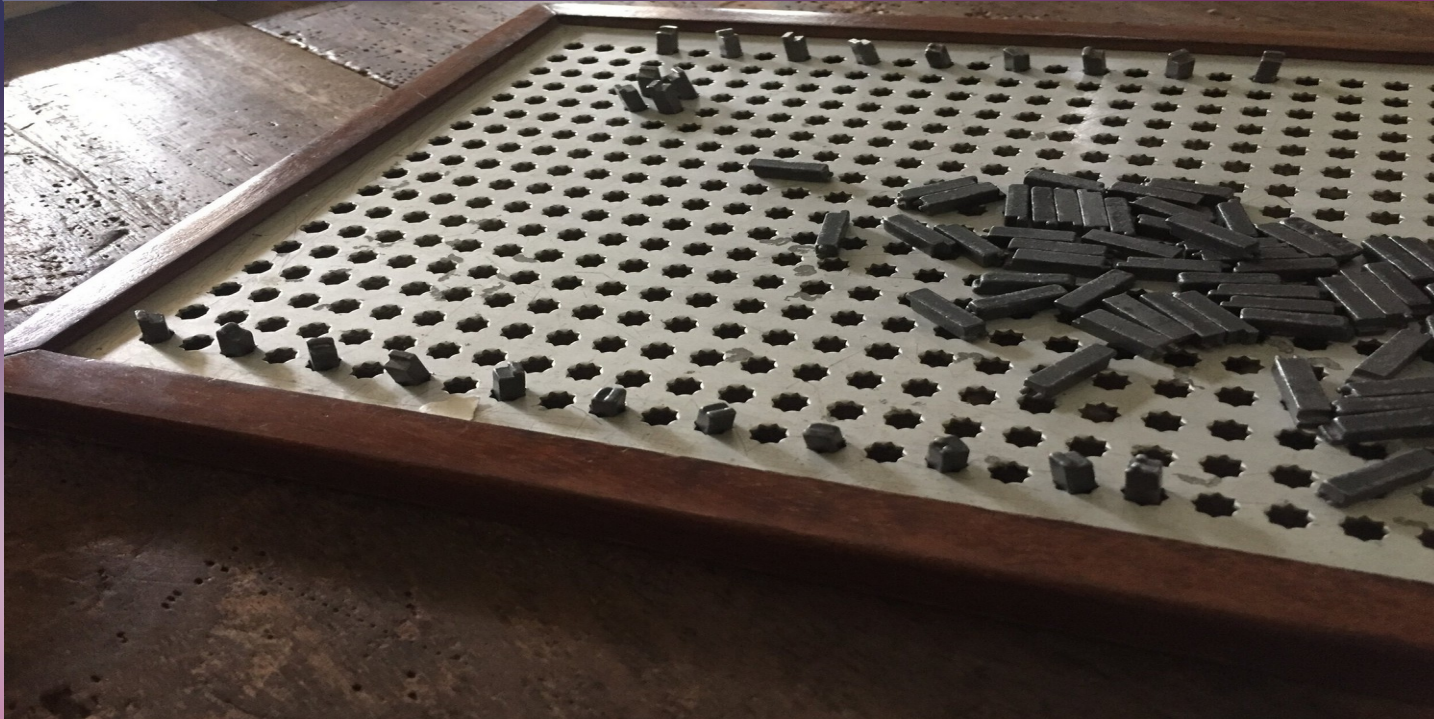# ACCESSIBLE MATHS – TUTOR

Roopasree A P

- Existing system   *Taylor frame*

Taylor frame is a device for learning mathematical concept, it is one of the tool used to teach student with visually impaired to compute mathematical problems. It can be useful for the higher level mathematical computation skills such as Addition,Subtraction, Multiplications, Division, and Algebraic notations.

TAYLOR'S CIPHERING-TABLET

Existing Software and their limitations

• **Math Flash**

➢ Which was a usable application
➢ Which is a paid software
➢ Not installable in free and open source operating system like GNU/Linux,IT School etc.
➢ Source code is not available
➢ It's currently not available to install
➢ Not an updated software
➢ Cannot perform by aware about the user's knowledge

• **Tux Math**

➢ Which is a complex and rich application
➢ Also can't behave according to the user's knowledge.
➢ Questions are repeated and not jumped.
➢ There is no concrete mathematics
➢ Which is in c and as code base is in c ,it is not easy make modifications for more features.

4

Development of SRS

- Helen Keller Blind school visiting

- Interaction with students

- Interaction with teachers (Asking their needs on technology)

- Discussion with Sathyan sir and Nalin Sathyan

Features and Relevance

- Accessible to visual impaired students and others too.

- Inclusive education.

- Giving motivational upcoming questions and acknowledgements.

- Help to judge themself.

- Improve users ability in calculation.

- It can act as a tutor not only a game.

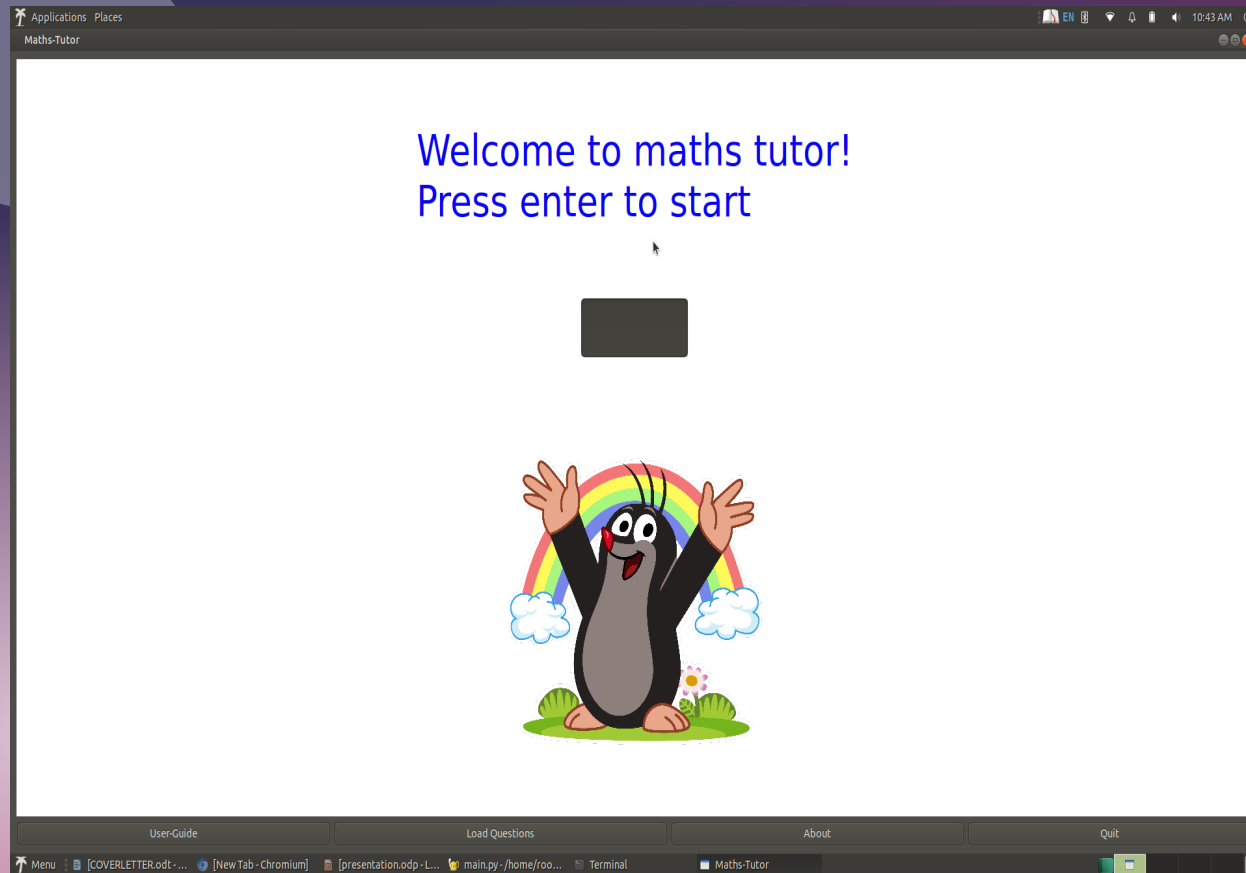- Have a feature to give questions manually through a file.

Writing custom data file

- We can provide questions through files.

- The file wanted to be created as shown in the format below

```
1+1===2===3===1
1+2===3===3===1
1-1===0===3===1
2-1===1===3===1
1*2===2===3===1
2*2===4===3===1
2/1===2===3===1
2/2===1===3===1
10,5+10,5===?===3===0
10,5-10,5===?===3===0
```

- In this data first data part(before ===) is the question and next one is the answer,then time bound for answering,and the digits 0&1 are determines the bell sounds for the digits in questions.

- Questions are given in different formats to avoid repeated question pattern.

- In random question generation part provide question mark on the place of answer.

PROJECT DEMONSTRATION

Implementation

- Written in python language, used Gtk framework to draw User Interface
- Why python ?

·   Which is easy to read

·   Easy to code

·   Free and open source

·   Portable language

Geany is the IDE used

Hosted in Github (Link : https://github.com/roopasreeap/Maths-Tutor)

Future enhancement

- Implement AI in the game

- Improve database

- Multiplayer competitive mode

- Expand curriculum

THANK YOU