconography Create intuitive and beautiful products with Material Design. Text fields	
Material Foundation Foundation overview Environment Layout Navigation Color Typography Iconography Shape Motion Interaction Communication	ACCENTES         Regression Demonstration of the post of	
Material Guidelines Guidelines overview Material Theming Components Usability Platform guidance	What's new         The latest Material Design updates and guidance         FEB 27, 2019         Motion sticker sheet         Quickly design product motion with this After Effects file containing Material components, baseline Uls, and navigation transitions.	

This will allow users to access information easily from the left side of the screen.

#### 4) CMS part:

Deliver a web interface for EOS icons and EOS Design System, where both are aligned in terms of UX/UI and ideally can be managed with a headless CMS, such as Strapi [this is the currently used and preferred CMS at EOS].

Coming to CMS, we know that the main purpose of a Content Management System (relating to the web) is to provide the capability for multiple users with different permission levels to manage a website or a section of the content. For example, you can take a website which has Articles, Blogs, Press Releases, Store, Events and assign each section or a part of a section to user(s) to create, edit, and archive. Since EOS is currently using Strapi, I will use Strapi only.

#### Reasons to use headless CMS:

- Instead of having to implement multiple, parallel CMS instances, e.g., to support web and mobile channels, a single headless CMS instance can be used to serve unlimited digital channels.
- A single source of content, such as a product description for an online catalogue, can automatically adapt to its publishing environment and present itself optimally for its destination.
- The separation of code and content in a headless CMS makes life easier for content editors, who can ignore the code and exclusively focus on the content they are responsible for.
- Developers, meanwhile, can use all the latest tools and frameworks to bring content experiences to life on any and all modern platforms, without being locked into a proprietary language or other limitations of a particular CMS.
- Content delivered via APIs is significantly easier to integrate, manipulate and distribute, reducing the time it takes to create content-driven experiences, including sites and apps.



Reference is taken from an article. Check it out <u>here</u>.

#### How will I use CMS in this project

To manage the content of EOS and use CMS we require mainly two things:

- 1. API Content Management Framework i.e Strapi to generate RESTful API.
- 2. Cloud service provider i.e Heroku.

So, basically, we need to combine both Strapi and Heroku and deploy a Strapi API on Heroku



First of all, I will have to Setup up Heroku on EOS Design system then install Strapi.

By default, a Strapi API needs a MongoDB database. In Heroku, it can easily be done by using add-ons. These add-ons are integrated tools and services for developing, extending, and operating apps.

mLab addon exposes an environment variable named MONGODB\_URI to a project. Its value is a string looking like this:

mongodb://heroku\_12345678:random\_password@ds029017.mLab.com:29017/her oku\_12345678. As we can see, it contains all the necessary information to connect to the MongoDB instance: username, password, host, port and database name. To make sure our deployment will be successful, we must make sure that the environment variable will be handled by the Strapi app.

Strapi uses by default some environment variable:

```
{
   "defaultConnection": "default",
   "connections": {
     "default": {
        "connector": "strapi-mongoose",
        "settings": {
            "client": "mongo",
            "uri": "${process.env.DATABASE_URI || ''}",
            "host": "${process.env.DATABASE_HOST || 'localhost'}",
            "
```

```
"port": "${process.env.DATABASE_PORT || 27017}",
    "database": "${process.env.DATABASE_NAME || 'production'}",
    "username": "${process.env.DATABASE_USERNAME || ''}",
    "password": "${process.env.DATABASE_PASSWORD || ''}"
    },
    "options": {}
}
```

After this is set up, we can finally deploy Heroku using

```
git push heroku master
```

Or we can deploy Heroku directly from the gitlab repository. We just need to add two lines in the .gitlab-ci.yml config file:

```
git remote add heroku https://heroku:$HEROKU_API_KEY@git.heroku.com/<name
of your heroku app>.git
git push -f heroku master
```

#### What have you done so far with this idea?

I created an issue for users to send a request for new icons. Then I started working on how to send a request. Initially, the page looked like :

version 1.0.0							Try different	sizes: 18px 24px 38px 48px
Extended version								
action_chains	activate_subscriptions	admin	application_incomplete	application_instance	application	autoinstallation	background_tasks	bootstrapping
cleanup	cloud_foundry_space	collocation	configuration_file	constraint	counting	critical_bug	CSV csv_file	endpoints_connected
endpoints_disconnected	endpoints	enhancement	file_system	image	miscellaneous	modified_date	move	● O O ● ● multistate
network_file_system	organization	package_upgrade	package	packages	pin	primitive	product_classes	product_subscriptions
products	ргоху	ptf	repositories	<b>9</b> route	sandbox	service_Instance	service_plan	service
smt	snapshot_rollback	software	state	subscriptions_created	symlink	system_group	system_re_registered	K timeout
troubleshooting	trusted_organization	unpatched	virtual_guest	virtual_host_manager				

Later I created a PR of a button on the bottom centre of the EOS-icons demo page from where users can be redirected to EOS-icons issue page on gitlab where they can create a new issue for an icon that they want us to create for them. After this page will look like:

Company         Try different sizes:         150x         240x         240x         240x         450x								
cleanup	cloud_foundry_space	collocation	configuration_file	constraint	counting	Critical_bug	csv_file	endpoints_connected
endpoints_disconnected	endpoints	enhancement	file_system	image	miscellaneous	modified_date	move	● ● ○ ● ● ● multistate
network_file_system	organization	package_upgrade	package	packages	pin	primitive	product_classes	product_subscriptions
products	ргоху	ptf	repositories	<b>9</b> route	sandbox	service_instance	service_plan	service
smt	snapshot_rollback	software	state	subscriptions_created	symlink	system_group	system_re_registered	K timeout
troubleshooting	<b>Q</b> trusted_organization	unpatched	virtual_guest	virtual_host_manager				
				Animated icons				
loading	installing							
			Didn't find	what you were looking for?	equest new icon			
	s. Thanks to grunt-webfont							

The code looks like:

1) HTML Part:

```
<div class="bottom_container">
   Didn't find what you were looking for?
     <div><a class="btn" href="https://gitlab.com/SUSE-UIUX/eos-icons/issues/"
target="_blank">Request new icon</a>
     </div>
</div><//div>
```

2) CSS Part:

```
.bottom_container {
    padding-bottom: 10px;
    display: flex;
```

```
justify-content: center;
      margin-bottom: 50px;
}
.bottom_container p {
      padding: 10px;
      display: inline-block;
      margin: 0px;
}
.btn {
      padding: 10px;
      background: #e6e6e6;
      border-radius: 5px;
      text-decoration: none;
      color: #1f1f1f;
      border: 1px solid #d0d0d0;
      display: inline-block;
}
```

I am also working on a modal which will appear just after the button is clicked. That modal will contain some rules and information about what kind of requests we will accept from users to make new icons. For eg- we won't accept requests to make a burger icon or something like that.

#### Modal code example:

```
<!-- Trigger the modal with a button -->
<button type="button" class="btn btn-info btn-lg" data-toggle="modal"
data-target="#myModal">Open Modal</button>
<!-- Modal -->
<div class="modal fade" id="myModal" role="dialog">
  <div class="modal-dialog">
    <!-- Modal content-->
    <div class="modal-content">
      <div class="modal-header">
      <button type="button" class="close"</pre>
data-dismiss="modal">×</button>
      <h4 class="modal-title">Modal Header</h4>
      </div>
      <div class="modal-body">
      Some text in the modal.
      </div>
      <div class="modal-footer">
```

```
<button type="button" class="btn btn-default"
data-dismiss="modal">Close</button>
</div>
</div>
</div>
```

Furthermore, I have gone through a few websites for the project:

- Trello <u>https://trello.com/create-first-board</u>
- Jamstack <u>https://jamstack.org/best-practices/</u>
- Streamline icons <u>https://www.streamlineicons.com/</u>
- Google material design <u>https://material.io/design/</u>

Also, I have gone through a few icons websites and compared those with eos icons webpage. Currently, the biggest benchmark in terms of icons is <u>Streamline icons</u>, <u>FontAwesome</u>, and <u>Material Icons</u>.

I am thinking to add a few features in EOS icons, like the live colour selector feature, which will change icons colour live in front of users as shown below:



Streamline 3.0					BUY
Over 30,000 something		o°	<b>(</b>	88 acts - 964 icon	
	ø		Ø		
	A	j,	₩	8	
Welcome Over 80,000 Science 3 District: Wagitas Cary Fau Workflow Korra W Aktion	SOCIAL MEDIA			13 sets - 175 icons	
Based Loovin Web Yanee Pachage Options Bay Nine	5		ju -	. <b>de</b> r	° 0 •

Streamline 3.0					BUY
Over 30,000 something		¢	<u>@</u>	68 axts - 194 com	
	ø		ľ		
	*	J.	<b>.</b>	00	
Welcome Over 30,000 Icons 3 Distinct: Weights	SOCIAL MEDIA				
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#### **Schedules Deliverables :**

I think getting into this program will be a lifetime experience. So, I want to utilize every moment of this program that's why I would like to start working on this project from day one itself. I will be dedicating about 6-8 hours a day and on some days I can even contribute 8-10 hours. I mostly work in odd hours of my time zone, I think this will be beneficial for both of us, as my time of work will match with your time of work.

I will be having my exams from 30th of April to the 17th of May. Only during this period, I will be able to dedicate only 2-3 hours a day. So, during this period, I will be discussing things with mentors on the slack and trying to figure out the best web interface for EOS icons and EOS Design System. Other than my exams I don't have any plans or commitment during the whole period. From 13th May, I will resume working on this project with high pace.

### Timeline :

#### Community Bonding Period (May 7 - May 26):

I would continue to solve bugs and minor changes in the eos and eos-icons, to get more familiar with the codebase and to understand how we can integrate both in terms of UI/UX.

Though, I will be less active till May 17 due to my semester exams.

#### <u>Week 1 (May 27 - June 2) :</u>

- Discuss with the mentor and other members of the community about the first part of the project. This will include interaction, working on the EOS icons webpage and how and where to add buttons or links for contribution and requests.
- This discussion will be solely to understand if there are any specific needs, which is required for this project. I would also like to discuss the web interface of the EOS icons webpage.
- As I have pretty good experiences with designing on Adobe XD, I will figure out new layouts for buttons and links.
- Take reference from other popular websites like <u>streamline icons</u> and will look for documentation of additional features proposed.

#### Output of this Period:

- A detailed road map for this project.
- Will get a better understanding of this project.
- Clear my remaining doubts on EOS icons Layout.
- •

#### <u>Week 2 (June 3 - June 9) :</u>

- I will start with the initial configuration of the webpage by creating various buttons as discussed with the mentors.
- I will improve the webpage layout by changing the positions of required items like buttons and add some details to the bottom section of the EOS lcons webpage.
- I will figure out a way to add a better installation guide so that users can access that directly from the EOS icons webpage.
- I will finish building modal that will appear after the button is pressed.
- I will also start figuring out ways to add information that is missing on the EOS Design system webpage.
- Will start thinking about new features to be added on the EOS Design system and EOS icons webpage. This feature can be a drop-down menu for scaling buttons on top right of EOS icons page or something like that.

#### Output of this Period:

- We will have a better version on EOS icons webpage which will provide information on how to contribute new icons, how to request new icons and better access to the installation guide.
- Any backlog remaining related to EOS icons webpage will be addressed as per our later needs.

#### <u>Week 3 (June 10 - June 16) :</u>

- Start working on new design for a whole new EOS icons webpage.
- Start discussing new designs with mentors.
- Will use adobe XD for new designing.layout and designs.
- I will look into some popular icon websites like streamline icons, material icons, etc.

#### Output of this Period:

- A better understanding of look and feel of the new design.
- Had created a working prototype on XD.

#### <u>Week 4 (June 17 - June 23) :</u>

- Since designing EOS icons will need creativity and a lot of research this week will also be based on designing of EOS icons.
- Figure out ways to improve EOS icons web interface.
- Start working on those methods and improve EOS icons interface further.

#### Output of this Period:

- Whole new EOS icons.
- Better EOS icons web interface.

#### <u>Week 5 (June 24 - June 31) :</u>

- I will be focussing more on *using Bootstrap 4.*
- Find a way to use Bootstrap 4 on EOS icons webpage and make it more responsive.
- Discuss with mentors and start working on SCSS for the webpage.
- Start working on bootstrap 4.

#### Output of this Period:

- A better understanding of Bootstrap 4.
- Better Webpage after using SCSS.

#### <u>Week 6 (July 1 - July 7) :</u>

- Finish bootstrap work
- Will discuss with mentors if they want me to use jquery and then learn how to use JQuery
- Get myself cleared on how to use JQuery.
- Start working on the Documentation page for EOS Design system webpage.

#### Output of this Period:

- I will be having good knowledge of JQuery.
- Will have a road map on how I will be progressing into implementing them.

#### Week 7 (July 8 - July 14) :

• I will start by working with JQuery i.e use a host(google or Microsoft) or we can include it from a CDN (Content Delivery Network). One big advantage of using the hosted jQuery from Google or Microsoft is that many users already have downloaded jQuery from Google or Microsoft when visiting another site. As a result, it will be loaded from cache when they visit

EOS or EOS icons, which leads to faster loading time. Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

- Continue working on the documentation page of EOS landing webpage.
- Finish pending work if any.

#### **Output of this Period:**

- Much better EOS icons webpage.
- Documentation page for EOS landing page.

#### <u>Week 8 (July 15 - July 21) :</u>

- Finalise documentation page.
- Fix Improvements of EOS icons webpage if required.

#### **Output of this Period:**

- Finished documentation page.
- Improvements in previous work.

#### Week 9 (July 22 - July 28) :

- Start learning about CMS.
- Understand Strapi.
- Figure out ways to use a content management system on the project.
- Finish pending works if any.

#### **Output of this Period:**

- Will have knowledge of CMS and Strapi.
- A way to add Strapi on the project.
- Understand more about Heroku.

#### <u>Week 10 (July 29 - August 4) :</u>

- Start using Strapi on EOS icons and EOS webpage.
- Improve CMS.
- Deploy Strapi API on Heroku.

#### Output of this Period:

- Finished CMS work on the project.
- Better interface and a management system on EOS and EOS icons.

#### Week 11 (August 5 - August 11) :

- Finish Deployment work on Heroku.
- Work on content management and automated scalability of subpages of EOS. Automated scalability means that in times of increased workload CMS will manage resources and will maintain the workflow of the website.
- Finish any pending works if any.

#### Week 12 (August 12 - August 18) :

In this week I will be making any required documentation of the project. Also, I will finish any pending works if any. Specially EOS icon webpage because it will take a lot of time to finalise the design and finish it.

#### Week 13 (August 19 - August 25) :

Will discuss and finalise the project with mentors.

#### More about my previous experiences :

#### **Blockchain:**

I am very fascinated by this technology. I recently started learning about blockchain. I took various courses on it. I had created my own cryptocurrency using blockchain known as "Starcoin" which runs on my localhost.

I also learned to make smart contracts using <u>solidity</u>.

#### UI/UX:

I am quite familiar with <u>Adobe XD</u>. I have created a few designs and prototypes using Adobe XD which includes designing web pages, Mobile device activities, translations and others. Most of my designs use Auto Animate feature which was released in October 2018.

#### **Gaming Engines:**

I also started working on gaming engines. About a year ago I started working with <u>Godot community</u> and I learned a lot about developing games and designing games using Blender.

#### More About Me :

I am a typical geek who loves programming, travelling, listening to great music, bodybuilding. I also like playing P.C. games like Far cry series, GTA series, Assassin's Creed series, Witcher 3, Titanfall series, Fortnite, CSGO, Apex Legends, Call of Duty series, Shadow of Mordor and so on.

Apart from this, I watch Anime a lot (Death Note is one of my favourites) and also movies like "The Avengers", "Interstellar", etc.

I am also part of two hyperactive clubs at my university <u>Code Club SMVDU</u> (programming) and <u>A.I. Circle</u>(Machine learning).

#### Other commitments :

No prior commitments as of now. If I'm selected for GSoC, it will be my only job this summer.

Thanks for reading! :-)