

# Use Cases: Scheduler

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| <b>Title</b>             | <b>Schedule a proposed schedule of a program</b>  |
| Actors                   | Administrator, Program Administrator, GUI, Scheduler, Database  |
| Scope                    | GUI   |
| Iteration                | 4   |
| Precondition             | System is running and user is logged in with the rights of an Administrator or Program Administrator.   |
| Postcondition            | System is still running, user is still logged in and if there was a previous proposed scheduling it is not lost due to database exceptions.   |
| Postcondition on Success | The proposed schedule is inserted or updated into the database.   |
| Basic Course of Events   | (1) User opens schedule panel.<br>(2) User selects the program to schedule by choosing a department and an academic term.<br>(3) User clicks on start.<br>(4) Scheduler launches the scheduling of the defined program.<br>(5) Scheduler changes its status to running.<br>(6) User waits until the scheduling is finished by itself.<br>(7) Scheduler inserts the proposed schedule into the database.<br>(8) Scheduler changes its status to ready. |
| Alternative Paths        | (6a) User clicks on stop.<br>(7a) Scheduler changes its status to stopping.<br>(7b) Scheduler updates the proposed schedule in the database.<br>(8a) Scheduler inserts proposed schedule into the database.<br>(9a) Scheduler changes its status to ready.  |
| Open Questions           | Q: Should the Program Administrator get a notification on his next login?<br>A: Yes.<br>Q: Will there be scheduling proposals for conflict resolutions?<br>A: No, but the user will be informed about the reasons of the conflicts.   |
| Implementation Notes     | -   |

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|--------------------------|---|
| <b>Title</b>             | <b>Change a proposed schedule manually</b>  |
| Actors                   | Administrator, Program Administrator, Main Lecturer, GUI, Scheduler, Database   |
| Scope                    | GUI   |
| Iteration                | 4   |
| Precondition             | System is running and user is logged in with the rights of an Administrator, Program Administrator or Main Lecturer.  |
| Postcondition            | System is still running, user is still logged in and if there was a previous proposed scheduling it is not lost due to database exceptions.   |
| Postcondition on Success | The proposed schedule is inserted or updated into the database.   |
| Basic Course of Events   | (1) User opens the timetable of a room.<br>(2) User moves course element instances to their new time slots.<br>(3) User clicks on submit.<br>(4) Scheduler calculates the score and potential conflicts.<br>(5) GUI displays potential conflicts.<br>(6) User clicks on accept.<br>(7) Scheduler inserts the new proposed schedule into the database. |
| Alternative Paths        | (3a) User clicks on discard.<br>(4a) GUI reverses the changes and displays the original state.<br>(6b) User clicks on discard.<br>(7b) GUI reverses the changes and displays the original state.<br>(7c) Scheduler updates the proposed schedule in the database.   |
| Open Questions           | Q: Should the Program Administrator get a notification on his next login?<br>A: Yes.<br>Q: Will there be scheduling proposals for conflict resolutions?<br>A: No, but the user will be informed about the reasons of the conflicts.   |
| Implementation Notes     | -   |