# Use cases

### Use Case : Manage Home Audio System

**Successful Outcome :** The Occupant selects a task to modify the library of the Home Audio System.

| ID | UC-ML-01 |
|---|---|
| **Use Case Goal** | Primary actor successfully modify one of the component of the Home Audio System. |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry condition** | System is properly launched |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | System shows the Manage Home Audio System form. |
| 2. | Primary actor chooses which task to execute (Add to library, Delete from library or Manage playlist). |
| 3. | System sends the selected choice to the controller. |
| 4. | System updates to the new form. |
| 5. | Use case ends successfully. |

### Use Case : Add to Library «extends» Manage Home Audio System

**Successful Outcome :** The Occupant adds a new Object to the library.

| ID | UC-AL-01 |
|---|---|
| **Use Case Goal** | Primary actor successfully adds a new object to the library. |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry condition** | The user selected the Manage Home Audio System option |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | System shows the Add Library form. |
| 2. | Primary actor chooses which task to execute (Add song, Add album, add new playlist). |
| 3. | System sends the selected choice to the controller. |
| 4. | System updates to the new form to fill by the user. |
| 5. | Use case ends successfully. |

## Use Case : Add Song «extends» Add to Library

**Successful Outcome :** The Occupant adds a song to the main Library.

| ID | UC-AL-02 |
|---|---|
| Use Case Goal | Primary actor successfully adds a Song to the Library of the HAS. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry condition | The User has successfully execute Add to Library (UC-AL-01) |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to add a song. |
| 2. | System prompts Primary Actor the name of the song to add. |
| 3. | System adds the selected song to the main Library. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 2a.1 | The list of Songs is empty, there are no devices to take the song from. |
| 2a.2 | Display error message "No song to add". |
| 2a.3 | Use case ends unsuccessfully. |

| Step | Action |
|---|---|
| 3a.1 | The name of the song is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Add Album «extends» Add to Library

**Successful Outcome :** The Occupant adds an album to the Library.

| ID | UC-AL-03 |
|---|---|
| Use Case Goal | Primary actor successfully adds an album to the Library of the HAS. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry condition | The User has successfully execute Add to Library (UC-AL-01) |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to add an album. |
| 2. | System prompts Primary Actor which album to add. |
| 3. | System adds the selected album to the main Library. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 2a.1 | The list of albums is empty, there is no device to take the album from. |
| 2a.2 | Display error message "No album to add". |
| 2a.3 | Use case ends unsuccessfully. |

| Step | Action |
|---|---|
| 3a.1 | The name of the album is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Add New Playlist «extends» Add to Library

**Successful Outcome :** The Occupant creates a Playlist in the Library.

| ID | UC-AL-04 |
|---|---|
| Use Case Goal | Primary actor successfully adds an new Playlist to the Library of the HAS. |

| Actor(s) | Primary actor: Occupant |
|---|---|
| Level | User-Goal |
| Entry condition | The User has successfully execute Add to Library (UC-AL-01) |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to create a new Playlist. |
| 2. | System prompts Primary Actor to enter the new Playlist information. |
| 3. | System saves the new Playlist in the Library. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 2a.1 | Primary Actor enters information for the Playlist name that is already been used by another Playlist. |
| 2a.2 | System display error message "Name already taken!". |
| 2a.3 | System returns control to Main Success Scenario Step 2. |

| Step | Action |
|---|---|
| 2b.1 | The field entered by the Primary Actor are empty or only spaces. |
| 2b.2 | System display error message "Name cannot be empty!". |
| 2b.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Delete from Library «extends» Manage Home Audio System

**Successful Outcome :** The Occupant deletes an existing Object from the library.

| ID | UC-DL-01 |
|---|---|
| Use Case Goal | Primary actor successfully deletes an object from the library. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry condition | 1. The user selected the Manage Home Audio System option. 2. The main Library is not empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | System shows the Delete Library form. |
| 2. | Primary actor chooses which task to execute (Delete song, Delete album, Delete playlist). |
| 3. | System sends the selected choice to the controller. |
| 4. | System updates to the new form to fill by the user. |
| 5. | Use case ends successfully. |

## Use Case : Delete Song «extends» Delete from Library

**Successful Outcome :** The Occupant deletes a song from the main Library.

| ID | UC-DL-02 |
|----|----------|
| **Use Case Goal** | Primary actor successfully deletes a Song from the Library of the HAS. |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry Condition** | 1. The User has successfully execute Delete from Library (UC-DL-01)<br>2. The list of songs is not empty. |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to delete a song from the Library of the HAS. |
| 2. | System prompts Primary Actor which song to delete. |
| 3. | System deletes the selected song from the Library. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|------|--------|
| 3b.1 | The Song entered by Primary Actor cannot be found in the Library. |
| 3b.2 | System display error message "Song cannot be found, enter a valid name!". |
| 3b.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Delete Album «extends» Delete from Library

**Successful Outcome :** The Occupant deletes an album from the main Library.

| ID | UC-DL-03 |
|---|---|
| Use Case Goal | Primary actor successfully deletes a Song from the Library of the HAS. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry Condition | 1. The User has successfully execute Delete from Library (UC-DL-01)<br>2. The list of albums is not empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to delete an album from the Library of the HAS. |
| 2. | System prompts Primary Actor which album to delete. |
| 3. | System deletes the selected album from the Library. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 3b.1 | The Album entered by Primary Actor cannot be found in the Library. |
| 3b.2 | System display error message "Album cannot be found, enter a valid name!". |
| 3b.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Delete Playlist «extends» Delete from Library

**Successful Outcome :** The Occupant deletes a playlist from the main Library.

| ID | UC-DL-03 |
|---|---|
| Use Case Goal | Primary actor successfully deletes a Playlist from the Library of the HAS. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry Condition | 1. The User has successfully execute Delete from Library (UC-DL-01)<br>2. The list of playlists is not empty. |
| Domain | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to delete a playlist from the Library of the HAS. |
| 2. | System prompts Primary Actor which playlist to delete. |
| 3. | System deletes the selected playlist from the Library. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|------|--------|
| 3b.1 | The Playlist entered by Primary Actor cannot be found in the Library. |
| 3b.2 | System display error message "Playlist cannot be found, enter a valid name!". |
| 3b.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Manage Playlist «extends» Manage Home Audio System

**Successful Outcome :** The Occupant selects a Playlist to manage.

| ID | UC-MP-01 |
|----|----------|
| **Use Case Goal** | Primary actor successfully selects a Playlist |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry Condition** | The list of Playlists is not empty. The Occupant has created at least one playlist as per UC-AL-04. |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to manage a Playlist. |
| 2. | System prompts Primary Actor which Playlist to select. |
| 3. | System selects the specified Playlist and present it to the Primary Actor. |
| 4. | Use case ends successfully. |

## Use Case : Add Song to Playlist «extends» Manage Playlist

**Successful Outcome :** The Occupant adds a song to the selected Playlist.

| ID | UC-MP-02 |
|---|---|
| Use Case Goal | Primary actor successfully adds a Song to a Playlist. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry condition | The User has successfully execute Manage Playlist. The list of songs in the main Library is not empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to add a song to the selected Playlist. |
| 2. | System prompts Primary Actor the name of the song to add. |
| 3. | System adds the selected song to the Playlist. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 3a.1 | The name of the song is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Delete Song from Playlist «extends» Manage Playlist

**Successful Outcome :** The Occupant delete a song from the selected Playlist.

| ID | UC-MP-03 |
|---|---|
| Use Case Goal | Primary actor successfully deletes a Song from a Playlist |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry condition | The User has successfully execute Manage Playlist. The list of songs in the Playlist is not empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to delete a song from the selected Playlist. |
| 2. | System prompts Primary Actor which song to delete. |
| 3. | System deletes the selected song from the Playlist. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|------|--------|
| 3a.1 | The name of the song is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Change order «extends» Manage Playlist

**Successful Outcome :** The Occupant changes the order of display of the selected Playlist.

| ID | UC-MP-04 |
|----|----------|
| Use Case Goal | Primary actor successfully change the order of display of the songs in a Playlist. |
| Actor(s) | Primary actor: Occupant |
| Level | Subfunction |
| Entry condition | The User has successfully execute Manage Playlist. The list of Playlist in the main Library is not empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to change the display order of the selected Playlist. |
| 2. | System prompts Primary Actor to choose the order of display. |
| 3. | System updates the order of the songs in the selected Playlist. |
| 4. | Use case ends successfully. |

## Use Case : Group by artist «extends» Change order

**Successful Outcome :** The Occupant changes the order of display of the selected Playlist to group by artist.

| ID | UC-MP-05 |
|---|---|
| Use Case Goal | Primary actor successfully change the order of display of the songs in a Playlist. |
| Actor(s) | Primary actor: Occupant |
| Level | Subfunction |
| Entry condition | The User has successfully execute Change Order. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to use the Group by Artist order for the selected Playlist. |
| 2. | System updates the order of the songs in the selected Playlist and changes the form. |
| 3. | Use case ends successfully. |

## Use Case : Group by album «extends» Change order

**Successful Outcome :** The Occupant changes the order of display of the selected Playlist to group by album.

| ID | UC-MP-06 |
|---|---|
| Use Case Goal | Primary actor successfully change the order of display of the songs in a Playlist. |
| Actor(s) | Primary actor: Occupant |
| Level | Subfunction |
| Entry condition | The User has successfully execute Change Order. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to use the Group by album order for the selected Playlist. |
| 2. | System updates the order of the songs in the selected Playlist and changes the form. |
| 3. | Use case ends successfully. |

## Use Case : Set Locations in house

**Successful Outcome :** The Occupant sets up the locations with audio systems.

| ID | UC-ST-01 |
|---|---|
| **Use Case Goal** | Primary actor successfully sets up location with audio system |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry condition** | System is properly launched |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to set up locations with audio system in the house. |
| 2. | System prompts Primary Actor which the list of the available locations to set up. |
| 3. | System sets up the list of the locations in the house where music can be played. |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 2a.1 | The location chosen by the Primary actor has no audio system. |
| 2a.2 | User aborts. |
| 2a.3 | Use case ends unsuccessfully. |

## Use Case : Play Music «include» Choose single/multiple locations

**Successful Outcome :** The Occupant plays music from the HAS.

| ID | UC-PLM-01 |
|---|---|
| **Use Case Goal** | Primary actor successfully plays music |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry Condition** | 1. System is properly launched. 2. The list of locations to stream the music in not empty. 3. The main Library is not empty. |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to play music. |
| 2. | System prompts Primary Actor to choose a location to play the music. |
| 3. | Primary Actor performs Assign to single/multiple locations. {UC- PLM -02} |
| 4. | System selects the locations to play the music and stream the music to these locations with the Media Player. |
| 5. | Use case ends successfully. |

## Use Case : Choose single/multiple locations «include» Assign Media

**Successful Outcome :** The Occupant chooses the locations to stream the music.

| ID | UC-PLM-02 |
|----|-----------|
| **Use Case Goal** | Primary actor successfully chooses a location |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry Condition** | The list of locations to stream the music is not empty as stated in UC-PLM-01 |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | System prompts Primary Actor which location(s) to choose to play the music. |
| 2. | System sends the designated locations to play the music to the controller. |
| 3. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|------|--------|
| 2a.1 | Primary actor enters an invalid location. |
| 2a.2 | System display error message "Enter valid locations!". |
| 2a.3 | System returns control to Main Success Scenario Step1. |

## Use Case : Assign Media

**Successful Outcome :** The Occupant assigns the music to stream.

| ID | UC-PLM-03 |
|----|-----------|
| **Use Case Goal** | Primary actor successfully chooses the |

| | music to stream |
|---|---|
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry Condition | The Library is not empty as stated in UC-PLM-01 |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | System shows the Assign Media form. |
| 2. | Primary actor chooses the media to stream. |
| 3. | System sends the selected choice to the controller. |
| 4. | Controller sends information to the Third-party software responsible of playing the music. |
| 5. | Use case ends successfully. |

## Use Case : Assign Playlist «extends» Assign Media

**Successful Outcome :** The Occupant assigns a playlist to the player.

| ID | UC-PLM-04 |
|---|---|
| Use Case Goal | Primary actor successfully assign a Playlist to be played |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry Condition | 1. The User has successfully execute Assign Media (UC-PLM-03) 2. The list of playlists must not be empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to stream a Playlist. |
| 2. | System prompts Primary Actor which playlist to be streamed. |
| 3. | System sends the selected choice to the controller. |
| 4. | System updates the information to be sent to the third-party software that plays the music. |
| 5. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|------|--------|
| 3a.1 | The name of the Playlist is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Assign Album  «extends» Assign Media

**Successful Outcome :** The Occupant assigns an album to the player.

| ID | UC-PLM-05 |
|------|--------|
| **Use Case Goal** | Primary actor successfully assign an album to be played |
| **Actor(s)** | Primary actor: Occupant |
| **Level** | User-Goal |
| **Entry Condition** | 1. The User has successfully execute Assign Media (UC-PLM-03) <br> 2. The list of albums must not be empty. |
| **Domain Entities** | Occupant |

**Main Success Scenario:**

| Step | Action |
|------|--------|
| 1. | Primary Actor indicates intention to stream an Album. |
| 2. | System prompts Primary Actor which album to be streamed. |
| 3. | System sends the selected choice to the controller. |
| 4. | System updates the information to be sent to the third-party software that plays the music. |
| 5. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|------|--------|
| 3a.1 | The name of the Album is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Assign Song «extends» Assign Media

**Successful Outcome :** The Occupant assigns a song to the player.

| ID | UC-PLM-06 |
|---|---|
| Use Case Goal | Primary actor successfully assign a Playlist to be played |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry Condition | 1. The User has successfully execute Assign Media (UC-PLM-03)<br>2. The list of songs must not be empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to stream a Song. |
| 2. | System prompts Primary Actor which song to be streamed. |
| 3. | System sends the selected choice to the controller. |
| 4. | System updates the information to be sent to the third-party software that plays the music. |
| 5. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 3a.1 | The name of the Song is empty or only spaces |
| 3a.2 | System display error message "Name cannot be empty!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |

## Use Case : Control volume/mute

**Successful Outcome :** The Occupant sets the volume in the locations with audio systems.

| ID | UC-CV-01 |
|---|---|
| Use Case Goal | Primary actor successfully change the change the volume or mute the music in the different locations. |
| Actor(s) | Primary actor: Occupant |
| Level | User-Goal |
| Entry condition | 1. System is properly launched.<br>2. The list of locations is not empty. |
| Domain Entities | Occupant |

**Main Success Scenario:**

| Step | Action |
|---|---|
| 1. | Primary Actor indicates intention to set the volume in the locations with audio system in the house. |
| 2. | System prompts Primary Actor which location to control volume. |
| 3. | System prompts Primary Actor to either increase the volume, decrease the volume or mute it. |
| 3. | System sets up the volume at the designated location(s). |
| 4. | Use case ends successfully. |

**Alternative Flows:**

| Step | Action |
|---|---|
| 3a.1 | Primary actor enters an invalid location. |
| 3a.2 | System display error message "Enter valid locations!". |
| 3a.3 | System returns control to Main Success Scenario Step 2. |