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class SongNode:
    def __init__(self, title, artist):
        self.title = title
        self.artist = artist
        self.next = None

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

    def insert_front(self, title, artist):
        new_song = SongNode(title, artist)
        new_song.next = self.head
        self.head = new_song

        print(f'Song "{title}" inserted at the front.')

    def insert_back(self, title, artist):
        new_song = SongNode(title, artist)

        if not self.head:
            self.head = new_song
        else:
            current = self.head
            while current.next:
                current = current.next

            current.next = new_song

        print(f'Song "{title}" inserted at the back.')

    def insert_after(self, after_title, title, artist):
        current = self.head

        while current:
            if current.title == after_title:
                new_song = SongNode(title, artist)
                new_song.next = current.next
                current.next = new_song

                print(f'Song "{title}" inserted after "{after_title}"')

                return

            current = current.next

        print(f'Song "{after_title}" not found. Cannot insert "{title}"')

    def delete_front(self):
        if not self.head:
            print("Playlist is empty. Nothing to delete at front.")
            return

        removed = self.head
        self.head = self.head.next

        print(f'Song "{removed.title}" removed from front.')

    def delete_back(self):
        if not self.head:
            print("Playlist is empty. Nothing to delete at back.")
            return

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if not self.head.next:
    removed = self.head
    self.head = None
    print(f'Song "{removed.title}"
removed from back (only song).')
    return

current = self.head
while current.next.next:
    current = current.next
    removed = current.next
    current.next = None
    print(f'Song "{removed.title}"
removed from back.')

def delete_middle(self, title):
    current = self.head
    prev = None
    while current:
        if current.title == title:
            if prev:
                prev.next = current.next
            else:
                self.head = current.next
            print(f'Song "{title}" removed
from playlist.')
            return
        prev = current
        current = current.next

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    print(f'Song "{title}" not found in
playlist.')

def display_playlist(self):
    if not self.head:
        print("Playlist is empty.")
        return
    current = self.head
    idx = 1
    print("\nPlaylist:")
    while current:
        print(f'{idx}. {current.title} -
{current.artist}')
        current = current.next
        idx += 1
    print()

def search_song(self, title):
    current = self.head
    while current:
        if current.title == title:
            print(f'Found "{title}" by
{current.artist} in the playlist.')
            return
        current = current.next
    print(f'Song "{title}" not found in
playlist.')

def main():
    playlist = Playlist()

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while True:

    print("\n--- Playlist Menu ---")

    print("1. Insert song at front")

    print("2. Insert song at back")

    print("3. Insert song after a song")

    print("4. Delete song from front")

    print("5. Delete song from back")

    print("6. Delete a specific song by title")

    print("7. Display playlist")

    print("8. Search song by title")

    print("9. Exit")

    choice = input("Enter your choice (1-9): ")

    if choice == '1':

        title = input("Enter song title: ")

        artist = input("Enter artist name: ")

        playlist.insert_front(title, artist)

    elif choice == '2':

        title = input("Enter song title: ")

        artist = input("Enter artist name: ")

        playlist.insert_back(title, artist)

    elif choice == '3':

        after_title = input("Enter the title of the song to insert after: ")

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        title = input("Enter new song title: ")

        artist = input("Enter artist name: ")

        playlist.insert_after(after_title, title, artist)

    elif choice == '4':

        playlist.delete_front()

    elif choice == '5':

        playlist.delete_back()

    elif choice == '6':

        title = input("Enter the title of the song to delete: ")

        playlist.delete_middle(title)

    elif choice == '7':

        playlist.display_playlist()

    elif choice == '8':

        title = input("Enter the title of the song to search: ")

        playlist.search_song(title)

    elif choice == '9':

        print("Exiting... Goodbye!")

        break

    else:

        print("Invalid choice! Please enter a number between 1 and 9.")

if __name__ == "__main__":

    main()

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--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 1
Enter song title: anjala
Enter artist name: hj
Song "anjala" inserted at the front.

--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 2
Enter song title: enn jeevan
Enter artist name: gvp
Song "enn jeevan" inserted at the back.

--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 1
Enter song title: enn frnd pola
Enter artist name: vijay
Song "enn frnd pola" inserted at the front.

--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 7

Playlist:
1. enn frnd pola - vijay
2. enn jeevan - gvp
3. angusowmi - harini

--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 2
Enter song title: angusowmi
Enter artist name: harini
Song "angusowmi" inserted at the back.

--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 7

Playlist:
1. enn frnd pola - vijay
2. anjala - hj
3. enn jeevan - gvp
4. angusowmi - harini

--- Playlist Menu ---
1. Insert song at front
2. Insert song at back
3. Insert song after a song
4. Delete song from front
5. Delete song from back
6. Delete a specific song by title
7. Display playlist
8. Search song by title
9. Exit
Enter your choice (1-9): 6
Enter the title of the song to delete: anjala
Song "anjala" removed from playlist.

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