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Amazing tool by Medical Student at UoB-Basra

22 years old, Muntadher MH Al Waeli, 5th year Medical Student program a simple applications both Mobile and Computer tools to facilitate the elearing system in the college, with the support of the Deanery of Basrah Medical College, and with inspiration of OPATEL project, 5th year medical student "Muntadher" try to find more friendly tool to present the lecture through uploading them by mobile application, in addition he add a tool for formative assessment in the lecture by creating a mobile application for voting to MCQ and desktop app that enable the lecturer to and his/her Questions. The application now in the Apple Store and steps toward development of Android Application. Basrah Medical College try to evualate that system to be used in the near future

He addresses below the important and reason for this tools

Why this?

With the advance in the e-learning system nowadays, it becomes important for our college to have a new system for this purpose and characterized by an important feature which is the ability to further develop and expand it easily as needed in the future.

And with the great advance in mobile technology, it was important for this system to target this as the first priority. But also targets the PC, so the system act on both of them with same abilities.

And we finished the built of the basics of this system. And we will show how it works next.

How does it Work?

Basically each one the users of the system will have the ability to sign-in and use the services provided inside it. With the full control from the college which will provide the system with the basic information of the college and give the users the passwords for sign-in, and those users are:

1. Students
2. Lecturers
3. Departments in the college

Services for users in the Basic Edition:

1. **Student:**
   a. Show the timetable of lectures of the next week and all the previous week.
   b. Download lectures uploaded by lecturers directly on the smartphones or personal computers
   c. Show their absence statistics while in home (with ability for the college to update them weekly or even daily).

2. **Lecturer:**
   a. Show the timetable of lectures of the next week and all the previous week (and know when he has to give lectures).
   b. Upload the lecture handouts (or PowerPoint presentation) to the students before the lecture.
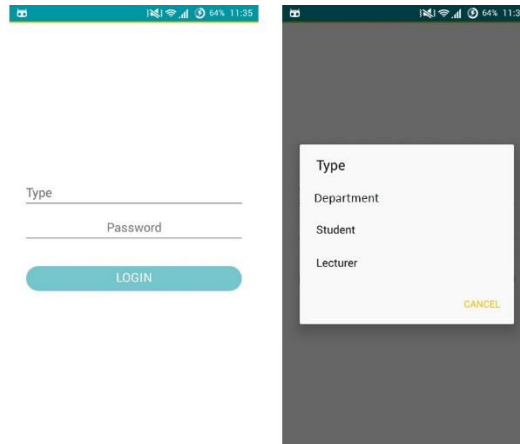   c. Give the student tasks or question before the lecture

3. **Department:**
   a. Show the timetable of lectures of the next week and all the previous week (and know when their lecturers have to give lectures).
   b. Determine the <u>title</u> of the lecture and <u>lecturers</u> which will give it.
   c. Upload the lecture handouts (or PowerPoint presentation) to the students before the lecture.
   d. Give the student tasks or question before the lecture

Image 1: Startup window on mobile

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Image 2: Services for the department

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Image 3: Services for lecturer

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Time Table - Fifth Class

10/09/2017 - 14/09/2017

	Sunday	Monday	Tuesday	Wednes-day	Thursday
08:00 08:15 08:30 08:45	Gynecol-ogy	Medicine Anemia د. فاتح عبدالصاحب	Medicine		
09:00 09:15 09:30 09:45	Pedi-atrics	Pedi-atrics	Derma-tology		
10:00 10:15 10:30 10:45	Opthal-mology	ENT	Neuro-surgery		
11:00 11:15					
11:30 11:45 12:00 12:15	Medicine	Psychia-try	Surgery		
12:30 12:45 13:00 13:15	Radiol-ogy	Medicine	Orthope-dics		
13:30 13:45	Orthope-dics	Gynecol-ogy	Pedi-atrics		

Subject

Medicine

Lecture

Anemia

Lecturer

د. فاتح عبدالصاحب

Questions, tasks and notes

SAVE

Basrah Medical College

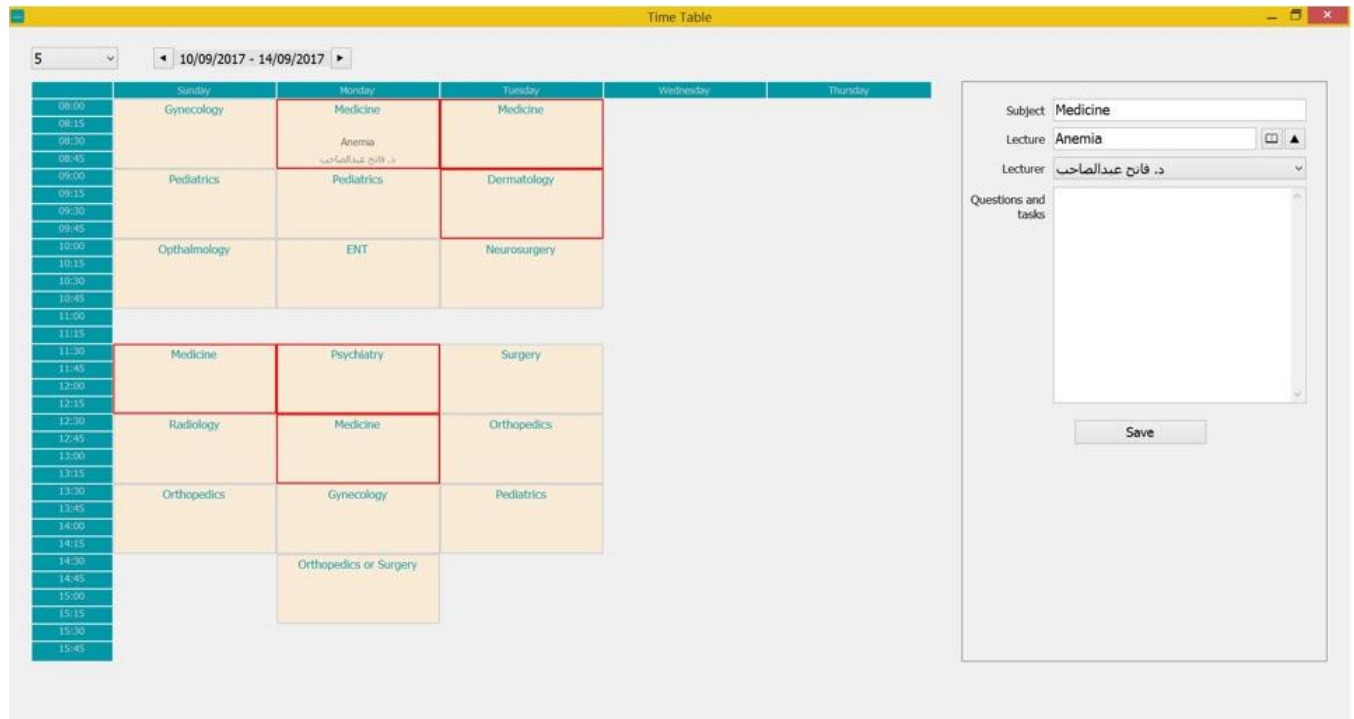Time Table

Absence

Logout

Last update: 7/7/2017

Subject	Percentage	State
Medicine	2%	تنبيه
Surgery	6%	إنذار
Gynecology	4%	تنبيه

Image 4: Services for the students

Image 5: the program on the PC with have the same abilities

Additions on the basic edition

As we mention, it's important for this system to be developable and expandable easily. The first feature added to this system was the Mobile Audience Response System.

Mobile Audience Response System

During the lectures, nearly all lecturers ask question and the students answer. But usually by the traditional way, only one or two or few students participate in this. Which certainly doesn't reflect the entire class, so to involve all students, Audience Response System should be used.

The usual way is to use the special devices to allow students to vote for the answers.

But we prefer to use mobile instead of them for some reasons:

1. Availability of devices for all students in the college

2. Maintenance of these devices which is to some extent difficult in our lecture halls' settings.
3. Integration of this ARS with our general system will give some benefits:
   a. Identify which students participate at time of voting to increase the interaction with the lecturer.
   b. Save the answers of students, and cumulatively we can assess the student thought the year.

How does it Works?

- A window was added to the mobile application from which the students can vote.
- A form was added to the PC program to act as server which will control the work.
- Wi-Fi Router (with no need internet connection) to connect the mobiles to the PC program.
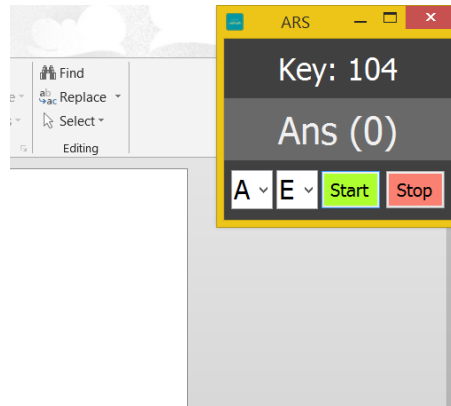
Step-by-Step

1. When the lecturer reach to a slide with a question. He should open the program on the PC and choose the options (e.g. A to E, note A to B can use for True and False) and click start.
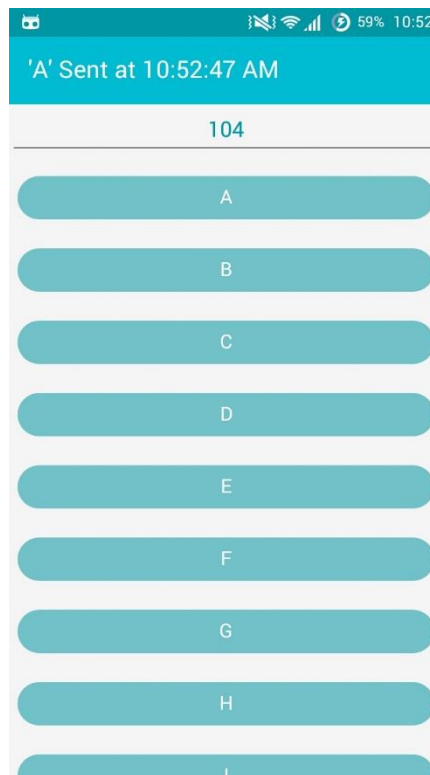

2. The program will minimize to upper right corner to allow students to see the question.
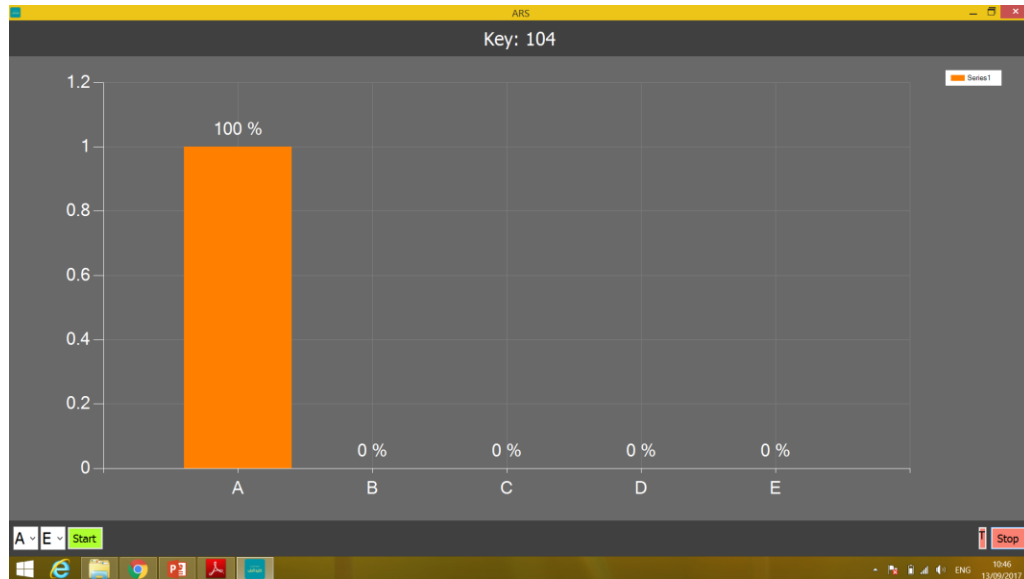
3. Now the student should vote:
    a. They should be connected to the router in the hall.
    b. The should enter the key appearing in the top of window on PC to their mobile app window
    c. Choose the answer.

4. The PC program will count the number of answers till know, and the lecturer can see who answered and who not form special window.
5. When finish, the lecturer should click stop to see the result.

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6. The data will be saved to the server and the lecturer can re-check student's answers form his mobile app later.

New features to be add soon

- Convert the contents of college website to be available on the app also
- Exam result for students
- More method for assessment and interactive learning