## PROJECT PROPOSAL GOOGLE SUMMER OF CODE 2011

## Google Open Source Programs Office

**1. Why are you applying to be under the Google OSPO Umbrella?**

* Google OSPO enables us to participate in Open Source Projects which have not been listed by any of the accepted organizations. We, as a group of undergraduate students, aim at the development of Sugar by introducing new features to it and Google OSPO provides us a perfect opportunity to do so under the guidance of an experienced professional and as part of Google Summer of Code(GSOC)
* Chance for us, new developers to showcase our capabilities and contribute to the Open Source Community.
* This is the only organization where individuals can participate on their own with an academic project in mind, which is not concerned with any other participating organization.
* Through this organization we get a chance to innovate, learn and implement new features and functionalities.

**2. What university is it for and who will be your mentor?**

**University**:

Netaji Subhas Institute of Technology, Delhi University, New Delhi , India

Netaji Subhas Institute of Technology (NSIT), [New Delhi](http://en.wikipedia.org/wiki/New_Delhi) is a premier engineering college in [India](http://en.wikipedia.org/wiki/India). It is affiliated to Delhi University and formally comes under the purview of Faculty of Technology, [University of Delhi](http://en.wikipedia.org/wiki/University_of_Delhi).

* <http://www.nsitonline.in/>
* [http://en.wikipedia.org/wiki/Netaji\_Subhas\_Institute\_of\_Technology](http://www.google.com/url?q=http%3A%2F%2Fen.wikipedia.org%2Fwiki%2FNetaji_Subhas_Institute_of_Technology&sa=D&sntz=1&usg=AFQjCNF0kZyewxWT360V4f3B2efagrjEZg)
* <http://www.nsit.ac.in/>

**Mentor:**

Walter Bender

Walter Bender is technologist and researcher who has made important contributions in the field of electronic publishing, media, and technology for learning. Bender is on leave as a Senior Research Scientist at the [MIT Media Lab](http://en.wikipedia.org/wiki/MIT_Media_Lab) which he led as executive director between 2000 and 2006. More recently, Bender served as president of [One Laptop per Child](http://en.wikipedia.org/wiki/One_Laptop_per_Child) for Software and Content where he coordinated the development of software and content including the [Sugar](http://en.wikipedia.org/wiki/Sugar_%28GUI%29) interface for the [XO-1 Children's Machine](http://en.wikipedia.org/wiki/XO-1_%28laptop%29) computer.

* <http://web.media.mit.edu/~walter/>
* <http://en.wikipedia.org/wiki/Walter_Bender>
* [http://wiki.sugarlabs.org/go/User:Walter](http://wiki.sugarlabs.org/go/User%3AWalter)

**3. What is your project idea?**

Ubuntu Sugar Remix (USR)-

Ubuntu Sugar Remix is a derivative distribution of Ubuntu which features the Sugar Learning Platform.The vision for the Ubuntu Sugar Remix is to provide students preK to 12 with a quick and easy to understand learning platform. The award-winning Sugar Learning Platform promotes collaborative learning through Sugar Activities that encourage critical thinking, the heart of a quality education designed from the ground up especially for children, sugar offers an alternative to traditional “office-desktop” software.

* <https://launchpad.net/usr>
* <https://wiki.ubuntu.com/Sugar>

1.Developing a faster, secure and customizable browser activity for Ubuntu Sugar Remix.

Since Ubuntu Sugar Remix does not have a stable 'Browse' activity due to the hulahop package problem present in Ubuntu , we aim to develop a new browser activity implementing Google Chrominum base and functionality making the browser faster, secure and customizable. The same activity can be used for XO where the performance is crucial given the hardware specifications it has.

2.Successful porting of Sugar 0.90 on Ubuntu along with upgrading the existing activities.

Sugar is rapidly developing and we feel the need to be same with the Ubuntu Sugar Remix. Porting Sugar 0.90 to USR will be the first step in providing the latest compatible version of Sugar to Ubuntu Users. This will also include updating the existing sugar activity packages and solving the bugs while doing so.

3.Localisation in India

If Sugar needs to be spread across in India, we feel the need of incorporating regional languages into it. This would include activities and applications available in regional languages. A new reason why Sugar can be used in Classrooms, even in Sub-Urban areas. For this task, we have to add pootle support for activities which have not been translated yet in any other language except the native language of developer. We are planning to release a localized CD/DVD every quarter with latest and stable packages

**4. What is your timeline for your project?**

**Community Bonding Period:**

During this period, we aim to interact and discuss strategy with our mentor, making important notes from our conversations and taking valuable inputs. Since, all the members have prior experience of working for Sugar and are familiar with the Sugar and Dextrose mailing list, it will be easier for us to work as a team. We aim to study the source code of the Sugar platform, specifically its existing browsers and the problems encountered by it. Side by side, our team members would study the source code of Chromium base and make efforts to implement its features and functionality.

The work has been divided into 3 parts with each being a project on its own. We shall work on the three parts simultaneously and allocate the time accordingly.

* Sugar Chrome Activity

**13th June - 13th July (4 weeks):**

**Week 1:** Sorting out a feasible User Interface design and features that can be implemented + To study the code of the Chromium base, side by side with the existing browsers on Sugar, spotting out the differences that can make browser work faster and secure.

**Week 2 ,3 and 4:** Back end coding for the implementation of the browser activity and integrate the extracted information from Week 1.

**Deliverables:** A working base on sugar with browsing capabilities.

**14th July – 15th July: SUBMIT MIDTERM EVALUATIONS TO GOOGLE.**

**11th August - 25rd August (2 weeks):**

**Week 5 ,6 & 7 :** Integrating with PyGTK to implement the GUI of Sugar.

**Week 8 ,9 & 10:** Spend time testing the browser activity and fixing the encountered bugs. and final release on all repositories.

**Deliverables:** New browser activity final version ready.

**26th August : Final Evaluation deadline by Google.**

* Porting Sugar 0.90 on Ubuntu along with upgrading the existing activities

**13th June - 13th July (4 weeks):**

**Week 1 & 2:** Package management and resolving conflicts and replacing them.

**Week 3 & 4:**Testing and solving the encountered bugs.

**Deliverables:** Porting of sugar complete along with updating the already existing packages.

**14th July – 15th July: SUBMIT MIDTERM EVALUATIONS TO GOOGLE.**

**11th August - 25rd August (2 weeks):**

**Week 1 & 2:** Documenting and testing more thoroughly. Include any exception not taken care of till now.

**Deliverables:** Ubuntu Sugar Remix ISO ready.

**26th August : Final Evaluation deadline by Google.**

* Localization

**23rd May - 12th June (4 weeks):**

**Week 1:** Research and study of how Pootle works and localization on Sugar, mainly discussing what Neeraj has already worked on.

**Week 2:** Identifying the activities which till now does not support localization.

**Week 3 & 4:** Integrating Pootle support to all the activities identified in Week 2 and generating POT(PO template) files for all of them. Make changes in the original source code if necessary so that translation can be supported easily

**Deliverables:** Generating .po template files for all the activities identified.

**13th June - 13th July (4 weeks):**

**Week 1:** Translating activities with the help from volunteers available using Poote website UI. We will our self translate all activities in Hindi atleast by this week for futher testing. Translation in other languages will be completed soon given the large number of volunteers available( Translation completed percentage of core-sugar packages and other activities support this statement).

**Week 2 & 3:** Packaging translated activities with atleast one complete PO file in any language.

**Week 4:** Extensive testing of activities and fixing encountered bugs after packaging.

**Deliverables:** Completion of packaging of translated activities.

**14th July – 15th July: SUBMIT MIDTERM EVALUATIONS TO GOOGLE.**

**19th July – 20th August (5 weeks)**

**Week 1:** Read and research about how ISO files are created and creating a system to automate the creation of the USR iso and update with ready packages.

**Week 2 & 3:** Code build scripts for creating new distros/iso to be distributed in local community.

**Week 4 &5**:: Extensive Testing and Documentation.

**Deliverables:** Creating Ubuntu Sugar Remix iso ready for distribution

**26th August : Final Evaluation deadline by Google.**

**5. What are your success criteria?**

* Getting a working chromium based browser that run atleast on Sugar inside Ubuntu/Debian.
* Working Virtual Machine, with build scripts for creating ISO files with relevant packages from Ubuntu/Debian universe including core sugar packages and useful activities ( which are regularly pushed and maintained by ubuntu sugar team).
* Porting sugar-0.90 successfully. Removing conflicts between versions of Sugar, so that users don’t face problem while updating from main repository.