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Labsheet 9:Implementing music play list with files and linked list

```python
In [1]:  class Song:
             def __init__(self, title, artist):
                 self.title = title
                 self.artist = artist
                 self.next_song = None

             def __str__(self):
                 return f"Title: {self.title}, Artist: {self.artist}"


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

             def add_song(self, title, artist):
                 new_song = Song(title, artist)
                 if self.head is None:
                     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 self.head is None:
                     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 self.head is None:
                     print("Playlist is empty. Nothing to save.")
                 else:
                     with open(file_name, "w") as f:
                         current_song = self.head
                         while current_song:
                             f.write(f"{current_song.title},{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 f:
                     for line in f:
                         title, artist = line.strip().split(',')
                         new_playlist.add_song(title, artist)
                 return new_playlist


         # Step 7: Create a new instance of the playlist class named "playlist".
         playlist = Playlist()
```

```python
# Step 8: Add Songs to the playlist using the add_song method.
playlist.add_song("megamo aval", "pradeep kumar")
playlist.add_song("anbe anbe", "GV prakash")
playlist.add_song("Remo", "aniruth")

# Step 9: Display the playlist using the display_playlist method.
print("Current Playlist:")
playlist.display_playlist()

# Step 10: Save the playlist to a file using the save_playlist method.
playlist.save_playlist("my_playlist.txt")
print("Playlist saved.")

# Step 11: Create a new instance of the playlist class named "new_playlist" by lo
new_playlist = Playlist.load_playlist("my_playlist.txt")

# Step 12: Display the New playlist using the display_playlist method.
print("Loaded Playlist:")
new_playlist.display_playlist()
```

```
Current Playlist:
Title: megamo aval, Artist: pradeep kumar
Title: anbe anbe, Artist: GV prakash
Title: Remo, Artist: aniruth
Playlist saved.
Loaded Playlist:
Title: megamo aval, Artist: pradeep kumar
Title: anbe anbe, Artist: GV prakash
Title: Remo, Artist: aniruth
```

In [ ]: