

```
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

    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

    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()

    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: ")  
    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()
```

OUTPUT:

--- 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: kannama

Enter artist name: anirudh

Song "kannama" 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: vaadi

Enter artist name: hiphop

Song "vaadi" 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: thousand years

Enter artist name: lisa

Song "thousand years" 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): 3

Enter the title of the song to insert after: vaadi

Enter new song title: poowerhouse

Enter artist name: anirudh

Song "poowerhouse" inserted after "vaadi".

--- 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. vaadi - hiphop

2. poowerhouse - anirudh

3. ANJALA - HJ

4. kannama - anirudh

5. thousand years - lisa

--- 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): 4

Song "vaadi" removed from 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): 5

Song "thousand years" removed from 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): 6

Enter the title of the song to delete: powerhouse

Song "powerhouse" not found in playlist.

--- 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. poowerhouse - anirudh
2. ANJALA - HJ
3. kannama - anirudh

--- 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: poewerhouse

Song "poewerhouse" removed from playlist.

--- 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. ANJALA - HJ
2. kannama - anirudh

--- 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):