LAB REPORT

Submitted by

NEEHAR S ASHOK [RA2011028010118]

Under the Guidance of

Dr. P. Gouthaman

Assistant Professor
Department of Networking and Communication

In partial satisfaction of the requirements for the degree of

BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE ENGINEERING

with specialization in Cloud Computing

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 WEBSITE"** is the bonafide work done by **NEEHAR S ASHOK (RA2011028010118)** 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. P. Gouthaman

SEPM – Course Faculty

Assistant Professor

Department of Networking &

Communication

ABSTRACT

The Project " **ONLINE MUSIC WEBSITE**" provides a platform for the common people to enjoy the music and have some relief from their hectic life schedule. This Project is aimed at developing a Web Based Music Portal which can be used to manage a musical library and a picture gallery. It is aimed to replace the manual system of getting musical CDs considering the technology advancement. The study discusses the World Wide Web (www) as an Internet service that allows the distribution of pages. Familiarity withweb based application; web programming and web development as an industry are also discussed.It also consist the system analysis and designwhich include the several download and upload mechanisms. The systemdesign, file and database design is given based on the detailed of the proposed system. The implementation and maintenance of the system comprises the software development, software testing and debugging as well as software implementation. The implementation of the system is doneusing Apache as web server with extended support for PHP and MYSQL. Keywords Web based and Music portal.

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LIST OF FIGURES

LIST OF ABBREVIATIONS

DAW: Digital audio workstation

DSP: Digital Service Provider

A&R: The Artist and Repertoire department or manager
CRM: Customer Relationship Management
EP: Extended Play records
LP: Long Play record
TM: Tour Manager
IP: Intellectual Property
MAPL: Music, artist, production, lyrics
PPD: Published Price to Dealer
A/D: Analogue to Digital Converter
AIFF: Audio Interchange File Format
WAV: Waveform Audio File Format
MP3: Another audio format
FLAC: Free Lossless Audio Codec
BPM: Beats Per Minute
CBR: Short for 'Constant Bit Rate'
EQ: Equalization
ID: Identification/Identify
OTB: Out of The Box
UPC: Universal Product Code
EAN: European Article Number
PRO: Performing Rights Organization

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1
Title of Experiment	To identify the Software Project, Create Business Case, Arrive at a Problem Statement (online music)
Name of the candidate	KOTHOLLA JASWANTH REDDY
Team Members	1) ABHINAV 2) SHIVAM 3) NEEHAR
Register Number	RA2011028010132
Date of Experiment	16/03/2022

Mark Split Up

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

Staff Signature with date

Aim

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for the <LISTEN UP> (online music)

Team Members:

S. No	Register No	Name	Role
1	RA2011028010132	KOTHOLLA JASWANTH REDDY	**Lead/Rep**
2	RA2011028010125	NANDHIGAMA ABHINAV	**Member**
3	RA2011028010137	SHIVAM SINGH	**Member**
4	RA2011028010137	Neehar S Ashok	**Member**

Project Title: LISTEN UP (online music)

Project Description

An online music platform, S record, is planning to implement a database to enhance its data management practice and ultimately advance its business operations. The initial planning analysis phases have revealed the following system requirements:

Each album has a unique Album ID as well as the following attributes: Album Title, Album Price, and Release Date. An album contains at least one song or more songs. Songs are identified by Song ID. Each song can be contained in more than one album or not contained in any of them at all and has a Song Title and Play Time. Each song belongs to at least one genre or multiple genres. Songs are written by at least an artist or multiple artists. Each artist has a unique Artist ID, and an artist writes at least one song or multiple songs, to be recorded in the database. Data held by each artist includes Artist Name and Debut Date.

Each customer must sign up as a member to make a purchase on the platform. The customer membership information includes Customer ID, Customer Name, Address (consisting of City, State, Postal Code), Phone Number, Birthday, Registration Date. Customers place orders to purchase at least one album or more albums. They can purchase multiple quantities of the same album, which should be recorded as Quantities Ordered. Each order is identified by an Order IDand has Order Date, Total Price, Payment Method, and Delivery Option.

ONE PAGE BUSINESS CASE TEMPLATE

DATE	16/03/2022
SUBMITTED BY	Jaswanth (132), Abhinav (125), Shivam (137)
TITLE / ROLE	LISTEN UP (online music)

THE PROJECT

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

- In this project, we are aiming to develop a online music platform.
- The main idea is to create a website that makes others feel the essence of the music.
- It's a collection of MP3 songs of different languages in one place where users can get based on the year also play and listen the songs on our website at free of cost only is to provide user friendly tool for music web sites.
  We have a bright opportunity of making this website publicity.
-

The History

- Music is an integral part of most people's lives. The "music gene" can be traced back to thousands of years ago with biological roots pointing towards cultural events such as tribal dances across the world that led to the inception of singing, chanting or drumming.
- As we begin 2020, the music industry's days of doom and gloom are officially over. Happy days are here again, as the overall global recorded music ecosystem continues to win big. Although final 2019 numbers aren't in yet, 2019 is expected to represent five straight years of double-digit (or near double-digit) growth after decades of eviscerating losses.
- We have many websites but we can't find all languages songs at only one website it's a time taking the process to find our required languages songs to find by using different websites and so many unwanted pop-ups coming in present websites with are misleading the users from the requirement of songs.

LIMITATIONS

- Custom-coding to get features(lack in experience).
- Poor Planning.
- Lack of Cohesion Between Your Team Members.
- front-end programming
- back-end coding

APPROACH

- Choose a music website template.
- Create the color palette.
- Choose your fonts.
- Create the pages for your music website.
- Sell your music on your website.
- Choose a domain name.
- Experience with HTML, Javascript, and CSS

BENEFITS

- Easy Accessibility.
- Variety and Choice.
- Fewer Commercials and Ads
- Quality Of Sound
- Create Own Playlists

RESULT:

- Thus, the project team formed, the project is described, the business case was prepared and the problem statement was arrived.

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	2
Title of Experiment	Identification of Process Methodology and Stakeholder Description
Name of the candidate	Jashwant Reddy
Team Members	Shivam kr singh Abhinav reddy Neehar S Ashok
Register Number	RA2011028010132
Date of Experiment	18/04/22

Mark Split Up

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

Staff Signature with date

Aim

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

Team Members:

Sl No	Register No	Name	Role
1	RA2011028010132	K.Jaswanth Reddy	**Rep/Member**
2	RA2011028010137	Shivam Kumar Singh	**Member**
3	RA2011028010125	N.Abhinav	**Member**
4	RA2011028010118	Neehar s Ashok	**Member**

Project Title:

LISTEN UP

Selection of Methodology

waterfall model

The **waterfall model** is a breakdown of project activities into linear sequential phases, where each phase depends on the deliverables ofthe previous one and corresponds to a specialization of tasks. Waterfall is best for projects with concrete timelines and well- defined deliverables. If your major project constraints are well understood and documented, Waterfall is likely the best approach.The Agile methodology was created for projects where the significant constraints are not well understood. The five-stage waterfall model, which is based on the requirements of Winston W. Royce, divides development processes into the following project phases: analysis, design,implementation, testing, and operation.

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
LISTEN UP Corporation	Music/Online streaming	High	High	High
Boat electronic brand Sony Noise	Expand market & Branding	High	High	High
Shivam kr Singh Abhinav Reddy Neehar s Ashoak	Co-Founder Co-Founder Co_Founder	Medium Medium Medium	High High High	High High High
Jashwanth Reddy	Co-Founder/project manager	High	High	High
T-Series Zee Studios	Financial funding for the corporation	High	High	High
Abhinav Reddy	Planning & ensurers budget	Medium	High	Medium
App Store Google Play Store Youtube Ads OTT Platforms	Advertising & Promoting	Medium	High	High
Public	Consumers	High	High	High

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Result :

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

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Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	3
Title of Experiment	System, Functional and Non-Functional Requirements of the Project
Name of the candidate	KOTHOLLA JASWANTH REDDY RA2011028010132
Team Members	ABHINAV, SHIVAM SINGH, NEHAR ASHOK
Register Number	RA2011028010132
Date of Experiment	02/04/2022

Mark Split Up

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

Staff Signature with date

Aim

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

Team Members:

S No	Register No	Name	Role
1	RA2011028010137	SHIVAM SINGH	Rep/Member
2	RA2011028010125	ABHINAV	Member
3	RA2011028010118	NEHAR S ASHOK	Member

Project Title: LISTEN UP

System Requirements :

- 4 GB RAM (Minimum)
- 80 GB HDD
- Dual Core processor
- CDROM (installation only). VGA resolution monitor
- Microsoft Windows 98/2000/NT with service pack 6 / XP with service pack 2/ Windows 7 with service pack 2
- SQL Server 2008 R2

Functional Requirements :

CLIENT :

The client-side of the system will be an application with a user interface that is integrated into music listening website or application.

1. Requesting recommendations
2. Evaluation songs
3. Investigating user & Display the recommendations

SERVER :

The server-side system will hold the entire data in a graph database, and must include all functionality to perform operations on this database, receive requests from the clients, evaluate, create and send recommendations etc.

1. Handle recommendation requests
2. Store evaluation
3. Data storing
4. Recommend using content based filtering
5. Recommend using contextual collaborative filtering
6. Recommend using collaborative filtering

Non-Functional Requirements :

The non-functional requirements of the system are explained below as performance requirements and design constraints.

PERFORMENCE REQUIREMENTS :

1. Accuracy
2. Failure handling
3. Openness
4. Security

DESIGN CONSTRAINTS:

1. Language
2. Hardware Constraints
3. Software System Attributes

Result

Thus the requirements were identified and accordingly described.

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	4
Title of Experiment	Prepare Project Plan based on scope, Calculate Project effort based on resources and Job roles and responsibilities
Name of the candidate	K.Jashwanth
Team Members	Abhinav,Shivam,Neehar
Register Number	RA2011028010132
Date of Experiment	10/05/22

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	RA2011028010132	K.Jaswanth	Lead
2	RA2011028010125	N.Abhinav	Member
3	RA2011028010118	Neehar S Ashok	Member
4	RA2011028010137	Shivam Singh	Member

1. Project Management Plan

Focus Area	Details
Scope Management	• A project scope statement provides a detailed description of the work that must be done to deliver the output of a project on time and within the allotted budget. • requirements are- music files, responsive website, internet connections. • responsive website to enjoy uninterrupted music at very low cost. • requirement change -easy accessible,people can give review and ratings to identify issues, have help sessions for modifications. • Activity-to make responsive website. • Tasks-designing ui/ux,writing codes for frontend and backend, database managment,cloud deployment.
Risk Management	1)Potential issues might harm cost . 2)Technical Issues of the project and quality of our software device. 3)Slowing premium subscriber growth rate.
Stakeholder	Our stakeolders are LISTEN UP Corporation(Brands) Boat electronic brand, Sony, Noise (Co-founders) App Store Google Play Store Youtube Ads OTT Platforms (Ad) Step 1: Identify your stake. Step 2: Prioritize your stakeholders. Next, prioritize your stakeholders by assessing their level of influence and level of interest. ... Step 3: Understand your key stakeholders. Stakeholder engagement is the systematic identification, analysis, planning and implementation of actions designed to influence stakeholders. A stakeholder engagement strategy identifies the needs of key groups and the sponsor plays a vital role in ensuring those business needs are met.

2. Estimation

2.1. Effort and Cost Estimation

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Design the user screen	designing ui/ux	UI/UXinteract with a product, such as buttons, icons, menu bars, typography, colors, and more.	20-25 HRS	RS-2000
	codes for frontend and backend	Frontend-HTML,CSS,Javascript Backend-Python, node JS.	50-60 HRS	RS-5000
	database management, cloud deployment.	will manage data required like music files and deploying the website on cloud for easy access	30-35 HRS	RS-10,000
Identify Data Source for displaying units of Energy Consumption				

2.2. Infrastructure/Resource Cost [CapEx]

< OneTime Infra requirements >

Infrastructure Requirement	Qty	Cost per qty	Cost per item
Mobile			
Cloud for deployment	1	3,00,000	3,00,000
Data centers	1	10,00,000	10,00,000

2.3 Maintenance and Support Cost [OpEx]

Category	Details	Qty	Cost per qty per annum	Cost per item
People	Network, System, Middleware and DB admin Developer , Support Consultant	3	2,000,000	6,000,000
License	Operating System Database Middleware IDE	10	10000	100,000
Infrastructures	Server, Storage and Network	20	20000	400,000

3. Project Team Formation

3.1. Identification Team members

Name	Role	Responsibilities
LISTEN UP CORP.	Key Business User (Product Owner)	Provide clear business and user requirements
K.Jaswanth	Project Manager	Manage the project
Neehar	Business Analyst	Discuss and Document Requirements
Abhinav	Technical Lead	Design the end-to-end architecture
Neehar	UX Designer	Design the user experience
Shivam	Frontend Developer	Develop user interface
Abhinav,Neehar	Backend Developer	Design, Develop and Unit Test Services/API/DB
Shivam	Cloud Architect	Design the cost effective, highly available and scalable architecture
Abhinav	Cloud Operations	Provision required Services
Jaswanth	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	A	C/I	I	R
User Interface	Shivam	Shivam	Jaswanth	Neehar
Playing music	Abhinav	Shivam	Jaswanth	Neehar
Easy accesibility	Shivam	Abhinav	Jaswanth	Neehar

Result:

Thus, the Project Plan was documented successfully.

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	5
Title of Experiment	Prepare Work breakdown structure, Timeline chart, Risk identification table
Name of the candidate	k.Jaswanth reddy
Team Members	Shivam kumar Neehar shok N.Abhinav
Register Number	RA2011028010132
Date of Experiment	15/04/22

Mark Split Up

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

Staff Signature With date

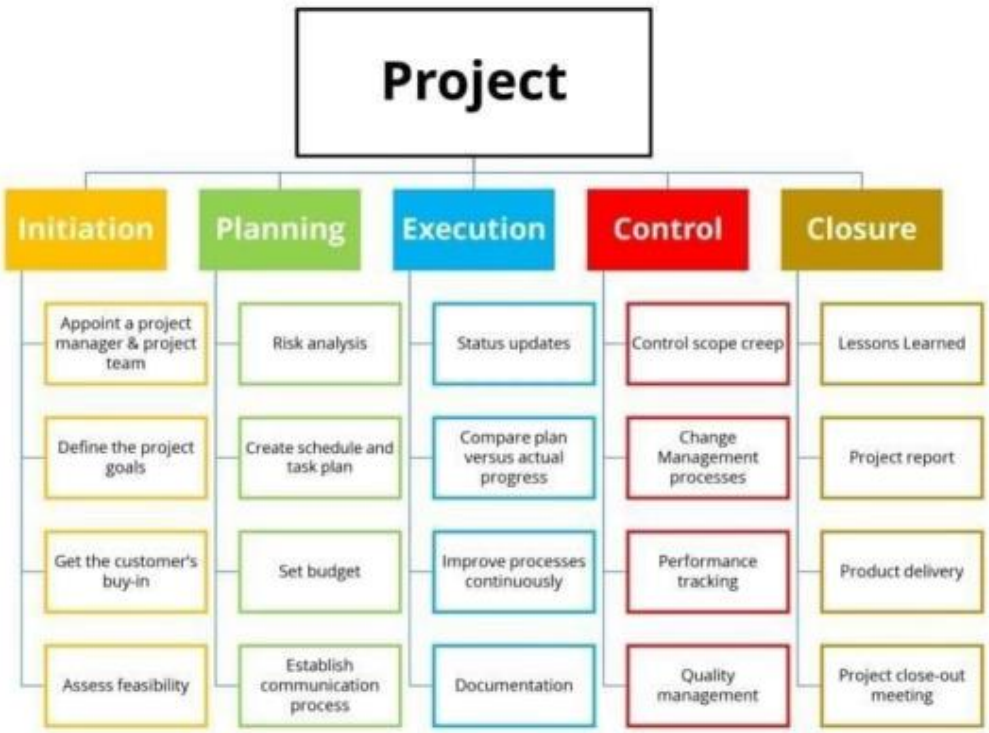
Aim

To Prepare Work breakdown structure, Timeline chart and Risk identification table

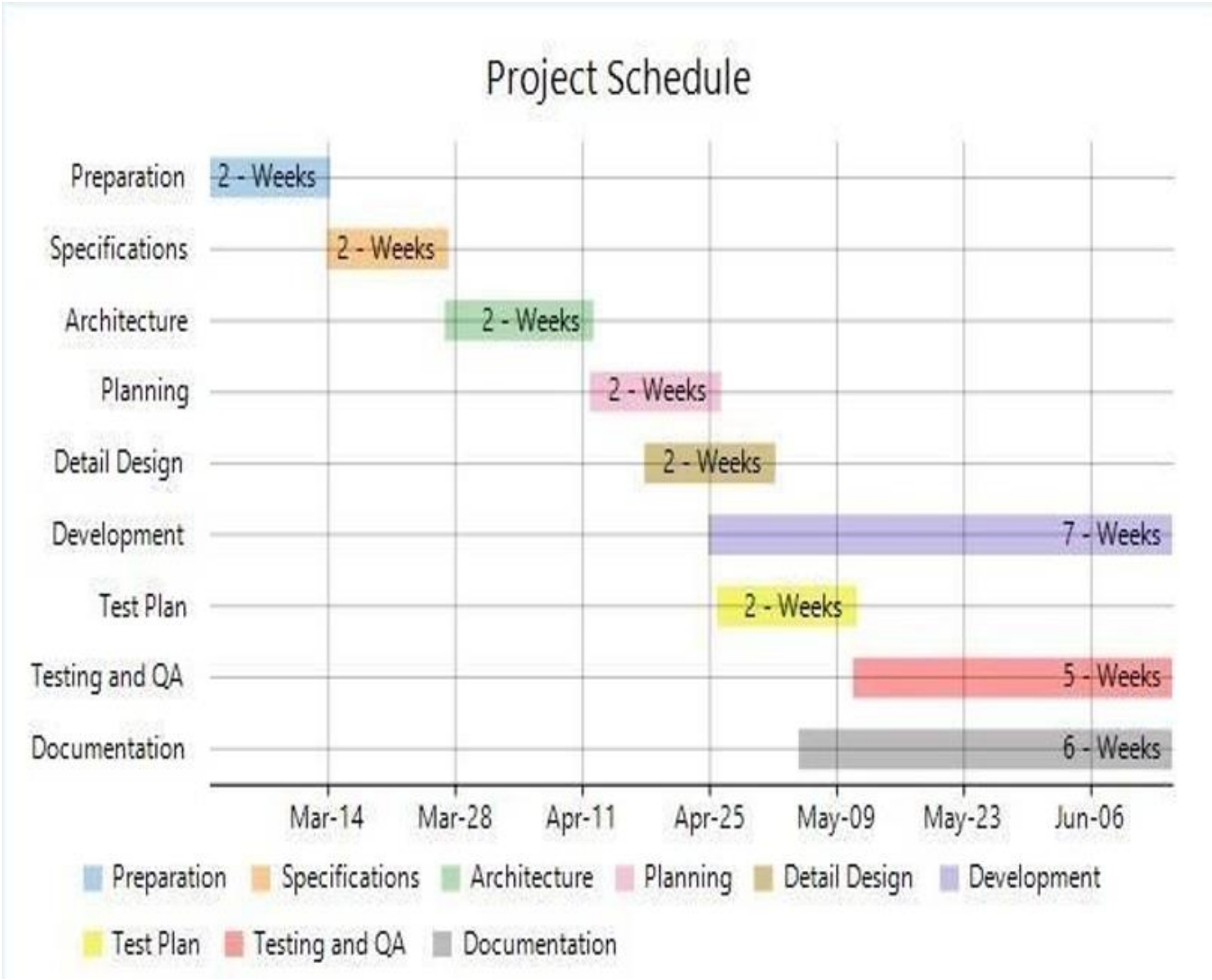
Team Members:

Sl. No	Register No	Name	Role
1	RA2011028010125	N. ABHINAV	**Member**
2	RA2011028010118	NEEHAR S ASHOK	**Member**
3	RA2011028010137	SHIVAM KUMAR SINGH	**Member**

Work breakdown structure



TIMELINE – GANTT CHART


Project Schedule
Preparation
Specifications
Architecture
Planning
Detail Design
Development
Test Plan
Testing and QA
Documentation
2 - Weeks
2 - Weeks
2 - Weeks
2 - Weeks
2 - Weeks
7 - Weeks
2 - Weeks
5 - Weeks
6 - Weeks
Mar-14
Mar-28
Apr-11
Apr-25
May-09
May-23
Jun-06
Preparation
Specifications
Architecture
Planning
Detail Design
Development
Test Plan
Testing and QA
Documentation

RISK ANALYSIS – SWOT & RMMM

STRENGTHS :

1. Daily using
2. Relevant and Unique
3. Easily accessible
4. Affordable
5. High contents

WEAKNESSES :

1. Medium service provider
2. Challenge to socialize the app to all generations of people
3. Medium Server Maintenance
4. Low capital income

OPPURTUNITIES :

1. Partnerships with Music studios
2. New Mode of payment transections
3. Innovating Advertising Strategies
4. It provides opportunities for content creators

THREATS :

1. Major Threats are similar music websites and apps
2. Obtaining copy right
3. Low Protection from piracy
4. Privacy protection

Risk Source	Description
Risk repository	The risk repository is the history data containing the list of risks identified for completed projects. The risk repository can be used to arrive at a list of potential risks for the project. This risk repository can also be filtered based on risk sources, categories, and projects.
Checklist analysis	The risk identification checklist is a questionnaire that helps identify gaps and potential risks. It is developed based on experience and project type.
Expert judgement	Risk identification is also done by brainstorming with or interviewing experienced project participants, stakeholders, and subject matter experts.
Project status	The project status includes project status meeting reports, status reports, progress reports, and quality reports. These reports provide the current project progress, issues faced, and threshold violations. These provide insight into the status of the project and potential new risks.

Result:

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

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	6
Title of Experiment	Design a System Architecture, Use Case and Class Diagram
Name of the candidate	JASWANTH REDDY
Team Members	ABHINAV REDDY SHIVAM SINGH NEHAR S ASHOK
Register Number	RA2011028010132
Date of Experiment	22/04/22

Mark Split Up

Sl.no	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

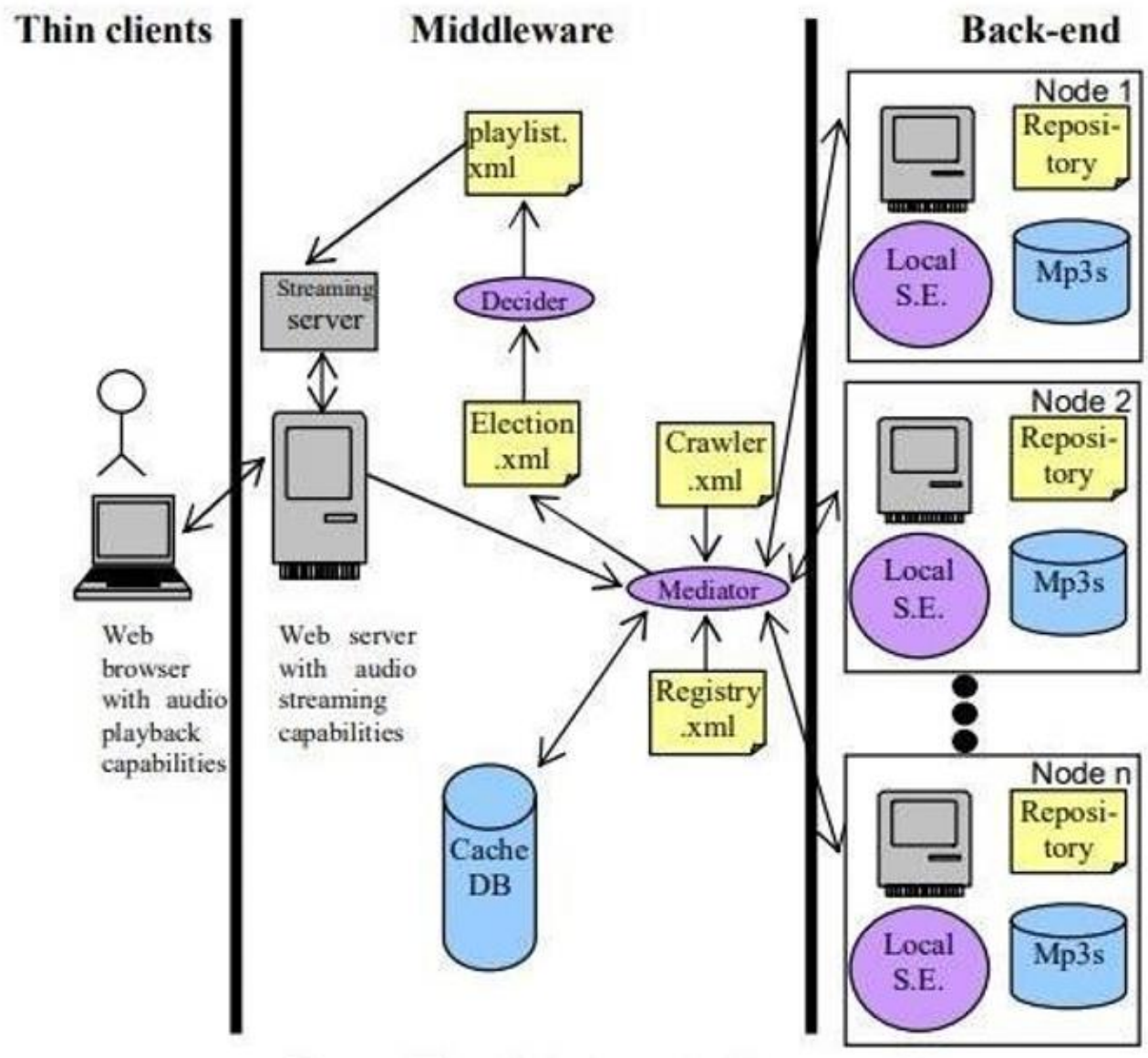
Aim

To design a system Architecture ,Use case and Class Diagram

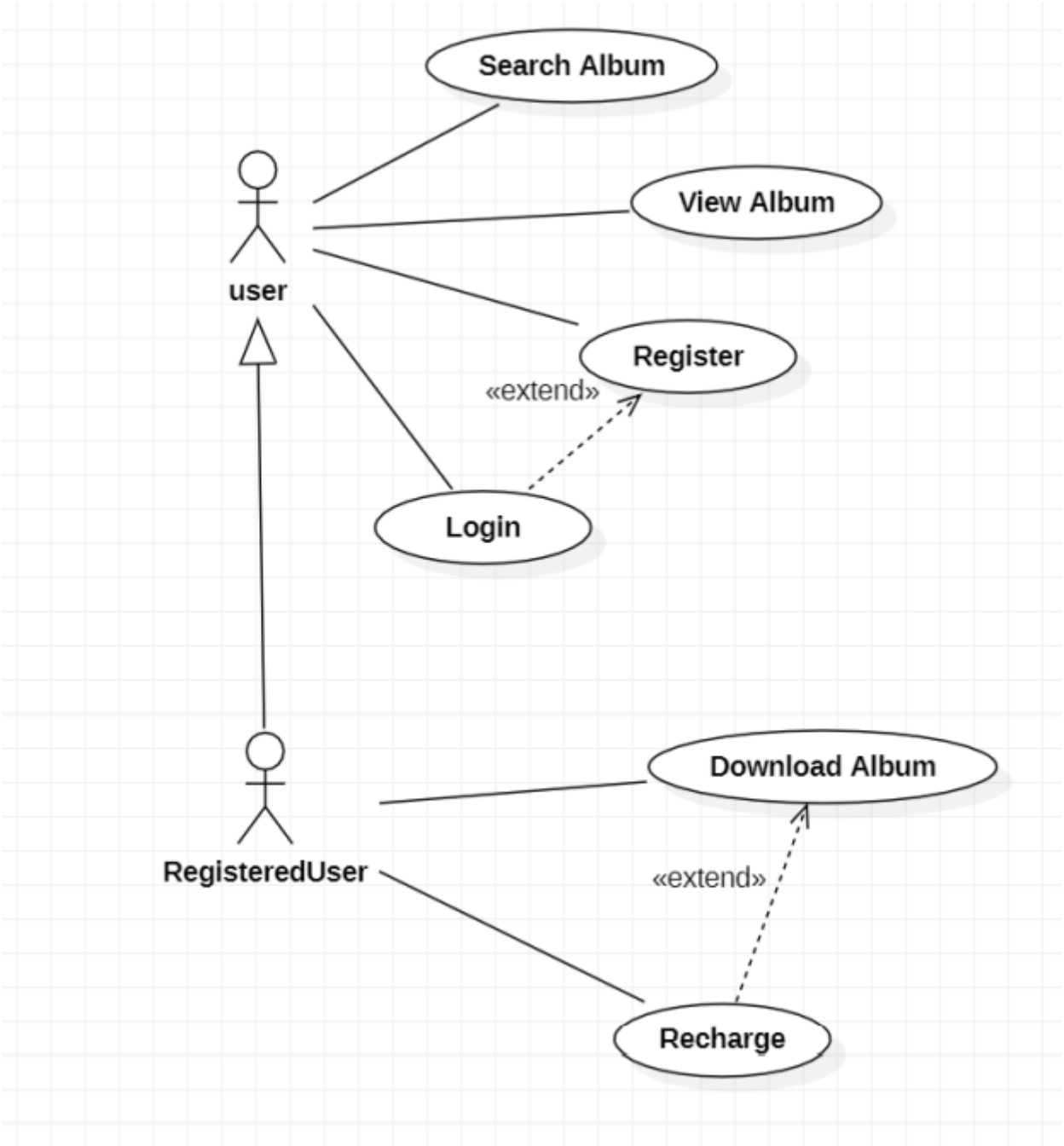
Team Members:

Sl. No	Register No	Name	Role
1	RA2011028010125	N. ABHINAV	Member
2	RA2011028010118	NEEHAR S ASHOK	Member
3	RA2011028010137	SHIVAM KUMAR SINGH	Member

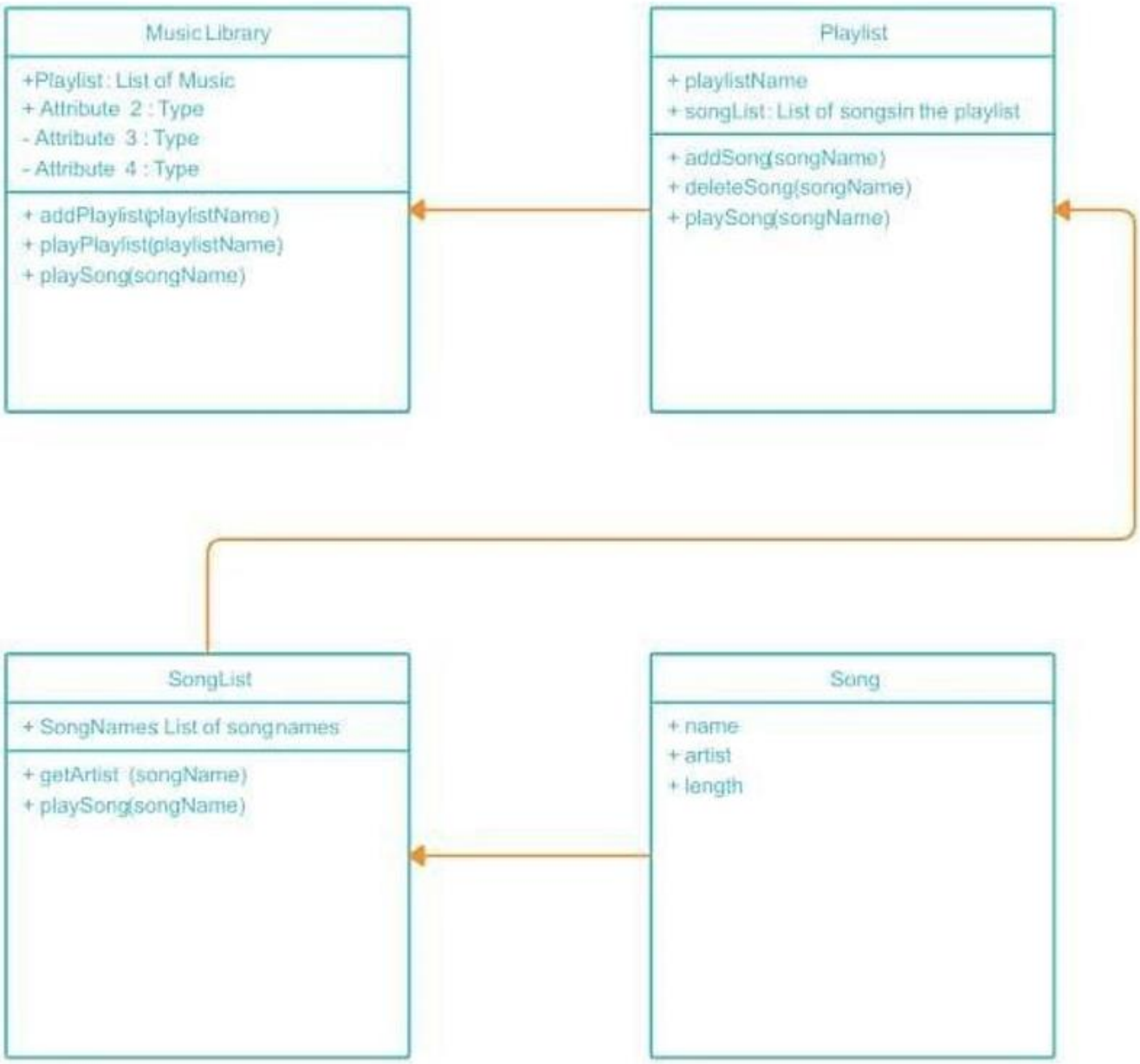
SYSTEM ARCHITECTURE –



USE CASE DIAGRAM –



CLASS DIAGRAM –



Result:

Thus, the system architecture, use case and class diagram created successfully.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	7
Title of Experiment	Design a Entity relationship diagram
Name of the candidate	K.JASWANTH
Team Members	N.ABHINAV NEEHAR S ASHOK SHIVAM KUMAR SINGH
Register Number	RA2011028010132
Date of Experiment	28/04/22

Mark Split Up

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

Staff Signature with date

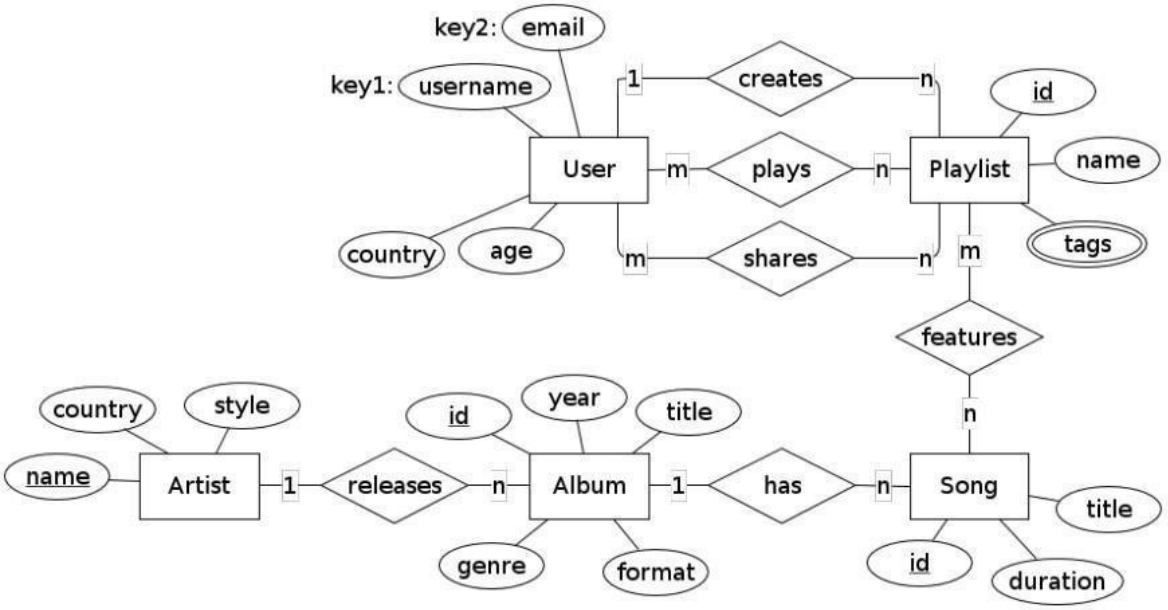
Aim

To create the Entity Relationship Diagram

Team Members:

S No	Register No	Name	Role
1	Neehar S Ashok	RA2011028010118	Member
2	N.ABHINAV	RA2011028010125	Member
3	SHIVAM KUMAR	RA2011028010137	Member

ER Diagram of LISTENUP CORP.



Result:

Thus, the entity relationship diagram was created successfully.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	8
Title of Experiment	Develop a Data Flow Diagram (Process-Up to Level 1)
Name of the candidate	Jaswanth reddy—RA2011028010132
Team Members	Shivam Singh,Abhinav Reddy,Neehar
Register Number	RA2011028010132
Date of Experiment	12/05/2022

Mark Split Up

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

Staff Signature With date

Aim

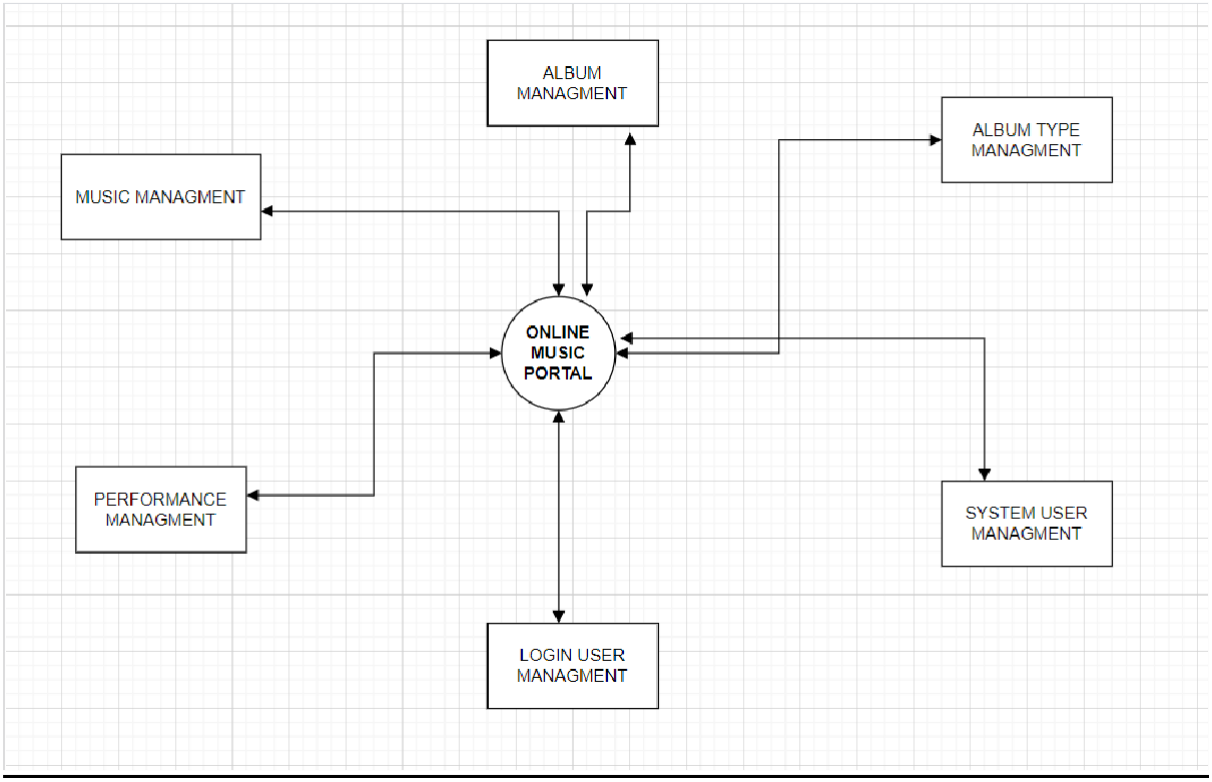
To develop the data flow diagram up to level 1 for the Online Music Website

Team Members:

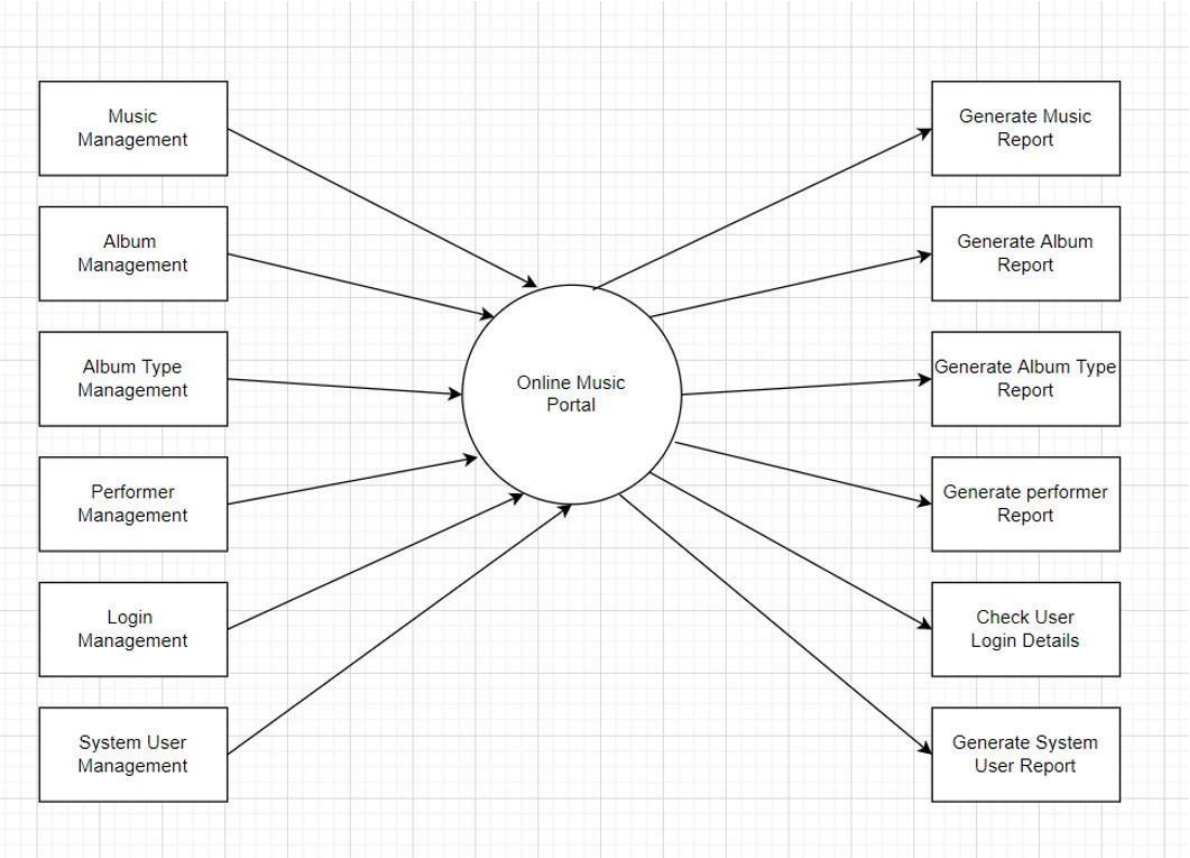
S No	Register No	Name	Role
1	Shivam Kr Singh	RA2011028010137	**Member**
2	Abhinav Reddy	RA2011028010125	**Member**
3	Neehar S Ashok	RA2011028010118	**Member**

Data Flow Diagram

DFD Level 0



DFD Level 1



Result:

Thus, the data flow diagrams have been created for the Online music website.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	9
Title of Experiment	Design a Sequence and Collaboration Diagram
Name of the candidate	RA2011028010132 KOTHOLLA JASWANTH REDDY
Team Members	Shivam,Abhinav,Neehar
Register Number	RA2011028010132
Date of Experiment	01/06/2022

Mark Split Up

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

Staff Signature with date

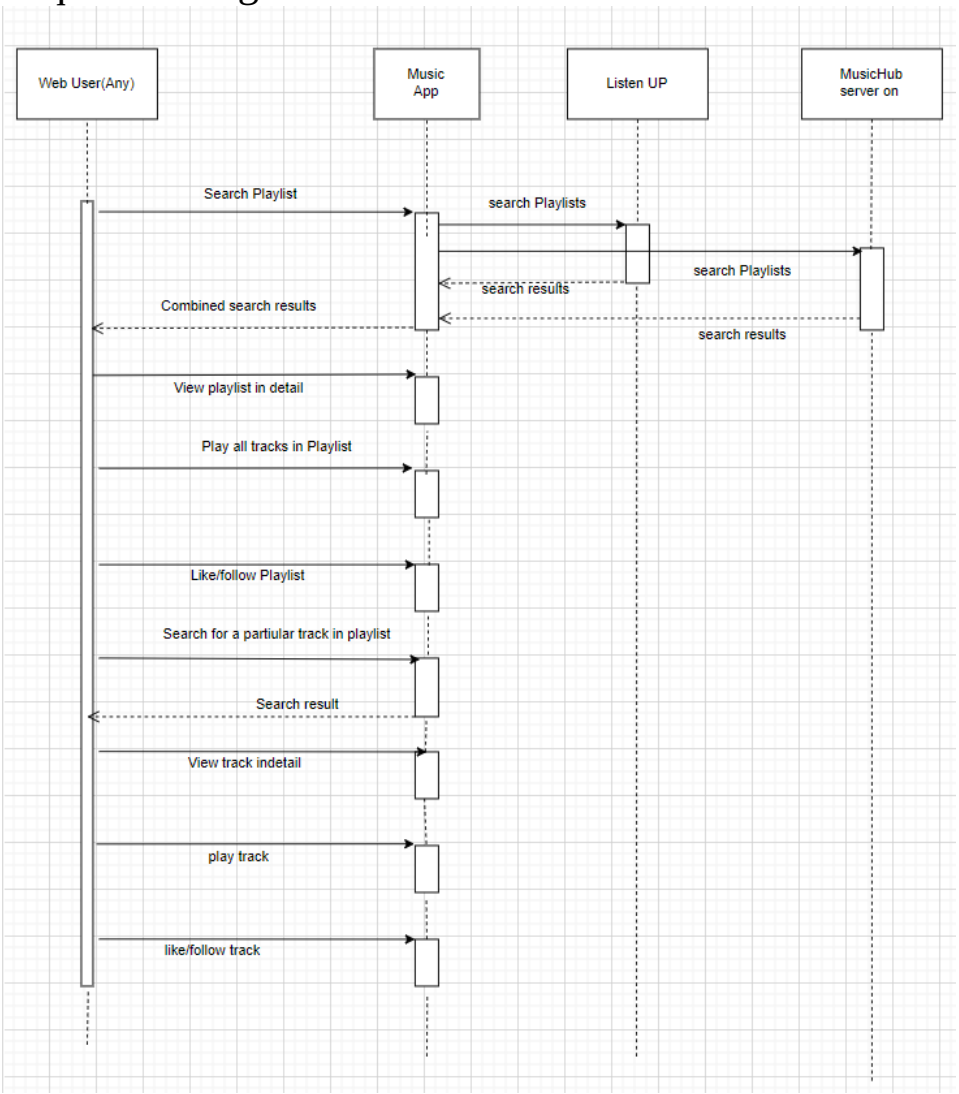
Aim

To create the sequence and collaboration diagram for the Online Music Website

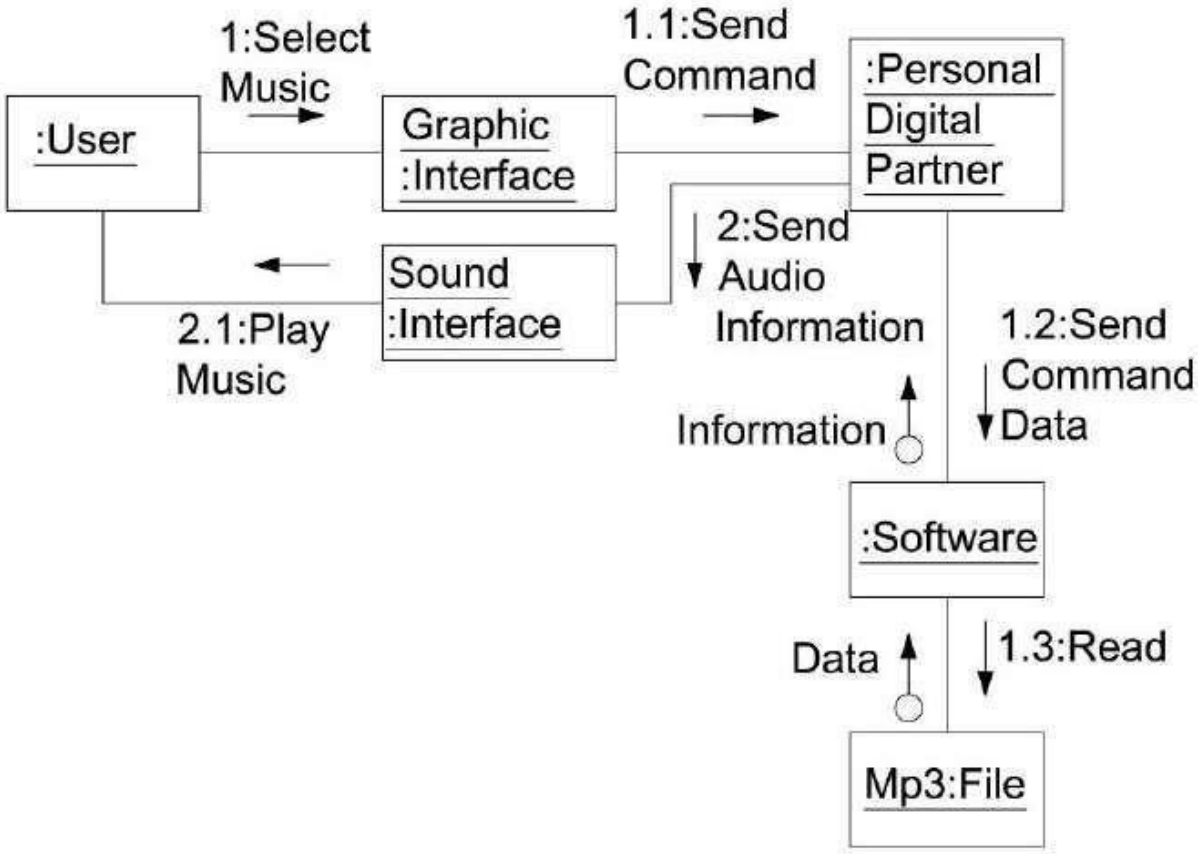
Team Members:

S No	Register No	Name	Role
1	Shivam Kr Singh	RA2011028010137	**Member**
2	Neehar S Ashok	RA2011028010118	**Member**
3	Abhinav Reddy	RA2011028010125	**Member**

Sequence Diagram



Collaboration Diagram



Result:

Thus, the sequence and collaboration diagrams were created for the Online Music Website.

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
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School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	10
Title of Experiment	Develop a Testing Framework/User Interface
Name of the candidate	Jaswanth Reddy
Team Members	Abhinav,Shivam,Neehar
Register Number	RA2011028010132
Date of Experiment	01-05-2022

Mark Split Up

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

Staff Signature with date

Aim

To develop the testing framework and/or user interface framework for online music project.

Team Members:

Sl. No	Register No	Name	Role
1	RA2011028010125	N. ABHINAV	Member
2	RA2011028010118	NEEHAR S ASHOK	Member
3	RA2011028010137	SHIVAM KUMAR SINGH	Member

SCOPE:

To operates with a broad differentiation generic strategy by offering a wide range of music that appeals to a large market of listeners and differentiates itself by providing personalized playlists and music recommendations to users. Will let our users to be ahead from our competitor by giving early access to new released albums and podcasts.

OBJECTIVES:

Our mission is to unlock the potential of human creativity – by giving a million creative artists the opportunity to live off their art and billions of fans the opportunity to enjoy and be inspired by it.

Approach to test the software application:

It is very important to test the software application, before its launch. Testing is very important to give user good experience which leads in gaining more loyal customers for the software or application.

Testing plays an important role in making the product successful.We will be testing the software on mainly two approaches:-

1. functional testing approach

2. Non - functional testing approach

TEST PLAN

Scope of Testing

- Technically, Software Testing is an investigation conducted to provide stakeholders with information about the quality of a particular product or service under test. In other words, software testing is a process of verification and validation.

FUNCTIONAL REQUIREMENTS:

CLIENT : The client-side of the system will be an application with a user interface that is integrated into a music listening website or application.

1. Requesting recommendations- giving recommendations to users according to the past history of choice.

2. Evaluation songs- evaluation of songs helps developer in giving recommendations.

3. Investigating user – checking the user information for security purpose

4. Display the recommendations –using graph data structure we can give accurate recommendations to our users.

SERVER : The server-side system will hold the entire data in a graph database, and must include all functionality to perform operations on this database, receive requests from the clients, evaluate, create and send recommendations etc.

1. Handle recommendation requests – handling of requests is important to provide fast and good experience to the user.

2. Store evaluation – provide storage evaluation through cloud according to users requirement.

3. Data storing – storage of data in cloud

4. Recommend using content based filtering – using searching technique to provide filtering

:

THE NON-FUNCTIONAL REQUIREMENTS

ss PERFORMENCE REQUIREMENTS

1. Accuracy –accuracy of data according to the filter applied by user

2. Failure handling- handling the memory and data very precisely

3. Openness –how much information should only be accessible to user

4. Security – use password to access any individual account

DESIGN CONSTRAINTS:

1. Language – local language should be provided for the users in which he is comfortable.

2. Hardware Constraints – hardware specifications required to handle this much of complex software

Types of Testing, Methodology, Tools

Category	Methodology	Tools Required
Functional Requirements Testing	Manual	Word Template ,UFT
Non functional requirements Testing	Server based	Loadstar, JMeter

Result:

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

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School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	11
Title of Experiment	Test Cases
Name of the candidate	Jaswanth Reddy
Team Members	Shivam,Abhinav,Neehar
Register Number	RA2011028010132
Date of Experiment	04-05-2022

Mark Split Up

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

Staff Signature with date

Aim

To develop the test cases manual for the online music website project.

Team Members:

Sl. No	Register No	Name	Role
1	RA2011028010125	N. ABHINAV	Member
2	RA2011028010118	NEEHAR S ASHOK	Member
3	RA2011028010137	SHIVAM KUMAR SINGH	Member

Test Case

Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Verify User Registration from India	Accept Valid India Mobile Number on the Page#1	1. User clicks on User Registration link 2. Enter the mobile Number on the text box 3. Click Register	User should be taken to the next page for entering more user details	As expected	Pass	Success
	Verify User Registration from India	Don't Accept Non-Indian Mobile Number on the Page#1	It will show error as app has not been launched internationally yet.	error	error	failure	failure
2	Verify age	If age>=18	1.user need to fill the age in registration form	give access to every song and podcast	As expected	pass	Success

	Verify age	If age<18	2. enter the age before submitting the form. 1.default age is less than 18	Give access to limited songs and podcast	As expected	pass	success
3	Popping notification	Wants future notifications	1.click on yes for future updates	Pops up notification about update or new song, or new podcast	As expected	Pass	Success
	Popping notification	Don't want future notifications	1.click on No option	Don't show any notification	Updates will be listed in setting option	pass	success
4	Genre	Genre of songs	1.go to genre options 2.select genre according to choice 3.click ok	Show only those genre of songs	As expected	Pass	Success
	genre	Not any particular choice	Simply click on skip option	Will show all songs	As expected	pass	Success

Non-Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1.	Security	Accept only registered	1.fill your net id and password	It will open your account	As expected	Pass	Success
	Security	id's If wrong id or password	2.click on login option 1.enter the credentials again 2.click on login	It will show an error for wrong credentials	As expected	Pass	Success
2.	Recovery Of credentials	Gives forgot password option	1.click on forgot password 2.check your email for o.t.p. 3.enter email 4.click login	A new window will appear for setting new password	As expected	Pass	Success
3	scalability	Full storage	1.request for extra storage might cost some money 2.pay the money 3.click on submit	extra cloud storage will be provided according to requirement asked	As expected	Pass	Success

To prepare the manual test case report for the Online Music

Test Case

Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	User Registration	Check for database for new user record	1. User clicks on User Registration link 2. Enters his/her credentials in the text box 3. Click Sign Up button	User should be taken to the next page for entering more user details	User taken to the next page	Pass	Success
2	Issues in connection speed	Checking for how the website hold in different data speed	1.App will check the minimum data required for playing the song according to the file size of song.	If enough speed it will play the song otherwise error will come(Network Error).	Song will start to play	Pass	Success

3	Adding playlist	Check for newly added playlist items	1. New playlists are getting updated after release of new albums 2.updation process done every day.	User should be notified and playlist comes on front page	User is notified and playlist is shown on top.	Pass	Success
4	Bugs and crashing	Check if every button and playlist is working perfectly or not	1.check by clicking buttons and playlist.	Song should start and stop after clicking on the button.	Song will start playing.	Pass	Success
5	Errors when screen sizes vary	Responsive nature of website.	1.Check the responsiveness of website.	It should work in every screen	Website will work in every screen size	Pass	Success

Non-Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Authentication	Check if registered users can login/logout	In this test case, the queries are matched with the database and action is taken accordingly	User is redirected to their dashboard if authentication is successful or receives a notification if it is not	User is redirected to dashboard or receives a notification	Pass	Success

2	Performance Testing	Check if the database is being updated accordingly	In this test case we check if the database is being updated with each new songs being added into the respective playlists.	Database is updated	Database is updated	Pass	Success
3	Mail Connectivity	Check if the OTP is received while logging in or not.	1.OTP will be sent to users email for authentication process.	OTP is supposed to be received by the user who is trying to login.	OTP is received	Pass	Success

The following test cases are under progress, as the old ones are rectified, new ones could pop up, this is called maintenance of the developed product. Involves continuous testing, upgrading and making the product safe.

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

Functional	**Test Case Coverage (%)**	**Status**
User Registration	100%	Completed
Issue in connection speed	100%	Completed
Adding playlist Bugs and crashing Errors when screen sizes vary	100% 100% 100%	Completed Completed Completed
Non-Functional	**Test Case Coverage (%)**	**Status**
Authentication Performance Testing Mail E-Mail Connectivity	50% (Working Prototype) 50% (Working Prototype) 50% (Working Prototype)	In-Progress In Progress In progress

Result:

Thus, the test case report has been created for the **Online Music Website.**

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	12
Title of Experiment	Provide the details of Architecture Design/Framework/Implementation
Name of the candidate	Jashwanth Reddy
Team Members	Shivam,Neehar,Abhinav
Register Numbers	RA2011028010132
Date of Experiment	12/06/22

Mark Split Up

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

Staff Signature with date

Aim

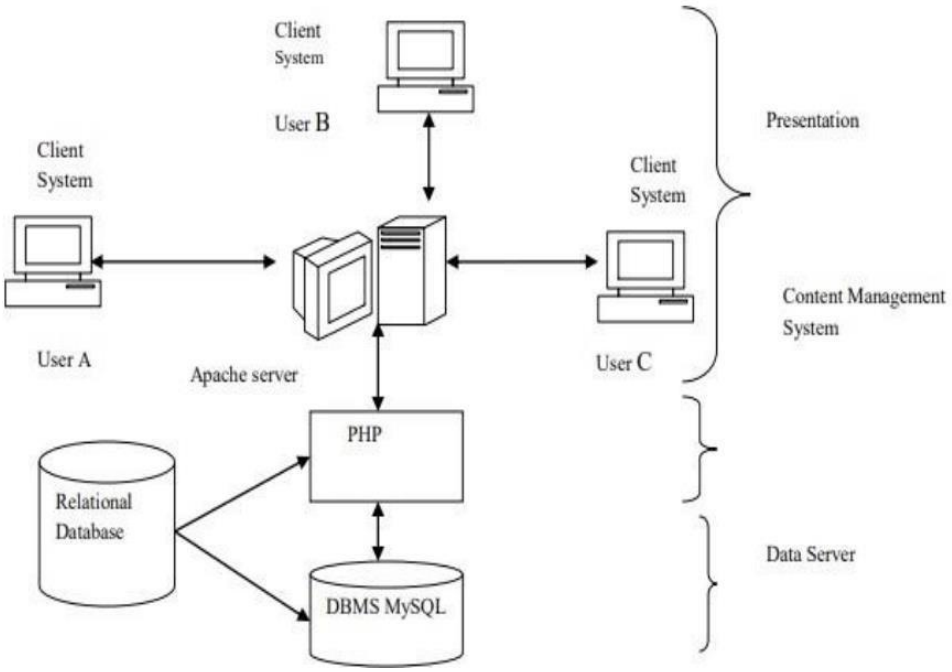
To provide the details of architectural design/framework/implementations.

Team Members:

Sl. No	Register No	Name	Role
1	RA2011028010125	N. ABHINAV	**Member**
2	RA2011028010118	NEEHAR S ASHOK	**Member**
3	RA2011028010137	SHIVAM KUMAR SINGH	**Member**

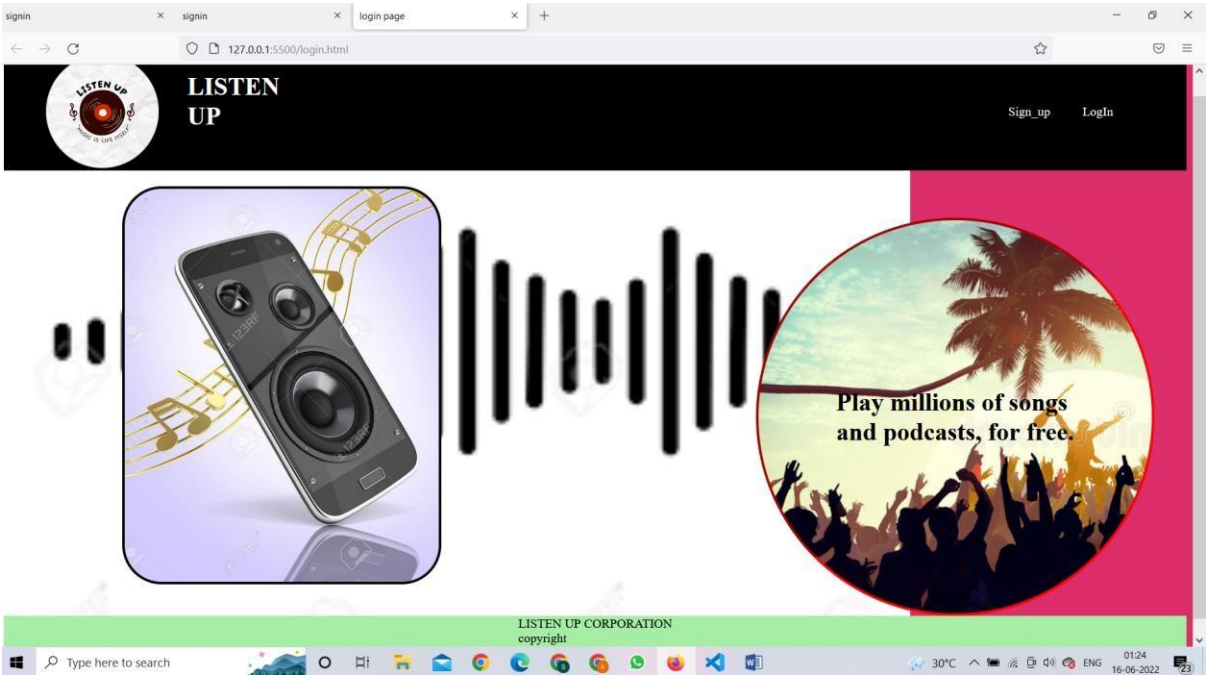
System Architecture

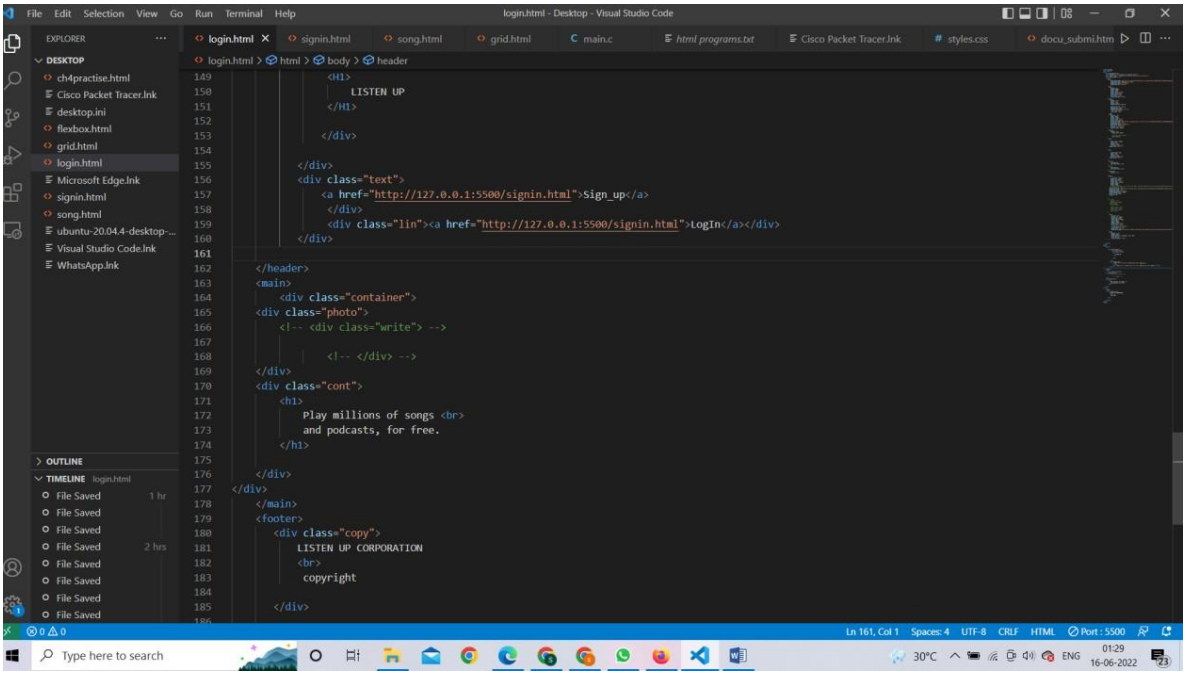
The elements taken into consideration in designing the net song portal system are Interoperability and accessibility with minimum requirements on the user's aspect.



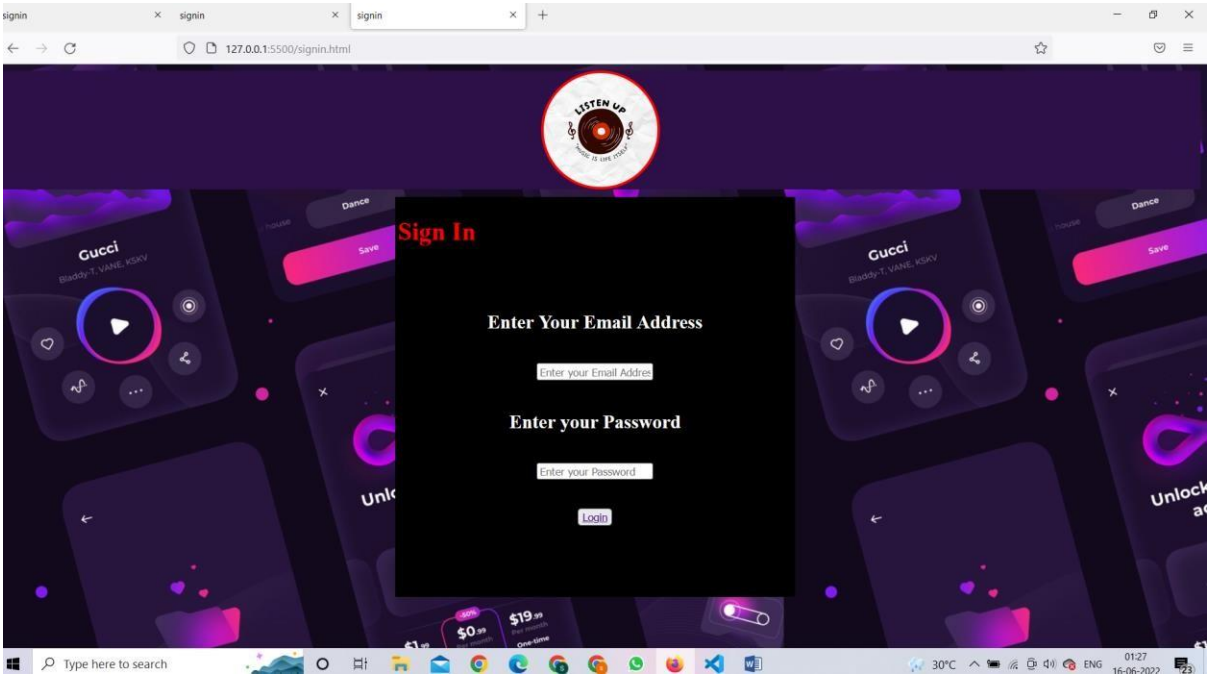
Framework and implementation

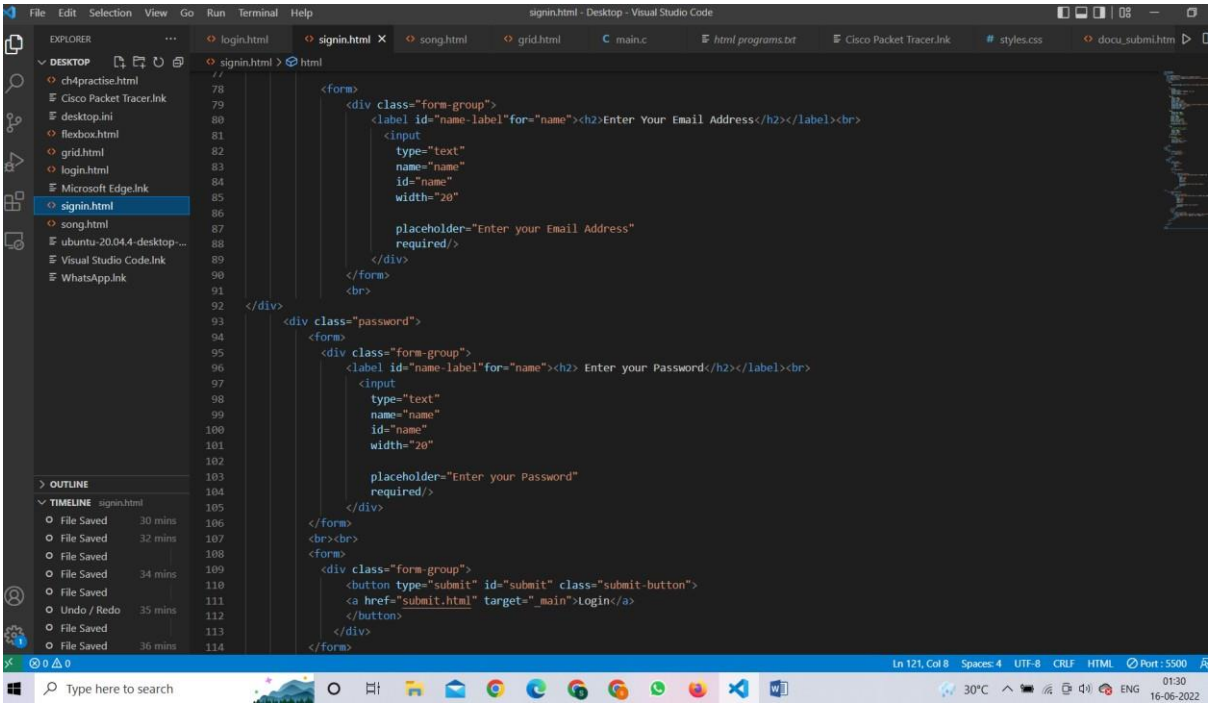
Whenever someone land on our website, they will land on our welcome page which describes the main theme of the website that is online music which look like this



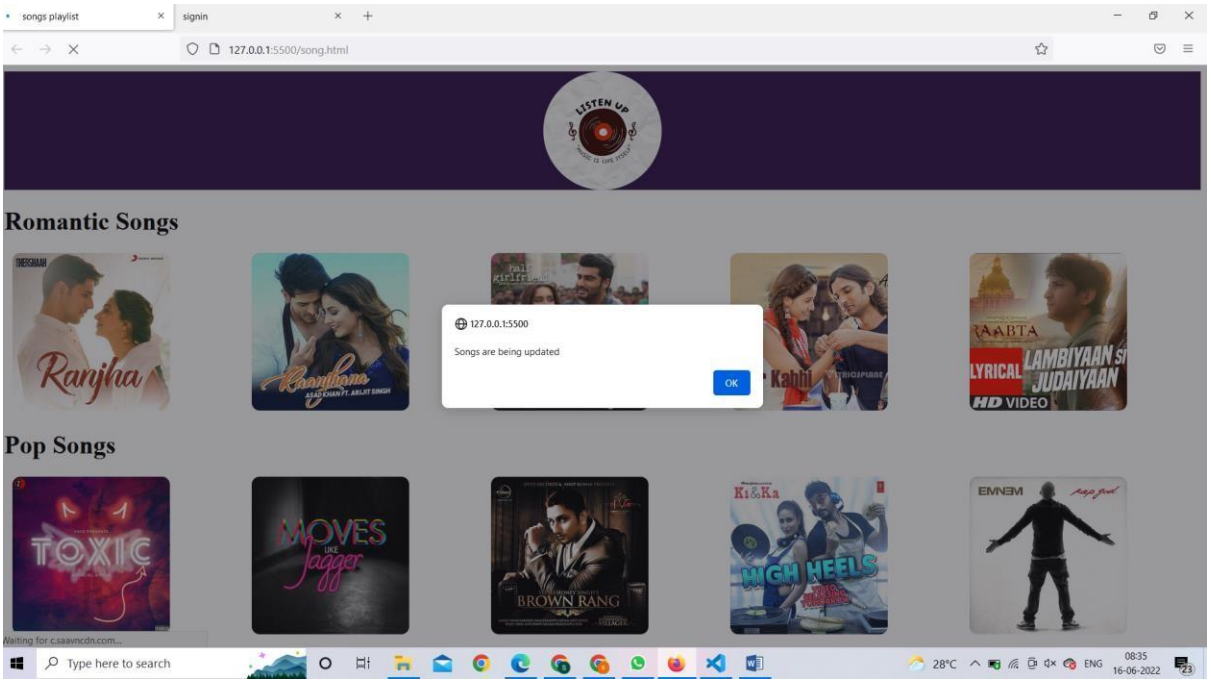


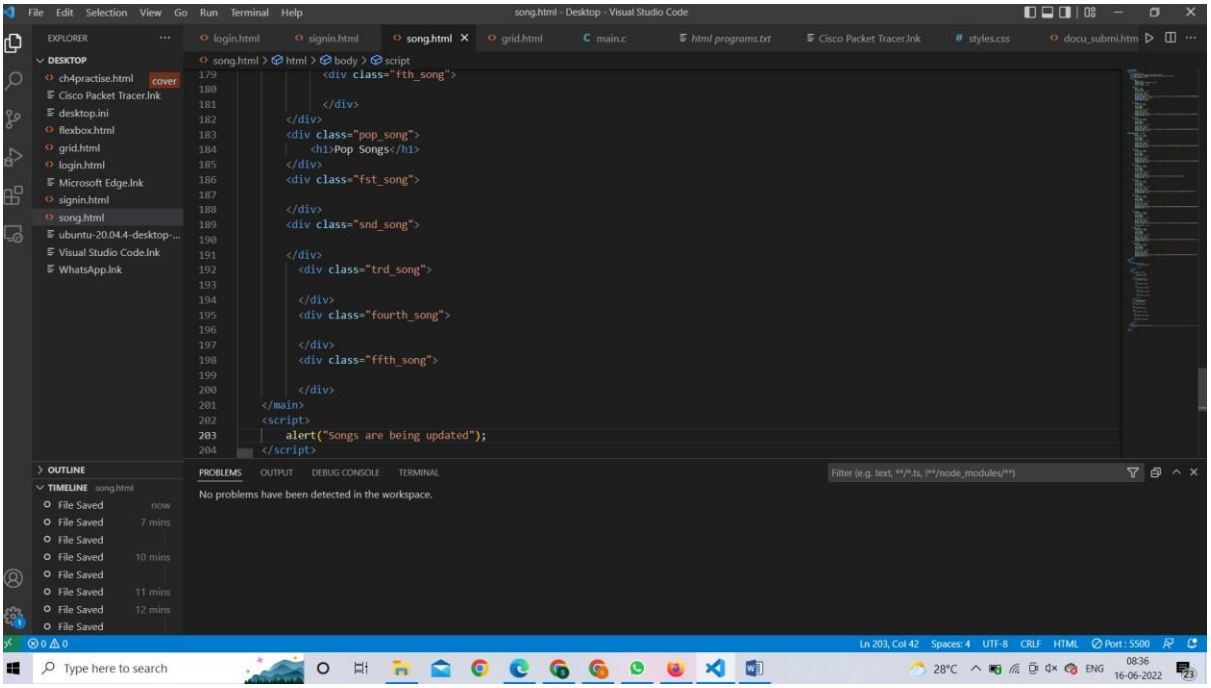
It has two options to login and sign in which is chosen by customers accordingly which will land them to our login page where they need to fill the required details.



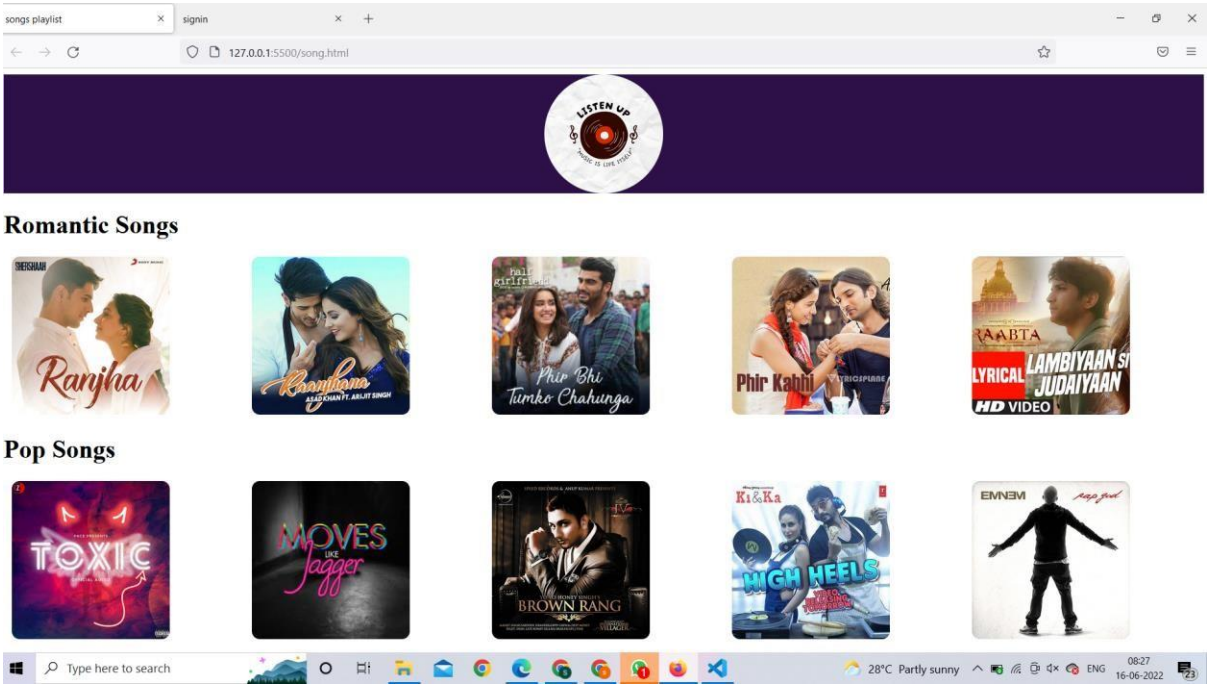


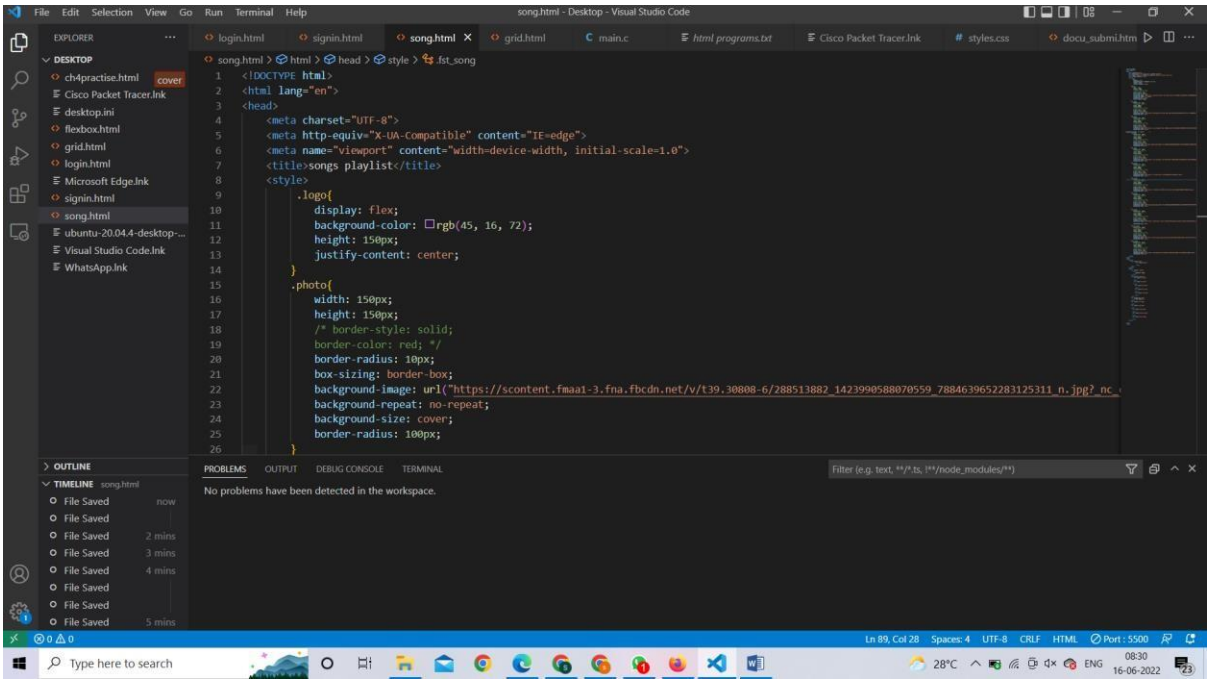
Testing Phase- we need to see if all the songs which are present in the database are working properly or not.





Training Phase- we need to add all the songs in the database and store the songs in any data centre.





Result:

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

CONCLUSION

our project is only a humble venture to satisfy the needs of common peoples by making it more user friendly and easy to use compared to other same kind of website. same kind of website are already there in market but they are not affordable for middle and lower class people and also they are not very much user friendly that's where our project or website come into play as it provides everything for negligible price and also very much user friendly. There will be many future updates will come for this website like enjoying music together only by joining a meet etc. which will make this more useful and convenient for the users.

THANK YOU

NEEHAR S ASHOK

RA2011028010118

REFERENCES

[1] Roger S.Pressman, Software Engineering, A Practitioner Approach, McGraw Hill, 2005

[2] Jim Smith Agile Project Management: Creating Innovative Products, Pearson 2008

[3] Walker Royce, Software Project Management, Pearson Education, 1999

[4] Ian Sommerville, Software Engineering, 8th ed., Pearson Education, 2010

[5] Ashfaque Ahmed, Software Project Management: A Process-driven Approach, Boca Raton, Florida: CRC Press, 2012

[6] Rajib Mall, Fundamentals of Software Engineering,4th ed., PHI Learning Private Limited,2014