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Development of a student-friendly coding editor [BSc Software Project]

The goal of this project is the development of an editor that could be used for the completion of the programming exercises of the following courses: (a) Informatik I, (b) Informatik II and (c) Informatik und Wirtschaft. In the editor the students can write, compile and execute the code corresponding to the tasks of the above courses.

Milestones	Duration	Start Time	End Time
Code compilation and execution using custom commands	15 · 7h	17.04.2017	07.05.2017
Native console options	10 · 7h	08.05.2017	21.05.2017
Testing	5 · 7h	22.05.2017	28.05.2017
Documentation	10 · 7h	29.05.2017	10.06.2017

Brief Description of the Milestones

1. **Code compilation and execution using custom commands**
   The editor will support code highlighting, compilation and execution of different languages. Hardcoding a default compilation and execution command for every language is convenient but also limits the usefulness of the software. On the contrary, the language execution commands will be exposed to the user, so they can be modified and adapted for any platform and compiler.
2. **Native Console Options**
   The editor contains an integrated console/terminal that is used for the instreams and outstreams of editor processes. Since different language build and run is supported, unexpected behaviour can be observed in cases when the streams overlap. The overlap is manly caused by the different implementation of the in- and outstreams over the different compilers. To overcome this issue, the editor will offer the user the option of a native console to execute the code in.
3. **Testing**
   Upon completion, the editor will offer all the functionalities needed to facilitate the stu-

dents in complete the exercises of the courses: (a) Informatik I, (b) Informatik II and (c) Informatik und Wirtschaft. In order to verify that, in the testing part the student will code, build and run a colection of tasks presented in these courses over the previous years.

Supervisor: Katerina Papaioannou
Start date: 17-04-2017
End date: 10-06-2017

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