

overall class assessments through the web and mobile applications, whereas the proposed framework is focused on more for hand-on activities, such as projects, in-class activities, and lab assignments to give students more instant interaction with an instructor.

5.3. Activity Results Presentation

Students can upload their files through website. Students are allowed to access only for the file upload, and presentation sections of the Website using password authentication. The instructor can add score and put comments for each question. The instructor easily input grade and comments for immediate feedback. The GUI represents the activity name, the description of the activity, students' answers, and a file they submit as soon as the instructor gets into this webpage. The instructor inputs scores and comments based on students' works for each activity. These are saved into the database server and students easily recognize this information by accessing result presentation for user feedback and assessment in collaborative work.

6. Conclusion and Future Work

We are moving to new era which uses small mobile devices in these days. The current education systems are evolving to use these new devices to give students faster and collaborative feedback for their learning process. In this paper, we are presenting an HACS system to support more interactive communication with students. The proposed system is especially designed for a classroom which conducts several different learning activities, and allows both instructors and students an active tool to provide immediate feedback through dynamic collaborative session. The GUI is well designed to support both instructor and students. The Mobile App. we developed gives students more interesting and motivates their stud-

ies. The generic Website and Mobile Website are designed to easily maintained and updated.

We need to continuously study the usability of this system. The mobile devices are getting more and more complicated in interface and capability. Students in the higher educational classroom are consisted of the similar age, background, and their expectation, whereas, the instructors are not all the same age, background, teaching styles and their preference to use technologies.

7. References

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