Technical University of Denmark
DTU Compute
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Spring 2019
Exercise Nr. 1
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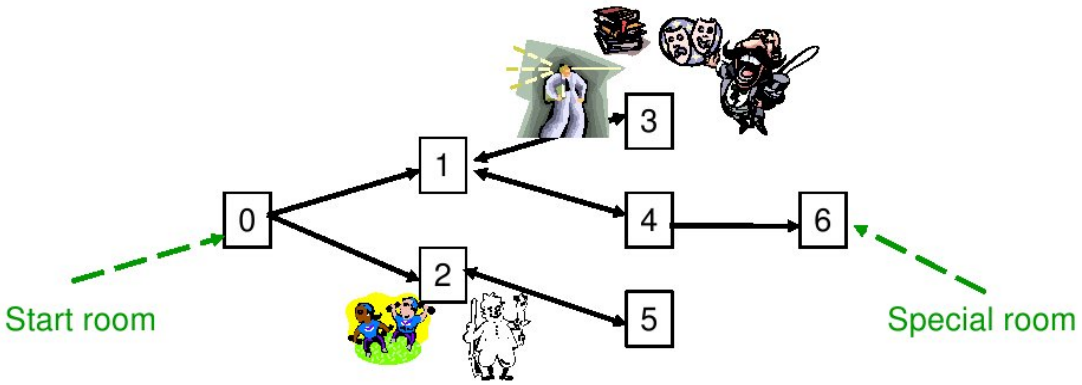
02291: System Integration

MUD Game



The task is to model a multi user dungeon game to be played via the mobile phone. Mobile phone users can join the game by contacting the game server and requesting to join the game. A user enters the game at the start room of the first level. An example of one level of the MUD game is shown in the picture above. The task of the player is to find the special room of the level from which he advances automatically to the start room of the next level. With reaching the special room of the final level of the game, the game is finished. Each player has an inventory that can contain up to 5 objects. Rooms can contain an unrestricted number of objects. A player can take objects in a room he is in and also lay down objects. During his travel through the rooms, a player can meet other players of the game and can talk with them. He can trade objects with other players.

Develop the requirements for the MUD game

- Create a domain model
  - Create a glossary explaining the notions and terms discovered when analysing the domain of the MUD game (i.e., the problem domain)
  - Create a class diagram of the domain
- Describe the functional requirements using use cases.
  - Create one or more use case diagrams. Ideally one use case diagram, but if this gets too complicated, you can use more than one use case diagram.
  - Provide 2 detailed use cases. A use case should have the following structure (as explained in the lecture):
    - Use Case Name

    - Description
    - Actors
    - Preconditions
    - Main Scenarios
    - Alternative Scenarios
    - Postconditions
    - Notes

- Describe the non-functional requirements in text form. Make sure they are testable.
- Create acceptance tests using Fit tables for the detailed use cases you have defined before.

Documenting the MUD game requirements

- Write a short report containing the requirements of the MUD game. The report should have the following parts in the following order:

  A title page
    - Contains title of the report and authors

  1. Requirements
     1.1 Domain analysis
     1.2 Functional requirements (use case diagram and detailed use cases)
     1.3 Non-Functional requirements
     1.4 Acceptance test Fit tables

- The report should be written in groups ideally 6 people
- The PDF version of the paper should be uploaded to CampusNet using the assignment module
  - The filename should of the form sxxxxx_1.pdf (i.e. the student number of **one** of the group members, followed by an underscore, followed by 1, the number of the exercise)