235229122-lab9-pavithiran-v

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Programming and Data Structures with Python Lab9. Implementing Music play list with files and linked_list

NAME: PAVITHIRAN.V ROLL.NO:235229122

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[6]: class Song:
         def __init__(self, title, artist):
             self.title = title
             self.artist = artist
             self.next_song = None

         def __str__(self):
             return f"{self.title} - {self.artist}"

     class Playlist:
         def __init__(self):
             self.head = None

         def add_song(self, title, artist):
             new_song = Song(title, artist)
             if not self.head:
                 self.head = new_song
             else:
                 current_song = self.head
                 while current_song.next_song:
                     current_song = current_song.next_song
                 current_song.next_song = new_song

         def display_playlist(self):
             if not self.head:
                 print("Playlist is empty.")
             else:
                 current_song = self.head
                 while current_song:
                     print(current_song)
                     current_song = current_song.next_song

         def save_playlist(self, file_name):
             if not self.head:
```

```python
            print("Playlist is empty. Nothing to save.")
            return
        with open(file_name, "w") as file:
            current_song = self.head
            while current_song:
                file.write(f"{current_song.title}\n{current_song.artist}\n")
                current_song = current_song.next_song

    @classmethod
    def load_playlist(cls, file_name):
        new_playlist = cls()
        with open(file_name, "r") as file:
            lines = file.readlines()
            for i in range(0, len(lines), 2):
                title = lines[i].strip()
                artist = lines[i + 1].strip()
                new_playlist.add_song(title, artist)
        return new_playlist

# Step 7
playlist = Playlist()

# Step 8
while True:
    title = input("Enter the song title (or 'done' to finish): ")
    if title.lower() == "done":
        break
    artist = input("Enter the artist: ")
    playlist.add_song(title, artist)

# Step 9
print("Current Playlist:")
playlist.display_playlist()

# Step 10
file_name = input("Enter a file name to save the playlist: ")
playlist.save_playlist(f"playlist.txt")

# Step 11
new_playlist = Playlist.load_playlist("playlist.txt")

# Step 12
print("New Playlist:")
new_playlist.display_playlist()
```

Enter the song title (or 'done' to finish): stay
Enter the artist: Justin Bieber

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Enter the song title (or 'done' to finish):  We Don't Talk Anymore
Enter the artist:  charlie puth
Enter the song title (or 'done' to finish):  Love Story
Enter the artist:  Taylor Swift
Enter the song title (or 'done' to finish):  done

Current Playlist:
stay - Justin Bieber
We Don't Talk Anymore - charlie puth
Love Story - Taylor Swift

Enter a file name to save the playlist:  playlist

New Playlist:
stay - Justin Bieber
We Don't Talk Anymore - charlie puth
Love Story - Taylor Swift
```