Java DSA assignment

You are working on a music streaming application called "MusicMaster," and one of the essential features you need to implement is managing user playlists. As a Java developer, you are responsible for creating a Playlist class to handle the collection of songs in a playlist. To efficiently manage the playlist, you decide to use a linked list data structure.

The various methods that you have to implement are:

* Insertion: Methods to add a song at the beginning and end of the playlist.
* Deletion: Methods to remove a song from the playlist.
* Playback: Methods to play the current song, play the next song, and play the previous song.
* Display: Method to display the details of the current playlist, including the title, artist, and duration of each song.
* Shuffle: Method to shuffle the playlist.
* Search: Method to search for a song by its title or artist and play it.
* Custom Playlist: Method to create and play a custom playlist based on specific criteria.

Details for the Tasks:

Create a Song Class:

* Define a Song class with properties: ‘title’ to store the song title, ‘artist’ to store the artist’s name, and ‘duration’ to store the duration of the song.
* Implement a constructor to initialize the song details.

Implement the Playlist Class:

* The Playlist class should use a linked list to manage the songs in the playlist.
* Implement a constructor to initialize the linked list.

Insertion Methods:

* Write methods to add a song at the beginning and end of the playlist.
* Ensure that the linked list is updated accordingly.

Deletion Methods:

* Write methods to remove a song from the playlist based on its title or artist.
* Ensure that the linked list is updated accordingly.

Playback Methods:

* Write methods to play the current song, play the next song, and play the previous song.
* Ensure that the current song is updated accordingly.

Display Method:

* Write a method to display the details of all the songs in the playlist, including title, artist, and duration.

Test the Implementation:

* Create a main method to test the functionality of the Playlist class.
* Perform various insertions, deletions, and playback operations to validate the correctness of the implementation.