

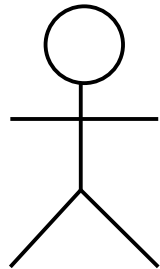


Live Demonstration

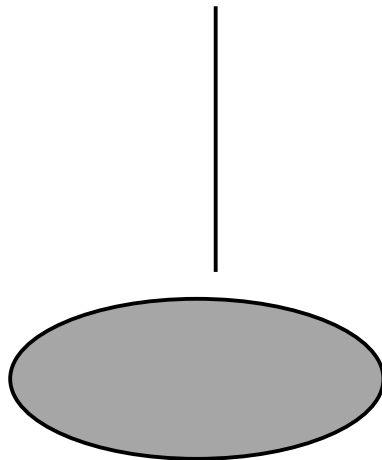
- First step: login to REQuest

<http://sysiphus.in.tum.de:8080/arena02/servlet/SYSLogin>

Requirements: What do users do? (1)



Player



Accomplish Mission

- Brief high-level descriptions
- **Actors** represent roles, that is, a type of user of the system
 - Player
- **User tasks** represent activities accomplished by the user, independently of the system.
 - Accomplish Mission



Requirements: What do users do? (2): Examples

Actor **Player**

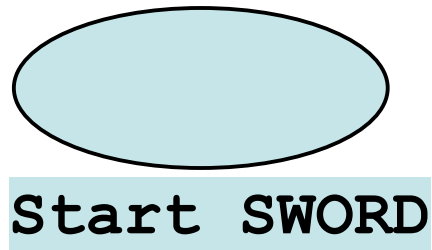
- Person who is able to play one or more games.

User Task **Accomplish Mission**

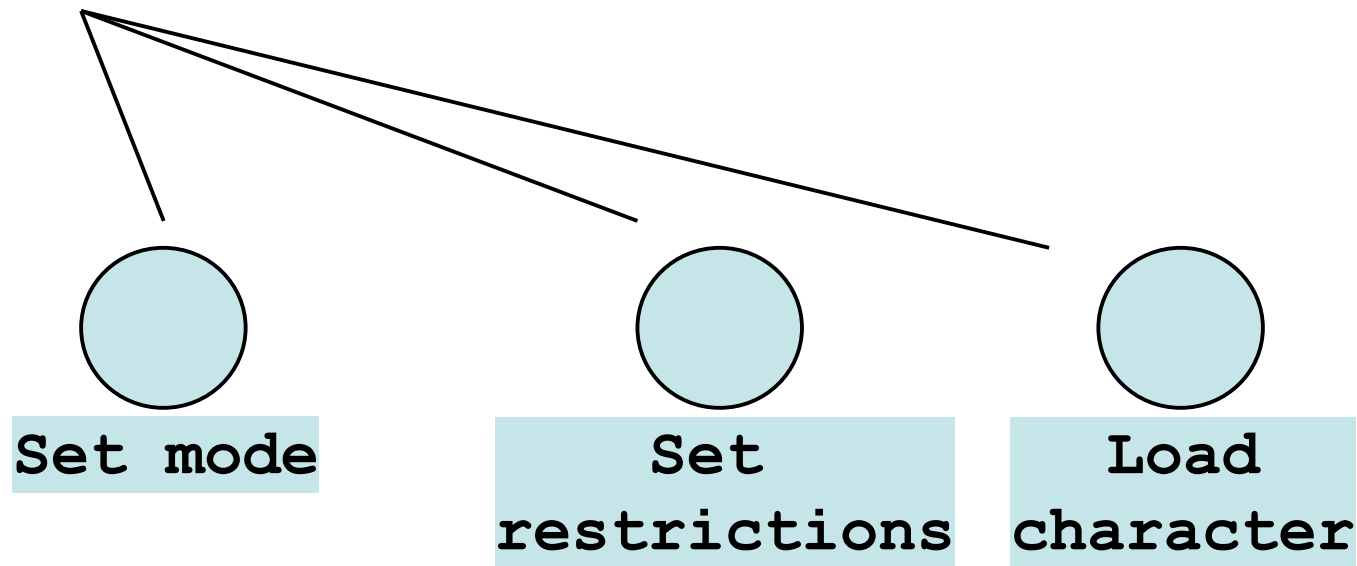
- The Player starts the game.
- The Player sets her/his preferences.
- The Player receives a certain mission.
- The Player completes the mission.



Specification (1) : What does the system do?



- **Use cases** describe sequences of interactions between the actors and the system
- **Services** describe features provided by the system





Specification (2): Example of use case attributes

Use Case **Start SWORD**

Initiating actor:

- Player

Preconditions:

- Player has installed SWORD on her/his computer.

Postconditions:

- Player is able to enter the game.



Specification (3): Example of use case flow of events

Actor steps

1. The Player double clicks the SWORD icon on her/his computer
3. The Player chooses the stopwatch mode and sets a deadline
5. The Player restricts the game to her/his buddy list
7. The Player can enter the game

System steps

2. SWORD asks for the preferred game mode
4. SWORD asks if the player wants to set any restrictions
6. SWORD loads the Player's character



Specification (4): Example services

Service **Set mode**

- Inputs: one game mode and deadline
- Output: message asking for restrictions

Service **Set restrictions**

- Input: one or more players (from menu)
- Output: message that restrictions are set



ARENA Specification (5): Exceptions

Actor steps

1. The Player double clicks the SWORD icon on her/his computer.
3. The Player chooses the stop-watch mode and sets a deadline.
[invalid format]
5. The Player restricts the game to her/his buddy list. **[no buddy list defined]**
7. The Player can enter the game

[invalid format]

SWORD displays a message box and asks to use the valid format for setting deadlines.

[no buddy list defined]

SWORD announces the failure and offers the possibility to set the buddy list now as well as canceling this step. If the Player chooses the first option, a window will pop up so that the Player can compile her/his buddy list.



Nonfunctional requirements

Domain constraints

- Domain facts
- Applicable to user tasks

Global functional constraints

- Functionality that is easier to describe in terms of constraints
- Applicable to use cases

Quality constraints

- Constraint on the attribute of a user task, use case, or service.