



Digital Education Tool

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ABSTRACT: -

This Project is developed keeping in mind the effect of the pandemic situation on our educational system. As Everything is going online so we decide to make this project which can be used by teachers to teach their students online easily. "Digital Education Tool" is a real time application that allows user to draw/ write important points during a meeting and can also be used for teaching purposes while it helps the teacher to explain the topic in detail while taking the classes online. It has an intuitive interface that allows user to share ideas in real time.

Key-Words: - Virtual White Board, Canvas, Generic Tools, GUI , QT , C++.

Introduction

Digital Education Tool is a desktop application build on Qt 5.14.2 using C++. This application will provide various features like drawing shapes (such as a line , rectangle , circle) , a freehand tool for writing , grouping/ungrouping of shapes drawn , inserting images, clearing the canvas ,save/open files that are drawn on the canvas. It can used in a variety of settings, including classrooms at all levels of education, in corporate board rooms and work groups, in training rooms for professional sports coaching, in broadcasting studios, and others.

ProblemFormulation

As the world is moving forward towards digitalization so keeping the education as 1st priority for students as well as the faculties. So, keeping all the scenarios in mind the currently available digital education tools are somehow difficult to use for normal people. Since the pandemic happened everything is going online, including online classes for students and there are very limited number of resources available for the teachers to teach students digitally without a physical board so for this we are creating a digital education tool which is much easier as compared to other existing tools so that teachers can use this tool for teaching students digitally.

Literature Review

There are several tools available such as paint , google meet and zoom for digital education which contains pen with different colors and sizes can insert images and shapes but they also comes with some disadvantages such as these tools does not contains subject specific teaching assistance.

Methodology

- There will be a virtual white board available on which user can write and draw with the help of free hand tool.
- There will be a feature to draw shapes such as circle , rectangle and line.
- There will be a feature by which user can select the drawing components.
- There will be a feature of drag and drop by which user can move components.
- There will be a feature of resizing components.
- There will be a feature of inserting images on virtual board and also have feature of clearing the virtual white board canvas.

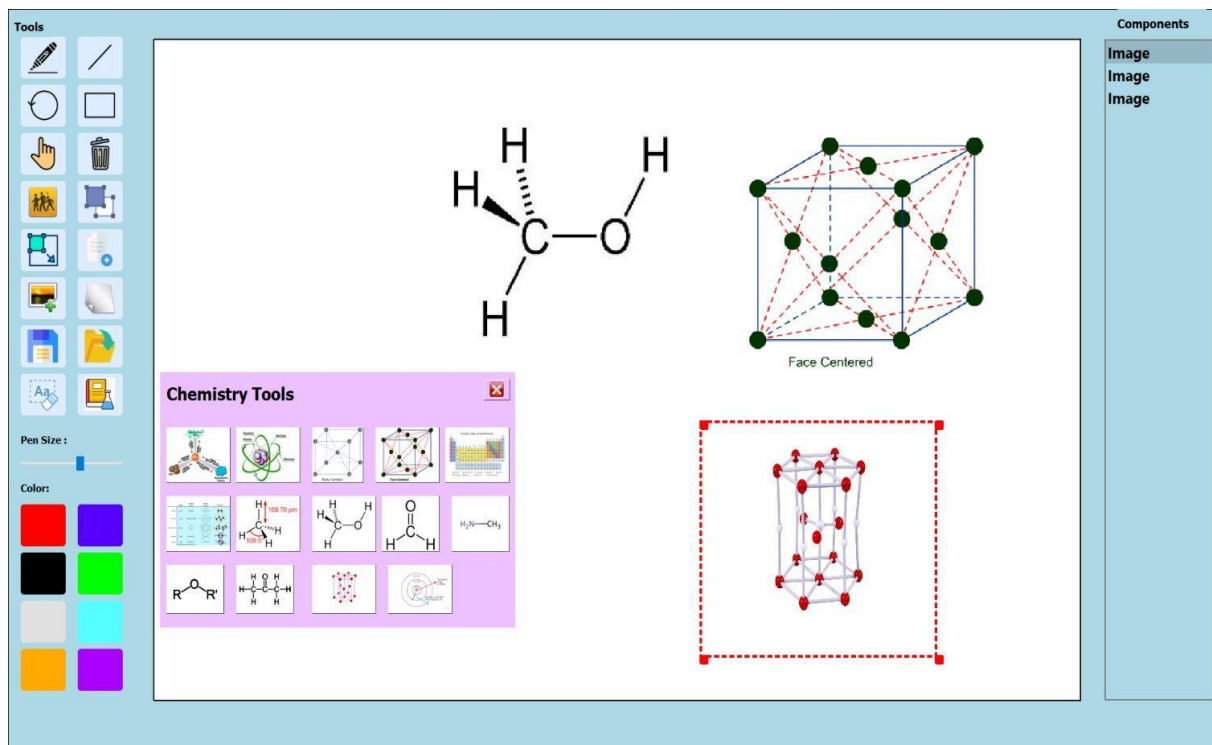


Fig.1 CLASS DIAGRAM

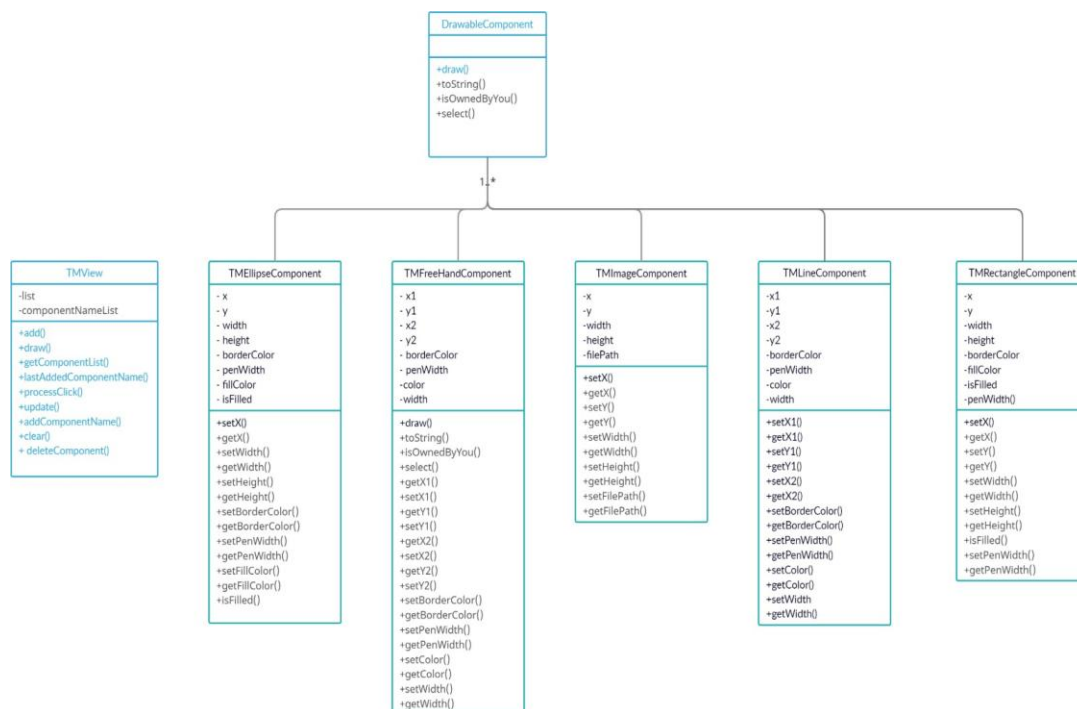
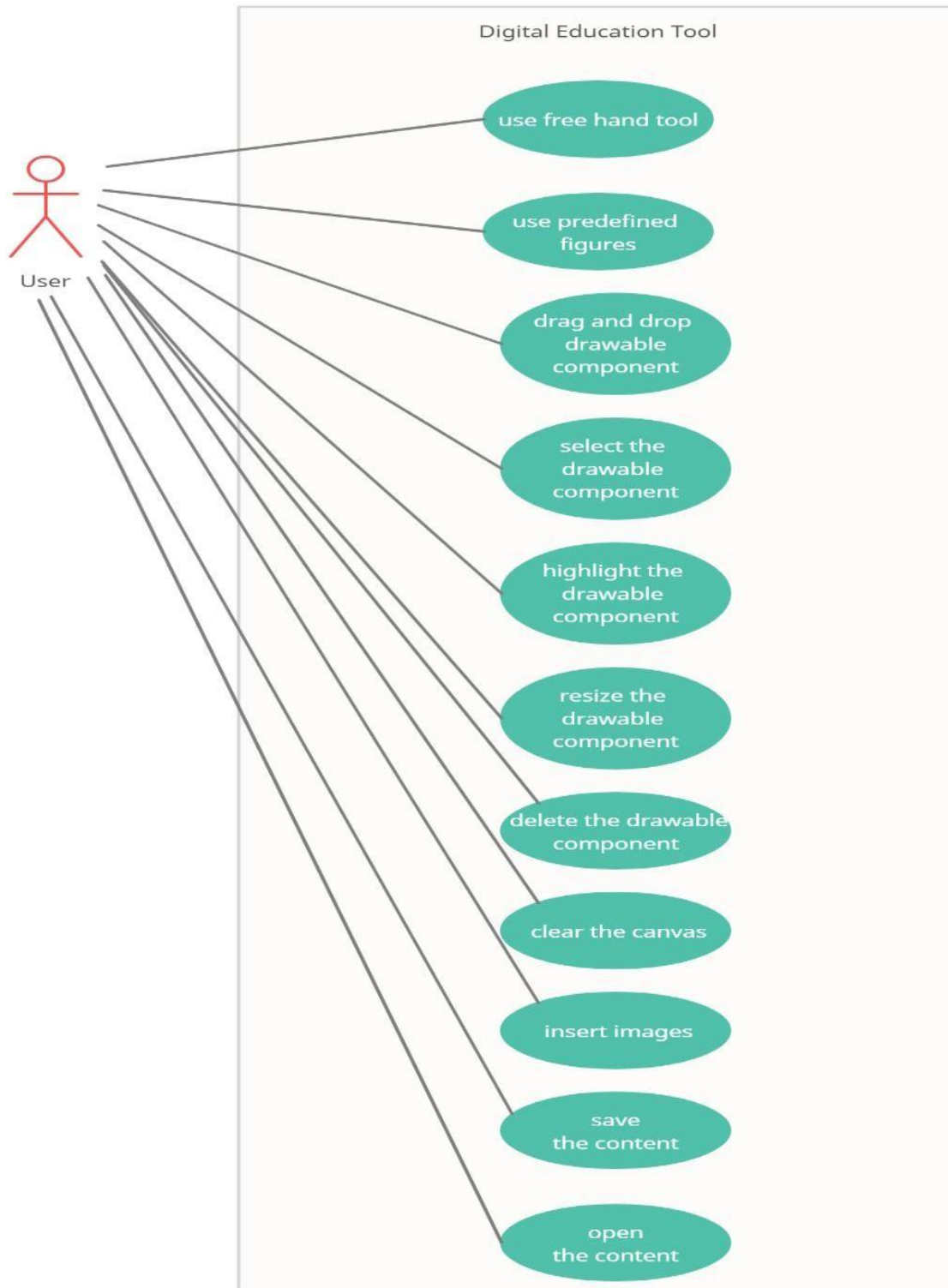


Fig.2 USE CASE DIAGRAM



Result Discussions

It provides an excellent opportunity to teachers to impart knowledge to students and at the same time it also simplifies the teaching-learning process for students and teachers. Improved thoughtful skills: It shifts the classroom experience to a more collaborative environment so that learners start thinking in more logical and improved way.

Increased Student involvement: Students who normally do not raise their hands in class or the back-benchers, or somewhat if they are weak, now can take interest to learn something new as these modern age tools provide more understanding to them as all the senses are involved in the connected class rooms. By fostering discussions and developing new and out-of-the-box ideas, technology also helps improve the student- teacher bond.

Conclusion

The digital education tool developed is much more handy , easier to use for almost everyone , and for nowadays it has become a necessity for the society as it requires less time and less hard work to become knowledgeable. Every good thing comes with a limitation and in this application it is screen recording, but we will overcome this in a very short period of time.

Acknowledement

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