VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018, Karnataka

INTERNSHIP REPORT

ON

"Interactive Music Playlist Generator"

BACHELOR OF ENGINEERING IN
ELECTRONICS AND COMMUNICATION

Submited by

NAME:NAVEENKUMAR D

USN:1AK21CS056

Conducted at
Varcons Technologies Pvt Ltd

AKSHAYA INSTITUTE OF TECHNOLOGY

Department of ELECTRONIC AND COMMUNICATION

Recognised by AICTE, New Delhi & Affiliated to Visvesvaraya Technological

University, Belgavi
Tumkur -572101

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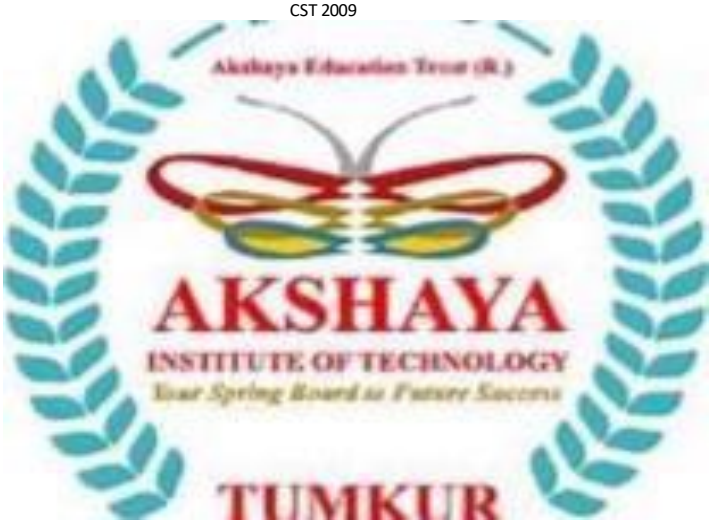

CERTIFICATE

This is to certify that the Internship titled "Interactive Music Playlist Generator" carried out by MR NAVEENKUMAR D, a bonafide student of Akshaya Institute of Technology, in partial fulfillment for the award of Bachelor of Engineering, in ELECTRONICS AND COMMUNICATION under Visvesvaraya Technological University, Belagavi, during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship

Signature of Guide Signature of HOD Signature of Principal

External Viva:

Name of the Examiner Signature with Date

_____ 1)

_____ 2)

DECLARATION

1,NAVEENKUMAR D, third year student of COMPUTER SCIENCE ENGINEERING,AKSHAYA INSTITUTE OF TECHNOLOGY Tumkur-577502,dec1are that the Internship has been successfully completed, in Varcons Technologies Pvt Ltd. This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in ELECTRONICS AND COMMUNICATION , during the academic year 2023-2024.

Date :02-12-2023

Place :Tumkur

USN:1AK21CS056
NAME :
NAVEENKUMAR D

INTERNSHIP OFFER LETTER

Date: 29th October, 2023

Name: NAVEENKUMAR D
USN: IAK21CS056
Placement ID: 2310FSWDBONE

Dear Student ,

We would like to congratulate you on selected for the Full Stack Web Deviopment Inte rnsllip With Varcons Technologies, effectiw Date 29th October, 2023, All of us are excited about this opportunity provided to you!

This internship is viewed as being an edueatiana.l opportunity for you, rather than a part-time job. As such, your internship Will include training/orientation focus primarily on learning and developing new skills anci gaining n deeper understanding of concept,s of Full Stack Web Dovlopmeni through hands-on application Of the you learn while you train With the senior YOii Will be to the rules regiilAtiOiiS the COi'IiP.AiiY during your infernship duration.

Again, congratulations and we look forward to working with you!.

Sincerely,

Spoorthi H C
Director
VARCONS TECHNOLOGIES
213, 2st Floor, MG' Road,
Bangalore-560001

ACKNOWLEDGEMENT

This Internship is a result of accumulated guidance, direction and support of several important persons. We take this opportunity to express our gratitude to all who have helped us to complete the Internship.

We express our sincere thanks to our Principal, for providing us adequate facilities to undertake this Internship.

We would like to thank our Head of Dept — branch code, for providing us an opportunity to carry out Internship and for his valuable guidance and support.

We would like to thank our (Lab assistant name) Software Services for guiding us during the period of internship.

We express our deep and profound gratitude to our guide, Guide name, Assistant/Associate Prof, for her keen interest and encouragement at every step in completing the Internship.

We would like to thank all the faculty members of our department for the support extended during the course of Internship.

We would like to thank the non-teaching members of our dept, forhelping us during the Internship.

Last but not the least, we would like to thank our parents and friends without whose constant help, the completion of Internship would have not been possible.

NAME:NAVEENKUMAR D
USN:1AK21CS056

ABSTRACT

The Interactive Music Playlist Generator is an innovative system designed to dynamically curate personalized music playlists based on user preferences and real-time interactions. This system employs a sophisticated algorithmic approach that considers various user inputs, such as preferred genres, moods, tempo, and specific song preferences, to generate unique playlists tailored to individual tastes. The interactive nature of this generator allows users to engage actively in the playlist curation process, providing feedback and adjusting selections in real time to refine the generated playlists further. Utilizing machine learning and user behavioral data, the system continuously learns and adapts to user preferences, ensuring the delivery of refined and enjoyable music selections. The Interactive Music Playlist Generator aims to revolutionize music discovery and listening experiences by offering a personalized and engaging platform that evolves with the user's musical journey.

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CHAPTER 1
COMPANY PROFILE

1. COMPANY PROFILE

A Brief History of Company Name

Company Name, was incorporated with a goal "To provide high quality and optimal Technological Solutions to business requirements of our clients". Every business is a different and has a unique business model and so are the technological requirements. They understand this and hence the solutions provided to these requirements are different as well. They focus on clients requirements and provide them with tailor made technological solutions. They also understand that Reach of their Product to its targeted market or the automation of the existing process into e-client and simple process are the key features that our clients desire from Technological Solution they are looking for and these are the features that we focus on while designing the solutions for their clients.

Company Name is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Sarvamoola Software Services. specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor-made software products, designing solutions best suiting clients requirements.

Company Name, strive to be the front runner in creativity and innovation in software development through their well-researched expertise and establish it as an out of the box software development company in Bangalore, India. As a software development company, they translate this software development expertise into value for their customers through their professional solutions.

They understand that the best desired output can be achieved only by understanding the clients demand better. Varcons Technologies work with their clients and help them to defiine their exact solution requirement. Sometimes even they wonder that they have completely redefined their solution or new application requirement during the brainstorming session, and here they position themselves as an IT solutions consulting group comprising of high caliber consultants.

They believe that Technology when used properly can help any business to scale and achieve new heights of success. It helps Improve its efficiency, profitability, reliability; to put it in one sentence " Technology helps you to Delight your Customers" and that is what we want to achieve.

CHAPTER 2

ABOUT THE COMPANY

2. ABOUT THE COMPANY

Company Name is varcons technologies Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Varcons Technologies specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor- made software products, designing solutions best suiting clients requirements. The organization where they have a right mix of professionals as a stakeholders to help us serve our clients with best of our capability and with at par industry standards. They have young, enthusiastic, passionate and creative Professionals to develop technological innovations in the field of Mobile technologies, Web applications as well as Business and Enterprise solution. Motto of our organization is to "Collaborate with our clients to provide them with best Technological solution hence creating Good Present and Better Future for our client which will bring a cascading a positive effect in their business shape as well". Providing a Complete suite of technical solutions is not just our tag line, it is Our Vision for Our Clients and for Us, We strive hard to achieve it.

Products of Company

Android Apps

It is the process by which new applications are created for devices running the Android operating system. Applications are usually developed in Java (and/or Kotlin; or other such option) programming language using the Android software development kit (SDK), but other development environments are also available, some such as Kotlin support the exact same Android APIs (and bytecode), while others such as Go have restricted API access.

The Android software development kit includes a comprehensive set of development tools. These include a debugger, libraries, a handset emulator based on QEMU, documentation, sample code, and zutorials. Currently supported development platforms include computers running Linux (any modern desktop Linux distribution), Mac OS X 10.5.8 or later, and Windows 7 or later. As of March 2015, the SDK is not available on Android itself, but softwaredevelopment is possible by using specialized Android applications.

Web Application

It is a client—server computer program in which the client (including the user interface and client- side logic) runs in a web browser. Common web applications include web mail, online retail sales, online auctions, wikis, instant messaging services and many other functions. web applications use web documents written in a standard format such as HTML and JavaScript,which are supported by a variety of web browsers. Web applications can be

considered as a specifific variant of client—server software where the client software is downloaded to the client machine when visiting the relevant web page, using standard procedures such as HTTP. The Client web software updates may happen each time the web page is visited. During the session, the web browser interprets and displays the pages, and acts as the universal client for any web application. The use of web application frameworks can often reduce the number of errors in a program, both by making the code simpler, and by allowing one team to concentrate on the framework while another focuses on a specifified use case. In applications which are exposed to constant hacking attempts on the Internet, securityrelated problems can be caused by errors in the program.

Frameworks can also promote the use of best practices such as GET after POST. There are some who view a web application as a two-tier architecture. This can be a "smart" client that performs all the work and queries a "dumb" server, or a "dumb" client that relies on a "smart" server. The client would handle the presentation tier, the server would have the database (storage tier), and the business logic (application tier) would be on one of them or on both. While this increases the scalability of the applications and separates the display and the database, it still doesn^{ee}t allow for true specialization of layers, so most applications will outgrow this model. An emerging strategy for application software companies is to provide web access to software previously distributed as local applications. Depending on the type of application, it may require the development of an entirely different browser-based interface, or merely adapting an existing application to use different presentation technology. These programs allow the user to pay a monthly or yearly fee for use of a software application without having to install it on a local hard drive. A company which follows this strategy is known as an application service provider (ASP), and ASPs are currently receiving much attention in the software industry.

Security breaches on these kinds of applications are a major concern because it can involve both enterprise information and private customer data. Protecting these assets is an important part of any web application and there are some key operational areas that must be included in the development process. This includes processes for authentication, authorization, asset handling, input, and logging and auditing. Building security into the applications from the beginning can be more effective and less disruptive in the long run.

Web design

It is encompasses many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; interface design; authoring, including standardized code and proprietary software; user experience design; and search engine optimization. The term web design is normally used to describe the design process relating to the front-end (client side) design of a website including writing mark up. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of usability and if their role involves creating mark

up then they are also expected to be up to date with web accessibility guidelines. Web design partially overlaps web engineering in the broader scope of web development.

Departments and services offered

Company Name plays an essential role as an institute, the level of education, development of student's skills are based on their trainers. If you do not have a good mentor then you may lag in many things from others and that is why we at Compsoft Technologies gives you the facility of skilled employees so that you do not feel unsecured about the academics. Personality development and academic status are some of those things which lie on mentor's hands. If you are trained well then you can do well in your future and knowing its importance of Compsoft Technologies always tries to give you the best.

They have a great team of skilled mentors who are always ready to direct their trainees in the best possible way they can and to ensure the skills of mentors we held many skill development programs as well so that each and every mentor can develop their own skills with the demands of the companies so that they can prepare a complete packaged trainee.

Services provided by the Company

• Core Java and Advanced Java

• Web services and development

• Dot Net Framework

• Python

• Selenium Testing

• Conference / Event Management Service

• Academic Project Guidance

• On The Job Training

• Software Training

CHAPTER 3

INTRODUCTION

CHAPTER-3

Introduction

1.1 Project purpose

Our project focuses on reinventing music discovery with an Interactive Music Playlist Generator. We aim to craft a platform that's all about personalized experiences and active user engagement. By employing sophisticated algorithms and real-time user feedback, our goal is to create an intuitive interface where users can curate their own playlists, refining their music preferences as they go. The essence of our project lies in offering users a dynamic, adaptable music curation tool that evolves with their tastes, enhancing their connection to music on a personalized level.

1.2 Project scope

Design and Development: Our project focuses on crafting an Interactive Music Playlist Generator. It involves designing an intuitive user interface for diverse devices. Users can effortlessly input music preferences, selecting genres, moods, tempos, and favorite artists or tracks. Design aims for not just aesthetics but an easy-to-use, engaging experience.

Algorithm Integration and Personalization: We're integrating advanced machine learning and recommendation algorithms. These analyze user interactions, like listening history and feedback, to personalize playlists. The goal is algorithms that adapt, learn, and refine suggestions continuously for a personalized touch.

Real-time Interaction and Customization: Users can interact in real-time, providing feedback and adjusting playlists instantly. This feature empowers them to curate and tweak playlists on-the-go for a more personalized experience.

Testing, Optimization, and Scalability: Our project includes comprehensive testing for usability and playlist accuracy. Optimization ensures efficient algorithms, even with increased interactions. Scalability is crucial, aiming for future enhancements and adaptability to user preferences and tech advancements.

1.3 Project Objectives

- Design and Develop Interface: Create an intuitive user interface for the Interactive Music Playlist Generator.
- Implement Algorithm Integration: Integrate machine learning algorithms to personalize playlist recommendations.
- Enable Real-time Interaction: Allow users to provide feedback and adjust playlists instantly for customization.
- Conduct Comprehensive Testing: Test usability, accuracy, and system efficiency for an optimal user experience.
- Optimize Algorithm Efficiency: Ensure algorithms work efficiently despite increased user interactions.
- Ensure Scalability: Design for future enhancements and adaptability to changing preferences and tech advancements

1.4 Project Goals

- Personalized Music Curation: Create a platform that tailors music playlists based on user preferences, employing machine learning to refine suggestions.
- Real-time User Engagement: Enable users to actively participate in playlist curation, offering instant feedback and adjustments for a more personalized experience.
- Scalable and Adaptive System: Develop a system that not only operates efficiently but also accommodates future updates and integrations for continuous improvement and user satisfaction.

CHAPTER-4

System Requirement Specifications

2.1 Scope:

The scope of our project revolves around the development and implementation of an Interactive Music Playlist Generator, encompassing various facets to deliver a personalized and

engaging music discovery experience. At its core, our focus is on designing and crafting an intuitive user interface that seamlessly adapts to different devices, enabling users to input their music preferences effortlessly. This interface will offer options for selecting genres, moods, tempos, and specifying preferred tracks or artists, ensuring a tailored approach to playlist creation. Moreover, our project involves the integration of sophisticated machine learning algorithms aimed at analyzing user interactions, including listening history and real-time feedback, to refine and personalize playlist recommendations in an ongoing, dynamic manner.

Additionally, the scope extends to incorporating real-time interaction features, empowering users to actively engage with the platform. These features will allow users to provide instant feedback, make immediate adjustments to playlists, and actively participate in customizing their music experience. In parallel, we plan to conduct comprehensive testing to evaluate the platform's usability, accuracy in recommending playlists, and the overall efficiency of the system. Optimization efforts will ensure that the algorithms perform seamlessly, even with increased user interactions, to maintain a responsive and reliable platform.

Furthermore, a critical aspect of our project scope involves designing the system with scalability in mind. This includes creating a flexible architecture capable of accommodating future enhancements, updates, and potential integrations with external music databases or APIs.

2.2 Objectives

v/ Personalization: Develop an Interactive Music Playlist Generator that tailors recommendations based on user preferences, leveraging machine learning to refine suggestions continuously.

v/ User Engagement: Create a platform that enables real-time user interaction, allowing users to provide immediate feedback and customize playlists on-the-go for a more engaging experience.

v/ Optimization and Testing: Ensure the system's usability, accuracy, and efficiency through comprehensive testing, aiming to optimize algorithms for seamless performance, even with increased user interactions.

v/ Scalability and Adaptability: Design the system architecture to be scalable, allowing for future enhancements, updates, and integrations to adapt to evolving user needs and technological advancements.

v/ Continuous Learning and Adaptation: Implement algorithms that continuously learn from user interactions and feedback, refining playlist recommendations over time to align closely with evolving user preferences and behaviors.

v/ Enhanced User Control: Empower users with greater control over their music discovery journey by providing intuitive tools and interfaces for playlist customization, fostering a sense of ownership and satisfaction in their personalized playlists.

2.3 Overall description:

2.3.1 Product Prospective:

- Personalization: Tailors playlists based on user preferences, enhancing satisfaction and engagement.
- User Interaction: Real-time features enable instant feedback and playlist customization, boosting involvement.
- Efficient Recommendations: Continuous algorithm refinement optimizes playlist accuracy over time.
- Scalability: Designed for future enhancements and adaptability to evolving user needs. • User Empowerment: Allows control over playlist curation, fostering ownership and investment.
- Competitive Edge: Offers a unique, tailored music experience for user attraction and retention in the market.

Admin Module

1. Dashboard: In this section, admin can see all detail in brief like total property type, total country, total state, total city, total agent, total owner, total buyer(user) ant total property listed.
2. Property Type: In this section, admin can manage property type (add/update).
3. Country: In this section, admin can manage country (add/update).
4. State: In this section, admin can manage state (add/update).
5. City: In this section, admin can manage city (add/update).
6. Owner: In this section, admin can view the detail of owners.

7. Agents: In this section, admin can view the detail of agents.
8. User: In this section, admin can view the detail of user.
9. List of properties: In this section, admin can view details of property listed,
10. Reviews: In this section admin, can view reviews and also approved, disapproved and delete the reviews which is given by users.
11. Pages: In this section, admin can manage about us and contact us pages.
12. Search Property: In this section admin, can search the listed property by its property id, name and mobile number.
13. Admin can also update his profile, change the password and recover the password.

User Module

a. User Authentication:

1. Login Functionality:

- Allow users to log in using registered credentials like email or username/password.
- Provide options for social media login for added convenience.
- Implement security measures like CAPTCHA or two-factor authentication for enhanced security.

2. Logout Functionality:

- Enable users to log out securely from their accounts, terminating active sessions.

User Registration and Profile Setup:

1. Registration Process:

- Allow new users to sign up and create accounts using email or social media authentication.
- Verify email addresses or phone numbers during the registration process.

2. Profile Creation and Management:

- Enable users to create and manage profiles with details such as music preferences, favorite genres, and artists.

- Provide options to edit profile information and settings. Preference Input:

1. Genre Selection:
- Offer a variety of music genres for users to select as preferences.

2. Mood and Tempo Preferences:
- Allow users to indicate specific moods or tempo variations they prefer in music.

3. Favorite Tracks/Artists:
- Permit users to specify favorite tracks or artists to personalize recommendations. Playlist Customization:

1. Real-time Editing:
• Allow users to modify playlists in real-time by adding, removing, or reordering tracks.

2. Feedback Mechanism:
• Incorporate features for users to provide immediate feedback on suggested tracks or playlists. User Interaction:

1. Social Sharing:
• Enable users to share playlists or individual tracks on social media platforms.

2. Community Engagement: • Implement features for users to follow other profiles, share playlists, and collaborate on curated lists. Account Management:

Settings and Preferences:

- Provide options to adjust account settings, privacy settings, and refine preferences.

Security Measures:

- Ensure robust security features like password management, account recovery, and session management. History and Recommendations:

1. Listening History:
• Display a history of previously played tracks or playlists.

2. Recommendation Display:
• Show personalized recommendations based on user preferences and listening habits. Support and Help:

1. Customer Support:

• Offer channels for users to seek help or assistance regarding platform usage or technical issues.

2. FAQs and Guides:

• Provide comprehensive FAQs and guides for users to troubleshoot common problems or navigate features. Accessibility and Device Integration:

1. Cross-Device Compatibility:

• Ensure the platform is accessible across various devices (desktop, mobile, tablets).

2. Integration with Music Apps:

• Allow integration with other music platforms or apps for a seamless listening experience.

Notifications and Communication:

1. Alerts and Notifications:

• Send notifications for new playlists, updates, or user interactions.

2. Messaging Features:

• Enable users to communicate within the platform, facilitating collaboration or sharing. Analytics and Insights:

1. User Insights:

• Provide users with analytics regarding their listening habits, popular tracks, or diversity in genres.

2.3.2 Product Functions:

User Management:

- User registration, login, and profile setup.
- Profile customization with preferences and favorite choices.

Playlist Customization:

- Real-time modification of playlists by adding, removing, or rearranging tracks.
- Provision of feedback on suggested playlists for refinement.

Personalization and Recommendations:

Interactive music playlist generator

- Personalized playlist generation based on user-specified preferences like genre, mood, and tempo.
- Algorithm-driven recommendations refining playlists according to user interactions.

Engagement Features:

- Social sharing functionality for playlists and tracks.
- Community engagement tools for collaboration and following curated lists.

Insights and Assistance:

- Display of listening history and insights into user habits.
- Support and help desk with FAQs for user assistance.

Security and Accessibility:

- Robust security measures ensuring user data protection. • Cross-device compatibility for seamless accessibility.

2.3.3 Assumptions and Dependencies:

Assumptions:

- User Input Consistency: Assumes users provide accurate and consistent preferences and feedback for playlist generation.
- Algorithm Accuracy: R elies on machine learning algorithms to accurately interpret user inputs and refine recommendations effectively.
- Data Availability: Assumes availability and accessibility of a diverse music library or database to pull tracks for playlist creation.
- Internet Connectivity: Assumes users have stable internet connections for real-time interaction and playlist customization.
- User Engagement: Assumes users actively engage with the platform, providing feedback and utilizing customization features.

Dependencies:

- Algorithm Development and Training: Dependent on continuous refinement and training of machine learning algorithms based on user interactions and feedback.
- Data Integration: Relies on the availability and integration of music data sources or APIs to access a wide range of tracks and genres.
- Platform Updates: Dependent on regular updates and improvements to enhance user experience, algorithm efficiency, and security measures.
- User Engagement and Feedback: Relies on user participation and feedback for playlist refinement and platform enhancement.
- Technical Infrastructure: Dependent on a stable technical infrastructure, including servers, databases, and network systems, to ensure platform functionality and scalability.

2.4 Specific Requirements:

Software Requirements:

- Operating System: Compatibility with Windows, macOS, Linux, Android, and iOS.
- Web Browsers: Support for Chrome, Firefox, Safari, and Edge.
- Backend Development: Python, Node.js, Ruby on Rails, or Django. • Frontend Development: JavaScript frameworks like React, Angular, or Vue.js.
- Database Management: MySQL, PostgreSQL, MongoDB, or Firebase. • Machine Learning Libraries: TensorFlow, PyTorch, scikit-learn for recommendation algorithms.
- API Integration: Connectivity with Spotify, Apple Music, etc. • Version Control: Use of Git for code management.

Hardware Requirements:

- Server Infrastructure: Robust servers or cloud (AWS, Azure, Google Cloud).
- Storage: Adequate capacity for music data, user profiles, and playlists. • Processing Power: Enough to handle algorithms and real-time interactions smoothly.
- Networking: Stable, high-speed internet for real-time access.
- Device Compatibility: Support for desktops, laptops, smartphones, and tablets.
- Security Measures: Encryption for data protection and platform integrity

2.5 Functional and Non-Functional Requirements:

Functional Requirements:

- User Authentication: Enable secure registration, login, and account management.
- Playlist Generation: Generate personalized playlists based on user preferences.
- Real-time Customization: Allow instant modification of playlists by users.
- Feedback Mechanism: Provide a feature for user feedback on playlists.
- Social Sharing: Enable sharing playlists and collaboration features.
- Recommendation Algorithms: Implement machine learning for playlist refinement.

- User Interaction: Facilitate community engagement and user interactions.
- History and Insights: Display listening history and user insights. Non-Functional Requirements:

- Performance: Ensure platform responsiveness under increased user interactions.
- Scalability: Design for accommodating a growing user base and data volume.
- Security: Implement robust measures to protect user data and platform integrity.
- Usability and Experience: Create an intuitive, enjoyable interface for users.
- Reliability: Minimize downtime and errors, ensuring system reliability.
- Compatibility: Ensure accessibility across various devices and browsers.
- Privacy: Adhere to privacy regulations and maintain secure data handling practices.

2.6 System attributes:

Performance:

- Swift responsiveness for real-time actions.
- Optimized algorithm efficiency.
- Scalability to handle increased user interactions. Security:

- Encrypted data storage and user protection.
- Robust authentication methods.
- Compliance with privacy regulations. Usability:

- Intuitive user interface design.
- User-friendly customization tools.
- Accessibility across devices and browsers. Reliability:

- Minimal system downtime or errors.
- Fault tolerance and stability.
- Consistent performance for users. Scalability:

- System expandability for growth.
- Efficient load balancing.
- Adaptability for new features. Compatibility:

- Cross-platform functionality.
- Support for multiple web browsers. Interactivity:

- Real-time adjustments and feedback.
- Features promoting community engagement.

Chapter 3

System Design

3.1 Unified Modelling Language Diagrams(UML):

- The unified modelling language allows the software engineer to express an analysis model using the modelling notation that is governed by a set of syntactic semantic and pragmatic rules.

- A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows.

User Model View

i. This view represents the system from the user's perspective.

ii. The analysis representation describes a usage scenario from the end-users perspective.

Structural model view

In this model the data and functionality are arrived from inside the system.

This model view models the static structures.

Behavioural Model View

It represents the dynamic of behavioural as parts of the system, depicting the interactions of collection between various structural elements described in the user model and structural model view.

Implementation Model View

- In this the structural and behavioural as parts of the system are represented as they are to be built.

Environmental Model View

In this the structural and behavioural aspects of the environment in which the system is to be implemented are represented.

UML is specifically constructed through two different domains they are

- UML Analysis modelling, which focuses on the user model and structural model views of the system?

UML design modeling, which focuses on the behavioral modeling, implementation modeling and environmental model views.

Existing System

- All the above-mentioned tasks are taken care off manually.
- The details of all the Properties, customers, stocks and feedbacks are maintained in separate registers.

Proposed System

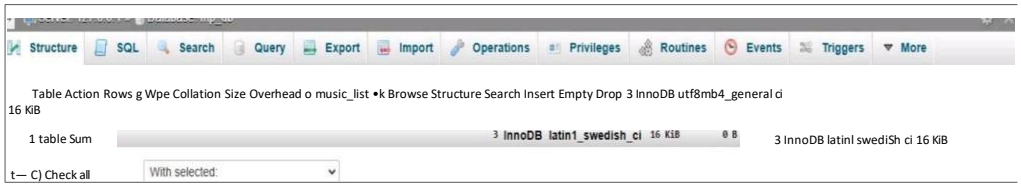
1. The proposed system has better both Input/output capabilities of each the user activities while interacting with the system
2. The search/retrieval of the properties/flats is much faster than the present system.
   Hence it cause to saving time for the further work.
3. Searching feature is quite faster than current system. Because it searches directly fromsystem that is from the front end.

3.2 DATABASE DESIGN

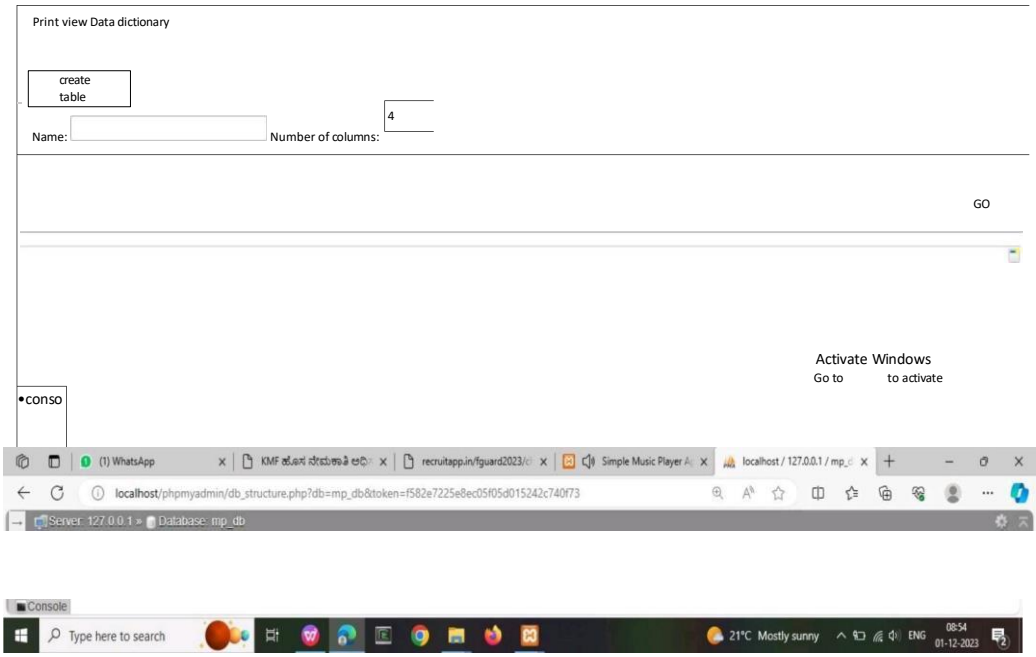
The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MS Access database has been chosen for developing the relevant databases.

Interactive music playlist generator contains



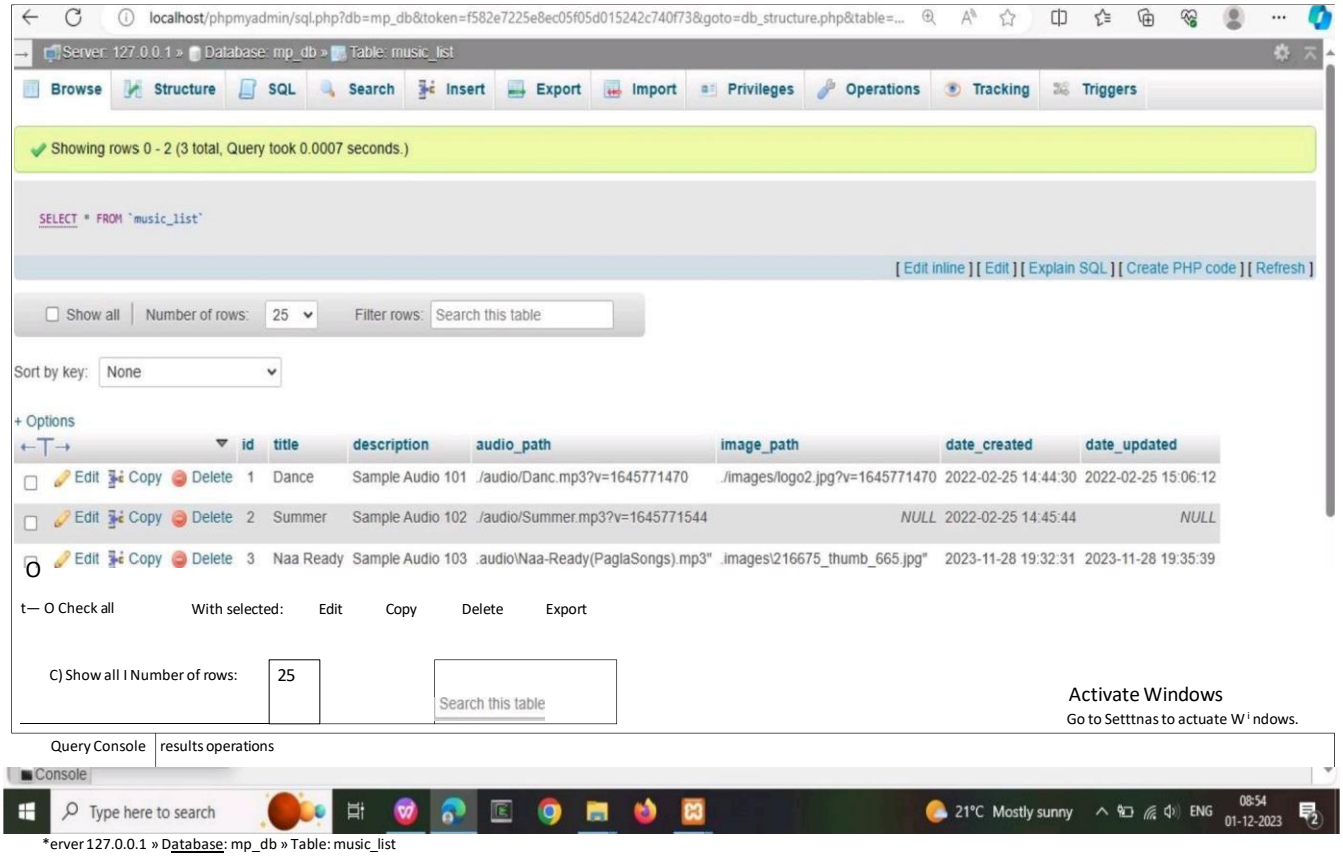
Interactive music playlist generator



Interactive music playlist generator

I O (1) WhatsApp X I KMF ಹೊಸ ನೇಮಕಾತಿ ಅಧಿ X I recruitapp.in/fguard2023/c' X I Q) Simple Music Player Af X localhost/ 127.0,0.1 /mp_c X -F o x

O localhost/phpmyadmin/sql.php?db=mp_db&token=f582e7225e8ec05f05d015242c740f73&goto=db_structure.php&table=...



*erver 127.0.0.1 » Database: mp_db » Table: music_list

CHAPTER-4

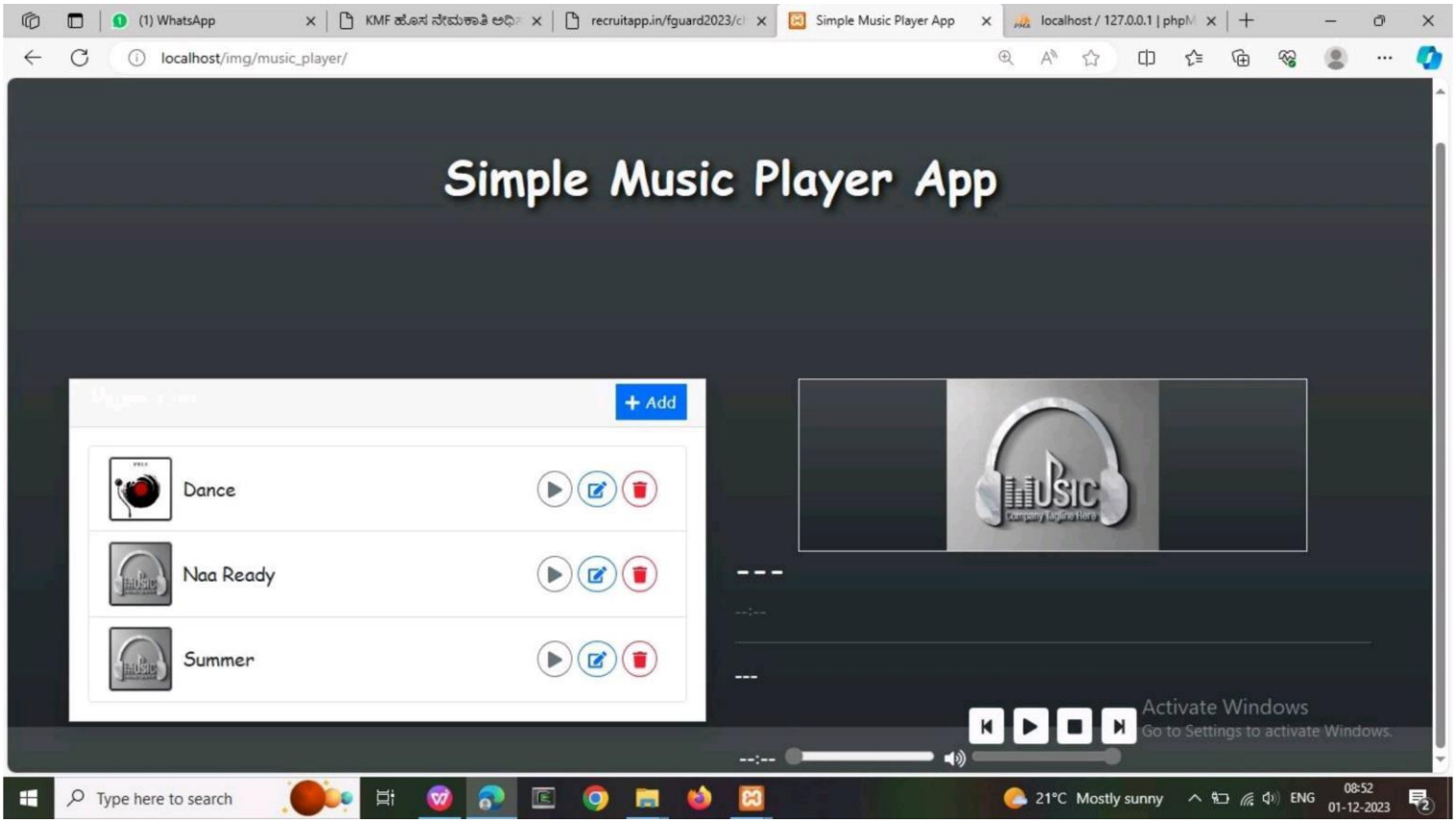
TESTING

TEST CASES:

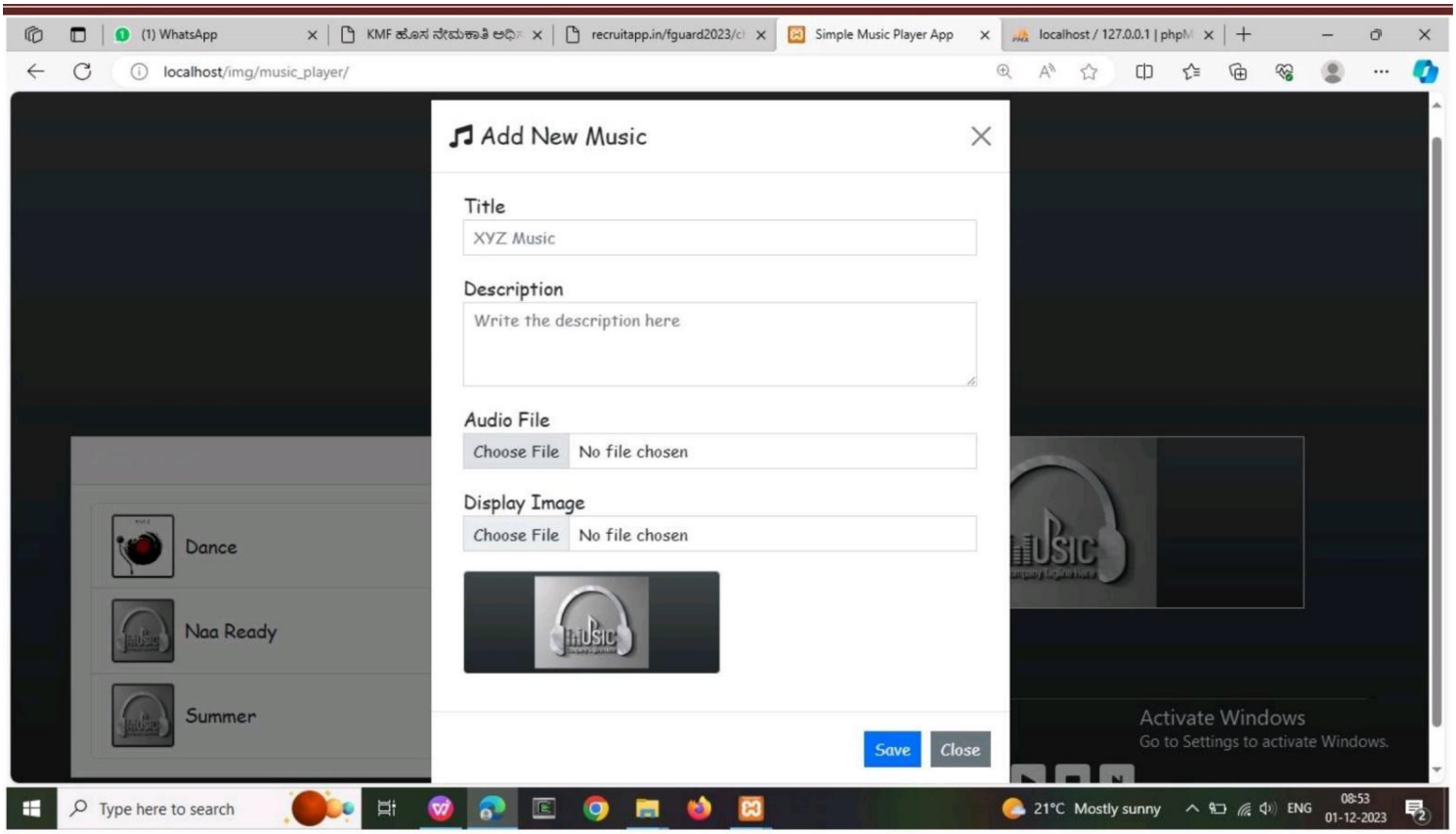
- Unit Testing: This is the lowest level of testing that is conducted to remove syntax & logic errors from a single unit. Individual components are tested to ensure that they operate correctly.
  Each component is tested independently, without other system components.
- Module testing: A module is a collection of dependent components such as an object class, an abstract data type or some looser collection of procedures & functions. A module encapsulates related components, so can be tested without other system modules.
- Sub-System testing: This phase involves testing collections of modules, which have been integrated into sub-systems. This tests for problems that arise from component interactions. This testing should begin as soon as usable versions of some of the system components are available. System testing:
- The sub-systems are integrated to make up the system. The system as a complete entity is tested over here. This process is concerned with finding errors that result from unanticipated interactions between sub-systems. It is also concerned with validating that the system meets its functional & non-functional requirements & testing the emergent system properties.
- Acceptance testing: This is the final stage in the testing process before the system is accepted for operational use. The system is tested with data supplied by the system customer rather than simulated test data. Acceptance testing may reveal errors & omissions in the system requirements definition because the real data exercise the system in different ways from the test data. It may also reveal requirements problems where the system's facilities do not really meet the user's needs or the system performance is unacceptable.

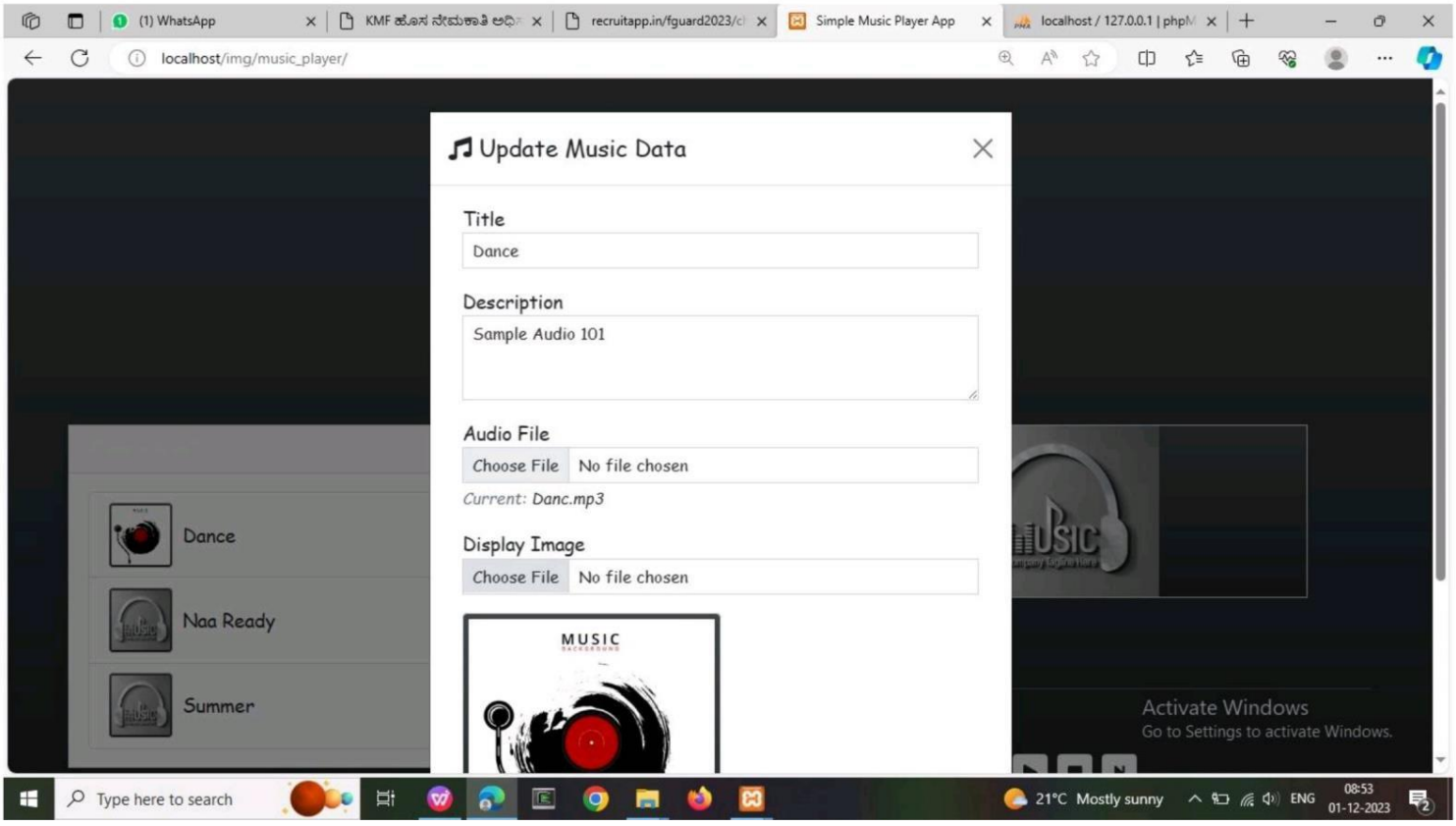
CHAPTER 5

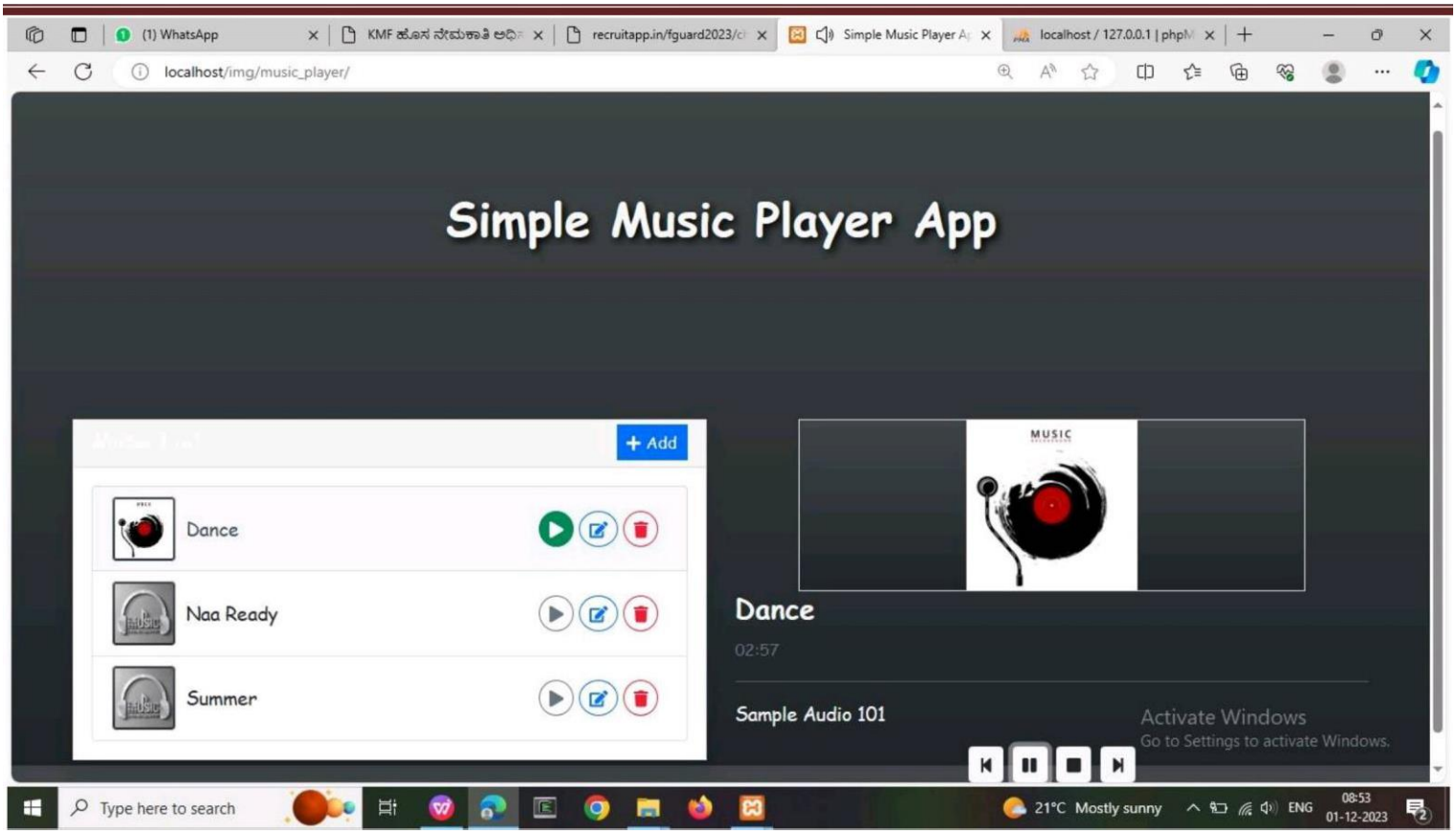
RESULT



Interactive music playlist generator







CHAPTER 6

CONCLUSION AND DISCUSSION

1. Self-Analysis of Project Viabilities

Definitely, it's cheaper to use because most of it is usually free.

2. Problem Encountered and Possible Solutions

➢ Hardware Limitations

The only limitation posed is when the disk space is exhausted. And it can be solved by extending the disk space.

➢ Internet speed

Internet connection speed should be minimum 128 kbps.

3. Summary of Project work

In whole procedure to prepare project, we first gather the requirement of the project and decide the time schedule. After planning we design the documentation of project. After the design we generate the code of system. In design the code we do the error estimation and effort estimation. If error is occur then solve it. Finally when code is designed then test the project and decide the cost of project.

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