Reconciling rhythm with pitch in Music Blocks widgets

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Your Motivation

What is your motivation to take part in Google Summer of Code ?
I am intrigued by the open source community and feel that it plays an integral role in today's market as it gives a strong competition to huge companies and promotes innovation. Through networking, it helps small independent developers to bond and build a community. In my opinion, the esteemed Google Summer of Code is a great initiative by google to aid the open source community and provide a platform for budding developers to get involved in the community and contribute. Through GSoC, organisations give opportunities to open source newbies and students pursuing undergraduate like myself to implement our proposed ideas and key features in the project. This is a huge perk for me as I get to make an impact in the open source world at such an early stage of my career. Also, the prestigious "GSoc" tag and certificate cannot be overlooked.

Why did you choose Sugar Labs ?
Sugar Labs is one such organization where all the projects are focused towards assisting people from different age groups learn through creative and interactive means. Apart from this, I was also fascinated by their professional codebase and felt that I could

learn a lot from this organization by contributing to it. I found that the people here are very supportive and always eager to help when someone is stuck somewhere.

Why do you want to work on this particular project ?
I liked the idea of Turtle Blocks from where I stumbled upon Music Blocks. After running their Music Blocks website I was eager to learn how it worked and hence I committed to exploring their codebase. Eventually, I resolved a few issues and developed a keen interest in this project which kept me going.

What are your expectations from us during and after successful completion of the program ?
All I expect from your organization is the same level of support and cooperation which I got till now and to have improved my programming,communication and project management skills during and after the successful completion of the program.

Project Details

What are you making ?

- The main goal of this project is to reexamine the assumptions underlying the segregation of rhythm from pitch in these widgets and to design and implement a more unified experience.
- This can be done by improving the already present widgets inside music blocks as it will not cause any changes in the usage of any other section of music blocks and will not confuse the existing users .
- Currently in music blocks a user has to generate a rhythm by using rhythm maker widget and then import it inside another widget like phrase maker.
- I would like to streamline this process by including the functionality of editing rhythms inside phrase maker and in the case of musical keyboard the user can not even import rhythms so I will also like to implement the functionality of importing rhythms inside musical keyboard and edit it inside widget itself.

How will it impact Sugar Labs ?

Sugar Labs is an open source organization and Music Blocks is used and loved by many users. Widgets are a important part of music blocks and by improving the usability and quality of widgets we can improve the user experience.

What technologies (programming languages, etc.) will you be using ?
I will be using HTML, CSS and Javascript to implement the features.

Implementation Details

The full detail of what and how I would like to implement is give in the following link- http://tiny.cc/8mdh4y

Timeline

I am dividing the project into two parts. First I will implement all the features inside phrase maker and the move on to musical keyboard.

Durations	**Goals**
12 May - 18 May	Start working on the idea. Getting up to speed with working of the project
19 May - 25 May	Create designs and start working on widget toolbar.
26 May - 1 June	Try and implement the divide note mode functionality for rhythm and tuplet note blocks.
2 June - 8 June	Streamline the note division process between blocks inside the widget and widget table.
9 June - 15 June	Implement the note division function for simple tuplet and imported rhythms generated from rhythm generator. Implement the number of divisions button and integrate it with edit note mode for rhythm and tuplet note blocks

16 June - 22 June	Implement the add note function and streamline it with blocks.
23 June - 29 June	Buffer period to complete any remaining work and getting the work done till now evaluated by the mentors
30 June - 6 July	Implement the delete note function for rhythm and tuplet note blocks.
7 July - 13 July	Implement the delete note function for simple tuplet block and streamline it with widget blocks.
14 July - 20 July	Start working on musical keyboard and understand how it works.
21 July - 27 July	Buffer period to complete any remaining work and getting the work done till now evaluated by the mentors
28 July - 3 July	Implement the record press duration function in musical keyboard. Create last note played section.
4 Aug - 10 Aug	Complete the last note played function for rhythms inside musical keyboard.
11 Aug - 19 Aug	Implement the play from keyboard feature in musical keyboard.
20 Aug - 26 Aug	Implement the delete note function inside musical keyboard.
20 Aug - 26 Aug	Buffer period to complete any remaining work and submit my code for final evaluation.

Sugar Labs' Motivation

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

To get familiar with the codebase, I have made a few contributions to Music Blocks
Link -
https://github.com/sugarlabs/musicblocks/pulls?q=is%3Apr+author%3Asparsh0204