Software-Engineering Design
with Prof. Dr. Wagner
SS15 Frankfurt University of applied Sciences

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Project: Elevator

Project report week 24

1. Final decision about the Process model!

   We decided finaly to use the V-Model because it is very easy to realize with a safety critical system like the elevator simulator.

2. Final team organization!

   Since we realized the qualitiies of the single team members, we decided to rearrange the team roles as following:

   - Programming Team: Felix Hefner, Axel Ledwa
   - Documentation: Lars Sossenheimer
   - Requirment analysis: David Müller
   - Design: Alexander K.Ochs

   We think that these roles fit more to the individual skills of the single persons, so the productivity is given.

3. Determine conceptual classes, attributes and associations!

   - Elevator: The class which handles the general functions of the simulator.
     - Attributes: 2x Floor (1st and 2nd); Current Time; Person (Passanger who is currently driving); Bell; Scheduler;

   - Floor: Describes the level of the floor and the states of the objects it posseses.
     - Attributes: level; state of the light; Door;

   - Door: Shows if the door of a specific floor is open or closed.
     - Attributes: open

   - Person: Specification of a user who is driving the elevator.
     - Attributes: floor (current floor the person is situated);name

   - Scheduler: Used for calculating the travel times from one floor to the other. Each time when the elevator moves new times are created.
     - Attributes: Random Numbers T1 and T2;

   - Bell: Rings a specific sound each time the elevator arrives at another plattform.

- Attribute: Soundfile; Loop(e.g. you can play the sound forever)

- Clock: Provides the system Time each second
  - Attributes: Count (seconds since the start of the programm)

4. Diagrams we made:
   All diagrams are in the Github(https://github.com/FHefner/FRA-UAS.SWE-Design.SS2015) as PDF or PNG files.

   - Three Use case Texts + one use case diagram which connects all the use cases (Mr. Hefner)
   - Class diagram (Mr. Ochs)
   - Sequence diagram (Mr. Ochs)
   - Activity diagram (Mr. Ledwa)
   - Contracts (Mr. Sossenheimer)

5. Beta-Version
   Mr. Hefner implemented the project in Java. He uploaded the Eclipse project which includes the source code in Github and runable jar.