DSP EXERCISE 2

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

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

    def insert_song(self, title):
        new_song = SongNode(title)
        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}" added.')

    def delete_song(self, title):
        current = self.head
        prev = None
        while current:
            if current.title == title:
                if prev:
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                prev.next = current.next
            else:
                self.head = current.next
            print(f'Song "{title}" deleted.')
            return
        prev = current
        current = current.next
    print(f'Song "{title}" not found.')

def display_playlist(self):
    if not self.head:
        print("Playlist is empty.")
        return
    print("Playlist:")
    current = self.head
    count = 1
    while current:
        print(f"{count}. {current.title}")
        current = current.next
        count += 1

def main():
    playlist = Playlist()

    while True:
        print("\nMenu:")
        print("1. Add song")
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        print("2. Delete song")
        print("3. Display playlist")
        print("4. Exit")

        choice = input("Enter your choice (1-4): ")

        if choice == '1':
            song_title = input("Enter song title to add: ")
            playlist.insert_song(song_title)
        elif choice == '2':
            song_title = input("Enter song title to delete: ")
            playlist.delete_song(song_title)
        elif choice == '3':
            playlist.display_playlist()
        elif choice == '4':
            print("Exiting program.")
            break
        else:
            print("Invalid choice, try again.")

if __name__ == "__main__":
    main()
```