Gradel

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Wolf, Emily R.; Brauns, Christopher D. II; Smith, Timothy G. II; and Budd, Emmett Z., "Gradel" (2018). *The Research and Scholarship Symposium*. 17.
A major problem facing Computer Science faculty members at Cedarville University is grading student assignments. Specifically, grading programming assignments can be a repetitive, time-consuming process which makes it prime for automation. Professors need a web application that takes student code, compiles it, and compares the output to what the professors provide as correct. Gradel, a senior design project, allows students to submit their code online and receive instant feedback based on professor-designed test cases. Furthermore, professors need to be able to keep track of what grades students earn on their projects, which is functionality Gradel provides. In addition to allowing professors to create courses for typical class use, Gradel also allows professors to create contests, such as the annual programming competition that takes place on campus every year. Gradel has been used for several sections of a class and this year’s contest, and the results are extremely promising.

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**What is Gradel?**

Gradel is a web application that allows professors to create problems, students to submit their code, and Gradel provides instant feedback. Courses and contests are both run through Gradel, and the level of customization has allowed for great success in both areas.

**Abstract**

A major problem facing Computer Science faculty members at Cedarville University is grading student assignments. Specifically, grading programming assignments can be a repetitive, time-consuming process which makes it prime for automation. Professors need a web application that takes student code, compiles it, and compares the output to what the professors provide as correct. Gradel, a senior design project, allows students to submit their code online and receive instant feedback based on professor-designed test cases. Furthermore, professors need to be able to keep track of what grades students earn on their projects, which is functionality Gradel provides. In addition to allowing professors to create courses for typical class use, Gradel also allows professors to create contests, such as the annual programming competition that takes place on campus every year. Gradel has been used for several sections of a class and this year’s contest, and the results are extremely promising.