



Google Summer of Code

sugarlabs | Proposal

Create a new set of activities



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MOTIVATION

What is your motivation to take part in Google Summer of Code ?

I am an open source developer who is always enthusiast about new projects, fields and technologies to work upon. It feels really great to find most of them on GitHub and working for the same. The culture of open source is something which may convince any techie to get involved and explore through working of a particular code in depth. There are always good amount of people to discuss your problems with, and get efficient approach to solutions which is the best part, mentors here do not believe in providing you the complete solution instead what you get is the raw version on which you work upon, improving your learning curve. In the process we get to learn various skills from technical as well as writing fields. All developers are one unit when working for open source.

Discussing about GSoC, it was really popular among students of my college, but usually students took it as an explanation revolving around 'Google' and 'internship' in their conversation. My tech journey started by joining a community in my college, named ALiAS. There I got to know about the details of GSoC which we later explained to all the folks related to this field. It meant much more than a coding program, it was a collection of organisations offering opportunities just like, what I needed. There were projects for everyone irrespective of their fields. Projects which will be used in day-to-day life of people just by your contributions for accomplishment of them.

My motivation for joining the program is to get better as a citizen of open source so that I am able to foster the growth of new developers in the society, manage useful open source projects in various communities, to enhance my professional ethics under program's code of conduct. Working on projects and developing skillset can be achieved in an amateur manner with personal projects but my experience with the FOSS culture is what drives me to be an integral part of it. I can observe the change in perception and vision towards approaching a problem in those members of my community who were previously a part of this program, they no more try solving it somehow, instead they study about possible approaches and try each of them in a detailed manner. This research oriented behaviour instigated and promoted by the program is what I feel motivates not only me but every participant of GSoC.

Why did you choose Sugar Labs ?

I chose Sugar Labs as my organisation and one of the reason was its generous motive. I was amazed with the working of this community with such consistency and maintenance of their projects which aim the growth of future generation of this world by providing educational assets in such a creative manner. I always wanted to work for disciplines not related to my field, where exploring will be fun and full of experiments. We see a lot of organisations working for the technical field which is indeed important, but then we come across Non Profit Organisations like Sugar Labs which being working within a certain discipline helps fostering another discipline of knowledge which is commendable.

The origin of Sugar Labs too is one of the most promising journeys one would have by working under the prestigious Software Freedom Conservancy which undertake FLOSS projects to impart it as a non-profit and individual stature to help it achieve the basic assets through donations, ensuring the manner in which it will be spent for advancements in the project and which fits the conservancy's mission to promote, advance and defend software freedom.

Why do you want to work on this project ?

When I studied about Sugar Labs' project Sugarizer, it looked really interesting thing to me. The way it logins the user through the most basic and convincing user interface with password patterns using animal faces was one of the creative methods I have come across till now. There was no such platform present when I was in school and the thought of same explains the importance of project. Exploring further into activities, the way they approached different learning concepts through games and fun tasks made the learning factor really easy for students.

This project is completely using JavaScript and being working in web development domain past one year it attracted me in one go. The project involved Vanilla JS along with integrations from various JS Libraries involved according to usage, it was one of the lightest thing with maximum functionalities which can be used in the browser anywhere, anytime without any dependencies making it a portable education pack for any student with a basic internet connection. I will be exploring various JavaScript libraries on the go, implementing few of them, figuring out the logic they are using, working on the

performance in browser, enhancing it learning just every detailed working of JavaScript within the browser. There are already many creative imaginations of such JavaScript ideas in my mind which I have found a perfect place to implement in. Also, In my process to learn React JS, the advance knowledge of Vanilla JS will really help me grow a lot faster.

What are your expectations from us during and after successful completion of the program ?

I commit that I will stand strong with my ideologies and morals throughout the span of program and will be immensely interested to be a part of community and contributions after the completion of program too. This is what I want to abide by before expecting anything from the community and program. Requesting further, I would like to express few expectations I have from the project :-

- There should be scope of exploring and discussion about frameworks or concepts, related to but not used in the project, future of their implementation such that it does not affect the progress of our project
- There should be a detailed assessment of my flaws as a developer or professional which would help me improve in every aspect possible
- I would be improving documentation skills as well, along with technical ones

- I would love to be a part of meetups from Sugar Labs and it would be a great opportunity to present my ideologies with the role of a speaker
- I would like to contribute to various other projects of Sugar Labs on the go as well while building up this activity throughout the program
- All over I expect my valuable time to be utilised in the best way by the organisation for its growth as well as mine by providing me with versatile methods and approach to the problems faced in the way of completion.

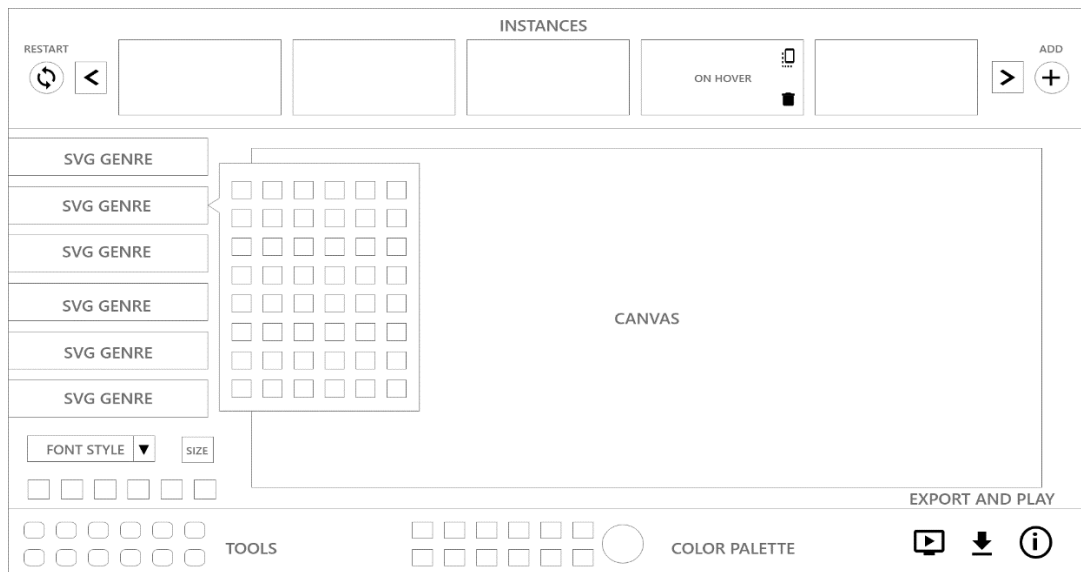
PROJECT DETAILS

What are you making ?

I will be making an activity for the Sugarizer named “Filmstrip activity” whose concept is to depict a complete story by playing instances of a sketch in continuity. Suppose, we have to shoot a basket, the user will make three sketch instances with ball in different positions, finally into the basket. These sketches will be played one after another to show a complete story.

This activity will be made keeping in mind the compatibility of all the devices i.e. It will be of responsive nature. We will have proper paint tools including brush, eraser, colours, pencil, bucket etc. Keeping it simple for students. There will be a library of predefined Svgs according to their genre so that drawing skills as a prerequisite may not be an issue, also, options of inserting text fields will be an important part to describe the plot.

The activity will consist of a blank canvas in the starting along with a panel above to show the present instances of your story and a panel below to represent all the tools present. Their positions may differ with screen size considering the comfort quotient of the user. Without much complexity he/she will draw with the methods provided or choose from a list of Svgs/graphics present genre-wise in a section and tap an “+” button to add another instance to it. There will be options for copying the present sketch to new instances created if there are minor changes involved.



In the end, the user can tap the finish button which will allow him/her to process all the sketches into a filmstrip which can be played with a basic video player like code. We will also include options to download the file in other formats if the user want to save the work for presentation purpose. The precision of drawings and positioning of elements will be seriously be taken into consideration to make the working efficient.

How will it impact Sugar Labs ?

As of now there are various activities present in the Sugarizer which help the student grow through logical, responsive and intellectual aspects. Most of the activities observed are some sort of games whether they be completely entertainment oriented, or few of them knowledge oriented but hardly there are activities/utilities targeting the management/creative sections of mind. Few of them include the paint activity, story activity etc.

This activity will be a gem of collection as it encourages the user to imagine scenarios, memorize incidents giving them shapes or vision in form of art on the canvas using the built-in tools provided or the Svgs/graphics as contemporary. Before using more advance software in future this activity will make students aware of the basics of such utilities.

The options to export these activity will make Sugar Labs filmstrip activity more of a FLOSS product at small scale. It can be used as a tool for creating interactive presentations, project idea demonstrations, animated scratches, comics and much more. With contributions later we can even add features like scanning sketches from pictures for those with good command at art.

This activity will add to the value of Sugarizer as a project which provide features like that of picture presentation utilities using basic tools. There may be a lot of similar software around internet but this will add up to a personalised and Sugar Labs version with various advance deployments of the same in future, maybe as an individual entity of Sugar Labs like what Sugarizer is as of now. There are really a limited communities who own an edge in a management utility like this adding Sugar Labs to the list.

What technologies (programming languages, etc.) will you be using ?

Html

It will be used to place elements of the activity in the browser window to provide frame.

Git

Distributed Version Control System to maintain project

Microsoft Visual Studio Code

Text Editor to edit my code in an efficient manner

CSS

This will help styling the activity according to the Sugarizer's theme for a better user experience.

Bootstrap

It is a well-known CSS library used to provide efficient responsive designs as well as pre-defined frequently used elements in the page.

JavaScript

It will be used to create all the animations and functioning logics. I will be going through each concept involved in Vanilla JS

jQuery

It is a library of JavaScript which make its implementation shortened and easier considering all the modern practices to prevent from any kind of malfunctioning of code.

TIMELINE

Timespan	Start Date – End Date	Task
Phase 0: Community Bonding	May 6 – May 15	<ul style="list-style-type: none">- Interact and know about mentors of project- Explore in depth with general coding practices- Explore approaches possible in the technologies
	May 15 – May 20	<ul style="list-style-type: none">- Make certain amendments in my to-do list- Discuss about more features possibly be integrated for its good-Research about services provided by similar utilities
	May 20 – May 26	<ul style="list-style-type: none">- Discuss about initial algorithm approach to basic features- Finalize the wireframe of activity

<p>Phase 1:</p> <p>Implementing the basic wireframe of activity</p>	<p>May 27 – June 8</p>	<ul style="list-style-type: none"> - Creating a basic activity template - Design Canvas area to paint in centre - Panel at top to display sketch instances - Panel at bottom to show available tools
	<p>June 8 – June 15</p>	<ul style="list-style-type: none"> - Integrating a complete library of Svgs and graphic to choose from - Its placement for all type of devices - Search options for genre wise selection
	<p>June 15 – June 27</p>	<ul style="list-style-type: none"> - Working on the functioning of all tools - Precision of movement for elements - Colour picker options - Finalize everything for first evaluation

<p>Phase 2:</p> <p>The goal will be to add some more features</p> <p>Adding instance for management of sketches, just every feature before exporting</p>	<p>June 27 – July 6</p>	<ul style="list-style-type: none"> - Working on importing Svgs/graphics from library - Their placement on screen and scaling
	<p>July 6 – July 20</p>	<ul style="list-style-type: none"> - Working with implementing text fields - Choosing fonts with some js libraries - Their placement and scaling along with colour options
	<p>July 20 – July 26</p>	<ul style="list-style-type: none"> - Testing the paint thing and finding bugs in the same - Testing to import Svgs/graphics and fix bugs - Finalize everything for second evaluation

<p>Phase 3:</p> <p>This will be the final stage where focus will be on exporting</p> <p>Using some JS library a small player and exporter will be integrated</p>	<p>July 27 – July 31</p>	<ul style="list-style-type: none"> - Working on adding instances - Implementing features like copying to new instance - Smooth navigation on an instance carousel
	<p>August 1 – August 10</p>	<ul style="list-style-type: none"> - Exporting the complete story to a playable unit - Integrating a basic story player interface - Add continuous play and proceed on click option
	<p>August 10 – August 20</p>	<ul style="list-style-type: none"> - Implementing JS libraries for exporting the content - Making the content downloadable - Adding file formats to make it versatile for different uses.

	August 20 – August 27	<ul style="list-style-type: none"> - Finding bugs in the final picture and solving the same - Concluding the project with a blog dedicated to the same - A video tutorial for the explanation of activity and how to use - Final evaluation
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Post GSoC Period

I will continue to contribute on the project for its proper maintenance adding required tools and material to be a perfect fit for student and as a standalone utility. I will love to encourage students around globe with blogs and explanatory material to get familiar with the activity and make developers curious about its working as well as of Sugar Labs in the big picture

Being an aspirant of the program under Sugar Labs I know that I had to preserve and come up with the best of my abilities. I assure the organization that I will put my best foot forward and do all that is in my power to achieve the required goals with quality learning. I promise to abide by the timeframes provided by me above punctually with distinction. I am surely a hardworking developer it is my duty to get things done in the best possible manner. I can guarantee the organization that I will never let it's expectation down.

Sugar Lab's Motivation

Convince us that you will be a good fit for this project, by sharing links to your contribution to Sugar Labs?

I have recently started contributing to Sugar Labs and have made two contributions on Sugarizer and Sugar Labs website respectively.

www-sugarlabs (<https://github.com/sugarlabs/www-sugarlabs/pull/294>) [Open][Reviewed]

Sugarizer (<https://github.com/llaske/sugarizer/pull/298>) [Open][Discussing]

Other Open Source contributions

[pythonindia/inpycon2018](#)

(<https://github.com/pythonindia/inpycon2018/pull/187>) [Merged]

[Moz-NIEC/moz-hack-3](#)

(<https://github.com/Moz-NIEC/moz-hack-3/pull/51>) [Merged]

(<https://github.com/Moz-NIEC/moz-hack-3/pull/49>) [Merged]

[ugroot/GROOT](#)

(<https://github.com/ugroot/GROOT/pull/9>) [Merged]

[vipulgupta2048/Pyladies-delhi-website](#)

(<https://github.com/vipulgupta2048/Pyladies-delhi-website/pull/12>) [Merged]

(<https://github.com/vipulgupta2048/Pyladies-delhi-website/pull/15>) [Merged]

[asetalias/asetalias.github.io](#)

<https://github.com/asetalias/asetalias.github.io/pull/109> [Merged]

[asetalias/ALiAS_Blog](#)

https://github.com/asetalias/ALiAS_Blog/pull/35 [Merged]

Though I have not much contributions related to the organization but I do have a good experience with the technologies required for the project and have completed various projects which are present at my GitHub handle. Related repositories are described below:

FETCHIT(JavaScript)

This is a simple API written in JavaScript that interacts with WordPress's REST-API and provide information about articles on tag basis. It was made to be integrated in any website to show blogs related to a particular tag from a WordPress blog. It was implemented by a company under which I interned to present blogs across various sites from their central WordPress blogging.

Link : <https://github.com/akshat0047/Fetchit>

Live : <https://akshat0047.github.io/Fetchit>

DARKLATE(jQuery, CSS)

It is a dark themed template designed by me for a concise web app representing an organization/event/company.

Link: <https://github.com/akshat0047/Darklate>

Live: <https://akshat0047.github.io/Darklate>

AmiXchange(PHP, JavaScript, AJAX)

It is an E-Commerce based service developed by me from scratch where a user can make his/her account and post advertisements which will be displayed on the main page. It was made by me for selling products in my university campus. The project is still under development and involves JavaScript and AJAX concepts for animation and verification based system.

Link: <https://github.com/akshat0047/AmiXchange>

Live: <http://amixchange.me>

CONTACT

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