**Use Cases & Test Cases**

**Use Case:**

* **Name** : Mobile Client Connection
* **Description**: Connects the mobile device to the desktop server
* **Actor**: Everyone who owns a mobile device and connected to the Wifi network.
* **Pre-condition:** Must be connected to the Wifi network, and the user is currently in the app main menu.
* **Post-condition:** The mobile device is now connected to the server.

**Main Course:**

1. The user clicks the “Connect” button.
2. The user inputs the IP of the server in the textbox provided and clicks the “Connect” button.

**Exception:**

**2.a)** If the user receives a message “Connection Failed!”. Repeat Step 2.

1. The user’s mobile device is now connected to the desktop server.
2. If there exists an audio stream instance, the app fetches the audio stream.

**Exception:**

**4.a)** If there is no existing audio stream, user receives a message “No audio stream found!” and user is sent back to the main menu.

**Test Case:**

**Given:**

Francis wants to connect his mobile device to the desktop server using the IP address provided: 10.10.1.50.

**When:**

Francis presses the “Connect” button on the menu and inputs the IP: 10.10.1.50 to the text box, and presses the “Connect” button.

**Then:**

Francis’ mobile device is connected and fetches audio stream to the desktop server.

**Use Case:**

* **Name** : Mobile Client Disconnection
* **Description**: Disconnects the mobile device from the desktop server
* **Actor**: Everyone who owns a mobile device and connected to the Wifi network.
* **Pre-condition:** Must be connected to the Wifi network and the app also “Connected” to the desktop server,
* **Post-condition:** The mobile device is now disconnected from the desktop server and returns to the main menu.

**Main Course:**

1. The user clicks the “Menu” button.
2. The user clicks the “Disconnect” button.
3. The user is prompted before disconnecting.
4. The user clicks “Yes” button.

**Alternative:**

**4a)** The user clicks “No” button, Use case exits.

1. The user is now disconnected from the server and returns to the main menu.

**Test Case:**

**Given:**

Francis wants to disconnect his mobile device from the server.

**When:**

Francis presses the “Menu” button and presses the “Disconnect” button and then presses “Yes” after the prompth.

**Then:**

Francis’ mobile device is diconnected from the desktop server.

**Use Case:**

* **Name**: Server Streaming
* **Description:** The desktop server can stream audio to the clients.
* **Actor**: Users
* **Pre-condition:** The desktop server must be connected to the network.
* **Post-condition:** The desktops server streams the audio to all clients.

**Main Course:**

1. The user handling the server plays an audio stream.
2. The system will broadcast the audio to all clients connected using the mobile app.

**Test Case:**

**Given:**

Francis wants to play an audio file from the desktop server.

**When:**

Francis plays a file, and allow it to stream to the clients.

**Then:**

The audio stream is broadcasted to all the clients.