



sugar  
labs



## Port Sugar and core activities to Python 3

### Introduction

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Languages - English

Location - Narsinghpur, India.

Timezone : UTC+05:30

UG programme : Bachelor in Technology (4-year programme)

Major : Mechanical Engineering

Current : Second Year(expected graduation in 2023)

Institute : Indian Institute of Information Technology ,Design and Manufacturing , Jabalpur (India)

Preferred working-hours:

- 09:00-13:00, 16:00-22:00 (IST)
- 03:30-07:30, 10:30-16:30 (UTC)

### **Previous Work -**

1.In my first year I have worked upon data structure and algorithmic skills .Beginning with C++. Later I started python backened programming.

2.I have a python backened project on web application in developing phase comprising django programming.

3. In open-source I am a fresher this year. I had been going through code base of few projects, reviewing codes and featuring enhancement ideas. Still working upon some of the fixes.

## **Previous Contributions-**

### **Issues-**

1. <https://github.com/llaske/sugarizer/issues/945>
2. <https://github.com/sugarlabs/sugar/issues/856>

## **My Motivation**

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

In my first year I had been listening from my seniors about their journey of google summer of code . their experience fascinated me a lot. I had been always interested in development work from my early coding days. I take gsoc as an opportunity to increase my skills and experience . I want to be a part of Google Summer of Code also because of the learning experience that I would get and a chance to network with the open source world. This will give me real world exposure to coding and will help me learn good skills.

## **Why did you choose Sugar Labs ?**

I came to know about Sugar Labs from one of my seniors webinar. Then I went through the readme files of its github repositories. I found the ideas appealing and complementary to my skills and interest. Later, I started to look upon its development ideas and aim . I felt that through contributing for it I can get good opportunities to get worthwhile experience , skills and knowledge.

## **Why do you want to work on this particular project ?**

I choose the idea of Port Sugar and core activities to Python 3 because of my interests and skills in python and porting codes. I have previously started my work up on few bugs and issues and while working on them found that work quite involving and interesting. I went through the ideas, documentation and previous years progress on it. I feel that I can add to its progress and will get good opportunity to enhance my knowledge through it.

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

During the program, I expect the organisation and the mentors to be helpful and friendly like they have always been on the sugar-devel mailing list . After the program ends, my plan is to continue working with Sugar Labs and will try to be a mentor to other participants in the upcoming years.

### **Make sure commitments during the program**

1. Will be patient enough to apply others suggestions during a pull request review.
2. My conversation with hte team will not be limited only up to ideas working upon , but will be flexible as per the project requirement.
3. Will opt for collaborating work with people working on same topics.
4. Take care about the test-coverage, issues and release of the packages working upon.
5. Will be open for all kind of collaborative work.
6. Will make sure timely responses on mailing-lists and comments within repositories issues and pull-requests.

## **About My Project**

### **Port sugar and core activities to python**

**3**

#### **Objective :**

The aim of this project is to contribute for the successful port of python sugar and core activities to python 3. The work was started in GSoC 2018, and continued in GSoC 2020, but there is still work to be done which will be carried forward through this project.

Work will be done to design appropriate test coverage for the changed codes and iterated until the tests have sufficient coverage. It will be aimed to fix regressions in sugar, toolkit and datastore.

Porting work will be done to port telepathy bindings to telepathy glib.

Affected activities is to be ported to collabwrapper library or latest sugargame.

Aimed to fix post-port problems arised while using activities.

Work has been already initiated in all these aforementioned field in previous GSoC years which will be carried forward this year too , through this project.

#### **Programming language and tools :**

- Python3+
- GTK +3
- Telepathy Glib
- 2to3

## My Working Environment and Tools

- Ubuntu 20.04 LTS Operating System
- VS Code
- Git Version control

## Timeline:

Duration	Task
May 17 - May 27	Bonding with mentors and colleagues Discuss potential development ideas with mentors. Implement and test the ideas based on discussion.
May 27 - June 7	Review the sugar source code changes since 0.112 that were made for porting to python 3.
June 7 - June 14	Discuss potential enhancement in porting work with mentors. Plan a test plot to ensure the sufficient coverage of committed changes . Reporting issues if any while testing.
June 14 - June 21	-Look forward to solve issues of main repository. Also go through the progressive pr's.
June 21 - June 28	Focus on the port regressions in sugar dependencies.

June 28 - July 5	<p>Move on working for affected activities .  Start the work on Browse activity. Review the source code.  Test browse activity for possible enhancements.  Fix issues.</p> <p>Discuss with mentors for the applicable changes</p>
July 5 - July 12	<p>Review chat activity code-base.  Solve issues.</p> <p>Will look forward to implement the button features mentioned in the issue#17 .(<a href="https://github.com/sugarlabs/chat/issues/17">https://github.com/sugarlabs/chat/issues/17</a>)</p>
July 12 - July 16	<p>EVALUATION PERIOD</p> <p>Discuss and receive feedback from the mentors. Opt for possible suggestions.</p>
July 16 - July 23	<p>Test and implement changes of PR opened for Chat and Browse activity. Take feedback from the mentor and apply suggested changes.</p>
July 23 - July 30	<p>Move on to calculate-activity.</p> <p>Will test activity for the errors in possible scope of calculative-operations. Look upon to solve the issues.</p>
July 30 - Aug 2	<p>Collabwrapper- Will look forward to contribute on this pull request.  <a href="https://github.com/sugarlabs/collabwrapper/pull/24">https://github.com/sugarlabs/collabwrapper/pull/24</a> (draft)  <a href="https://github.com/sugarlabs/Pippy/pull/82">https://github.com/sugarlabs/Pippy/pull/82</a> (Require a test plan and wider test</p>



	iteration.)
Aug 2 - Aug 9	<p>Will look forward towards mentors suggestion for another activities to start with.</p> <p>Start reviewing the next activity.</p> <p>Plan for the test coverages depending upon the requirement.</p>
Aug 9 - Aug 16	<p>Discuss, test and fix issues selecting as per available time. Will continue to work on any previous work lag if happens.</p>
Aug 16 - Aug 23	<p><b>FINAL EVALUATION</b></p> <p>Receive feedback.</p>

## **Working Schedule**

I have no prior commitments during the summer. Comfortable for working 6-8 hours a day as per requirement. If any unexpected work lag happens will inform the mentors and make sure to cover up it in the forth coming days.

## **How will it impact sugar labs ?**

1.It will contribute to the success of organization by making its product(sugar) more efficient.

2. This will make sugar compatible to python 3 and hence will support new technologies which are compatible with python3+.

3. As the support for earlier versions of python2 has been dropped this port project will aim to contribute for finishing the move to python3.

## **How will you report progress between evaluations ?**

I will be in contact with my mentors through mail and will update them about my progress on daily basis.

## **Will you continue contributing to Sugar Labs after GSoC '21 ends ?**

I would like to keep contributing to the Sugar Labs community and work on other ongoing projects after GSoC. Will try to contribute in all the possible ways for enhancement of sugar and its product.