sugarlabs

12 SUGAR ACTIVITES

Basic Details: -

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- **First Language**- English, Hindi.
- **Location** – Pune, Maharashtra, India
- **Time Zone** – IST (UTC + 5:30)
- **Convince us that you will be a good fit for this project, by sharing links to your contribution to Sugar Labs –**

  I am familiar with the technologies used in the project such as python, Ubuntu, Gnome, Linux and hence will prove to be a suitable candidate for this project. I have gone through the codebase and have done the setup of Sugar to understanding the working of the tool. I have been looking forward for this project for a while now and plan on contributing as much I can in the future.

  I have good knowledge of python, Ubuntu, Gnome, Linux also I am willing to put in efforts for the learning curve required for various other technologies used. I have been learning python from last 7-8 months focusing on the fundamentals of the language and various concepts such as string slicing and data structures.

This experience has made my skills stronger and I think I'll prove to be a valid candidate for this project if selected. I plan to contribute to this and various other projects available in the future on a regular basis. It feels great knowing that the activities on which I will work on will be used by children from all around the world.

Project Details: -

Places to work on,

1. There are many activities which lack common functionality of game design.
2. Many activities are not ported to Python3 and GTK+3

Here my role would come:

1. Adding features of game design principles.
2. Porting activities to GTK+3 and Python3.

Activity Maintenance Checklist

1. Port to Python3 and GTK+ 3, if not done already.
2. Test the activity:

   a. Look for improvements such as UI enhancement, fix expensive processing.

   b. See if the game design features are present. Develop it if not already present.

3. Check if there are issues that act as blocker and need to be fixed for a release. Fix them.
4. Check if there are any incomplete open PRs that are abandoned, try to complete them.
5. Refactor code, Flake8 fixes.
6. Check if the Readme.md is created and updated aligning with the latest release of the activity.

7. Check and update the activity documentation in the help-activity repository, update any documentation that might ease the new contributors for better understanding.

8. Check if and refresh the POT files if there any new translations.

9. Contribute for translations.

Following are the activity in which I would like to contribute and I have mentioned some issues which I can solve.

➢ **Browse** :

The Browse activity is your means to explore a wider source of information and content that can be found in the World Wide Web.

- Add GitHub issues to browser homepage. #117
- Search entry box looks odd. #115
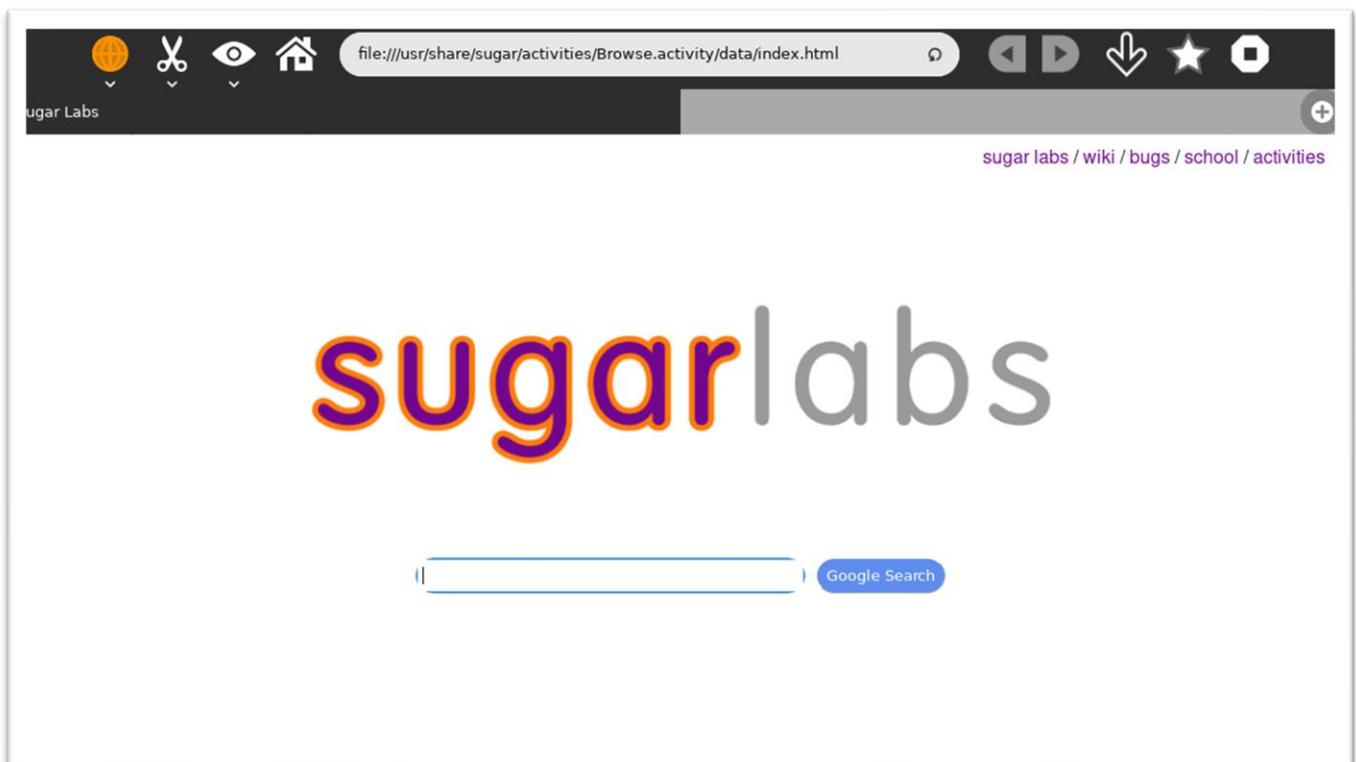
➢ **Calculate** :

The Calculate Activity is an infix-notation graphing calculator. Type an expression or select components from the toolbars, and press Return to evaluate it.

- Does not fill the screen. #43
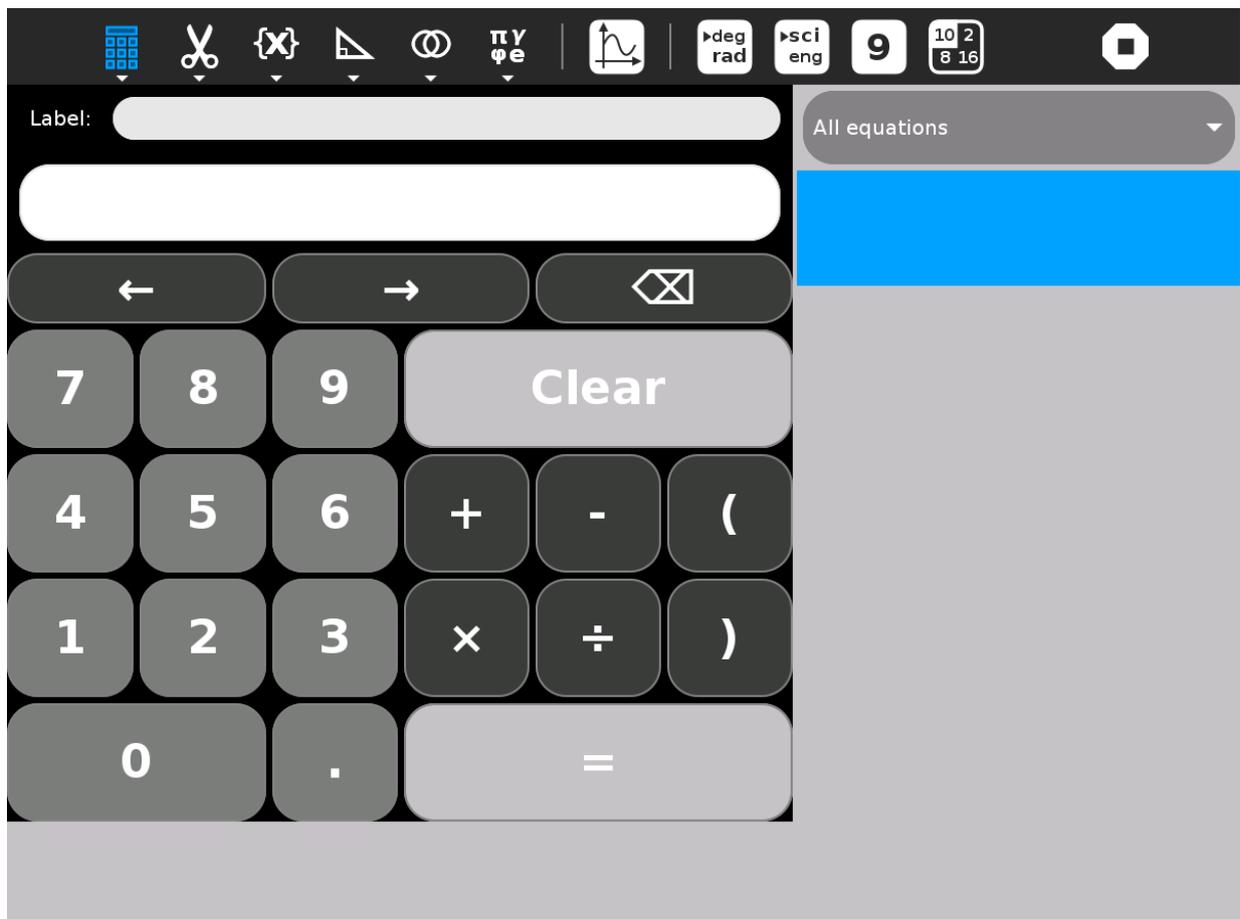
- Self-coloured calculator. #58

➢**Chat** :

The Chat Activity is used to exchange messages with your friends or classmates. You can chat about a topic you are studying or you can share something private that happened in your life. You need at least two active XOs to chat - your own and the one that your friend uses.

- Feature: drawing and quoting. [#17](#17)

## ➢ <u>**Turtle In a Pond**</u> :

Turtle in a Pond is a strategy game. The goal is to surround the turtle before it runs off the screen.

- Improving UI.

➢ <u>**Sliderule :**</u>

The <u>slide rule</u> also known colloquially as a slipstick, is a mechanical analogy computer." This Activity implements a basic slide rule with C, D, A, and L scales and can be used for multiplication, division, roots, addition and subtraction.

- No Readme. [#4](#4)

- Some values not visible properly
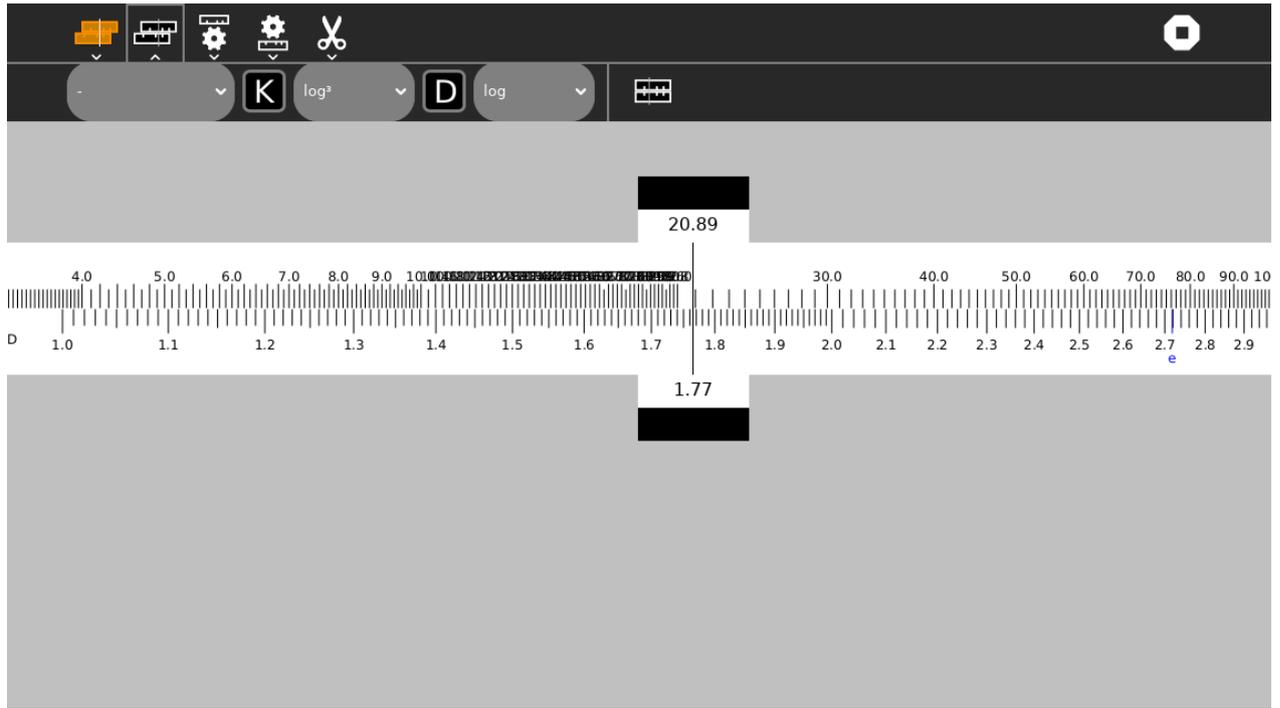
(This is of <u>cube/cube root</u>.)
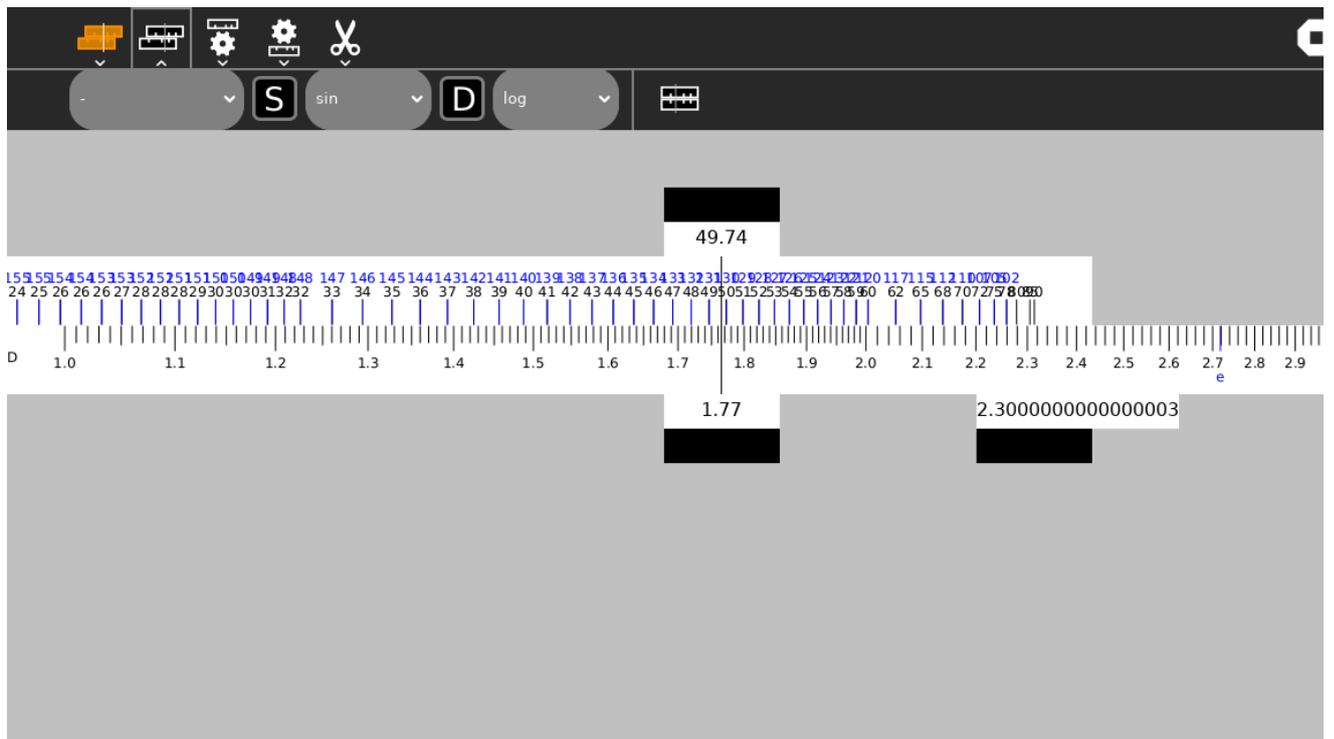
(This is of <u>sin, Asin</u>.)

➢ **<u>Number</u>** :

The second of Peter the Magician's Puzzle Activities. Inspired by the TV game, "Letters and Numbers". Players have to make a target number from 3 single digit numbers using only plus and multiply. There are 10 levels which can be set by the player.

The inclusion of a scoring mechanism will lead to much competition between students.

- Resize causes recursion and process running after stop. #3
- Change in UI.
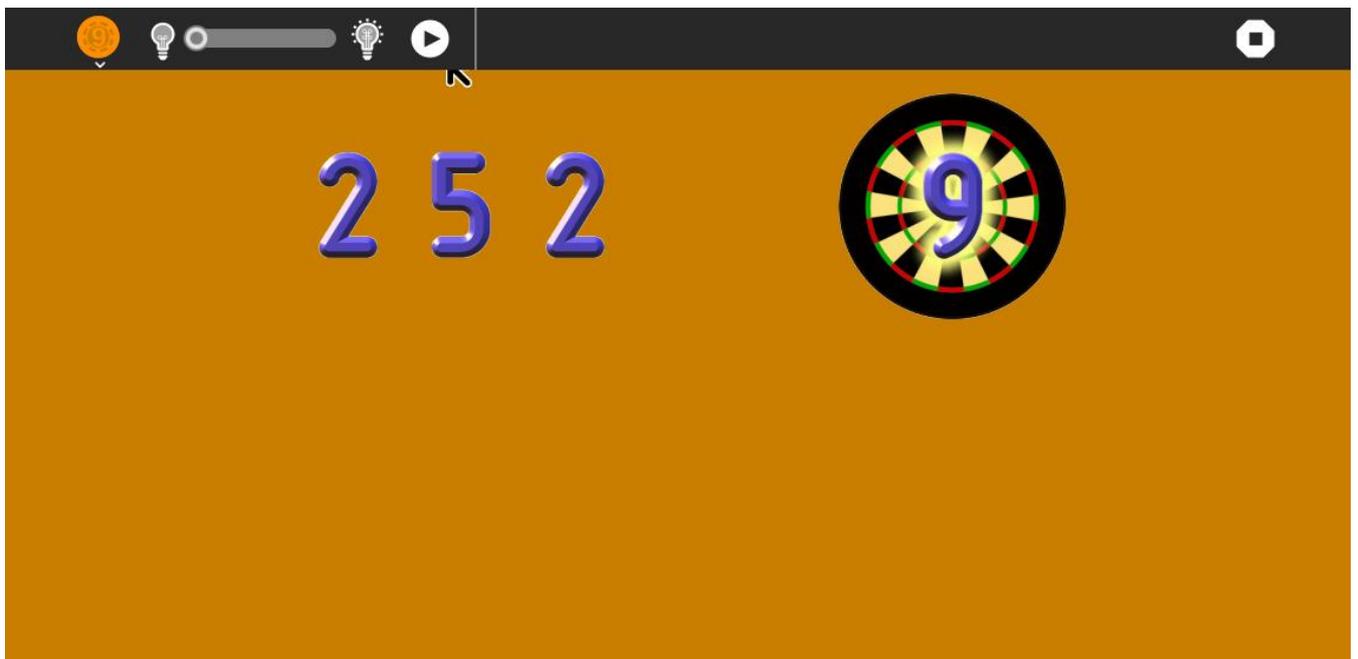
➢ Log :

The Log Activity allows you to troubleshoot problems with your computer. You can view the log files of Sugar and your Activities. Log files contain errors, warnings and debugging information to help you fix problems.

- GTK-critical Warning. #21

➢Pippy :

Pippy allows the student to examine, execute, and modify simple Python programs. In addition, it is possible to write Python statements to play sounds, calculate expressions, or make simple text based interactive games. Pippy is included in the standard releases of the OLPC software.

- Feature request: Indent in next line following ':'. [#74](#74)
- Physics example fails. [#66](#66)
- Functional/Unit/Integration Tests? [#84](#84)

➢ **<u>Flappy</u>** :

An arcade game for the Sugar desktop.

- Key input not working. [#25](#25)
- An empty event queue can crash activity. [#20](#20)

➢ **<u>Terminal</u>** :

Terminal is a full-screen text mode program that provides a Command-Line Interface (CLI) to the software on a Linux system. Users type (sometimes cryptic) commands to perform file management, system administration, or in fact almost anything that can be done within Linux that does not involve graphics or video.

- Help may teach by showing. [#26](#26)
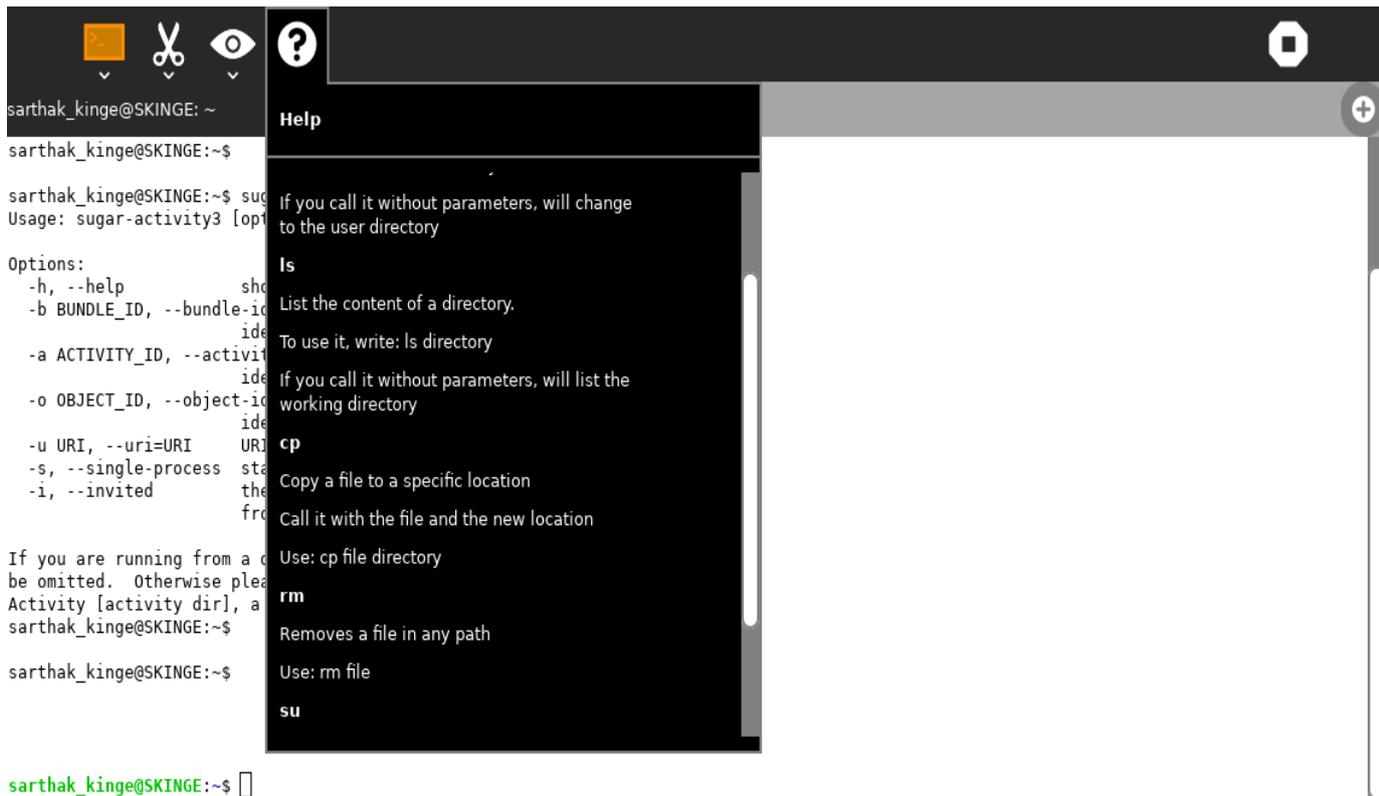
- Colour buttons are unchanged by dark mode toggle. #48

➢ Write :

The Write Activity serves as the document creation Activity in Sugar. Its simple interface provides an easy starting point for children, presenting tools that make writing a story, poem, or essay simple and straightforward. It also supports tools for inserting images, creating tables, and performing layout operations.

- Feature: Save and restore edit point. #35
- Changes in UI because I think it can be more attractive.
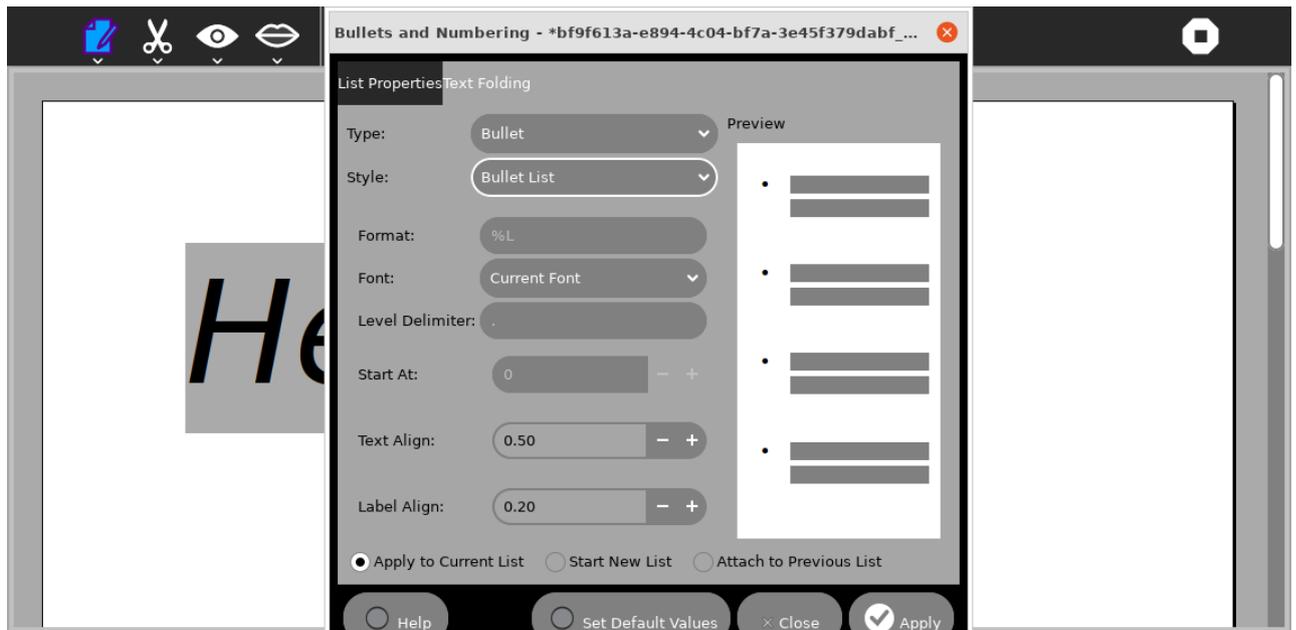
- Adding word count in view toolbar. [#6](#6)

➢ Image Viewer :

Image Viewer activity is a simple and fast image viewer tool. It has features one would expect of a standard image viewer like zoom, rotate, etc.

- Delay between joining activity and shared image shown. [#22](#22)

These are some of the issues and features I want to implement which I may change after discussion with community and the mentor. If I complete this before time, I am going to pick more activities to improve in similar way.

❉ *How will it impact Sugar Labs?*

I will be responsible for reviewing patches and I will make sure that code meets the code standard expected by Sugar.

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

As said earlier, I have good amount of knowledge of python and can implement it on projects also I am familiar with Ubuntu, Gnome, Linux also I know how to operate git and git hub.
Even if I need to learn anything new, I would always love to learn and implement it on various projects.

Project Timeline: -

Pre GSOC-Period:

➢ To familiarize myself completely with the project's functionally and architecture, the version control system, and the documentation provided.
➢ Bond with the community by regularly interacting with them about the ideas I put forward and discussing the ways to implement the ideas.
➢ Solving existing issues and bugs in the project to get more familiar with the codebase of the project.
➢ Get hands-on experience with Sugar activities.

May 20- June 12:

➢ Test and document the existing code more thoroughly.
➢ During this period, I will stay constantly in touch with my mentor and the community members through mailing list to discuss and finalize the

modifications (if any) that need to be made in the project.

June 13 – June 20:

> - Provide test Coverage for the following resources-
>   - Flappy
>   - Turtle in a Pond
>   - Pippy
>   - Sliderule
>   - Log
>   - Image Viewer
> - Making changes in document because during setup I found many documentation errors.

June 21-June 28:

> - Work on Browse-Activity and Calculate-Activity.
> - #58 ,#43 ,#115 ,#117
> - Discuss the issues with mentors and community.
> - Finding new issues if any and solving it with community.

June 29-July11:

> - Work on SlideRule-Activity and Pippy-Activity.
> - #74, #84 , #66 ,#4
> - Discuss sliderule values issues and fix it. Also take feedback for improvements.

July 11-Jule 25:

> - Work on TurtlePond-activity and ImageViewer-Activity.
> - #22, Improve UI for turtlepond-activity
> - Work on new issues if not then finding out issues and solving them.

July 25- August 8:

- Work on Write-Activity and Flappy-Activity.
- #6 ,#35, #25, #20
- Changing a bit of look of help bar in write-activity.
- Take feedback about any other improvements that can be done.

August 8 – August 22:

- Work on terminal-activity and chat-activity.
- #26 ,#48 ,#17
- Work on new issues too and take feedback from community.

August 23- September 5:

- Work on Number-Activity and Log-Activity.
- #21, #3 and some changes in UI.
- Finalize the activities for evaluation.

September 5 – September 12: (Final Evaluation)

- In this period, I will try to optimize my code and discuss with the community about any final changes to be made.

Schedule:

- My working time will be between 6PM IST (12:30 UTC) to 1AM IST (7:30 UTC) and I will be available throughout this time.
- In May I've my in-semester and in June my end-semester examinations are there, the dates are not confirmed yet but I will let the mentor know prior. So, for five days for each semester, I would not too able

contribute as much as possible. But rest weeks I'm totally able to contribute as much as I can.

GSoC Post Plans:

I plane on contributing to this project after the GSoC period. I also plan on working on various other projects as well offered by Sugar.