

PLAYLIST IMPLEMENTATION

Data Structure Project

OUR TEAM



**BHAVNA
AGGARWAL**



**SHREYAS
SRIVASTAVA**



**RAKSHIT
AYACHIT**



**SHAREL
RODRIGUES**



**PARSHVA
MODY**

INDEX

01

**AIM OF THE
PROJECT**

02

OBJECTIVES

03-05

**DATA STRUCTURES
USED**

06-10

METHODOLOGY

11-14

RESULTS

15-17

**CONTRIBUTION AND
CONCLUSION**




AIM OF THE PROJECT

This project aims to depict the working of a playlist.

In this playlist, the users can add and delete songs of their taste.

Users can also decide the order in which they want to play their songs.



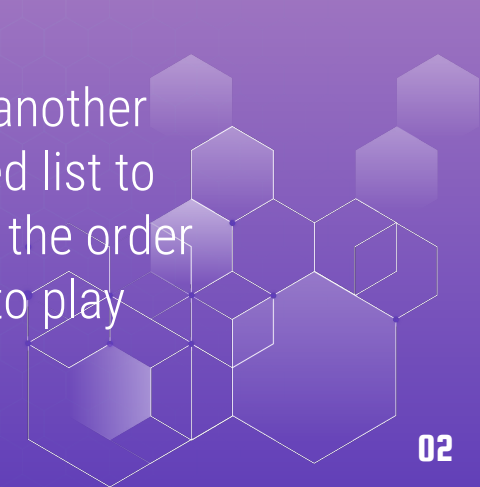


OBJECTIVES

We have used an array to allow the users to select a few songs we enjoy to add to their playlist.

We have used a doubly circular linked list to let the users create a playlist.

We have also used another doubly circular linked list to let the users decide the order in which they want to play their music.





DATA STRUCTURES USED

DOUBLY CIRCULAR LINKED LIST

The circular doubly linked list is a more complex type of data structure in which a node contains pointers to its previous node and the next node.

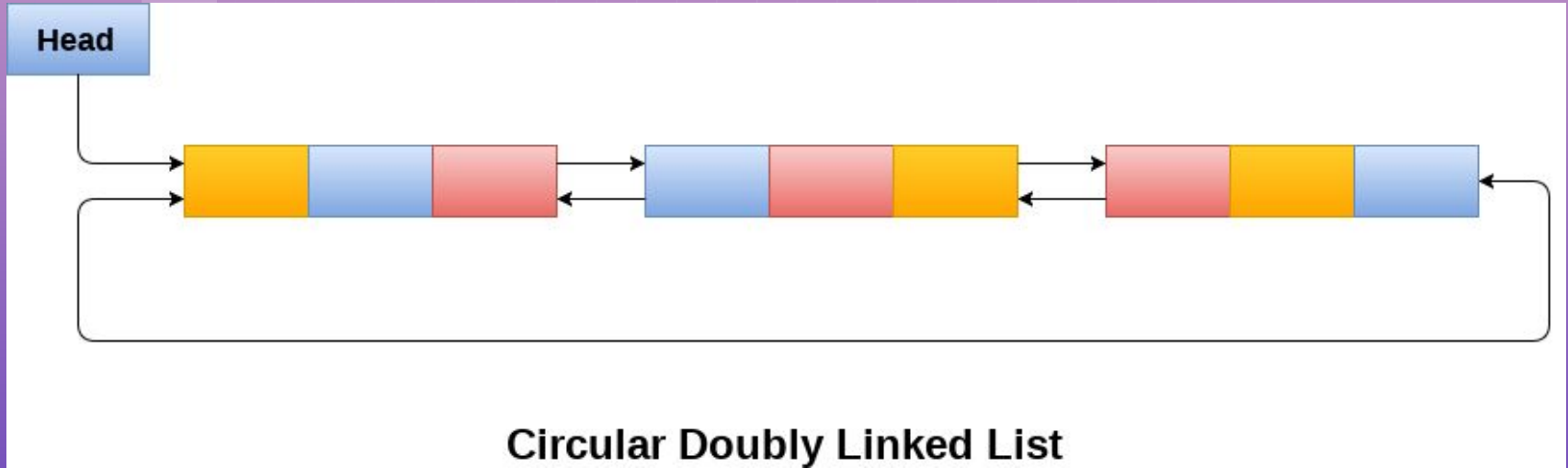
The circular doubly linked list has no 'NULL' pointers.

The last node of the list points to the address of the first node via its forward pointer.

The first node of the list points to the address of the last node via its backward pointer.

DATA STRUCTURES USED

DOUBLY CIRCULAR LINKED LIST IMAGE

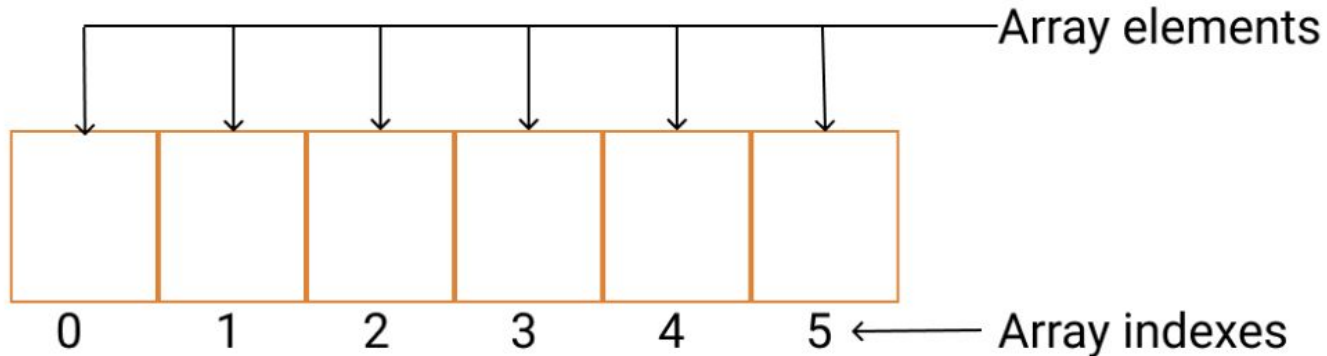


DATA STRUCTURES USED

ARRAY

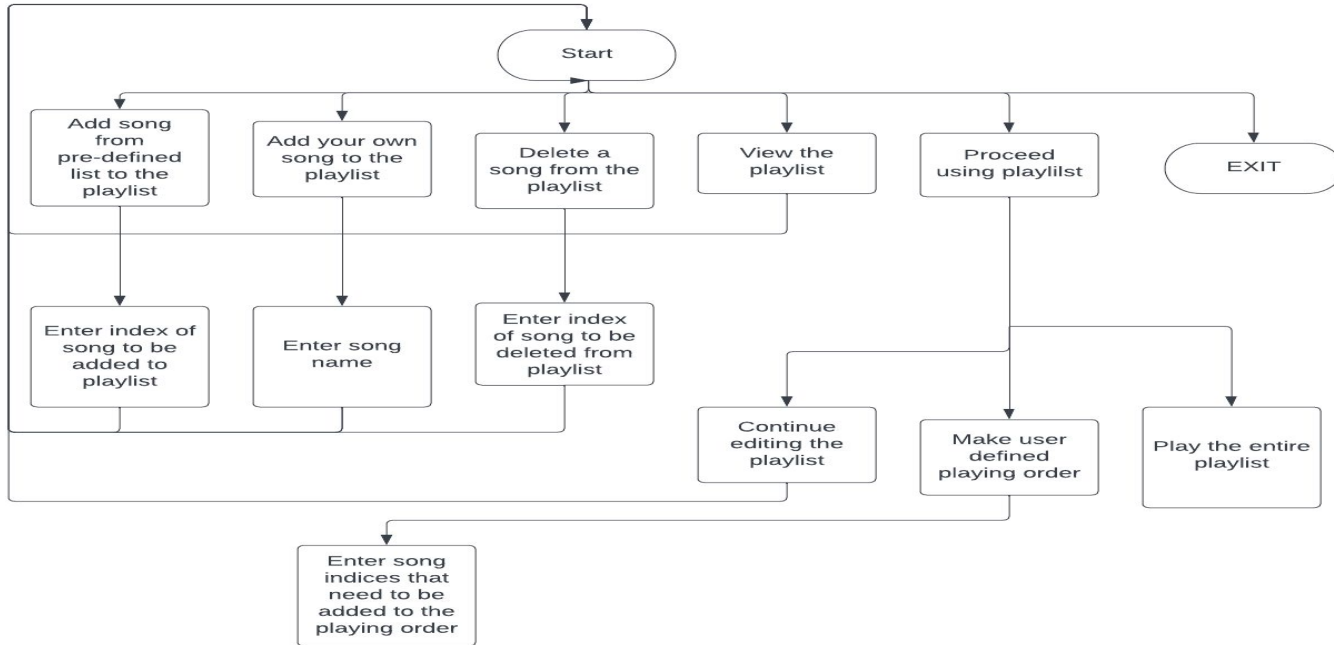
An array is a collection of items stored at contiguous memory locations.

The idea is to keep multiple things\items of the same type together

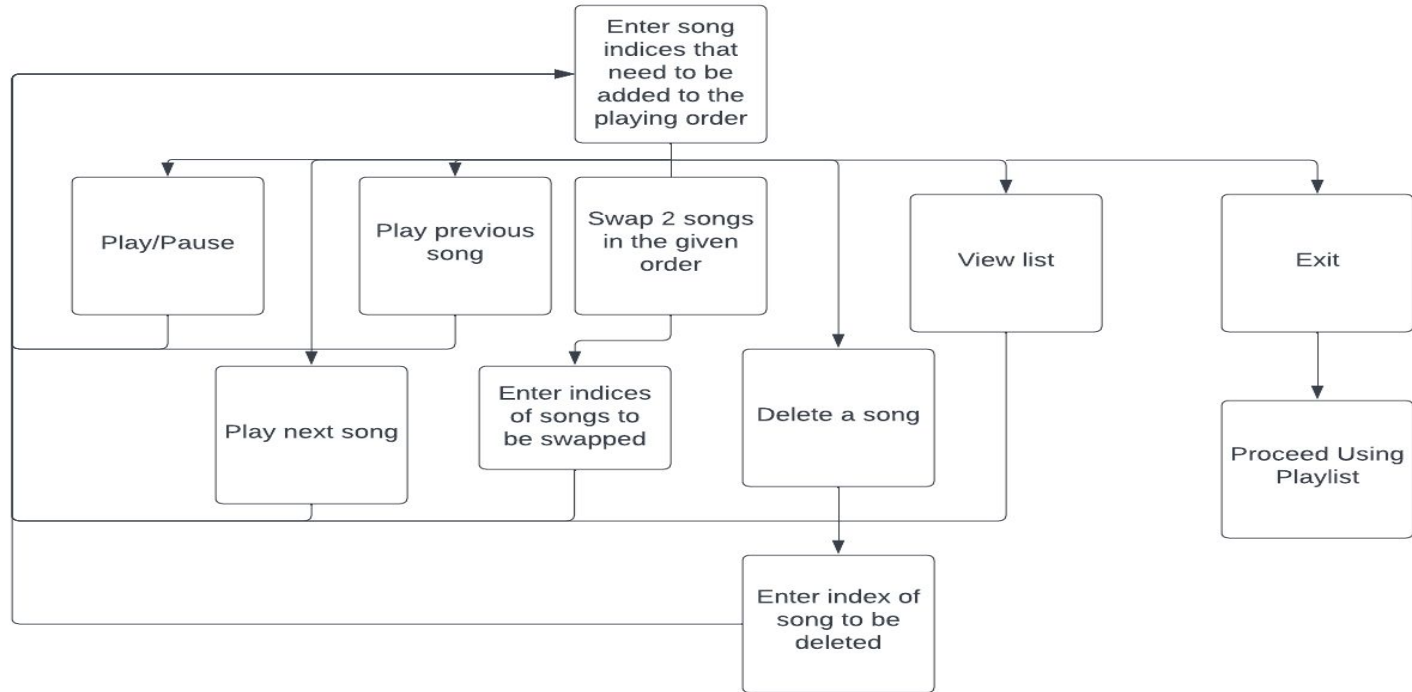


METHODOLOGY

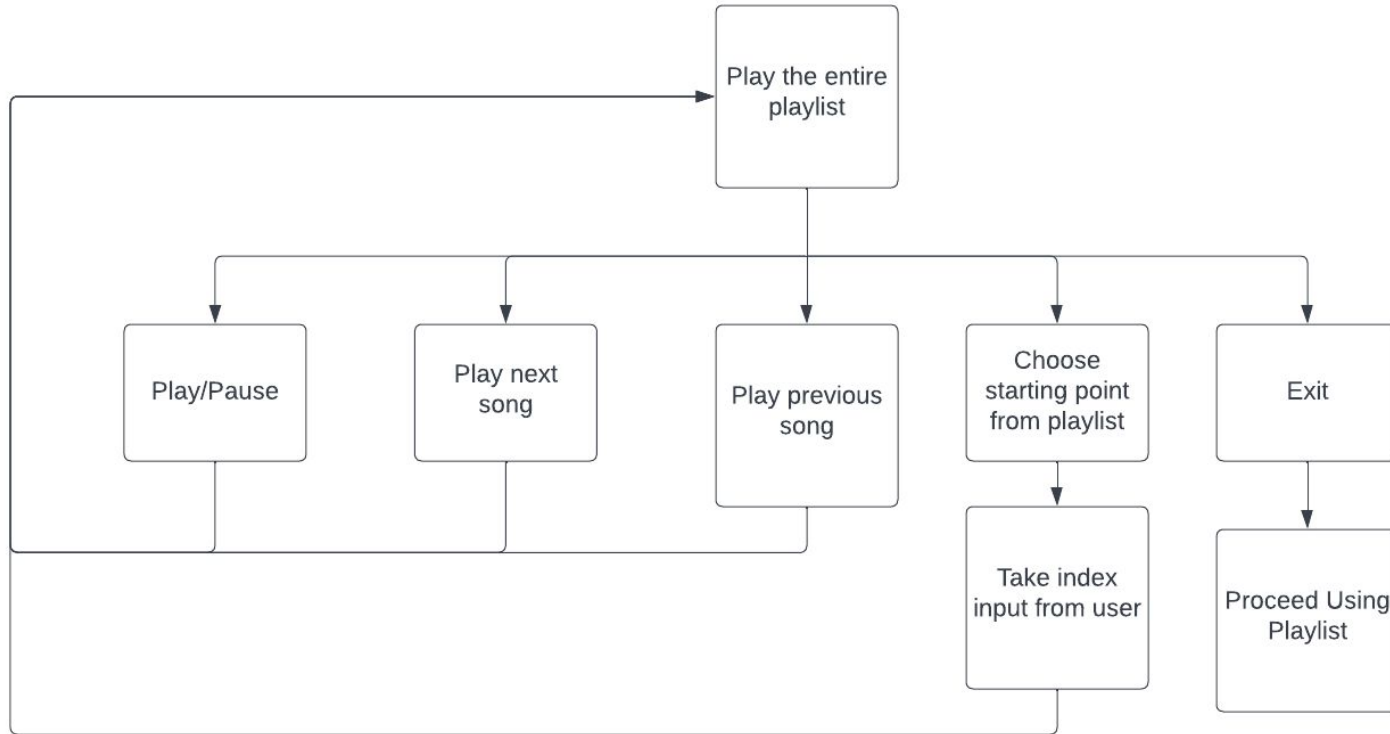
The images on the next three slides are inter-connected. They depict the workflow of the program.



METHODOLOGY



METHODOLOGY





METHODOLOGY

- The above given images depict the workflow of our menu driven program.
- We allow the users to make their own playlist using a list of 25 pre-defined songs or by adding their own songs.
- The user can edit their playlist at any time by adding or deleting songs.
- We have used arrays to show a pre-defined list of 25 songs of our taste. The user can use these songs and add them to their playlist.
- An array has been used as the list is pre-defined and hence we do not waste space or time.
- We have also used a circular doubly linked list which allows the user to make their playlist.



METHODOLOGY

- Another circular doubly linked list can be used if the user decides to make their own playing order on the spot.
- We have used circular doubly linked lists as they can dynamically allocate memory. Hence, the user can add as many songs to their playlist as they like without worrying about wastage of space.
- The user can also edit their playing order by adding, deleting or swapping two songs.
- The user can also decide the starting song when playing music from their playlist.

RESULTS OBTAINED

WELCOME TO YOUR VERY OWN MUSIC PLAYER!

Pre loaded songs are:

- 1.)Udd Gaye by Ritviz
- 2.)Tum Ho Toh by Farhan Akhtar
- 3.)Tera Hone Laga Hoon by Atif Aslam
- 4.)Tum Ho by Mohit Chauhan
- 5.)Ajab Si by KK
- 6.)Tujhe Bhula Diya by Mohit Chauhan
- 7.)Subhanallah by Pritam
- 8.)Mere Yaara by Arijit Singh
- 9.)Tu Aakhe Dekhle by King
- 10.)You by Armaan Malik
- 11.)Pee Loon by Pritam
- 12.)Humrah by Sachet Tandon
- 13.)Se?orita by Farhan Akhtar
- 14.)Blue Eyes by Yo Yo Honey Singh
- 15.)Pehla Nasha by Udit Narayan
- 16.)Aadat by Atif Aslam
- 17.)Criminal by Vishal Dadlani
- 18.)Humsafar by Akhil Sachdeva
- 19.)Falak Tak by Vishal-Shekhar
- 20.)Ishq Sufiyana by Sunidhi Chauhan
- 21.)Shubhaarambh by Amit Trivedi
- 22.)Aye Khuda by Salim Merchant
- 23.)Spaceship by AP Dhillon
- 24.)O Mere Dil Ke Chein by Sanam
- 25.)Tera Zikr by?Darshan?Raval

**Insertion from given
list to playlist**

```
-----
1:Choose songs from the given list
2:Add your own song
3>Delete from playlist
4:Proceed to using your playlist
5:View playlist
6:Exit program
Enter your choice:1
Enter the song number:5
-----
```

RESULTS OBTAINED

1:Choose songs from the given list

2:Add your own song

3>Delete from playlist

4:Proceed to using your playlist

5:View playlist

6:Exit program

Enter your choice:5

1.)Ajab Si by KK

2.)Tujhe Bhula Diya by Mohit Chauhan

3.)Subhanallah by Pritam

Printing the playlist



RESULTS OBTAINED

Various functions of proceed to use your playlist

```
1:Choose songs from the given list
2:Add your own song
3>Delete from playlist
4:Proceed to using your playlist
5:View playlist
6:Exit program
Enter your choice:4
```

```
-----
1:Play the entire playlist
2:Add songs from playlist to a sepearte playing list
3:Go back and edit playlist
Enter your choice:1
1.)Next song
2.)Previous song
3.)Play/Pause
4.)Choose the starting song from the playlist
5.)Exit
3
PLAY
Currently playing: Ajab Si by KK
```

```
1.)Next song
2.)Previous song
3.)Play/Pause
4.)Choose the starting song from the playlist
5.)Exit
1
Currently playing: Tujhe Bhula Diya by Mohit Chauhan
1.)Next song
2.)Previous song
3.)Play/Pause
4.)Choose the starting song from the playlist
5.)Exit
2
Back to the start of the playlist
Currently playing: Ajab Si by KK
1.)Next song
2.)Previous song
3.)Play/Pause
4.)Choose the starting song from the playlist
5.)Exit
```


RESULTS OBTAINED

```
1:Play the entire playlist
2:Add songs from playlist to a seperate playing list
3:Go back and edit playlist
Enter your choice:2

Your playlist is displayed below:
1.)Ajab Si by KK
2.)Tujhe Bhula Diya by Mohit Chauhan
3.)Subhanallah by Pritam
Select the index of song you want to add your list,enter -1 to exit:
3
Song has been added successfully!
song added:Subhanallah by Pritam
Select the index of song you want to add your list,enter -1 to exit:
1
1.)Subhanallah by Pritam
2.)Ajab Si by KK
Song has been added successfully!
song added:Ajab Si by KK
Select the index of song you want to add your list,enter -1 to exit:
-1

Playing from new list

1.Play next
2.Play previous
3.Play/Pause
4.Remove a song from the list
5.Shift a song in the list
6.View list
7.Exit
```

**Creation of playing
order along with its
various functions**

CONTRIBUTIONS



Bhavna Aggarwal

Main function.
Function for playing songs in the order selected by the user from their own playlist.

Shreyas Srivastava

Function to delete songs from the playlist (partial).
Function for playing songs from the playlist.

Sharel Rodrigues

Function to print the playlist.
Function to add songs from existing list to users playlist.

CONTRIBUTIONS

Parshva Mody

Function to search song from the playlist and add it to the current playing order defined by users.

Create new playing order defined by users.

Power Point Presentation.

Rakshit Ayachit

Function to add songs to users playlist by taking input from the user.

Function to delete songs from the playlist (partial).



CONCLUSION

This project has provided our entire team with insights on how multiple data structures are very important and how they are widely being used in applications and websites in today's world.

Arrays, even though seem simple to every programmer, are a fundamental throughout the coding industry. They look simple but their uses are infinite.

Circular doubly linked lists are complex but if implemented correctly, can greatly improve your code due to dynamic memory allocation. They help make long codes easier, shorter and more readable.



THANK YOU