Working with Open Source Software: Sugarlabs

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Abstract

Free Open Source Software (FOSS) and Humanitarian Free Open Source Software (H/FOSS) have been a steady trend in the last ten years. For our capstone project, our group worked with git and a Python project, Sugarlabs, to contribute to their H/FOSS project. Sugarlabs is an activity based, open source learning platform for children in underdeveloped areas of the world. They were key in the deployment of the "One Laptop per Child" initiative that was started in the early 2000s. We focused on the Music Blocks activity from Sugarlabs, which is a music creation application that is built similarly to the Scratch programming language with music blocks that can be built into musical output. Our group focused on the examples folder and the need for a README document to describe all the examples that have been made for Musicblocks.

Our Process

- Project Selection
- Communication
- Looking Through Issues
- Forking, Cloning, and Sifting
- Pull Requests
- Conclusion

Project Selection

- Criteria to Consider:
  - Familiarity
  - Interest
  - Purpose

- Given this criteria, we found:
  - Sugar Labs
  - Cadasta
  - OpenMRS

Communication

Looking Through Issues

- Sugarlabs and their Activities (applications for their Linux distribution)
- We searched through the following Activities:
  - Physics (physics simulation)
  - Paint
  - Pippy (python editor)
  - Musicblocks (a music playground for creating music)
- We as a team worked on the following: Issue #2346 for Musicblocks

Forking, Cloning, and Sifting

- Installing Virtual Machines(Ubuntu 20.04)
- Cloning code to virtual system
- Locating blocks of code that may be causing issues

Pull Request
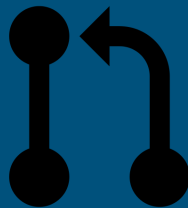
- Submit pull request from your forked repository to the main repository with a brief description
- All PR go through multiple tests before being merged with Sugarlabs code base

Conclusion

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