System Sequence Diagrams

Assignment in the course PA1415 Software Design

2017-04-26

Authors and Authors contribution

Author Name	Social Security Number	Thinking	Writing
Max Tlatlik	19940813-XXXX	60%	40%
Samuel Sarin Drysén	19950113-XXXX	-	-
Fredrik Olsson	19910114-XXXX	-	-

System Description

The goal of this system is to create a game based on the idea of the game Nethack. The system shall adopt the rules of the original Nethack to keep its flare.

The most interesting feature for the system is the map generation where the maps can be generated with the Twitter API. The map generation can also work offline without the usage of the Twitter API.

The system also includes multiplayer support. User are able to access games online via the internet or offline via a LAN.
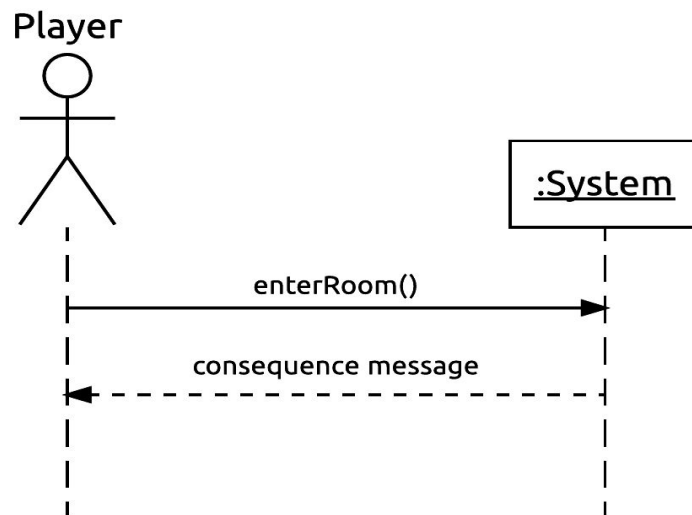
System Sequence Diagrams

System Sequence Diagram for Use Case: Create character

System Sequence Diagram: Player creates a character
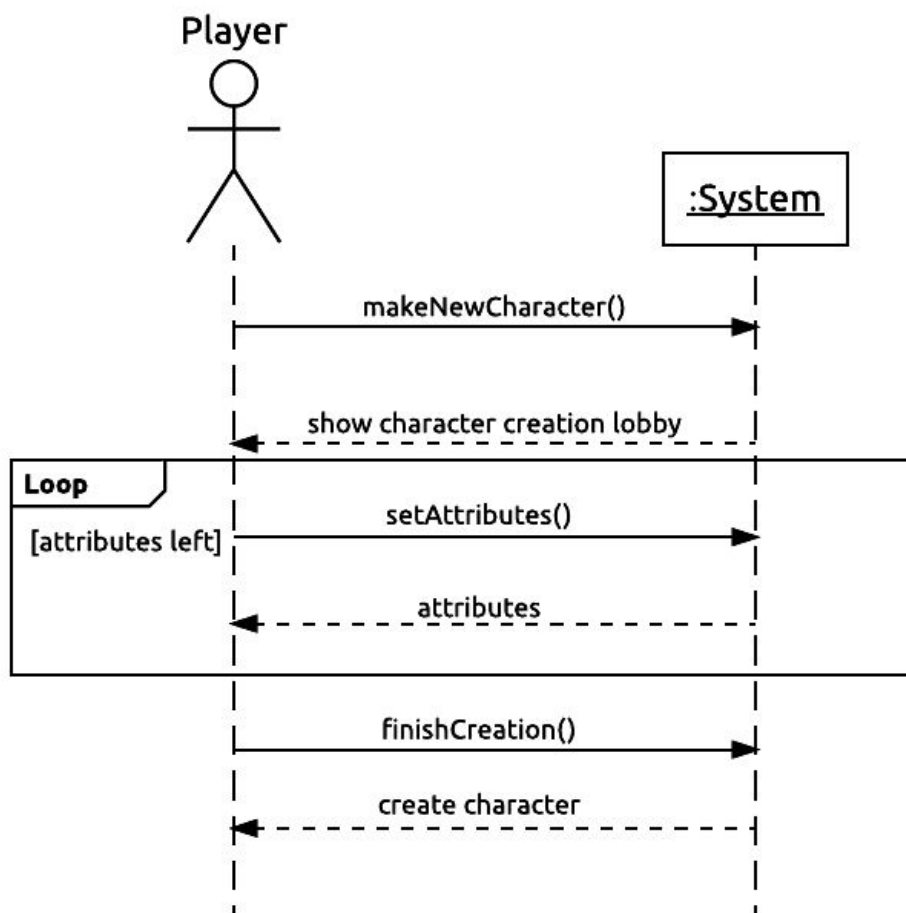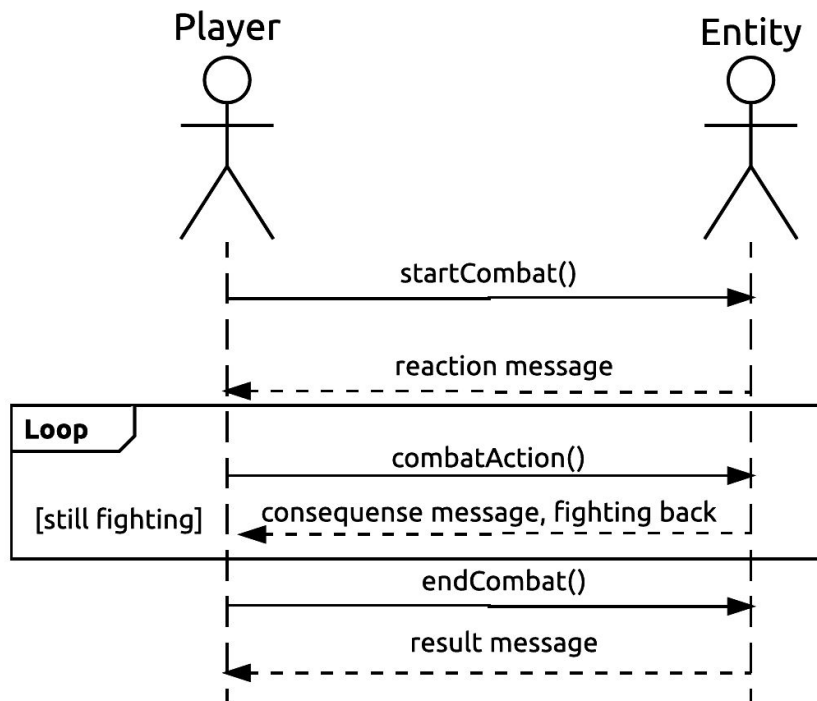
System Sequence Diagram for Use Case: Enter room

System Sequence Diagram: Player enters a room

Player

:System

enterRoom()

consequence message

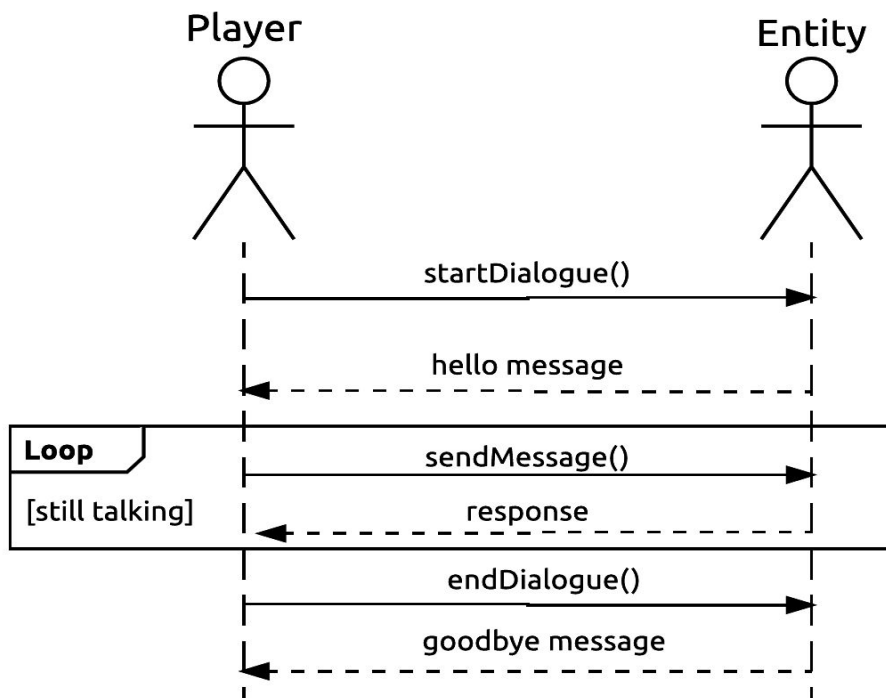**System Sequence Diagram for Use Case:** Engage combat with entities

System Sequence Diagram: Player enages in combat with entity

Player   Entity

startCombat()

reaction message

Loop

combatAction()

[still fighting]   consequense message, fighting back

endCombat()

result message

System Sequence Diagram for Use Case: Open dialogue with entities

System Sequence Diagram: Player talks to an entity

Player   Entity

startDialogue()

hello message

Loop

[still talking]

sendMessage()

response

endDialogue()

goodbye message

System Sequence Diagram for Use Case: Pick up items

System Sequence Diagram: Player picks up an item

Player

:System

pickUpItem()

message, item added
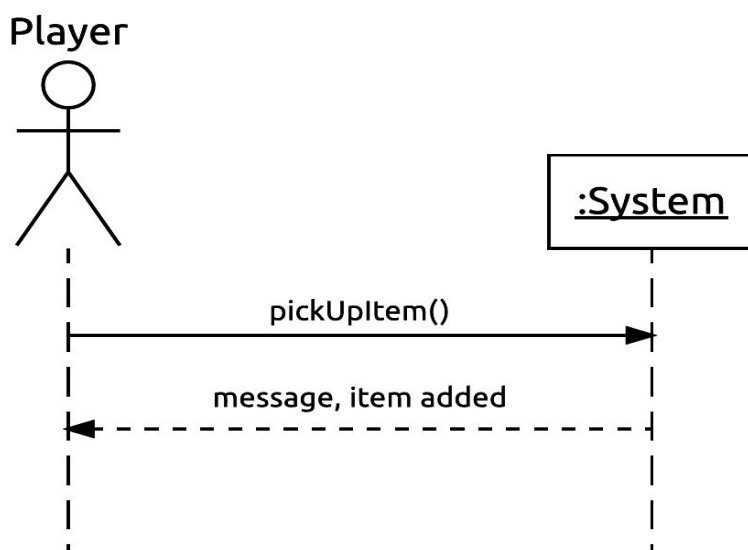
System Sequence Diagram for Use Case: Use item

System Sequence Diagram: Player uses an item

```
        Player
          O
         /|\                          ┌──────────┐
         / \                          │ :System  │
          |                           └────┬─────┘
          |          useItem()              |
          |──────────────────────────────▶ |
          |                                 |
          |       consequence message       |
          |◀ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ |
          |                                 |
          |                                 |
```
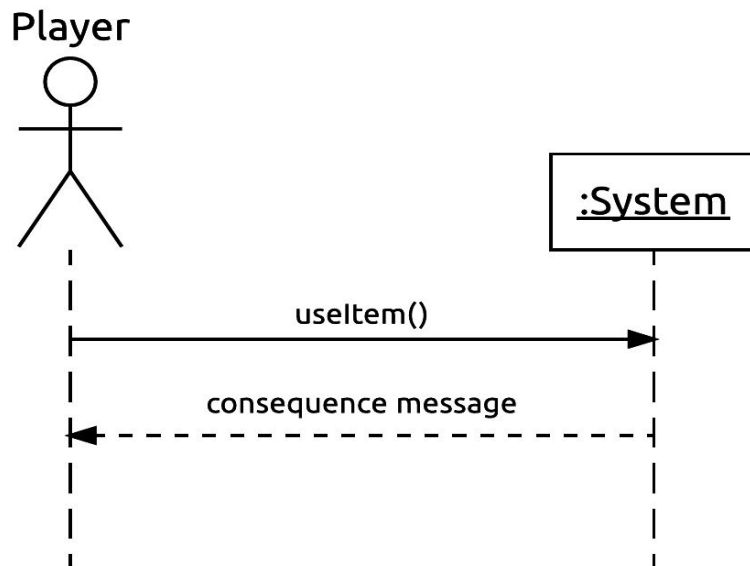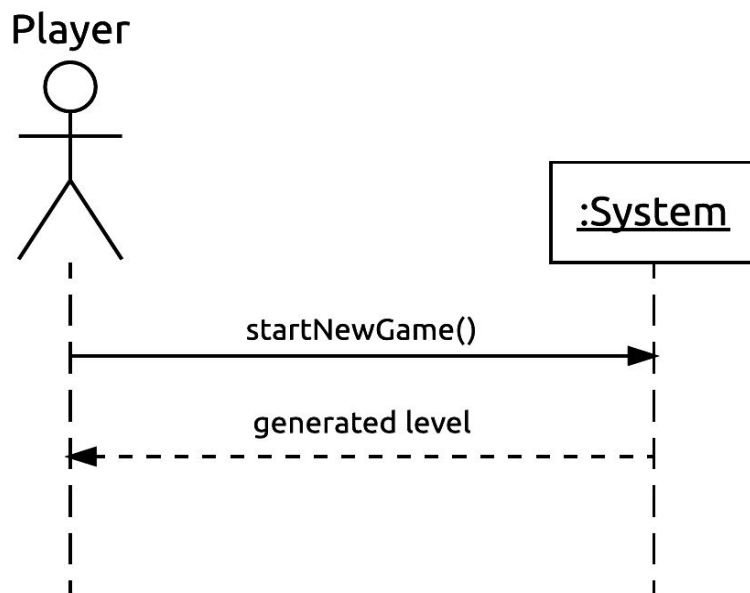
System Sequence Diagram for Use Case: Generate level

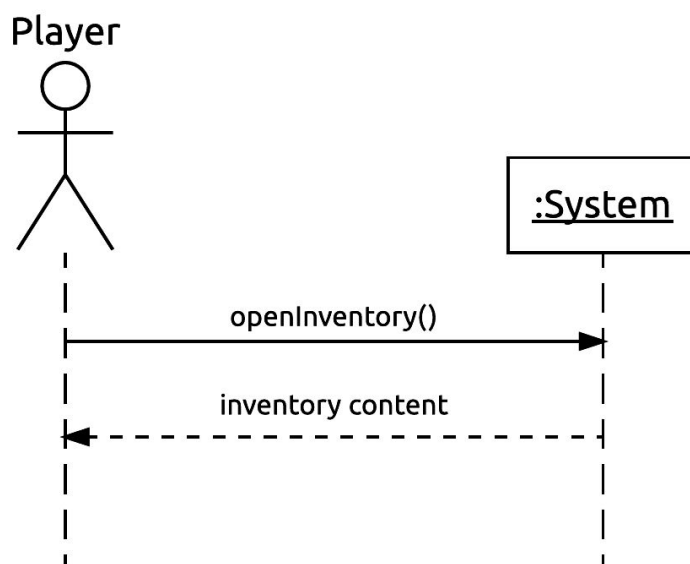### System Sequence Diagram: Player starts playing the game

```
        Player
          O
         /|\                          ┌──────────┐
         / \                          │ :System  │
          |                           └────┬─────┘
          |          startGame()            |
          |──────────────────────────────▶ |
          |                                 |
          |        generated level          |
          |◀ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ |
          |                                 |
          |                                 |
```
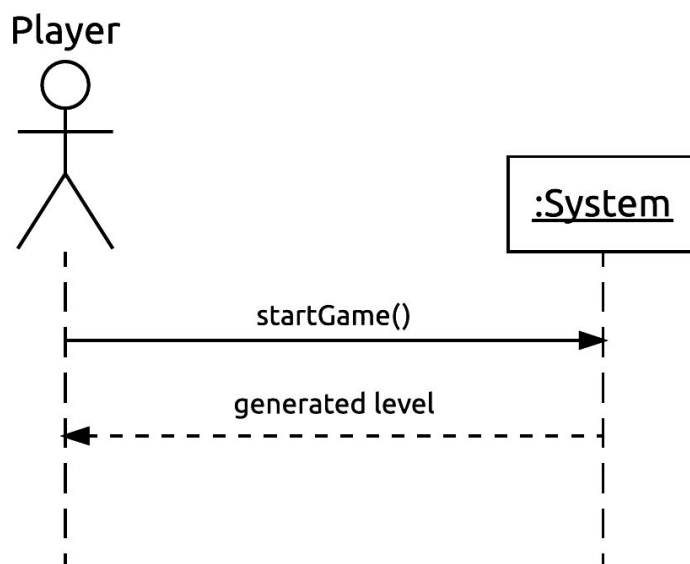
System Sequence Diagram for Use Case: Start new game

System Sequence Diagram: Player starts a new game

Player

startNewGame()

generated level

:System

System Sequence Diagram for Use Case: Open inventory

System Sequence Diagram: Player opens the inventory

Player

openInventory()

inventory content

:System

System Sequence Diagram for Use Case: Join existing game

System Sequence Diagram: Player joins an existing game