

DSA521S Group Project

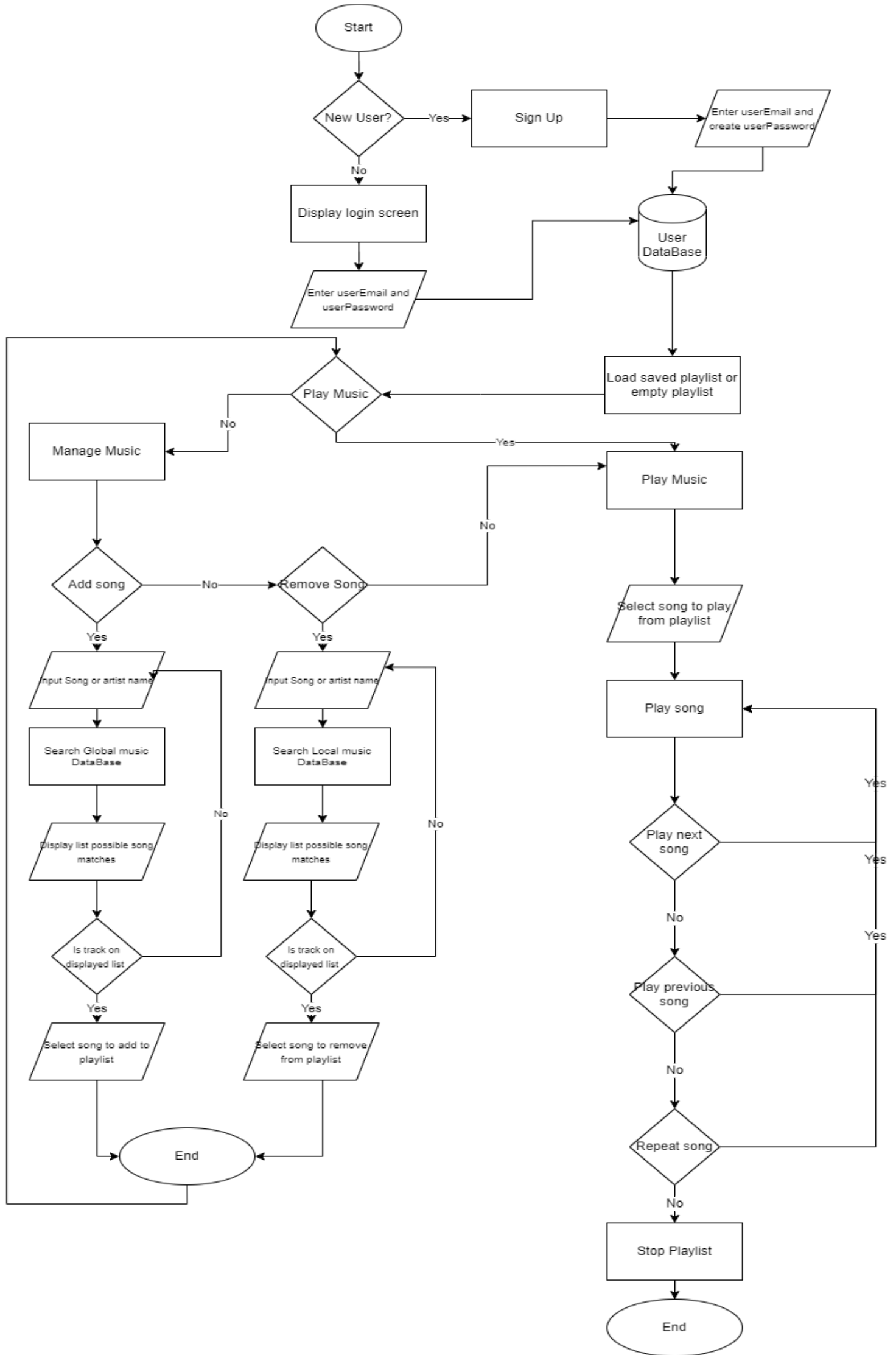
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**Program: Bachelor of Computer Science in Cyber Security
Part-Time**

Section A

Modules	Description	Functions		
User Management	Manage user login and password data. Playlists are saved under the user profile and retrieved once the user logs in. Users can also change their passwords.	<ul style="list-style-type: none">• Login• Sign Up• Change password		
Music Management	Manage the music under the users profile playlist. Users can add new music as well as remove music from their playlist. Users can search for music from the playlist to play or perform a global search to add new music to their playlist.	<ul style="list-style-type: none">• Add music• Remove Music• Search for music (local/ Global)		
Play	Users can load their playlist to play the music. Users are able to play next songs or previous songs as well as put a song on repeat.	<ul style="list-style-type: none">• Load Playlist• Play music• Next song• Previous song• Repeat song		



Pseudocode

start

music_player

initialize_playlist

initialize_tracklist

initialize_repeat_function

initialize_search_function

initialize_add/remove_function

play_music_player

play_tracks_playlist

repeat_tracks as necessary

search_tracks

add/remove tracks as necessary

end

function create_playlist(){

tracks := 50

linked_list := create_new_linked_list()

for i := 0 to tracks-1 do

add_track(linked_list, i)

end for

return linked_list

```

end function
}

function play_track(linked_list, track_number){

current_track = linked_list.head

for j= 0 to track_number-1 do

current_track = current_track.next

end for

play_audio(current_track.data)

end function
}

function add_track(linked_list, track_number){

new_track = create_new_track(track_number)

if linked_list.head = null then

linked_list.head = new_track

else

current_track = linked_list.head

while current_track.next != null do

current_track = current_track.next

end while

current_track.next = new_track

end if

end function

}

function remove_track(linked_list, track_number){

```

```

current_track := linked_list.head

previous_track := null

for j= 0 to track_number-1 do

previous_track = current_track

current_track = current_track.next

end for

if previous_track = null then

linked_list.head := current_track.next

else

previous_track.next := current_track.next

end if

end function
}

function search_playlist(linked_list, track_number){

current_track = linked_list.head

while current_track != null do

if current_track.data = track_number then

return true

end if

current_track = current_track.next

end while

return false

end function

}

```