

# Report on Project Music Player

AI1110: Probability and Random Variables  
Indian Institute of Technology Hyderabad

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## 1.Introduction:

This project is a Music Player with Pause and Resume Functionality and Song Title Display with random song playing.

This report presents a music player implemented in Python using the pygame library. The music player allows users to play a list of songs, pause and resume the currently playing song, skip to the next song, and quit the player. Additionally, the name of each song playing is printed for better user experience and track identification.

## 2.Features and Functionality:

The purpose of this project is to develop a music player that offers essential features such as song playback, randomizing, pausing, resuming, skipping, and quitting. The code is written in Python, utilizing the pygame library for music playback and select module for user input handling.

## 3.Music Player:

### Play Function:

The music player includes a `play_song()` function that loads and plays a given song using `pygame.mixer.music`.

### Pause Function:

The player provides `pause_song()` function to pause the currently playing song.

### Resume Function:

The player provides `resume_song()` function resume the currently playing song.

### Stop Function:

The `stop_song()` function stops the currently playing song.

### Next Song Function:

The `get_next_song()` function randomly selects the next song from the song list.

### User Interaction:

The music player interacts with users through the command line interface, allowing commands such as "pause", "resume", "next", and "quit".

## Song Display:

The name of each song playing is printed during playback for improved user experience and track identification.

## Video to Audio conversion:

This project also involves video to audio conversion. The video file are extracted and converted into MP3 files.

```
nehasree@virtual-machine: ~$ python3 player.py
pygame 2.4.0 (SDL 2.26.4, Python 3.10.6)
Hello from the pygame community. https://www.pygame.org/contribute.html
Now playing: /home/nehasree/7.mp3
Now playing: /home/nehasree/8.mp3
Now playing: /home/nehasree/5.mp3
Now playing: /home/nehasree/10.mp3
Now playing: /home/nehasree/12.mp3
Now playing: /home/nehasree/15.mp3
Now playing: /home/nehasree/6.mp3
next
Now playing: /home/nehasree/5.mp3
pause
resume
Now playing: /home/nehasree/3.mp3
next
Now playing: /home/nehasree/6.mp3
```

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Now playing: /home/nehasree/15.mp3
Now playing: /home/nehasree/6.mp3
```

## Conclusion:

In conclusion, the implemented music player with songs playing randomly with pause and resume functionality provides essential features for playing a list of songs, pausing and resuming the currently playing song, skipping to the next song, and quitting the player. The pygame library is used for music playback, and the select module is utilized for handling user input. The added song display enhances the user experience by printing the name of each song during playback. Users can easily identify and enjoy their favorite tracks while using the music player. The code can be further extended to incorporate additional functionalities based on specific requirements.