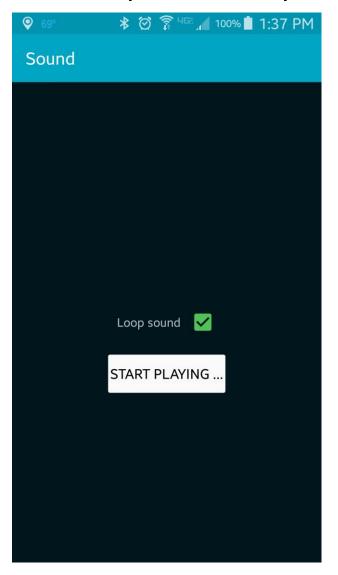
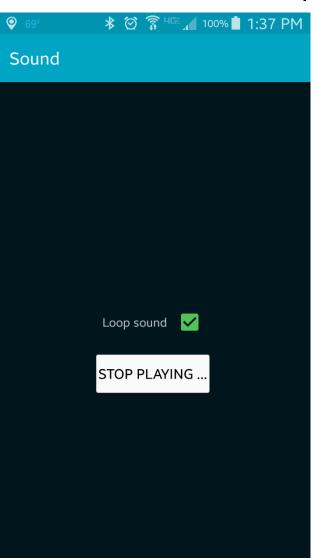
## Android - Sound

- The application demonstrates the use of MediaPlayer
- A button allows the user to start and stop the media playback
- A switch allows the user to enable/disable the looping of playback
- The switch is implemented using the ToggleButton widget provided by Android
- When ToggleButton is:
  - on enable looping
  - off disable looping
- MediaPlayer can support several sources.
- Here, local resource is used as source for playback
  - Placed in res/raw directory
  - Referenced using resourceID

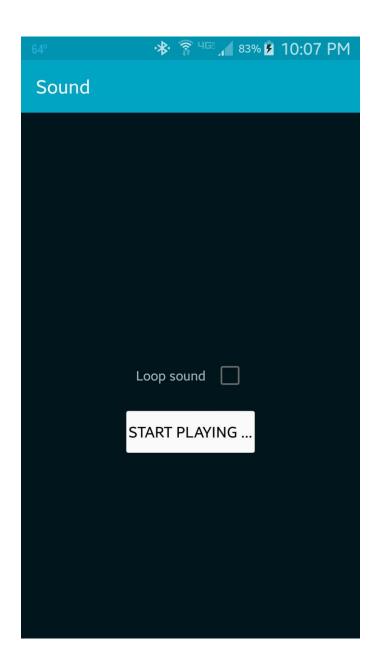
- The MediaPlayer has various states:
  - When the MediaPlayer is created using new() the object is in 'idle' state
  - The MediaPlayer has to be in 'prepared' state before it is 'started'
    - using prepare()
  - When the MediaPlayer is created using create() the object is already 'prepared'
    - Do not call prepare () explicitly
  - MediaPlayer enters 'Stopped' state by calling stop()
  - MediaPlayer enters 'PlaybackCompleted' state when OnCompletion() is invoked and looping is not enabled
- When playback reaches end of the stream,
  - If looping is enabled, the MediaPlayer is still in 'started' state
  - If looping is not enabled, then callback method on Completion () is invoked
    - Registered using setOnCompletionListener()

- The button provided helps user to start and stop the playback
- The switch provided helps used to enable/disable the looping





- When the playback has reached end of stream, if the looping is not enabled, the state of button changes accordingly.
- The MediaPlayer and the resources the object is holding has to be released once we are done using it
- Proper handling of resources
  (releasing the resources)
  onPause() has to be done (not
  implemented in this example)



## References

- MediaPlayer
- ToggleButton

## Exercise

- Add an (arbitrary) MP3 file as a resource to the project (i.e., your favorite song).
- Add another button to the UI "Play MP3" that will play the MP3 file when pressed.