GSoC Project Proposal – Educational Tool Kit

About me:

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Primary language   : Sinhala

Location   : Sri Lanka

Working hours   : from 6:00am to 9:00 pm

I just want to participate to this competition to get some experience. Personally I like to involve with the open source projects because I feel it's free for me to doing such projects. Especially I like to this project because it will be benefited for poor children who don't have much resources to get proper education in my community.

About the project:

## Educational toolkit for teachers, students and parents

Problem address:

In the education field the interaction between teachers, students and parents is more vital. Some teachers face more difficulties when they interact with the students such as student s are not doing their works which teachers are assigned, teachers have to keep all the records of all of the students, teachers have to correct all the question papers and also it is a headache for them to keep all the files within them. Students also face in difficulties when they cannot get the results when they want. They do like to do their home work on the way or at distance place when they go for a vacation. Another think is sometimes they cannot talk to or interact with the teacher within their school time. Parents also like to see their children work and feedbacks from the teachers. But they might not have a proper way to look those records. So as there are many questions address within this educational toolkit.

Solution:

Educational toolkit provides solutions to the above problem. By using this, teachers, students and parents can make a collaborative environment. They might have different goals. So the application provides different perspectives to succeed that goal. Teacher, student and parent get different interfaces. And all the records will be stored in a database. Parents can get the students information from the server. Students also can communicate with the other students. The following use case shows all the activities.

Use Case
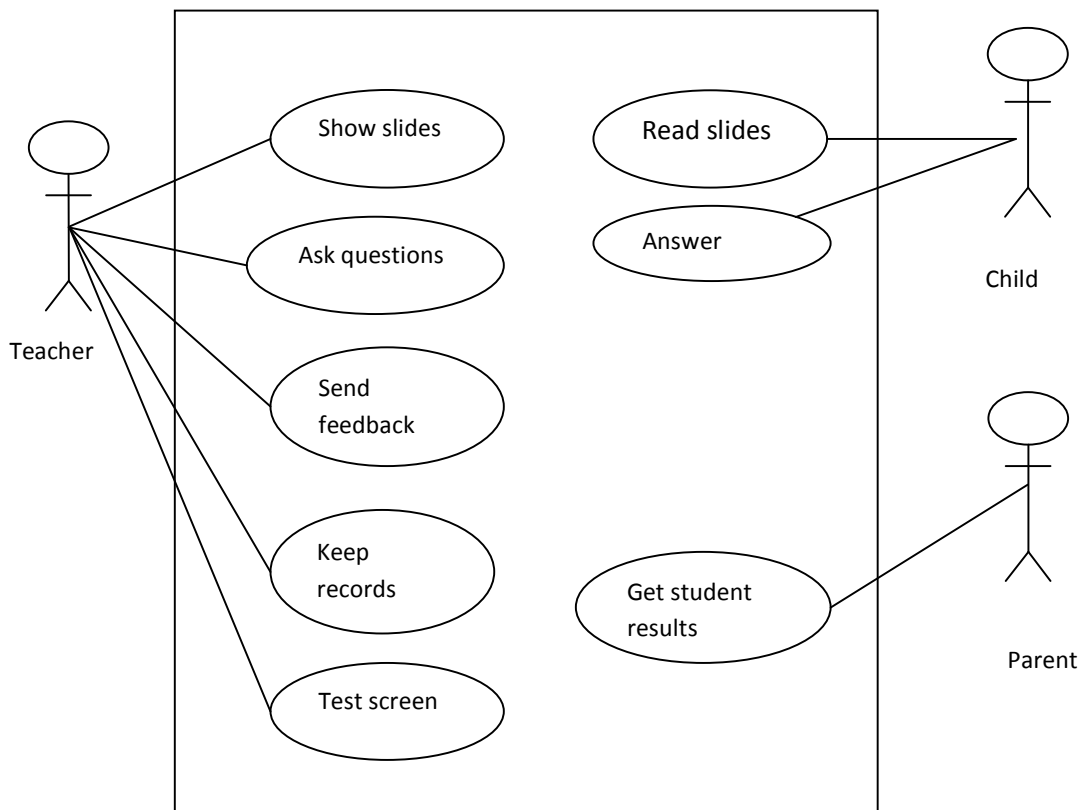
Technologies: Python, PostgreSQL

TimeLine:

May 23- discuss the design of the project with the mentor and finalize the technologies which I'm going to use, Identify sugar specific technologies.

May 30- study sugar programming environment finalize the class diagrams, ER diagrams under the guidance of the mentor

June 6 – start coding on teacher module

June 13 – start coding on student module

June 20 – build up a testing environment and evaluate the system

June 27 – validate those two modules

July 4 – create the mid-term evaluation document and discuss with the mentor

July 6 – submit the midterm evaluation

July 11 – start coding the parent module

July 18 - finish coding of three modules and test those modules

July 25 – validate and testing the overall system

August 1 – finish validation and testing

August 8 – finalize the overall system and create the final documentation

August 9 – project submission

Aim:

I assure that I can do this job within the time period. I did two projects within my academic life. Speaker identification system is one of my projects which I did in level1. Then I give my contribution to the linklk to develop a travel agent web application. It is being completed. I'm interested in this education field also because I have some experience with similar project about education system in the university.

High level view of the system
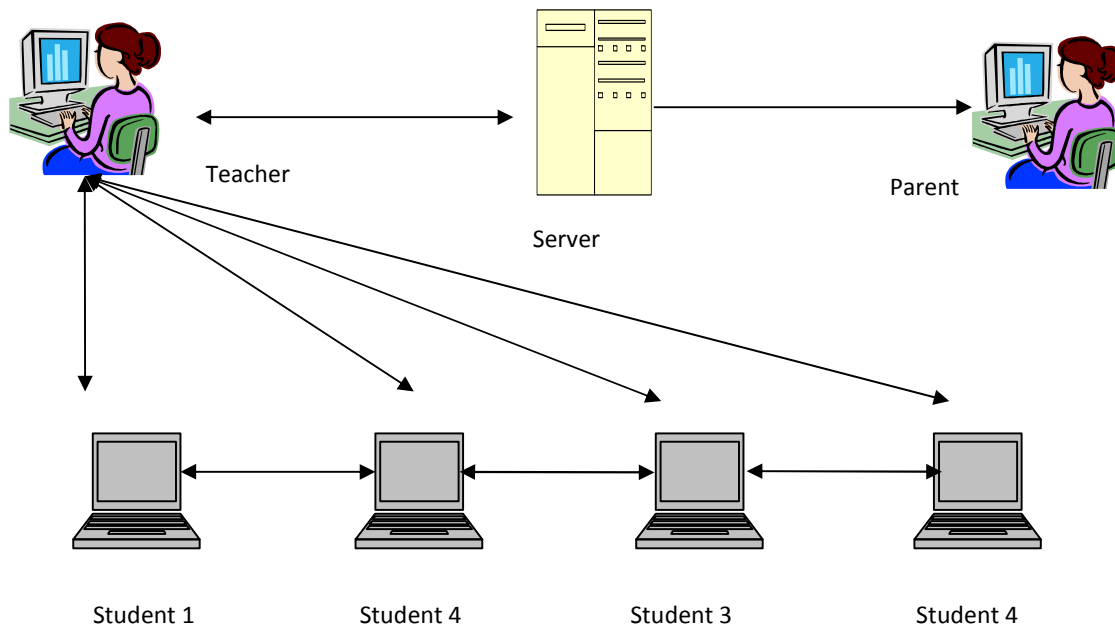
- Teachers can put the slides and ask questions.

- Students can answer and they also can work together.

- Teacher can see each student's screen, what they are doing.

- At the other end the parents can see children's' results. Parents can communicate with the teacher

- Teacher can see students' status and their photos, he or she can select the grade which he is teaching.

- Student can select the subject code then the teachers details will appear on the screen.

- Teacher can assign home work.

Teachers' front end

Meet students:-Grade 1_2_3_4_5_6_7_8_9_10

Teacher

Add slide

See student screen

Student results

File uploads

Ask questions

Group work

Review

Student Info

Parents details

Lesson 1

Overview

- What is e-learning?
- How its affect to the traditional education?
- What are the advantages?

Available students

Status-online
Status-online
Status-offline
Status-online
Status-offline
Status-online

Students' front end

Meet students:-subject code 1_2_3_4_5_6_7_8_9_10

Student-Kathy

Slide show

Assignments

Homework

Group work

Upcoming events

Student results

File uploads

Ask questions

Lesson 1

Overview

- What is e-learning?
- How its affect to the traditional education?
- What are the advantages?

Status-online
Status-online
Status-offline
Status-online
Status-offline
Status-online

Parents' front end

Student Name :- Kathy

Contact teacher

Mrs. Perera

Ms. Silvia

Mr. Fernando

Kathys' results

Subject	Marks
1101	96
1208	88
1109	90
1144	99

After completion the project

I think this project will me benefited for the sugar to get improve the connection between teacher, student and parent. As well as it will be affected on my community. Sri Lanka is a developing country and there are many poor children in rural areas who couldn't get sufficient education. So this application will be benefited for them so they can learn using distance learning. Since there aren't resources for them government can use teachers who teach for the schools which are in towns to teach these poor children by using this application. This application can also use in universities.

If I get stuck with my project

If I couldn't get mentors' attention on my project I think I can get some help from other people who are in IRC. I think it is the best place for me to get some help.

I keep the community informed through the IRC always.