

## **LAB REPORT**

*Submitted by*

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*Under the Guidance of*

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**Associate Professor, Dept. of Networking and communications**

*In partial satisfaction of the requirements for the degree of*

**BACHELOR OF TECHNOLOGY  
in  
COMPUTER SCIENCE ENGINEERING**

**with specialization in IT**



**SCHOOL OF COMPUTING**

**COLLEGE OF ENGINEERING AND TECHNOLOGY  
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY**

**KATTANKULATHUR - 603203**

**JUNE 2022**

**SRM INSTITUTION OF SCIENCE AND TECHNOLOGY  
KATTANKULATHUR-603203**

**BONAFIDE CERTIFICATE**

Certified that this lab report titled "**“ONLINE MUSIC STREAMING WEBSITE ”**" is the bonafide work done by Aakash raj.RA2011031010128, who carried out the lab exercises under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other work.

**SIGNATURE**

Dr.L.N.B.SRINIVAS  
Associate professor  
Department of Networking and communications

**ABSTRACT**

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#### **LIST OF ABBREVIATIONS**



# ONE PAGE BUSINESS CASE TEMPLATE

DATE	21-03-2022
SUBMITTED BY	TEAM 18(105,126,128)
TITLE / ROLE	ONLINE MUSIC STREAMING WEBSITE

LOGO

## THE PROJECT

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

- Stream website whenever and wherever
- User friendly
- Secure web application
- Fast searching of songs
- Feedback forms available

## THE HISTORY

In bullet points, describe the current situation.

- In bullet points, describe the current situation
- No user interaction available
- Slow streaming music
- Dependent on internet access
- Ads may infer the streaming experience

## LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

- List what could prevent the success of the project
- Less categories in project
- Not all genres and songs available
- Lack of coding language knowledge

## APPROACH

List what is needed to complete the project.

- List what is needed to complete the project.
- HTML, CSS, Java script
- Protocols
- Git
- Access to online music
- Larger Storage

## BENEFITS

In bullet points, list the benefits that this project will bring to the organization.

- In bullet points, list the benefits that this project will bring to the organization.
- Development of Free Streaming
- Improvement in process of handling the employee
- Less Time Consumption
- Available anywhere



## Department of Networking and Communications

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	2
<b>Title of Experiment</b>	Online music streaming website (PLAYDIOUS)
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	SAI MEDHA SINHA  BALADITYA
<b>Register Number</b>	Aakash Raj (RA2011031010128)  Medha(RA2011031010105)  Baladitya(RA2011031010126)
<b>Date of Experiment</b>	

### Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

## **Staff Signature with date**

### **Aim**

To identify the appropriate Process Model for the project and prepare Stakeholder and User Description.

### **Team Members:**

<b>Sl No</b>	<b>Register No</b>	<b>Name</b>	<b>Role</b>
1	RA2011031010128	AAKASH RAJ	<b>Rep</b> <b>Team leader &amp; Developer</b> • My role is to Getting the report of project Analysis and Develop the code for the project
2	RA2011031010105	MEDHA SINHA	<b>Member</b> My role is to designing the UI/UX of the app and developing the front end of the app
3	RA2011031010126	BALADITYA	<b>Member</b> I suggest the improvements

			<b>in the projects and receiving the feedback from the users and defining the Functional Architecture of the project</b>
--	--	--	--

**Project Title:**

**Selection of Methodology**

**We selected the agile methodology because we can divided into smaller parts and we can work on different parts at same me, any last minute changes can be accommodated in the process without affecting the final result it is easy to do iniaon and analysis at same me and aer that step we can also do design and construction and also testing and development at one me and it helps to resolve the problems of the customers**

Incorporate information to below table regarding stakeholders of the project [Make use of below examples]

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
Regional head of sales & marketing	subscription using mobile app	High	High	1
Finance Account receivable consultant	Multiple Currency payment	High	Low	3

Stakeholder	Interests	Estimated Project Impact	Estimated Priority
Owner	Achieve targets, Increase sales margin	High	1
Sponsor	Provides new market to expand ventures Negotiate funding for project Reviews changes to project environments.	Med	3
Team members	Demand incentives Retain and upgrade skills New product excitement	High	2
Project Manager	Lead the team in every aspect. Accountable for entire project scope, team, success & failure	High	2
Investors	Promoter of the investment, Provides necessary financial resources	Low	5
Resource Manager	Resource planning and allocation. Ensuring adequate resource according to project needs and budget.	Med	4
Suppliers	Ensuring feasible and realistic in every aspect Managing divergence from budgeted cost.	Med	6
End Users	Provides feedback	Low	7

## Result

Thus the Project Methodology was identified and the stakeholders were described.



## Department Of Networking and Communications

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**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	3
<b>Title of Experiment</b>	System, Functional and Non-Functional Requirements of the Project
<b>Name of the candidate</b>	Aakash kumar raj
<b>Team Members</b>	Medha Baladitya
<b>Register Numbers</b>	Aakash Raj (RA2011031010128) Medha(RA2011031010105) Baladitya(RA2011031010126)
<b>Date of Experiment</b>	24-04-2002

### Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

## **Staff Signature with date**

### **Aim**

To identify the system, functional and non-functional requirements for the project.

### **Team Members:**

S No	Register No	Name	Role
1	RA2011031010128	Aakash Kumar Raj	Rep
2	RA2011031010105	Medha	Member
3	RA2011031010126	Baladitya	Member

### **Project Title:**

**ONLINE MUSIC STREAMING WEBSITE (PLAYDIOUS -Dil ka tune)**

## **System Requirements**

Requirement (#)	Requirement Specification	Type of requirement
SR1	Processor-Pentium 3 - 630 MHZ	Hardware
SR2	RAM - 128 MB	Hardware
SR3	Hard disk - 20 GB	Hardware
SR4	Language - JavaScript	Software
SR5	Browser - Mozilla, Firefox ,Google chrome ,opera	Software

SR6	Any Operating System - Windows, Macintosh or Linux	Software
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## Functional Requirements

Requirement(#)	Requirement Specification	Department	Name of Business User	Status
E1FR1	Login/Registration	Technical	User	Login/Registration successful
E1FR2	Show track recommendations	Technical	AI team	Feature added
E1FR3	Seeking music progress and volume	Technical	User	Option provided
E1FR4	Browsing and discovering new music	Technical	User	Feature provided
E1FR5	Searching music	Technical	User	Feature added
E1FR6	Feedback section	Technical	Feedback team	Feedback section provided

## Non-Functional Requirements

Requirement (#)	Category of NFR	Requirement Specification	Name of Business User	Status
NFR1	Performance	All pages should load within 3 seconds	UI/UX designer	Medium
NFR2	Performance	Queries shall return results within five seconds.	Testing specialist	Medium

NFR3	Availability	Application should be available for 24x7	UI designer	High
NFR4	Verification	The log in information shall be verified within five seconds.	UX designer	Medium

NFR5	Confidentiality	Only the user should be able to access their records	Project manager	High
NFR6	Compliance	The application should be compatible with all major web browsers	UI/UX designer	High
NFR8	Usability	The application should use minimal staffing to operate.	Project manager	Low
E1NFR1	Flexibility	The application should be flexible so that new modes and changes can be made.	Web developers	Medium
E1NFR2	Easiness	The application should be easy to use.	UI/UX designer	High
E1NFR3	Reliability	The application should be reliable and should respond according to the need.	Web designer	Medium

## Result

Thus the requirements were identified and accordingly described.



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**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	4
<b>Title of Experiment</b>	Prepare Project Plan based on scope, Calculate Project effort based on resources and Job roles and responsibilities
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha Baladitya
<b>Register Numbers</b>	RA2011031010128 RA2011031010105 RA2011031010126
<b>Date of Experiment</b>	05-05-2022

### Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim

To Prepare Project Plan based on scope, Calculate Project effort based on resources, Find

Job roles and responsibilities

### Team Members:

Sl No	Register No	Name	Role
1	RA2011031010128	Aakash Raj	<b>Team Lead</b>
2	RA2011031010105	Medha	<b>Member</b>
3	RA2011031010126	Baladitya	<b>Member</b>

Requirements

## 1. Project Management Plan

Describe the key issues driving the project. Summarize the results of the project identification stage (e.g. feasibility assessment and business case). Summarize the solution selected from the Business Case. Define the objectives of the project and the intended business results. Define quantitative and measurable objectives that can be used as criteria by which key stakeholders will judge the success of the project. Some of this information can be extracted from the project charter.

Focus Area	Details
Integration Management	Governance Framework Project Team Structure Roles & Responsibilities of Team Change Management (Change Control, Issue Management) Project Closure
Scope Management	Scope Statement Requirement Management (Gathering, Control, Assumption, Constraint Stakeholder) Define Deliverable Requirement Change Control Activities and Sub-Tasks
Schedule Management	Define Milestones Schedule Control
Cost Management	Estimate Effort Assign Team Budget Control

Quality Management	Quality Assurance: Quality assurance will be managed including governance, roles and responsibilities, tools and techniques and reporting Quality Control: Specify the mechanisms to be used to measure and control the quality of the work products
Resource Management	Estimate and Manage the need People: People & Skills Required Finance: Budget Required Physical: Facilities, IT Infrastructure
Stakeholder	Identifying, Analyzing, Engaging Stakeholders
Communication Management	Determine communication requirements, roles and responsibilities, tools and techniques. [Type of Communication, Schedule, Mechanism Recipient]
Risk Management	Identifying, analysing, and prioritizing project risks
Procurement Management	Adhering to organization procurement process

## 2. Estimation

### 2.1. Effort and Cost Estimation

WBS	Activity	Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
E1FR1	E1R1A1	Design the user screen	E1R1A1T1	Confirm the user requirements (acceptance criteria)	3	
			E1R1A1T2			
			E1R1A1T3			
		Identify Data Source for displaying units of Energy Consumption		Go through Interface contract (Application Data Exchange) documents	5	
				Document		

Effort (hr)	Cost (INR)
1	500

### 2.2. Infrastructure/Resource Cost [CapEx]

<b>Infrastructure Requirement</b>	<b>Qty</b>	<b>Cost per qty</b>	<b>Cost per item</b>
IR1: Laptops	3	70000	210000
IR2: Internet connection	1	2000	2000
IR3: Office furniture	3	15000	45000
Category	Details	Qty	Cost per qty per annum
People	Network, System, Middleware and DB admin  Developer , Support Consultant	3	2,000,000
License	Operating System Database Middleware IDE	10	10000
Infrastructures	Server, Storage and Network	20	20000

### 3. Project Team Formation

#### 3.1. Identification Team members

Name	Role	Responsibilities
Medha	Key Business User (Product Owner)	Provide clear business and user requirements
Aakash	Project Manager	Manage the project
Baladitya	Business Analyst	Discuss and Document Requirements
Aakash	Technical Lead	Design the end-to-end architecture
Aakash	UX Designer	Design the user experience
Aakash	Frontend Developer	Develop user interface
Aakash	Backend Developer	Design, Develop and Unit Test Services/API/DB
Medha	Cloud Architect	Design the cost effective, highly available and scalable architecture
Medha	Cloud Operations	Provision required Services
Baladitya	Tester	Define Test Cases and Perform Testing

### 3.2. Responsibility Assignment Matrix

RACI Matrix		Team Members		
Activity	Name (BA)	Name (Developer)	Name (Project Manager)	Key Business User
User Requirement Documentation	Baladitya	Aakash	Aakash	Medha

A	Accountable
R	Responsible
C	Consult
I	Inform

Result: Thus, the Project Plan was documented successfully.



**DEPT. Of Computer Science Engineering**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	5
<b>Title of Experiment</b>	Prepare the Work, Breakdown Structure based on timelines, Risk Identification and Plan
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha , Baladitya
<b>Register Number</b>	RA2011031010128 , RA2011031010105 , RA2011031010126
<b>Date of Experiment</b>	09/05/2022

**Mark Split Up**

S.No	Description	Maximum Mark	Mark Obtained

1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

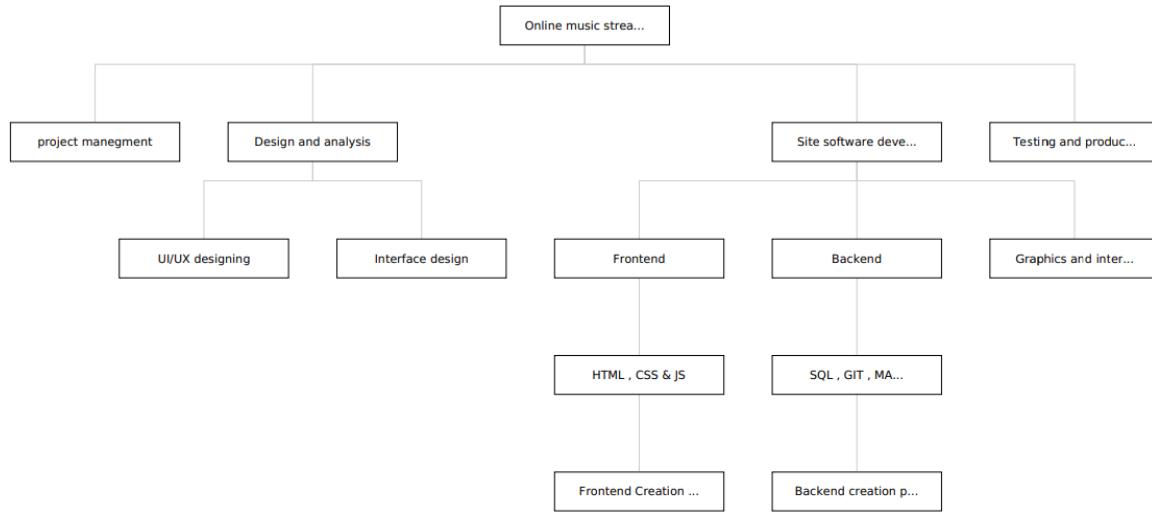
**Aim :**

To Prepare the Work, Breakdown Structure based on timelines, Risk Identification and Plan

**Team Members:**

SI No	Register No	Name	Role
1	RA2011031010128	Aakash Raj	Rep
2	RA2011031010105	Medha	Member
3	RA2011031010126	Baladitya	Member

**Result:** Thus, the work breakdown structure with timeline chart and risk table were formulated successfully.



## 0.0 Online music streaming website(PLAYDIOUS-dil ka tune)

### 1.0 Project Management

### 2.0 Analysis & Design

UI/UX designing

Interface designing

### 3.0 Site Software Development

#### Frontend development

- 3.1 HTML,CSS & JS
- 3.2 Backend Software
- SQL,GIT,MANGODB
  - 4.0 Database Implementation
  - 4.1 Middleware Development
  - 4.2 Security Subsystems
  - 4.3 Catalog Engine
  - 4.4 Transaction Processing
  - 4.5 Graphics and Interface

### 5.0 Testing and Production

## TIMELINE – GANTT CHART



## RISK ANALYSIS – SWOT & RMMM



## Risk Management Framework - Risk and Mitigation



### Risk Management Framework- Risks And Mitigation ...

Response	Strategy	Examples
Avoid	Risk avoidance is a strategy where the project team takes action to remove the threat of the risk or protect from the impact	<ul style="list-style-type: none"><li>Extending the schedule</li><li>Reducing/removing scope</li><li>Change the execution strategy</li></ul>
Transfer	Risk transference involves shifting or transferring the risk threat and impact to a third party. Rather transfer the responsibility and ownership	<ul style="list-style-type: none"><li>Purchasing insurance</li><li>Performance bonds</li><li>Warranties</li><li>Contract issuance (lump sum)</li></ul>
Mitigate	Risk mitigation is a strategy where the project team takes a action to reduce the probability of the risk occurring. This does not risk or potential impact , but rather reduces the likelihood of it becoming real.	<ul style="list-style-type: none"><li>Increasing testing</li><li>Changing suppliers to a more stable one</li><li>Reducing process complexity</li></ul>
Accept	Risk acceptance means the team acknowledges the risk and its potential impact, but decides not to take any preemptive action to prevent it. It is dealt with only if it occurs.	<ul style="list-style-type: none"><li>Contingency reserve budgets</li><li>Management schedule float</li><li>Event contingency</li></ul>



## DEPT. Of Computer Science Engineering

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	6
<b>Title of Experiment</b>	Design a System Architecture, Use Case Diagram, Class Diagram
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha , Baladitya
<b>Register Number</b>	RA2011031010128 , RA2011031010105 , RA2011031010126
<b>Date of Experiment</b>	16/05/2022

### Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
Total		10	

**Staff Signature with date**

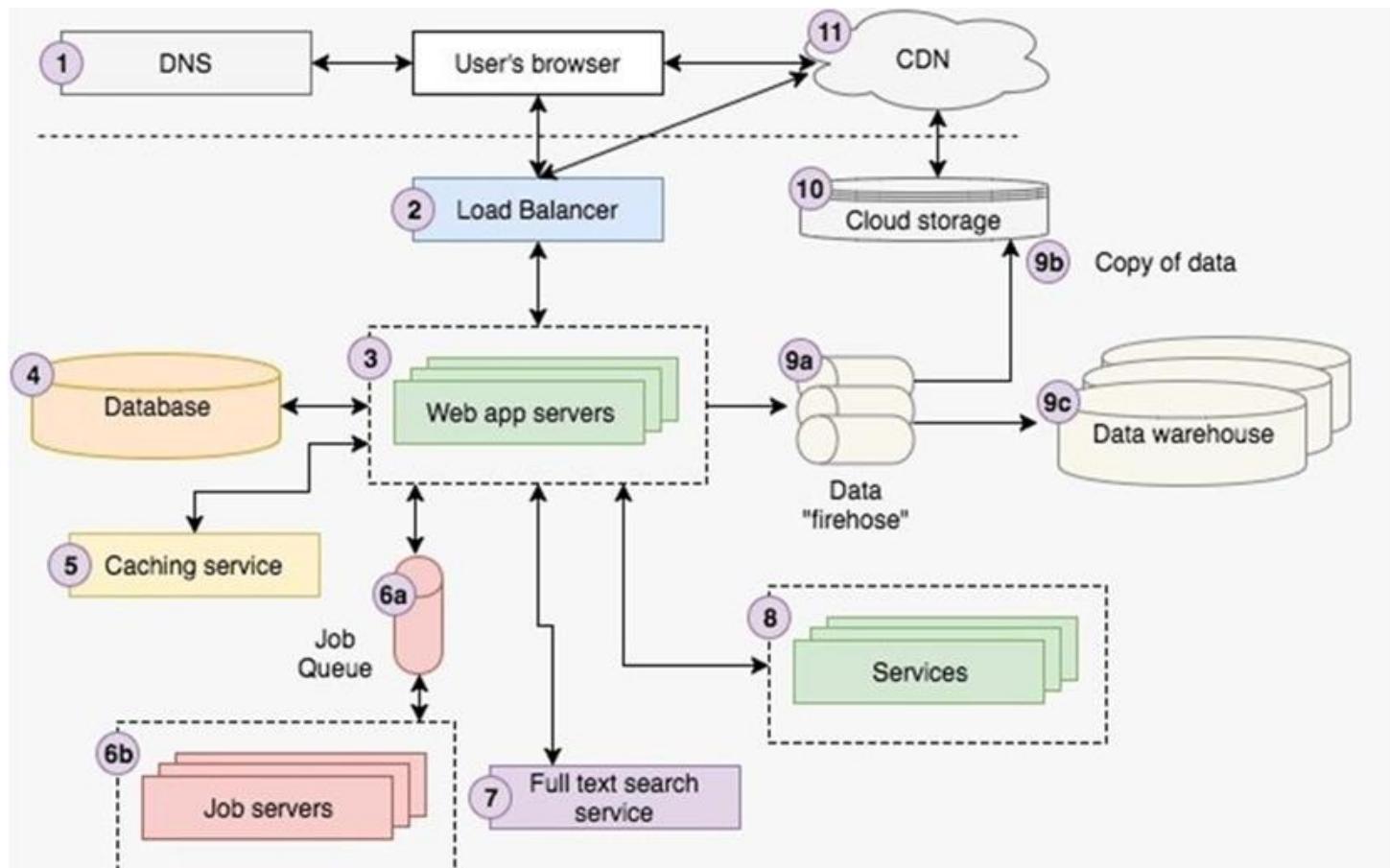
**Aim :**

To prepare architecture and design of the system

**Team Members:**

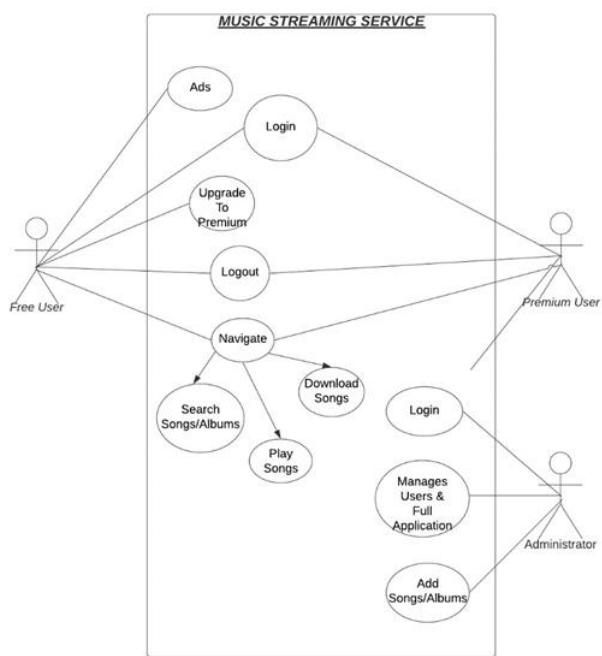
Sl No	Register No	Name	Role
1	RA2011031010128	Aakash Raj	Lead
2	RA2011031010105	Medha	Member
3	RA2011031010126	Baladitya	Member

## Architecture Diagram with description :



An architectural diagram is a diagram of a system that is used to abstract the overall outline of the software system and the relationships, constraints, and boundaries between components. It is an important tool as it provides an overall view of the physical deployment of the software system and its evolution roadmap. It shows how the technical components involved in the development of the project are interconnected and also their use in general.

## Use Case Diagram With Description:



A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved.

The diagram above depicts the interaction and use cases of users, client and the administrator with the system.

## **Result:**

Thus, architecture and design of the system was documented successfully



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**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	7
<b>Title of Experiment</b>	Design a Entity relationship diagram
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha Baladitya
<b>Register Number</b>	RA2011031010128 RA2011031010105 RA2011031010126
<b>Date of Experiment</b>	26-05-2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim

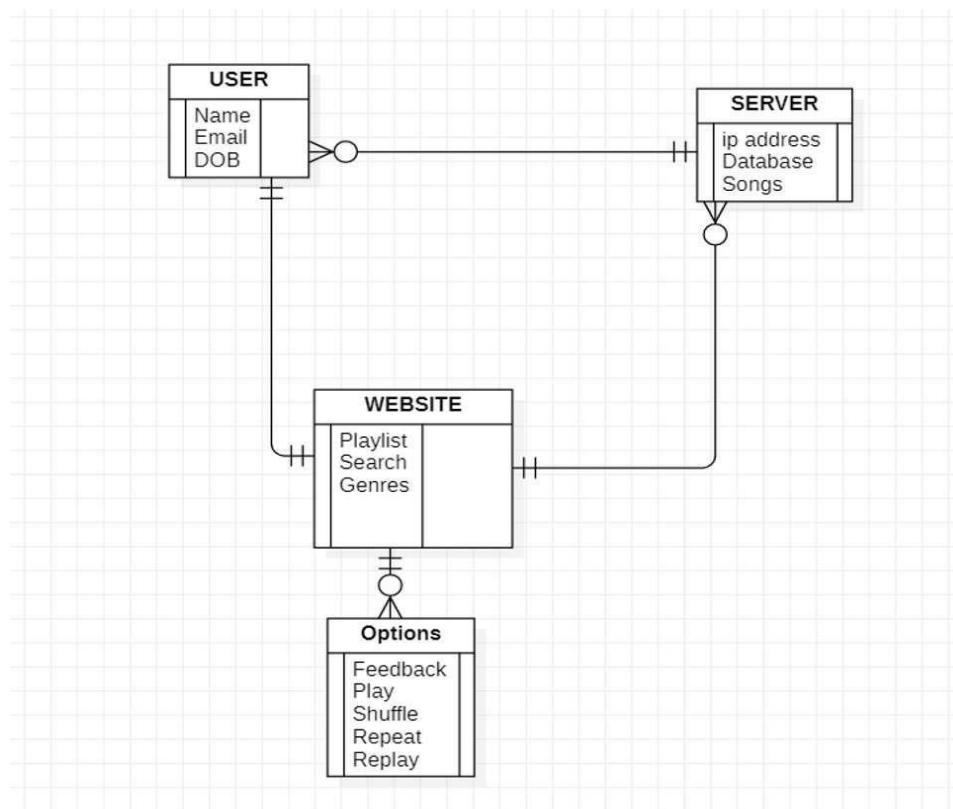
To create the Entity Relationship Diagram

### Team Members:

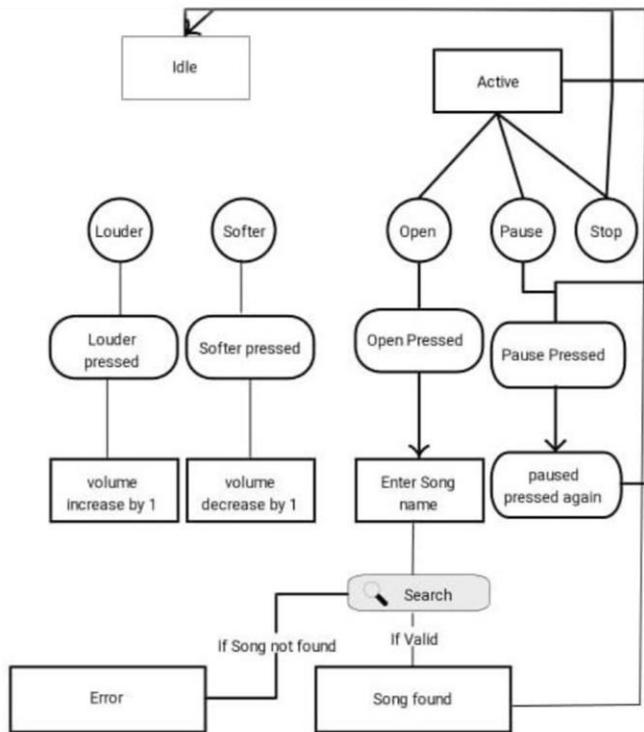
S No	Register No	Name	Role
1	RA2011031010128	Aakash Raj	Rep
2	RA2011031010105	Medha	Member
3	RA2011031010126	Baladitya	Member

## ER DIAGRAM

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. They mirror grammatical structure, with entities as nouns and relationships as verbs.



## ER Diagram of University Database



Result:

*Thus, the entity relationship diagram was created successfully.*





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**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	8
<b>Title of Experiment</b>	Develop a Data Flow Diagram (Process-Up to Level 1)
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha , Baladitya
<b>Register Number</b>	RA2011031010128
<b>Date of Experiment</b>	26-05-2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

**Aim**

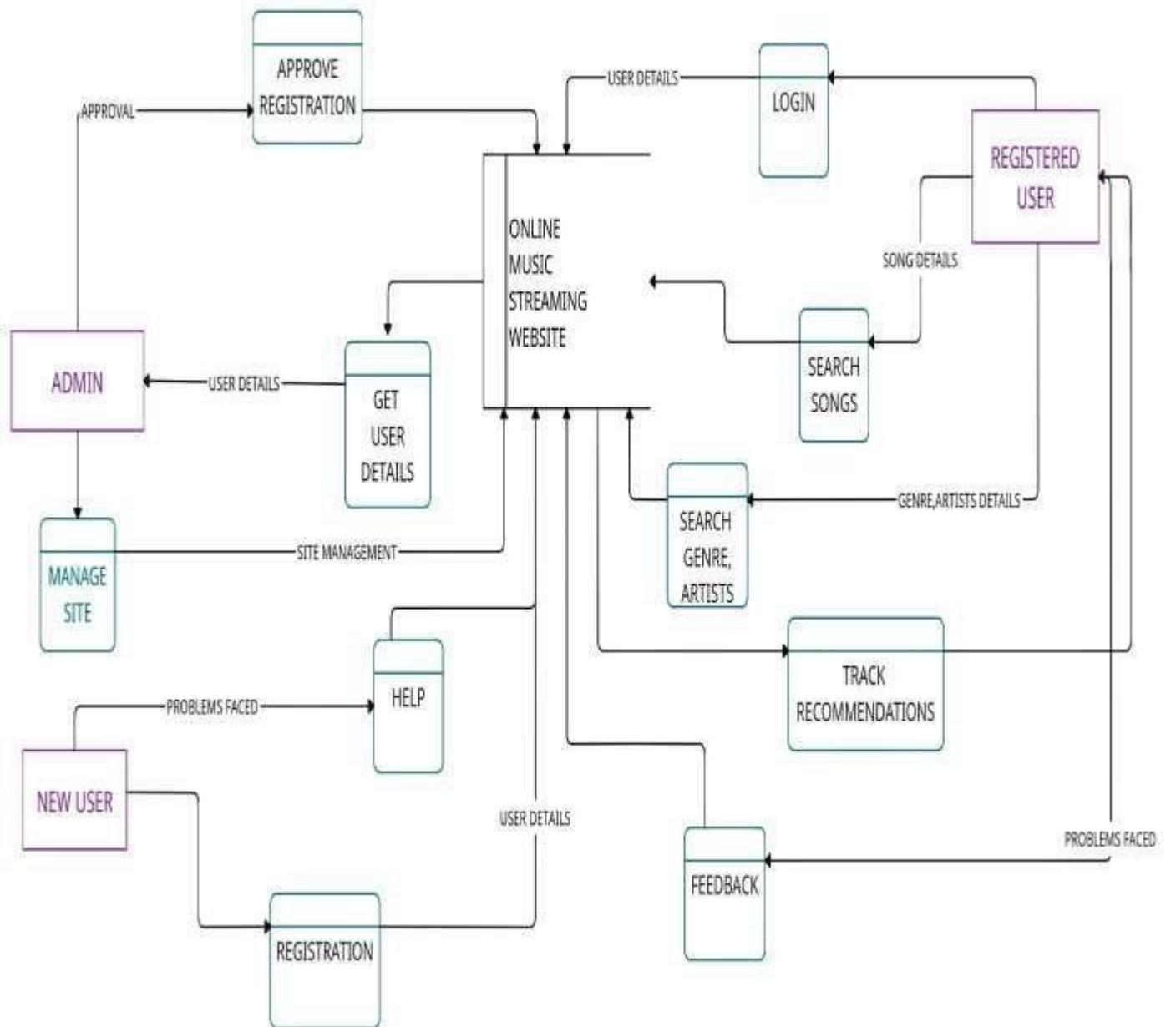
To develop the data flow diagram up to level 1 for the online music streaming website

**Team Members:**

S No	Register No	Name	Role
1	RA2011031010128	Aakash Raj	Rep
2	RA2011031010105	Medha	Member
3	RA2011031010126	Baladitya	Member

## DATAFLOW DIAGRAM

Data flow diagrams are used to graphically represent the flow of data in a business information system. DFD describes the processes that are involved in a system to transfer data from the input to the file storage and reports generation.



**Result:**

Thus, the data flow diagrams have been created for the online music streaming website



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**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	9
<b>Title of Experiment</b>	Design a Sequence and Collaboration Diagram
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha , Baladitya
<b>Register Number</b>	RA2011031010128 RA2011031010105 RA2011031010126
<b>Date of Experiment</b>	9-06-2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## **Aim**

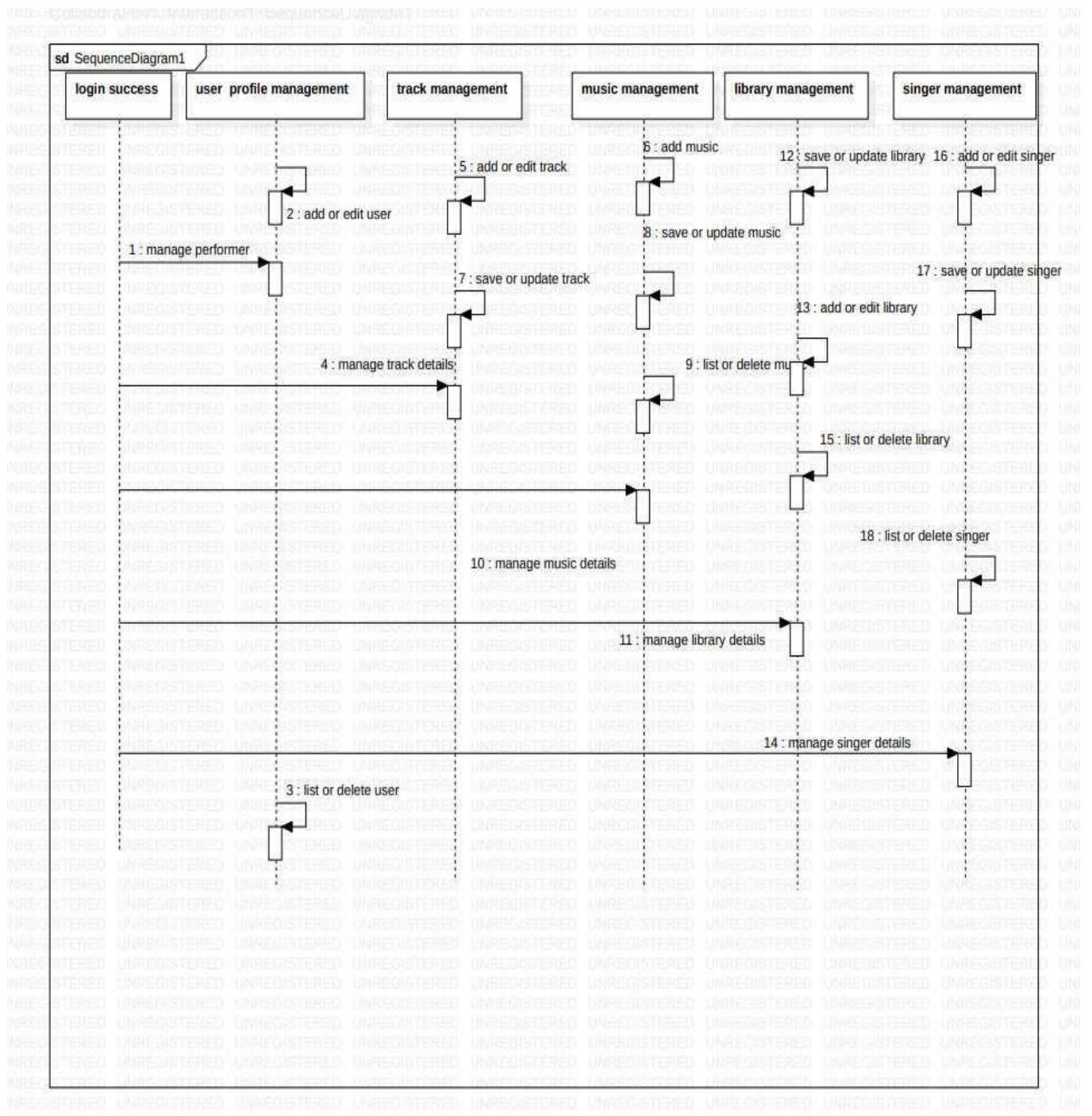
To create the sequence and collaboration diagram for the <project name>

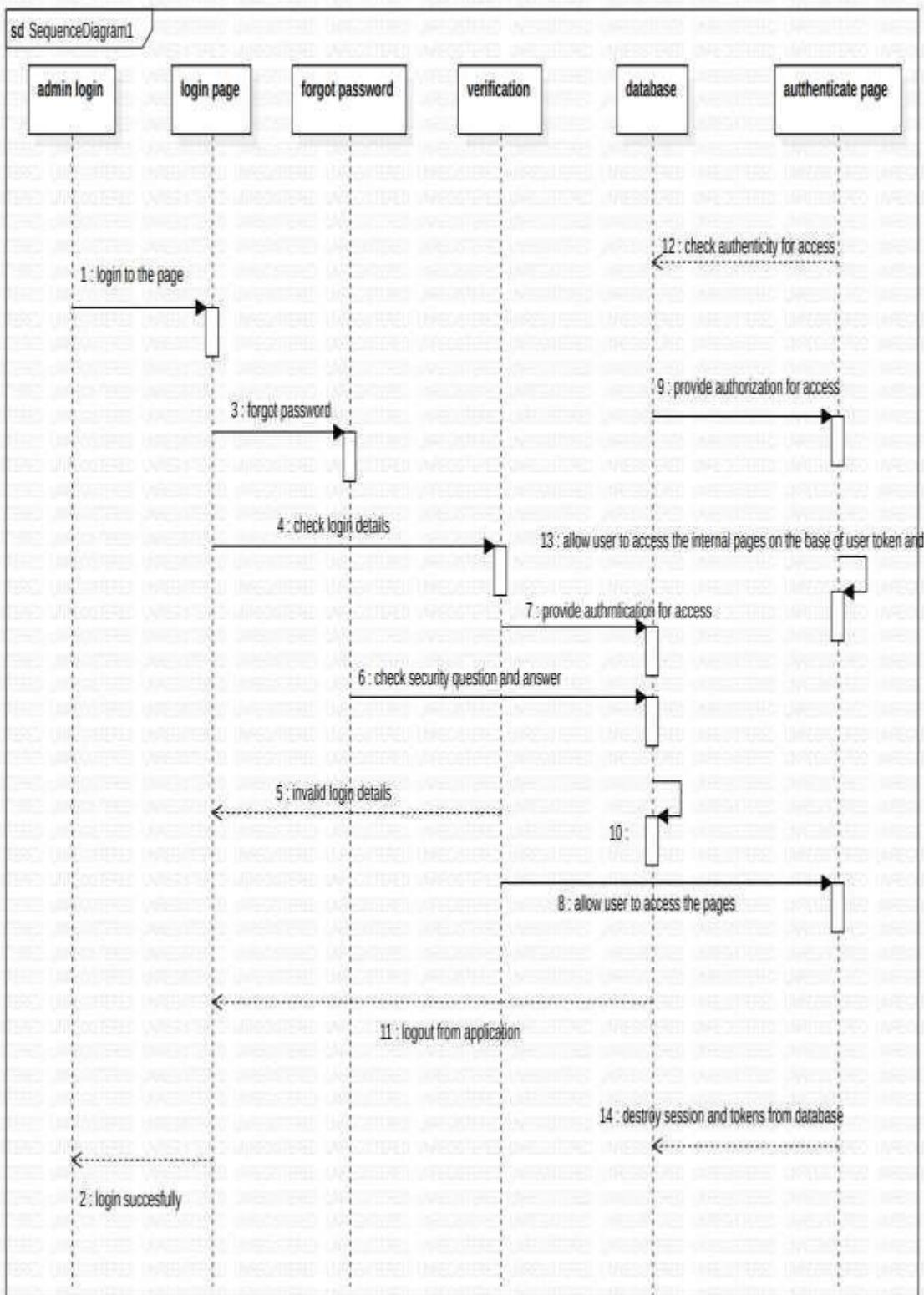
## **Team Members:**

S No	Register No	Name	Role
1	Aakash Raj	RA2011031010128	Rep/Member
2	Medha	RA2011031010105	Member
3	Baladitya	RA2011031010126	Member

## **SEQUENCE DIAGRAM**

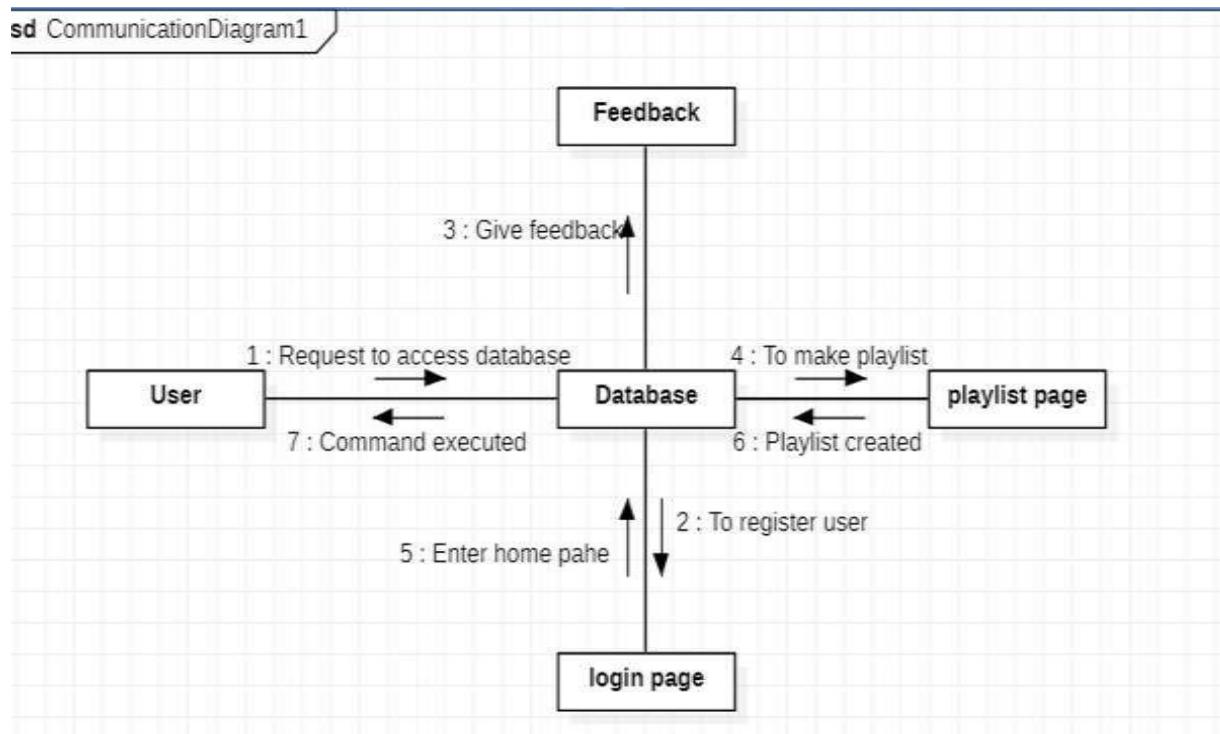
A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. Sequence diagrams describe how and in what order the objects in a system function.





# COLLOBORATION DIAGRAM

A collaboration diagram, also known as a communication diagram, is an illustration of the relationships and interactions among software objects in the Unified Modelling Language (UML). These diagrams can be used to portray the dynamic behaviour of a particular use case and define the role of each object.



Result:

Thus, the sequence and collaboration diagrams were created for the <project name>.



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**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	10
<b>Title of Experiment</b>	Develop a Testing Framework/User Interface
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha Baladitya
<b>Register Number</b>	RA2011031010128, RA2011031010105, RA2011031010126
<b>Date of Experiment</b>	01/06/2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
	<b>Total</b>	<b>10</b>	

**Staff Signature with date**

# TESTING

## 1. Executive Summary

ONLINE MUSIC STREAMING WEBSITE

## 2. Project Scope

This project is created to provide a user friendly online music streaming website completely free of cost. This website is a collection of songs from different languages in one place .It is an interactive, intuitive and dynamic online music player.

S.No	Activities in Scope	Activities Out of Scope
1	Login or registration of the user	User may not be able to make personalised playlist
2	Seeking music progress and volume	Some genres may not be available
3	Play, Shuffle, Skip and repeat options	Cannot download songs
4	Set songs in repetition and queue	Songs cannot be played offline
5	Browsing and discovering new music	
6	Creating a playlist	
7	Search results based on various factors	
8	Manage the information of music	
9	Feedback section	

### I. In Scope

- This project provides a user friendly online music streaming website completely at free of cost.
- This does not contain any unwanted ads or popups.
- Shows us the track recommendations based on various results.

- We can play, shuffle, skip and repeat the songs.
- Enable the user to set songs in repetition and queue
- This also contains a feedback section to make friendly user interaction.

## **II. Out of Scope**

- User may not able to make personalised playlists
- Some genres may not be available
- It doesn't have an option to download songs
- Songs cannot be played offline

## **OBJECTIVE:**

- The objective of this project is to create a materialized, responsive and secure music player that goes all the way to do almost anything you would want from an interactive music player.
- This website is a collection of songs from different languages in one place at free of cost only to provide a user-friendly interface for streaming music. It is an interactive, intuitive and dynamic online music player.
- There are seamless UI transitions which make the whole user experience very user friendly and easy to use. Also various animations and partial effects are used throughout the website to make it look delightful.
- The whole website is responsive as well, meaning it would look good and run fine on devices of all screen sizes ranging from mobiles to laptops.
- Several approaches have been made to enhance the users listening experience, while most of them rely on the music content provided by the user, this project presents an online application that sources the audio content from publicly available resources.  
With the increasing playlist and song selection, a good music player that can play songs online is a must. Nothing is better than that for an audiophile

## **2. Test Plan**

### **2.1. Scope of Testing**

#### **Functional testing:**

Modules like login page ,welcome page ,songs home page also the module options like play ,replay, shuffle ,volume button have been tested

### **Non-functional testing:**

NFR(non-functional requirements)covered are load test ,network test ,operating system test ,operating system changes ,UI/UX fluctuations

### **2.2. Types of Testing , Methodology , Tools**

Test ID	Test Scenario	Test data	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Test if user is able to login successful	Correct username, Correct password	1.User clicks on sign up with email and enters valid email and clicks login	User must login to the web page	Login successful	PASS	Success
2	Test iff the welcome page is displayed	Welcome message	User need to login to view the welcome page	Display welcome message after login	Successful display	PASS	Success
3	Test if the song page displays songs	Display	User need to login to view song page	Name of song and singer	Successful display	PASS	Success
Category		Methodology		Tools Required			
Functional Requirements		Manual		Word Template			

Result:

Thus, the testing framework/user interface framework has been created for the online music streaming website.



## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	11
<b>Title of Experiment</b>	Test Cases
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha Baladitya
<b>Register Number</b>	RA2011031010128 , RA2011031010105 , RA2011031010126
<b>Date of Experiment</b>	09/06/2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim

To develop the test cases manual for the ONLINE MUSIC STREAMING WEBSITE

## Team Members:

S No	Register No	Name	Role
1	RA2011031010128	Aakash Raj	Rep
2	RA2011031010105	Medha	Member
3	RA2011031010126	Baladitya	Member

## Test Case

### Functional Test Cases

Test ID	Test Scenario	Test data	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Test if user is able to login successful	Correct username, Correct password	1. User clicks on sign up with email and enters valid email and clicks login	User must login to the web page	Login successful	PASS	Success

2	Test if the welcome page is displayed	Welcome message	User need to login to view the welcome page	Display welcome message after login	Successful display	FAIL	FAILED
3	Test if the song page displays songs	Display	User need to login to view song page	Name of song and singer	Successful display	PASS	Success
4	Test if songs are playing while clicking on the icon	Song name, song icon	User need to click the play button	Song plays	Song plays	PASS	Success
5	Check if songs play on clicking icon	Click on song icon	User just need to click on the play icon to check if it works	Song plays when clicked on	Song Plays	PASS	Success
6	Test if song replay button works	Click Replay	User just need to click on the replay button to check if it works	Song Replays	Successful replay	PASS	Success
7	Test if shuffle button works	Click Shuffle	User just need to click on the shuffle button to check if it works	Songs in list shuffle	Successful Shuffle	PASS	Success
8	Check if volume button works	Adjust volume	User just need to click on the volume button to check if it works	Volume bar displays to change	Successful change of volume	PASS	Success
9	Test if the loop option works	Click Loop	User need to click on loop option to check if it works	Song plays in loop	Successful loop mode	FAIL	FAILED

# Non-Functional Test Cases

Test ID	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Load Test	Server overloads with user	Innumerable users join the application and crash server	Server should upgrade on its own and run seamlessly	Dynamic update on the fire base server	PASS	Success
2	Network Test	Bad network causes application to run slow	User has bad network and tries to use the application	The website will run slowly & performance will decrease	Slow response from the application	PASS	Success
3	Operating system changes	Bad performance due to changes in operating system such as android and IOS	Different users have different operating system	The website should run seamlessly regardless of the operating system	The website worked seamlessly regardless of operating system	PASS	Success
4	UI/UX fluctuations	Front end glitches	Users mobile malfunctions and front end glitches	The front end should not glitch	The front end does not glitch	PASS	Success

Result:

Thus, the test case manual has been created for the online music streaming website



## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	12
<b>Title of Experiment</b>	Manual Test Case Reporting
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha , Baladitya
<b>Register Number</b>	RA201103101028
<b>Date of Experiment</b>	24-06-22

### Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

**Aim**

To prepare the manual test case report for the online music streaming website

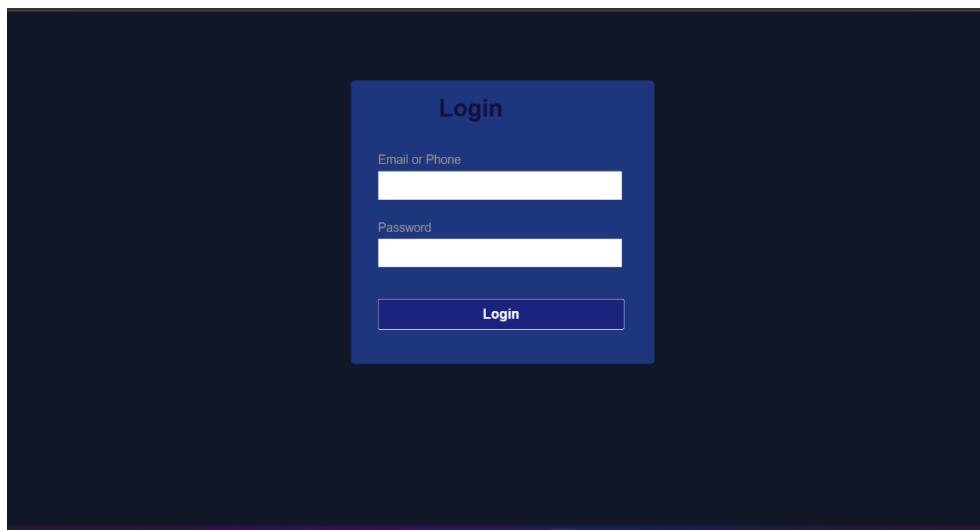
**Team Members:**

S No	Register No	Name	Role
1	RA201103101028	Aakash Raj	Rep/Member
2	RA2011031010105	Medha	Member
3	RA201103101026	Baladitya	Member

MANUAL TEST CASE:

## **MANUAL TESTING**

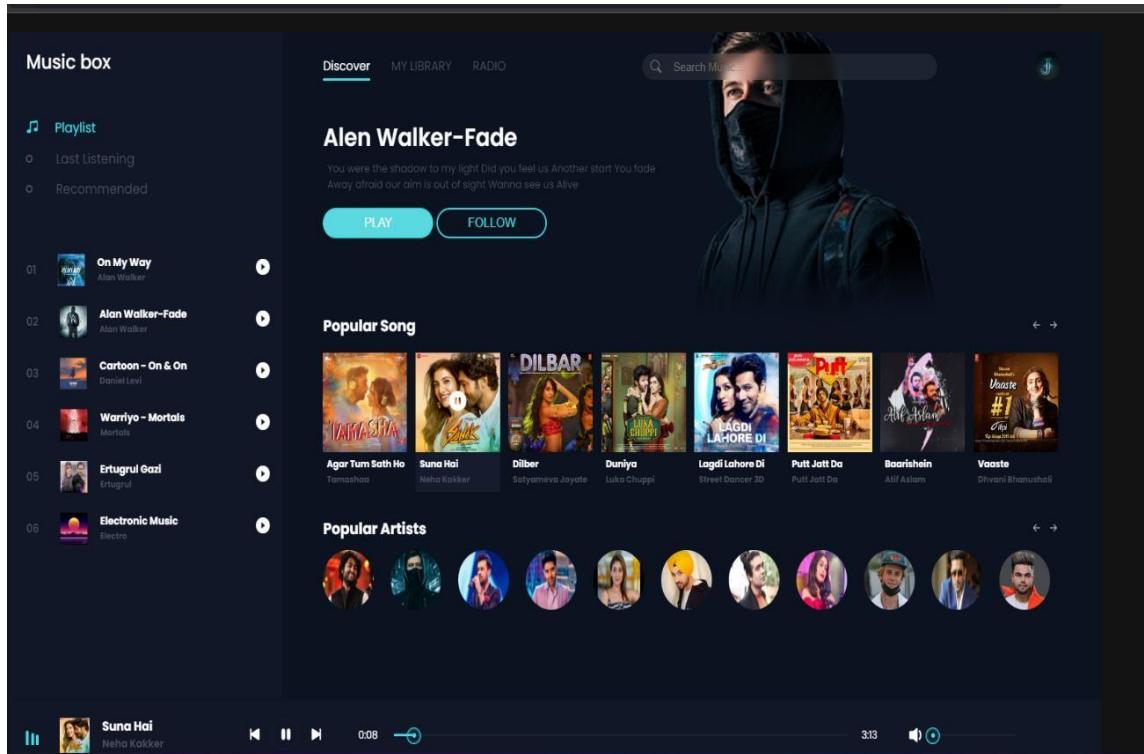
### **1) TEST IF THE USER IS ABLE TO LOGIN SUCCESSFULLY**



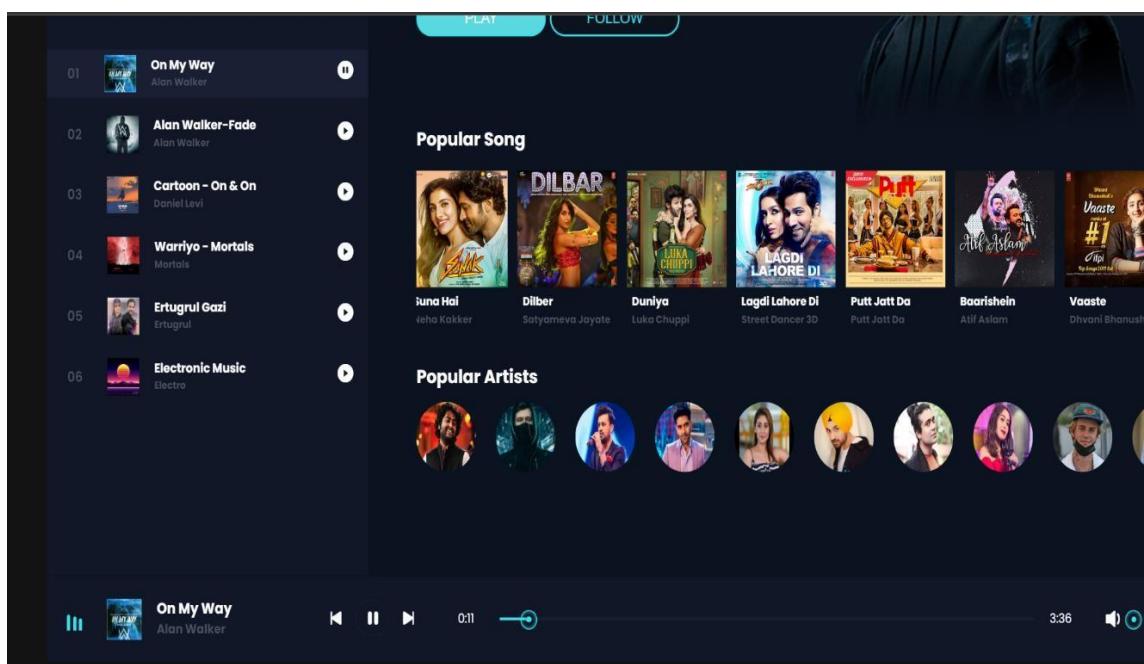
## 2) TEST IF THE SONG PAGE DISPLAYS SONGS

The screenshot shows a dark-themed music streaming application interface. At the top left is a 'Music box' section with a list of playlists: 'On My Way' by Alan Walker, 'Alan Walker-Fade', 'Cartoon - On & On' by Daniel Levitt, 'Wariyo - Mortals' by Mortals, 'Ertugrul Gazi' by Ertugrul, and 'Electronic Music' by Electro. The top center features a 'Discover' tab, a search bar, and navigation links for 'MY LIBRARY' and 'RADIO'. A large image of Alan Walker wearing a mask and hoodie is prominently displayed. Below the image, the song 'Alan Walker-Fade' is highlighted with lyrics: 'You were the shadow to my light Did you feel us Another start You fade Away afraid our aim is out of sight Wanna see us Alive'. Below the lyrics are 'PLAY' and 'FOLLOW' buttons. To the right of the main image, there is a 'Popular Song' section displaying album covers for various tracks like 'Agar Tum Sath Ho', 'DILBAR', 'LAGDI LAHORE DI', etc., along with their names and artists. Below that is a 'Popular Artists' section showing circular profile pictures of artists. At the bottom, a playback control bar includes a volume icon, a play/pause button, and a progress bar set at 0:00.

### 3) TEST IF THE SONGS PLAYS ON CLICKING THE ICON



### 4) TEST IF THE PAUSE/PLAY OPTION IS WORKING



The screenshot shows a dark-themed mobile application interface for a music streaming service. At the top, there are 'PLAY' and 'FOLLOW' buttons. Below them is a list of songs:

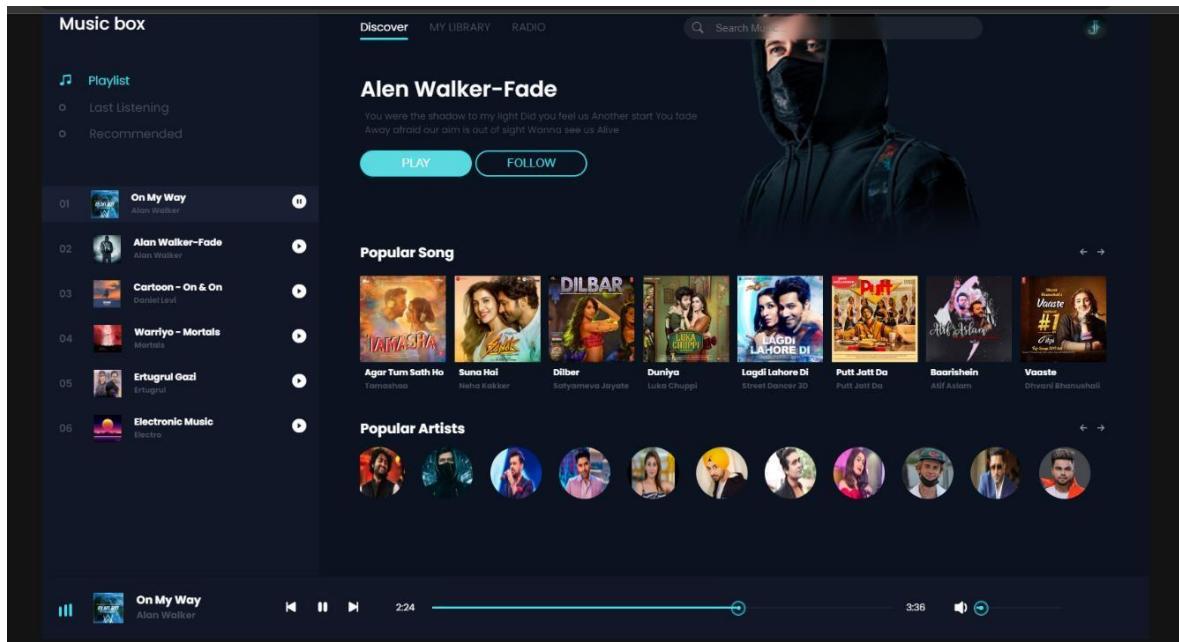
Rank	Song Title	Artist
01	On My Way	Alan Walker
02	Alan Walker-Fade	Alan Walker
03	Cartoon - On & On	Daniel Levy
04	Warryo - Mortals	Mortals
05	Ertugrul Gazi	Ertugrul
06	Electronic Music	Electro

Below the song list are sections for 'Popular Song' and 'Popular Artists'. The 'Popular Song' section displays thumbnails for 'Suna Hai' (Isha Kakker), 'Dilber' (Satyameva Jayate), 'Duniya' (Luka Chuppi), 'Logdi Lahore Di' (Street Dancer 3D), 'Putt Jatt Da' (Puff), 'Baarishein' (Atif Aslam), and 'Vaaste' (Dhvani Bhanushali). The 'Popular Artists' section shows circular profile pictures of artists like Arijit Singh, Neha Kakkar, Armaan Malik, and others.

At the bottom, the currently playing song is 'On My Way' by Alan Walker, with a progress bar at 1:37 and a total duration of 3:36. There are also volume and shuffle controls.

## 5) TEST IF THE VOLUME BUTTON IS WORKING

This screenshot is identical to the one above, showing the same song list, popular songs, and artists. The playback information at the bottom indicates that 'On My Way' by Alan Walker is still playing at 1:57 of its 3:36 duration. The volume icon is visible, confirming that the volume button is functional.



<< Summarize the current status of the Testing>

<<present obstacles to proceed further >>

<< Seek help from stakeholders to remove obstacles/constraints>>

Category	Progress Against Plan	Status
Functional Testing	Green	In-Progress
Non-Functional Testing	Green	Completed

<b>Functional</b>	<b>Test Case Coverage (%)</b>	<b>Status</b>
Module	70%	In-Progress

Result:

Thus, the test case report has been created for the Online music streaming website.



## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	13
<b>Title of Experiment</b>	Provide the details of Architecture Design/Framework/Implementation
<b>Name of the candidate</b>	Aakash Raj
<b>Team Members</b>	Medha Baladitya
<b>Register Number</b>	RA2011031010128,RA2011031010105,RA2011031010126
<b>Date of Experiment</b>	16-06-2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim

To provide the details of architectural design/framework/implementation

## Team Members:

S No	Register No	Name	Role
1	Aakash Raj	RA2011031010128	Lead/Member
2	Medha	RA2011031010105	Member
3	Baladitya	RA2011031010126	Member

< Provide the details of architectural design/framework/implementation with screenshots - Minimum three modules to be completed (excluding login page) use of software on their choice to implement>

Full documentation with the coding

## Software Used:

- **HTML**
- **CSS**
- **JavaScript**

## Html code module 1:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.7.2/font/bootstrap-icons.css">
  <link rel="stylesheet" href="styl.css">
  <title>Music App</title>
</head>

<body>
<header>
  <div class="menu_side">
    <h1>Music box</h1>
    <div class="playlist">
      <h4 class="active"><span></span><i class="bi bi-music-note-beamed"></i> Playlist</h4>
      <h4><span></span><i class="bi bi-music-note-beamed"></i> Last Listening</h4>
      <h4><span></span><i class="bi bi-music-note-beamed"></i> Recommended</h4>
    </div>
    <div class="menu_song">
      <li class="songItem">
        <span>01</span>
        
        <h5>
          On My Way
        <div class="subtitle">Alan Walker</div>
      </li>
    </div>
  </div>
</header>
```

```

        </h5>
        <i class="bi playListPlay bi-play-circle-fill" id="1"></i>
    </li>
<li class="songItem">
    <span>02</span>
    
    <h5>
        On My Way
        <div class="subtitle">Alan Walker</div>
    </h5>
    <i class="bi playListPlay bi-play-circle-fill" id="2"></i>
</li>
<li class="songItem">
    <span>03</span>
    
    <h5>
        On My Way
        <div class="subtitle">Alan Walker</div>
    </h5>
    <i class="bi playListPlay bi-play-circle-fill" id="3"></i>
</li>
<li class="songItem">
    <span>04</span>
    
    <h5>
        On My Way
        <div class="subtitle">Alan Walker</div>
    </h5>
    <i class="bi playListPlay bi-play-circle-fill" id="4"></i>
</li>
<li class="songItem">
    <span>05</span>
    
    <h5>
        On My Way
        <div class="subtitle">Alan Walker</div>
    </h5>
    <i class="bi playListPlay bi-play-circle-fill" id="5"></i>
</li>
<li class="songItem">
    <span>06</span>
    
    <h5>
        On My Way
        <div class="subtitle">Alan Walker</div>
    </h5>
    <i class="bi playListPlay bi-play-circle-fill" id="6"></i>
</li>
</div>
</div>

<div class="song_side">
    <nav>
        <ul>
            <li>Discover <span></span></li>
            <li>MY LIBRARY</li>
            <li>RADIO</li>
        </ul>
    <div class="search">
        <i class="bi bi-search"></i>
        <input type="text" placeholder="Search Music...">
    <div class="search_result">
        <!-- <a href="#" class="card">
            
            <div class="content">
                On My Way
                <div class="subtitle">Alan Walker</div>
            </div>
        </a> -->
    </div>
    </div>
</div>
<div class="user">
    
</div>
</nav>
<div class="content">
    <h1>Alen Walker-Fade</h1>
    <p>

```

You were the shadow to my light Did you feel us Another start You fade  
<br>  
Away afraid our aim is out of sight Wanna see us Alive  
</p>  
<div class="buttons">  
  <button>PLAY</button>  
  <button>FOLLOW</button>  
</div>  
</div>  
<div class="popular\_song">  
  <div class="h4">  
    <h4>Popular Song</h4>  
  <div class="btn\_s">  
    <i id="left\_scroll" class="bi bi-arrow-left-short"></i>  
    <i id="right\_scroll" class="bi bi-arrow-right-short"></i>  
  </div>  
</div>  
<div class="pop\_song">  
  <li class="songItem">  
    <div class="img\_play">  
        
      <i class="bi playListPlay bi-play-circle-fill" id="7"></i>  
    </div>  
    <h5>On My Way  
      <br>  
      <div class="subtitle">Alan Walker</div>  
    </h5>  
  </li>  
  <li class="songItem">  
    <div class="img\_play">  
        
      <i class="bi playListPlay bi-play-circle-fill" id="8"></i>  
      <!-- change All id -->  
    </div>  
    <h5>On My Way  
      <br>  
      <div class="subtitle">Alan Walker</div>  
    </h5>  
  </li>  
  <li class="songItem">  
    <div class="img\_play">  
        
      <i class="bi playListPlay bi-play-circle-fill" id="9"></i>  
    </div>  
    <h5>On My Way  
      <br>  
      <div class="subtitle">Alan Walker</div>  
    </h5>  
  </li>  
  <li class="songItem">  
    <div class="img\_play">  
        
      <i class="bi playListPlay bi-play-circle-fill" id="10"></i>  
    </div>  
    <h5>On My Way  
      <br>  
      <div class="subtitle">Alan Walker</div>  
    </h5>  
  </li>  
  <li class="songItem">  
    <div class="img\_play">  
        
      <i class="bi playListPlay bi-play-circle-fill" id="11"></i>  
    </div>  
    <h5>On My Way  
      <br>  
      <div class="subtitle">Alan Walker</div>  
    </h5>  
  </li>  
  <li class="songItem">  
    <div class="img\_play">  
        
      <i class="bi playListPlay bi-play-circle-fill" id="12"></i>  
    </div>  
    <h5>On My Way  
      <br>  
      <div class="subtitle">Alan Walker</div>  
    </h5>  
  </li>  
  <li class="songItem">  
    <div class="img\_play">

```

        
        <i class="bi playListPlay bi-play-circle-fill" id="13">/i>
    </div>
    <h5>On My Way
        <br>
        <div class="subtitle">Alan Walker</div>
    </h5>
</li>
<li class="songItem">
    <div class="img_play">
        
        <i class="bi playListPlay bi-play-circle-fill" id="14">/i>
    </div>
    <h5>On My Way
        <br>
        <div class="subtitle">Alan Walker</div>
    </h5>
</li>
<li class="songItem">
    <div class="img_play">
        
        <i class="bi playListPlay bi-play-circle-fill" id="15">/i>
    </div>
    <h5>On My Way
        <br>
        <div class="subtitle">Alan Walker</div>
    </h5>
</li>
</div>
<div class="popular_artists">
<h4>Popular Artists</h4>
<div class="btn_s">
    <i id="left_scrolls" class="bi bi-arrow-left-short"></i>
    <i id="right_scrolls" class="bi bi-arrow-right-short"></i>
</div>
<div class="item">
    <li>
        
    </li>
    <!-- change all img -->
</div>
</div>

<div class="master_play">
    <div class="wave">
        <div class="wave1"></div>

```

```

<div class="wave1"></div>
<div class="wave1"></div>
</div>

<h5 id="title">Vande Mataram<br>
    <div class="subtitle">Bankim Chandra</div>
</h5>
<div class="icon">
    <i class="bi bi-skip-start-fill" id="back"></i>
    <i class="bi bi-play-fill" id="masterPlay"></i>
    <i class="bi bi-skip-end-fill" id="next"></i>
</div>
<span id="currentStart">0:00</span>
<div class="bar">
    <input type="range" id="seek" min="0" value="0" max="100">
    <div class="bar2" id="bar2"></div>
    <div class="dot"></div>
</div>
<span id="currentEnd">0:00</span>

<div class="vol">
    <i class="bi bi-volume-down-fill" id="vol_icon"></i>
    <input type="range" id="vol" min="0" value="30" max="100">
    <div class="vol_bar"></div>
    <div class="dot" id="vol_dot"></div>
</div>
</div>
</header>
<script src="app.js"></script>
</body>
</html>

```

## Css code module 2:

```

/* Google Font 'Poppins' */
@import
url('https://fonts.googleapis.com/css2?family=Poppins:wght@100;200;300;400;500;600;700;800;900&display=swap');

* {
    padding: 0%;
    margin: 0%;
    box-sizing: border-box;
}

body {
    width: 100%;
    height: 105vh;
    background-color: #131312;
    font-family: 'Poppins', sans-serif;
    display: flex;
    align-items: center;
    justify-content: center;
}

header {
    width: 85%;
    height: 95%;
    /* border: 1px solid #ffff; */
    display: flex;
    flex-wrap: wrap;
    overflow: hidden;
}

header .menu_side, .song_side {
    position: relative;
    width: 25%;
    height: 90%;
    /* border: 1px solid #ffff; */
    background-color: #111727;
    box-shadow: 5px 0px 2px #090f1f;
    color: #fff;
}

header .song_side {
    width: 75%;
    background: #0b1320;
}

```

```
}

header .master_play {
    width: 100%;
    height: 10%;
    background: #111727;
    box-shadow: 0px 3px 8px #090f1f;
}

header .menu_side h1 {
    font-size: 20px;
    margin: 15px 0px 0px 20px;
    font-weight: 500;
}

header .menu_side .playlist {
    margin: 40px 0px 0px 20px;
}

header .menu_side .playlist h4 {
    font-size: 14px;
    font-weight: 400;
    padding-bottom: 10px;
    color: #4c5262;
    cursor: pointer;
    display: flex;
    align-items: center;
    transition: .3s linear;
}
header .menu_side .playlist h4:hover {
    color: #fff;
}
header .menu_side .playlist h4 span{
    position: relative;
    margin-right: 35px;
}
header .menu_side .playlist h4 span::before{
    content: "";
    position: absolute;
    width: 4px;
    height: 4px;
    border: 2px solid #4c5262;
    border-radius: 50%;
    top: -4px;
    transition: .3s linear;
}
header .menu_side .playlist h4:hover span::before{
    border: 2px solid #fff;
}
header .menu_side .playlist h4 .bi{
    display: none;
}
header .menu_side .playlist .active{
    color: #36e2ec;
}
header .menu_side .playlist .active span{
    display: none;
}
header .menu_side .playlist .active .bi{
    display: flex;
    margin-right: 20px;
}
header .menu_side .menu_song {
    width: 100%;
    height: 300px;
    /* border: 1px solid #fff; */
    margin-top: 40px;
}
header .menu_side .menu_song li{
    position: relative;
    list-style-type: none;
    padding: 5px 0px 5px 20px;
    display: flex;
    align-items: center;
}
```

```

margin-bottom: 10px;
cursor: pointer;
transition: .3s linear;
}
header .menu_side .menu_song li:hover{
background: rgb(105, 105, 170,.1);
}
header .menu_side .menu_song li span{
font-size: 12px;
font-weight: 600;
color: #4c5262;
}
header .menu_side .menu_song li img{
width: 32px;
height: 32px;
margin-left: 25px;
}
header .menu_side .menu_song li h5{
font-size: 11px;
margin-left: 15px;
}
header .menu_side .menu_song li h5 .subtitle{
font-size: 9px;
color: #4c5262;
}
header .menu_side .menu_song li .bi{
position: absolute;
right: 15px;
top: 6px;
font-size: 16px;
}

header .master_play {
display: flex;
align-items: center;
padding: 0px 20px;
}
header .master_play .wave{
width: 30px;
height: 30px;
/* border: 1px solid #fff; */
padding-bottom: 5px;
display: flex;
align-items: flex-end;
margin-right: 10px;
}
header .master_play .wave .wave1{
width: 3px;
height: 10px;
margin-right: 3px ;
border-radius: 10px 10px 0px 0px ;
background: #36e2ec;
animation: unset;
}
header .master_play .wave .wave1:nth-child(2){
height: 13px;
/* animation-delay: .4s; */
}
header .master_play .wave .wave1:nth-child(3){
height: 8px;
/* animation-delay: .8s; */
}
/* javascript class wave */
header .master_play .active2 .wave1{
animation: wave .5s linear infinite;
}
header .master_play .active2 .wave1:nth-child(2){
animation-delay: .4s;
}
header .master_play .active2 .wave1:nth-child(3){
animation-delay: .8s;
}

@keyframes wave {

```

```
0%{
    height: 10px;
}
50%{
    height: 15px;
}
100%{
    height: 10px;
}
}

header .master_play img {
    width: 35px;
    height: 35px;
}
header .master_play h5 {
    width: 130px;
    font-size: 13px;
    margin-left: 15px;
    color: #fff;
    line-height: 17px;
}
header .master_play h5 .subtitle{
    font-size: 11px;
    color: #4c5262;
}
header .master_play .icon{
    font-size: 20px;
    color: #fff;
    margin: 0px 20px 0px 40px;
    outline: none;
}
header .master_play .icon .bi{
    cursor: pointer;
    outline: none;
}
header .master_play .icon .bi:nth-child(2){
border: 1px solid rgb(105, 105, 170,.1);
border-radius: 50%;
padding: 1px 4px 0px 6px;
margin: 0px 5px;
transition: .3s linear;
}

header .master_play span {
    color: #fff;
    width: 32px;
    font-size: 11px;
    font-weight: 400;
}
header .master_play #currentStart{
    margin: 0px 0px 0px 20px;
}

header .master_play .bar {
    position: relative;
    width: 43%;
    height: 2px;
    background: rgb(105, 105, 170,.1);
    margin: 0px 15px 0px 10px;
}
header .master_play .bar .bar2{
    position: absolute;
    background: #36e2ec;
    width: 0%;
    height: 100%;
    top: 0;
    transition: 1s linear;
}
header .master_play .bar .dot{
    position: absolute;
    width: 5px;
    height: 5px;
```

```
background: #36e2ec;
border-radius: 50%;
left: 0%;
top: -1px;
transition: 1s linear;
}
header .master_play .bar .dot::before{
content: "";
position: absolute;
width: 15px;
height: 15px;
border:1px solid #36e2ec;
border-radius: 50%;
left: -6px;
top: -6px;
box-shadow: inset 0px 0px 3px #36e2ec;
}
header .master_play .bar input{
position: absolute;
width: 100%;
top: -6px;
left: 0;
cursor: pointer;
z-index: 99999999;
transition: 3s linear;
opacity: 0;
}
header .master_play .vol{
position: relative;
width: 100px;
height: 2px;
margin-left: 50px;
background: rgb(105, 105, 170,.1);
}
header .master_play .vol .bi{
position: absolute;
color: #fff;
font-size: 25px;
top: -17px;
left: -30px;
}
header .master_play .vol input{
position: absolute;
width: 100%;
top: -10px;
left: 0;
cursor: pointer;
z-index: 99999999;
transition: 3s linear;
opacity: 0;
}
header .master_play .vol .vol_bar{
position: absolute;
background: #36e2ec;
width: 0%;
height: 100%;
top: 0;
transition: 1s linear;
}
header .master_play .vol .dot{
position: absolute;
width: 5px;
height: 5px;
background: #36e2ec;
border-radius: 50%;
left: 0%;
top: -1px;
transition: 1s linear;
}
header .master_play .vol .dot::before{
content: "";
position: absolute;
width: 15px;
```

```
height: 15px;
border:1px solid #36e2ec;
border-radius: 50%;
left: -6px;
top: -6px;
box-shadow: inset 0px 0px 3px #36e2ec;
}

header .song_side {
  z-index: 2;
}
header .song_side::before{
  content: "";
  position: absolute;
  width: 100%;
  height: 300px;
  background: url('bg.png');
  z-index: -1;
}
header .song_side nav{
  width: 90%;
  height: 10%;
  margin: auto;
  /* border: 1px solid #fff; */
  display: flex;
  align-items: center;
  justify-content: space-between;
}
header .song_side nav ul{
  display: flex;
}
header .song_side nav ul li{
  position: relative;
  list-style-type: none;
  font-size: 13px;
  color: #4c5262;
  margin-right: 25px;
  cursor: pointer;
  transition: .3s linear;
}
header .song_side nav ul li:hover{
  color: #fff;
}
header .song_side nav ul li:nth-child(1){
  color: #fff;
}
header .song_side nav ul li span{
  position: absolute;
  width: 100%;
  height: 2.5px;
  background: #36e2ec;
  bottom: -5px;
  left: 0;
  border-radius: 20px;
}
header .song_side nav .search{
  position: relative;
  width: 40%;
  padding: 1px 10px;
  border-radius: 20px;
  color: gray;
}
header .song_side nav .search::before{
  content: "";
  position: absolute;
  width: 100%;
  height: 100%;
  border-radius: 20px;
  background: rgb(184, 184, 184, 1);
  backdrop-filter: blur(5px);
  z-index: -1;
}
header .song_side nav .search .bi{
  font-size: 13px;
```

```
padding: 3px 0px 0px 10px;
}
header .song_side nav .search input{
background: none;
outline: none;
border: none;
padding: 0px 10px;
color: #fff;
font-size: 12px;
}

header .song_side nav .search .search_result{
position: absolute;
width:100%;
height: 200px;
/* border: 1px solid #fff; */
margin-top: 10px;
border-radius: 10px;
display: flex;
align-items: flex-start;
justify-content: flex-start;
flex-direction: column;
overflow: auto;
}

header .song_side nav .search .search_result::-webkit-scrollbar{
display: none;
}

header .song_side nav .search .search_result .card{
width:100%;
min-height: 45px;
/* border: 1px solid #fff; */
display: none ;
align-items: center;
padding: 0px 5px;
text-decoration: none;
background: rgb(184, 184, 184,1);
margin-bottom: 5px;
}

header .song_side nav .search .search_result .card img{
width:35px;
height: 35px;
border-radius: 5px;
}

header .song_side nav .search .search_result .card .content{
width:80%;
height: 100%;
/* border: 1px solid #fff; */
padding: 0;
font-size: 13px;
font-weight: 600;
color: #fff;
display: flex;
align-items: flex-start;
justify-content: center;
flex-direction: column;
}

header .song_side nav .search .search_result .card .content .subtitle{
font-size: 11px;
font-weight: 500;
color: #a4a8b4;
}

header .song_side nav .user{
```

```
position: relative;
width: 30px;
height: 30px;
border-radius: 50%;
cursor: pointer;
}
header .song_side nav .user img{
position: absolute;
width: 30px;
height: 30px;
border-radius: 50%;
box-shadow: 2px 2px 8px #131312;
}

header .song_side .content {
width:90%;
height: 30%;
margin: auto;
/* border: 1px solid #fff; */
padding-top: 20px;
}

header .song_side .content h1{
font-size: 25px;
font-weight: 600;
}
header .song_side .content p{
font-size: 11px;
font-weight: 400;
color: #4c5262;
margin: 5px;
}
header .song_side .content .buttons{
margin-top: 15px;
}
header .song_side .content .buttons button{
width: 130px;
height: 30px;
border: 2px solid #36e2ec;
outline: none;
border-radius: 20px;
background: #5adae0;
color: #fff;
cursor: pointer;
transition: .3s linear;
}
header .song_side .content .buttons button:hover{
border: 2px solid #36e2ec;
background: none;
color: #36e2ec;
}
header .song_side .content .buttons button:nth-child(2){
border: 2px solid #36e2ec;
background: none;
color: #36e2ec;
}
header .song_side .content .buttons button:nth-child(2):hover{
border: 2px solid #36e2ec;
background: #36e2ec;
color: #fff;
}

header .song_side .popular_song {
width: 90%;
height: auto;
/* border: 1px solid #fff; */
margin: auto;
margin-top: 15px;
}
header .song_side .popular_song .h4{
display: flex;
align-items: center;
justify-content: space-between;
}
```

```
header .song_side .popular_song .h4 .bi{
    color: #a4a8b4;
    cursor: pointer;
    transition: .3s linear;
}
header .song_side .popular_song .h4 .bi:hover{
    color: #fff;
}

header .song_side .popular_song .pop_song {
    width: 100%;
    height: 150px;
    margin-top: 15px;
    display: flex;
    overflow-x: auto;
    scroll-behavior: smooth;
}
header .song_side .popular_song .pop_song::-webkit-scrollbar{
    display: none;
}
header .song_side .popular_song .pop_song li{
    min-width: 100px;
    height: 140px;
    list-style-type: none;
    margin-right: 10px;
    transition: .3s linear;
}
header .song_side .popular_song .pop_song li:hover{
    background: rgb(105, 105, 170, 1);
}
header .song_side .popular_song .pop_song li .img_play{
    position: relative;
    width: 100px;
    height: 100px;
    display: flex;
    align-items: center;
    justify-content: center;
}
header .song_side .popular_song .pop_song li .img_play img{
    width: 100%;
    height: 100%;
}
header .song_side .popular_song .pop_song li .img_play .bi{
    position: absolute;
    font-size: 20px;
    cursor: pointer;
    transition: .3s linear;
    opacity: 0;
}
header .song_side .popular_song .pop_song li .img_play:hover .bi{
    opacity: 1;
}
header .song_side .popular_song .pop_song li h5{
    padding: 5px 0px 0px 5px;
    line-height: 15px;
    font-size: 10px;
}
header .song_side .popular_song .pop_song li h5 .subtitle{
    font-size: 9px;
    color: #4c5262;
}

header .song_side .popular_artists {
    width: 90%;
    height: auto;
    /* border: 1px solid #fff; */
    margin: auto;
    margin-top: 15px;
}
header .song_side .popular_artists .h4{
    display: flex;
    align-items: center;
    justify-content: space-between;
}
```

```

header .song_side .popular_artists .h4 .bi{
  color: #a4a8b4;
  cursor: pointer;
  transition: .3s linear;
}
header .song_side .popular_artists .h4 .bi:hover{
  color: #fff;
}
header .song_side .popular_artists .item{
  width: 100%;
  height: auto;
  margin-top: 10px;
  display: flex;
  overflow-x: auto;
  scroll-behavior: smooth;
}
header .song_side .popular_artists .item::-webkit-scrollbar{
  display: none;
}
header .song_side .popular_artists .item li{
  list-style-type: none;
  position: relative;
  min-width: 60px;
  height: 60px;
  /* background-color: #fff; */
  border-radius: 50%;
  margin-right: 20px;
  cursor: pointer;
}
header .song_side .popular_artists .item li img{
  width: 100%;
  height: 100%;
  border-radius: 50%;
  position: absolute;
}

```

### **JavaScript code module 3:**

```

const music = new Audio('vande.mp3');

// create Array

const songs = [
  {
    id:'1',
    songName:` On My Way <br>
      <div class="subtitle">Alan Walker</div>`,
    poster: "img/1.jpg"
  },
  {
    id:'2',
    songName:` Alan Walker-Fade <br>
      <div class="subtitle">Alan Walker</div>`,
    poster: "img/2.jpg"
  },
  // all object type
  {
    id:"3",
    songName: `Cartoon - On & On <br><div class="subtitle"> Daniel Levi</div>`,
    poster: "img/3.jpg",
  },

```

```
{  
    id:"4",  
    songName: `Warriyo - Mortals <br><div class="subtitle">Mortals</div>`,  
    poster: "img/4.jpg",  
},  
{  
    id:"5",  
    songName: `Ertugrul Gazi <br><div class="subtitle">Ertugrul</div>`,  
    poster: "img/5.jpg",  
},  
{  
    id:"6",  
    songName: `Electronic Music <br><div class="subtitle">Electro</div>`,  
    poster: "img/6.jpg",  
},  
{  
    id:"7",  
    songName: `Agar Tum Sath Ho <br><div class="subtitle">Tamashaa</div>`,  
    poster: "img/7.jpg",  
},  
{  
    id:"8",  
    songName: `Suna Hai <br><div class="subtitle">Neha Kakker</div>`,  
    poster: "img/8.jpg",  
},  
{  
    id:"9",  
    songName: `Dilber <br><div class="subtitle">Satyameva Jayate</div>`,  
    poster: "img/9.jpg",  
},  
{  
    id:"10",  
    songName: `Duniya <br><div class="subtitle">Luka Chuppi</div>`,  
    poster: "img/10.jpg",  
},  
{  
    id:"11",  
    songName: `Lagdi Lahore Di <br><div class="subtitle">Street Dancer 3D</div>`,  
    poster: "img/11.jpg",  
},  
{  
    id:"12",  
    songName: `Putt Jatt Da <br><div class="subtitle">Putt Jatt Da</div>`,  
    poster: "img/12.jpg",  
},  
{  
    id:"13",
```

```

        songName: `Baarishein <br><div class="subtitle">Atif Aslam</div>`,
        poster: "img/13.jpg",
    },
{
    id:"14",
    songName: `Vaaste <br><div class="subtitle">Dhvani Bhanushali</div>`,
    poster: "img/14.jpg",
},
{
    id:"15",
    songName: `Lut Gaye <br><div class="subtitle">Jubin Nautiyal</div>`,
    poster: "img/15.jpg",
},
]
]

Array.from(document.getElementsByClassName('songItem')).forEach((element, i)=>{
    element.getElementsByTagName('img')[0].src = songs[i].poster;
    element.getElementsByTagName('h5')[0].innerHTML = songs[i].songName;
});

//search data start

let search_result = document.getElementsByClassName('search_result')[0];

songs.forEach(element => {
    const { id, songName, poster } = element;
    let card = document.createElement('a');
    card.classList.add('card');
    card.href = '#' + id;
    card.innerHTML=`
        
        <div class="content">
            ${songName}
        </div>
    `;
    search_result.appendChild(card);
});

let input = document.getElementsByTagName('input')[0];

input.addEventListener('keyup',()=>{
let input_value = input.value.toUpperCase()
let items = search_result.getElementsByTagName('a');

for (let i =0; i < items.length; i++){
    let as = items[i].getElementsByClassName('content')[0];
    let text_value = as.textContent || as.innerText;

```

```

if (text_value.toUpperCase().indexOf(input_value) > -1){
    items[i].style.display = "flex";
} else {
    items[i].style.display = "none";
}

if (input.value == 0) {
    search_result.style.display = "none";
} else {
    search_result.style.display = "";
}
}

//search data end

let masterPlay = document.getElementById('masterPlay');
let wave = document.getElementsByClassName('wave')[0];

masterPlay.addEventListener('click', ()=>{
    if (music.paused || music.currentTime <= 0) {
        music.play();
        masterPlay.classList.remove('bi-play-fill');
        masterPlay.classList.add('bi-pause-fill');
        wave.classList.add('active2');
    } else {
        music.pause();
        masterPlay.classList.add('bi-play-fill');
        masterPlay.classList.remove('bi-pause-fill');
        wave.classList.remove('active2');
    }
})

const makeAllPlays = () =>{
    Array.from(document.getElementsByClassName('playListPlay')).forEach((element)=>{
        element.classList.add('bi-play-circle-fill');
        element.classList.remove('bi-pause-circle-fill');
    })
}

const makeAllBackgrounds = () =>{
    Array.from(document.getElementsByClassName('songItem')).forEach((element)=>{
        element.style.background = "rgb(105, 105, 170, 0)";
    })
}

```

```

        })
    }

let index = 0;
let poster_master_play = document.getElementById('poster_master_play');
let title = document.getElementById('title');
Array.from(document.getElementsByClassName('playListPlay')).forEach((element)=>{
    element.addEventListener('click', (e)=>{
        index = e.target.id;
        makeAllPlays();
        e.target.classList.remove('bi-play-circle-fill');
        e.target.classList.add('bi-pause-circle-fill');
        music.src = `audio/${index}.mp3`;
        poster_master_play.src =`img/${index}.jpg`;
        music.play();
        let song_title = songs.filter((ele)=>{
            return ele.id == index;
        })
        song_title.forEach(ele =>{
            let {songName} = ele;
            title.innerHTML = songName;
        })
        masterPlay.classList.remove('bi-play-fill');
        masterPlay.classList.add('bi-pause-fill');
        wave.classList.add('active2');
        music.addEventListener('ended',()=>{
            masterPlay.classList.add('bi-play-fill');
            masterPlay.classList.remove('bi-pause-fill');
            wave.classList.remove('active2');
        })
        makeAllBackgrounds();
        Array.from(document.getElementsByClassName('songItem'))[$index].style.background = "rgb(105, 105, 170, .1)";
    })
})

let currentStart = document.getElementById('currentStart');
let currentEnd = document.getElementById('currentEnd');
let seek = document.getElementById('seek');
let bar2 = document.getElementById('bar2');
let dot = document.getElementsByName('dot')[0];

music.addEventListener('timeupdate',()=>{
    let music_curr = music.currentTime;
    let music_dur = music.duration;

```

```

let min = Math.floor(music_dur/60);
let sec = Math.floor(music_dur%60);
if (sec<10) {
    sec = `0${sec}`;
}
currentEnd.innerText = `${min}:${sec}`;

let min1 = Math.floor(music_curr/60);
let sec1 = Math.floor(music_curr%60);
if (sec1<10) {
    sec1 = `0${sec1}`;
}
currentStart.innerText = `${min1}:${sec1}`;

let progressbar = parseInt((music.currentTime/music.duration)*100);
seek.value = progressbar;
let seekbar = seek.value;
bar2.style.width = `${seekbar}%`;
dot.style.left = `${seekbar}%`;
})

seek.addEventListener('change', ()=>{
    music.currentTime = seek.value * music.duration/100;
})

music.addEventListener('ended', ()=>{
    masterPlay.classList.add('bi-play-fill');
    masterPlay.classList.remove('bi-pause-fill');
    wave.classList.remove('active2');
})

let vol_icon = document.getElementById('vol_icon');
let vol = document.getElementById('vol');
let vol_dot = document.getElementById('vol_dot');
let vol_bar = document.getElementsByClassName('vol_bar')[0];

vol.addEventListener('change', ()=>{
    if (vol.value == 0) {
        vol_icon.classList.remove('bi-volume-down-fill');
        vol_icon.classList.add('bi-volume-mute-fill');
        vol_icon.classList.remove('bi-volume-up-fill');
    }
    if (vol.value > 0) {
        vol_icon.classList.add('bi-volume-down-fill');
        vol_icon.classList.remove('bi-volume-mute-fill');
        vol_icon.classList.remove('bi-volume-up-fill');
    }
})

```

```

        }

        if (vol.value > 50) {
            vol_icon.classList.remove('bi-volume-down-fill');
            vol_icon.classList.remove('bi-volume-mute-fill');
            vol_icon.classList.add('bi-volume-up-fill');
        }

        let vol_a = vol.value;
        vol_bar.style.width = `${vol_a}%`;
        vol_dot.style.left = `${vol_a}%`;
        music.volume = vol_a/100;
    })
}

let back = document.getElementById('back');
let next = document.getElementById('next');

back.addEventListener('click', ()=>{
    index -= 1;
    if (index < 1) {
        index = Array.from(document.getElementsByClassName('songItem')).length;
    }
    music.src = `audio/${index}.mp3`;
    poster_master_play.src = `img/${index}.jpg`;
    music.play();
    let song_title = songs.filter((ele)=>{
        return ele.id == index;
    })

    song_title.forEach(ele =>{
        let {songName} = ele;
        title.innerHTML = songName;
    })
    makeAllPlays()

    document.getElementById(`#${index}`).classList.remove('bi-play-fill');
    document.getElementById(`#${index}`).classList.add('bi-pause-fill');
    makeAllBackgrounds();
    Array.from(document.getElementsByClassName('songItem'))[`#${index-1}`].style.background = "rgb(105, 105, 170, .1)";

})
next.addEventListener('click', ()=>{
    index -= 0;
    index += 1;
    if (index > Array.from(document.getElementsByClassName('songItem')).length) {
        index = 1;
    }
})

```

```

        }

music.src = `audio/${index}.mp3`;
poster_master_play.src = `img/${index}.jpg`;
music.play();

let song_title = songs.filter((ele)=>{
    return ele.id == index;
})

song_title.forEach(ele =>{
    let {songName} = ele;
    title.innerHTML = songName;
})

makeAllPlays()

document.getElementById(`#${index}`).classList.remove('bi-play-fill');
document.getElementById(`#${index}`).classList.add('bi-pause-fill');
makeAllBackgrounds();
Array.from(document.getElementsByClassName('songItem'))['${index-1}'].style.background = "rgb(105, 105, 170, .1)";

})

let left_scroll = document.getElementById('left_scroll');
let right_scroll = document.getElementById('right_scroll');
let pop_song = document.getElementsByClassName('pop_song')[0];

left_scroll.addEventListener('click', ()=>{
    pop_song.scrollLeft -= 330;
})

right_scroll.addEventListener('click', ()=>{
    pop_song.scrollLeft += 330;
})

let left_scrolls = document.getElementById('left_scrolls');
let right_scrolls = document.getElementById('right_scrolls');
let item = document.getElementsByClassName('item')[0];

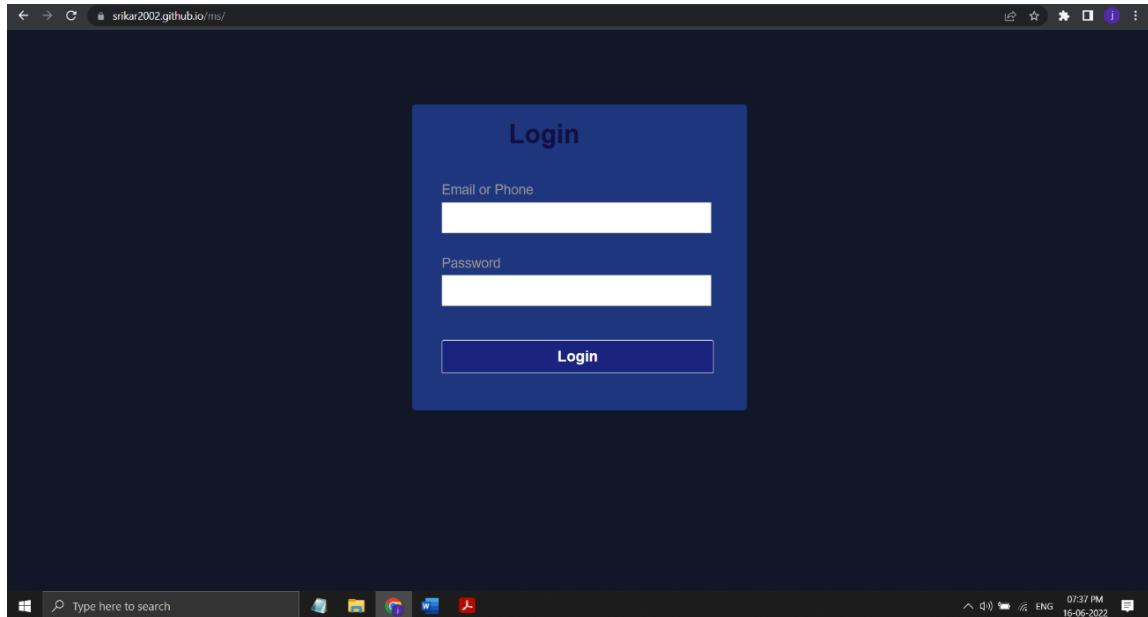
left_scrolls.addEventListener('click', ()=>{
    item.scrollLeft -= 330;
})

right_scrolls.addEventListener('click', ()=>{
    item.scrollLeft += 330;
})

```

## OUTPUT:

### LOGIN PAGE



### HOME PAGE

A screenshot of a music streaming application interface titled 'Music box'. The top navigation bar includes 'Discover', 'MY LIBRARY', and 'RADIO'. A search bar says 'Search Music...'. The main area features a large image of a person wearing a hooded jacket. Below it, sections include 'Popular Song' (listing songs like 'On My Way', 'Alan Walker - Fade', 'Cartoon - On &amp; On', 'Warryyo - Mortals', 'Ertugrul Gazi', and 'Electronic Music') and 'Popular Artists' (listing various artist profiles). At the bottom, there's a playback control bar for a song by 'Vande Mataram' by 'Bankim Chandra'.

Wed page ref link : [easyans.github.io/playdiousdilkatune/](https://easyans.github.io/playdiousdilkatune/)

Result:

Thus, the details of architectural design/framework/implementation along with the screenshots were provided.

