**Use Case: Activate Music via Button**

**Actor:** Physical User

**Preconditions:** Person present at given sensorstation. Music is not playing/muted in room previously. At least one playlist is present at Raspberry Pi. Nightmode inactive. Else pressing the start button has no effect. Pressing multiple buttons has no effect.

**Basic Flow:**

Press start button. Then:

**Case 1, cluster’s playlist is still playing in cluster/has been stopped in room previously without stopping cluster’s playback:**

Volume is turned up again. Playback is synchronized to cluster’s playback.

**Case 2, no music playing in cluster:**Start playing default playlist in entire cluster.

**Failure:**  
Failure of the physical button is hard to detect from the system and is just handled by replacing the sensor after physical user registers the dysfunctionality.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist, NightModeSettings  
  
**Use Case: Activate Music via Movement Sensor**

**Actor:** Physical User

**Preconditions:** Person present at given sensorstation. Music is not playing/muted in room previously. At least one playlist is present at Raspberry Pi. Nightmode inactive.

**Basic Flow:**

Move. Then:

**Case 1, cluster’s playlist is still playing in cluster/has been stopped in room previously without stopping cluster’s playback:**

Volume is turned up again. Playback is synchronized to cluster’s playback.

**Case 2, no music playing in cluster:**Start playing default playlist in entire cluster.

**Finally:** Movement sensor must be triggered again within the time specified by the timeout. Else the procedure of Use Case Stop Playback via Button takes place.

**Failure:**  
Failure of the physical button is hard to detect from the system and is just handled by replacing the sensor after physical user registers the dysfunctionality.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist, NightModeSettings

**Use Case: Skip via Button**

**Actor:** Physical User

**Preconditions:** Person present at given sensorstation. Music is playing. Else pressing the skip button has no effect. Pressing multiple buttons has no effect.

**Basic Flow:**

Press skip button. After some time, the next song, or first song in playlist if previously the last song was played, is played.

**Failure:**  
Failure of the physical button is hard to detect from the system and is just handled by replacing the sensor after physical user registers the dysfunctionality.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist

**Use Case: Stop Playback via Button**

**Actor:** Physical User

**Preconditions:** Person present at given sensorstation. Music is playing. Else pressing the stop button has no effect. Pressing multiple buttons has no effect.

**Basic Flow:**

Press stop button.

**Case 1, sensorstation is the last one in the cluster to still play music:** Cluster’s playback stops.

**Case 2, sensorstation is not the last one in the cluster to play music:** Music in room is turned off. Cluster’s playback continues (in other rooms and system).

**Failure:**  
Failure of the physical button is hard to detect from the system and is just handled by replacing the sensor after physical user registers the dysfunctionality.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist

**Use Case:** Start custom playlist

**Actor:** Net-User

**Preconditions:** User in cluster management view. Cluster not in nightmode.

**Basic Flow:**

-Click on cluster where playlist should be played.

-Click “Choose Playlist”

-Select playlist to play via dropdown.

-If playlist is not playing yet, it starts playing the new one starting with the first song in the whole cluster else error message, that playlist is already playing, gets depicted.

**Failure:** Depicted above.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist  
  
  
**Use Case:** Start Default Playlist

**Actor:** Net-User

**Preconditions:** User in cluster management view. Click on admired cluster to play music in. Cluster not in nightmode.

**Basic Flow:**

-Press button with start symbol

-Playlist starts playing from the beginning and overwrittes potential current playback.

**Failure:** Nothing.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist  
  
  
**Use Case:** Skip Song

**Actor:** Net-User

**Preconditions:** User in cluster management view. Music in cluster is playing.

**Basic Flow:**

**-**Click on cluster where song should be skipped.

-Next song in playlist starts playing, when last song is reached the first song is the song being played.

**Failure:** Nothing.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist

**Use Case:** Stop Playback

**Actor:** Net-User

**Preconditions:** User in cluster management view.

**Basic Flow:**

-Click on cluster where the playlist should be stopped.

-Click button with the stop symbol

-Playback in the whole cluster stops

**Failure:** Nothing.

**Involved Business Classes:** SensorStation, Raspberry Pi, Net, Cluster, Room, Song, Playlist

**Use Case:** Create Playlist

**Actor:** Net-User

**Preconditions:** User in playlist view.

**Basic Flow:**

* Press “Create playlist” button.
* Dialogue opens.
* Enter name and state (private/internal/public)
* Press “Create playlist” on dialogue.

**Failure:**  
Display error message: “Creating playlist failed.”

**Involved Business Classes:** User, Playlist  
  
**Use Case:** Create Playlist

**Actor:** Net-User

**Preconditions:** User in playlist view.

**Basic Flow:**

* Press “Create playlist” button.
* Dialogue opens.
* Enter name and state (private/internal/public)
* Press “Create playlist” on dialogue.

**Involved Business Classes:** User, Playlist

**Use Case:** Edit Playlist

**Actor:** Net-User

**Preconditions:** User in playlist view.

**Basic Flow:**

Add song to playlist:

-Press “Browse songs”

-Search song via searchbar

-Add song via “Add to playlist” button

-Select Playlist from the dropdown menu.

-If song is already in playlist or playlist is currently playing display error message accordingly, else song is added to playlist.

Remove song from playlist:

-Click on playlist to reach detailed view

-Click on button next to song, to remove it.

-If song is part of the playlist currently playing display error message accordingly, else song is removed from the playlist.

To change state/name:

-Click on playlist to reach detailed view

-Press “…” to reach playlist settings

-Click on name to change name via input

-Click on state to change state via dropdown menu

**Involved Business classes:** User, Playlist, Song

#### **Use Case:** Edit any Playlist in Net

**Actor:** Net-Admin  
  
Same as Use Case Edit Playlist, just admin view must also be activate as precondition.**Use Case:** Delete Playlist

**Actor:** Net-User

**Preconditions:** User in playlist view.

**Basic Flow:**

-Click on playlist to reach detailed view

-Here the playlist can be deleted via a button, which is shown if the playlist belongs to this user.

-Playlist gets deleted if it is not currently playing and not set as default playlist. Else an error message is depicted which describes the error accordingly.

**Involved Business classes:** User, Playlist, Song, Cluster

**Use Case:** Delete Any Playlist in Net

**Actor:** Net-Admin

Same as Use Case DeletePlaylist, just admin view must also be activate as precondition. The delete button is shown always.

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