

CODEGRADE CASE STUDY

Making feedback **immediate** and **continuous** at the Erasmus University Rotterdam

USING CODEGRADE SINCE: SPRING 2019

Introduction

Dr. Yutao Sun is an Assistant Professor at the School of Economics at the Erasmus University Rotterdam (EUR). The EUR is one of the largest Dutch universities and is amongst the highest ranked European business universities. Yutao uses CodeGrade in his teaching for the Introduction to Programming and Advanced Programming modules for students studying Econometrics.

Challenges

“For both modules we have weekly or biweekly assignments that need to be graded. Previously, we were just using vanilla Canvas for this, without any external tools, such as CodeGrade. This meant that for every student we had to download everything as Canvas doesn't support viewing code, copy it to Eclipse [an IDE for Java] and then run them individually. Then we had to go back to Canvas to fill in the grade and give feedback in just one general feedback field. This was a lot of work, especially with the large amount of students we have [about 400 for Introduction to Programming].”

In 30 seconds

- CodeGrade adds powerful tools to grade and provide feedback on code to the existing Learning Management System environment (such as Canvas).
- The EUR chose CodeGrade to relieve workload on teachers and increase the quality of feedback to students for their programming courses.
- Students now get immediate and continuous feedback from CodeGrade's automated grading system and personalized inline feedback in the code from their teachers.

Adopting CodeGrade

To optimize feedback and decrease the grading workload, the Erasmus University Rotterdam decided to integrate CodeGrade into their Canvas environment. Before the modules started, CodeGrade provided onsite workshops to Yutao and his Teaching Assistants to help them seamlessly adopt the platform.

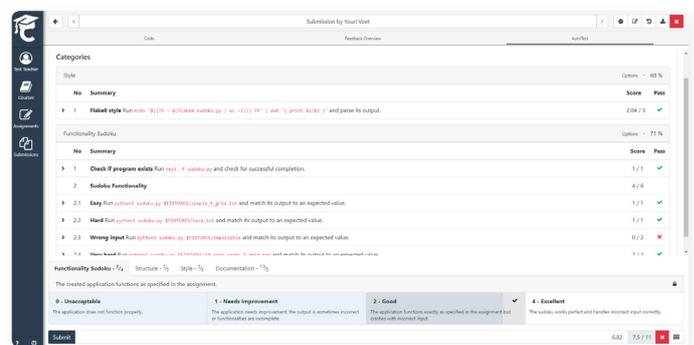
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- Dr. Yutao Sun

The results

“CodeGrade simplified our workflow a lot. We only had to setup the automated grading system and then most of our jobs were done. If we didn't use automated grading, we could still view the code online and give inline feedback to students. The grading was also much better because we could use the rubrics to grade, making grades between Teaching Assistants much more consistent. I think the students liked it as well, because they could immediately see where and what the problem was from the code and the automated grading system”

With CodeGrade, the teachers have to spend much less time on grading and can spend this time on giving more and higher quality feedback. “For Introduction to Programming there was a lot of time gain. We just had to set up the automated grading system and then everything was just automatic”. By using Continuous Feedback, the students also immediately and continuously got feedback from the automated grading system in CodeGrade, creating an immediate feedback loop.



“For Advanced Programming we don't use the automated grading feature, as the number of students are lower and the assignments are more complicated and GUI based, but we still use the CodeGrade platform for the rubrics, inline feedback and Filesystem. Now you can actually give much more specific feedback with inline feedback. Before, this was not possible.”

In conclusion

With CodeGrade the Erasmus University Rotterdam can improve the quality and timeliness of feedback to students for their programming modules at the School of Economics.