# MUSIC RECORDING STUDIO



<b>Group Members</b>	
Name	Roll No
C.Purushottam Reddy	AM.EN.U4CSE20120
G.Vaishnavi	AM.EN.U4CSE20125
P.Harshitha	AM.EN.U4CSE20150
T.Sri samyu	AM.EN.U4CSE20168

# **INDEX**

- **Abstract** 
  - Features of application
  - Requirements
- <u>Use Cases</u>
  - Actors
  - Use case description
  - Use case diagram
- Class Diagram
- <u>> UI</u>
- Features
- Brief ui
- Checking database
- Welcome panel
- <u>User profile</u>
- Constraints
- Add
- Add Employee
- Add Artist
- Add Album
- Add song
- Add musician
- Update
  - Update artist
  - Update Album
  - Update song
  - Update musician
  - Update employee
- Remove
  - Remove artist
  - Remove Album
  - Remove song
  - Remove musician
  - Remove employee
- Search
  - Search artist
  - Search Album
  - Search song
  - Search musician
  - Search employee

## **ABSTRACT:**

Our main aim is to develop a lightweight java application where employees of the music recording company can access the metadata of the company and modify accordingly. Our application provides a pleasant GUI where users find easy and flexible to use.

## Features of application:

### • Authorization:

We have included login panel to add extra layer security for database.

#### • Admin account:

- We included special profile where admin can add or remove employees in company
- ➤ Only admin can delete data in database for security reasons.

# • pgAdmin:

> We have used best database server.

### Other features:

- Updating database.
- ➤ Add or removing artists.
- ➤ A simplified GUI to explore data more easily.

## Functional Requirements of the System: -

The functional requirements of our system:

- 1. Employee has login credentials already.
- 2. Employee must login to the system to access his/her main page.
- 3. Admin can view personal details and can update the details of employee.

#### Use cases:

- 1. Authentication
- 2. Retrieve database
- 3. Update
- 4. Delete
- 5. Record details
- 6. Exit

### Actors:

## Small description of actors:

- 1. **User:** user is person to perform authentication and it had been divided into two main divisions to perform tasks
- 2. **Admin:** The admin has a special role to access the system features, functions and data. another important role of admin is to add or delete employee.
- 3. **Employee:** collect data from database and updates the data.

# Use Case Description:

# • Add/Remove users (By admin)

Use case ID	Admin
Brief description	The user can get access to the system using username and password.
Primary actors	Admin
Precondition	User already contain the required credentials to login.
Post condition	Admin updates the database
Main success Scenario	Admin can add or delete employees.
Actor Action	System response
1. The admin enters login credentials and clicks on login button.	2. Performs validation of login credentials. If valid user, provides access.
3.after getting access admin can add or remove employees	4.checks and add/remove employees in database
Alternate flow	2a. If not a valid admin, cannot go through further process

# • Employee's login

Use case ID	Employee
Brief description	The Employee works on a database
Primary actors	Employee
Precondition	The Employee must have registered earlier. The admin can be used to find this.
Post condition	Employee should update database
Main success Scenario	Employees get access and can perform changes in database
Actor Action	System Response
The employee gets access by logging in using required credentials.	2. employee can be able to see the profile and different activities
3.Clicks on the desired tab	4.opens a new page
5.And perform suitable actions.	
Alternate flow	
	2a. If the credentials entered by employee are incorrect, cannot access the next page

# • Authentication

Use case ID	Authentication
Brief description	The user can get access to the system using username and password.
Primary actors	user
Precondition	User already contains the required credentials to authenticate
Post condition	If the credentials are correct, they can get access
Main success Scenario	Authorization success
Actor Action	System response
1. The user enters login credentials and clicks on login button.	2. Performs validation of login credentials. If valid user, provides access.
3.after authentication they can go to further process	
Alternate flow	2a. If not a valid admin, cannot go through further process

# • Updating the database:

Use case ID	update
Brief description	Updates perform some valid changes in database
Primary actors	Employee
Precondition	The information must already be stored
Post condition	The employee updates the database accordingly
Main success Scenario	The changes will be done in database
Actor Action	System Response
after getting access employee can update the database	2. click on update
3.and perform work	4.comes out from update page
Alternate flow	if any fields are entered incorrectly. The update will not work

# • Adding new album:

Use case ID	Add new albums
Brief description	The employee can add the data into the database.
Primary actors	Employee
Precondition	The data regarding albums must already be present
Post condition	Employees add new albums to database
Main success Scenario	Employee can update any type of changes in the database.
Actor Action	System Response
1. employee enter new album data and clicks the add button	2. then add the new data is added to database.
Alternate flow	Album won't be added to database if data is not valid.

# • Exploring or searching Albums:

Use case ID	Retrieve data
Brief description	The employee can retrieve data from the database.
Primary actors	Employee
Precondition	The data must already be present
Post condition	Employee retrieve data from database
Main success Scenario	Employee can make any type of change in the database.
Actor Action	System Response
1. employee clicks the button retrieve	2. then add the new data is added to database.

# • Adding new artist:

Use case ID	Add new artist
Brief description	The employee can add the data into the database.
Primary actors	Admin
Precondition	The data regarding artist must already be present
Post condition	Employees add new albums to database
Main success Scenario	Employee can update any type of changes in the database.
Actor Action	System Response
1. employee clicks the button add	2. then add new artist the new artist is added to database.
Alternate flow	Artist won't be added to database if he/she
	Already in database.

# • Adding or removing employees:

Use case ID	Add or remove users
Brief description	The admin can add or delete users
Primary actors	Admin
Precondition	The data users must already be present to remove
Post condition	Admin add or delete user from database
Main success Scenario	Admin can perform any changes regarding users
Actor Action	System Response
1. admin check the information about users	2. Database will be updated accordingly.
Alternate flow	Data won't be updated if not present already.

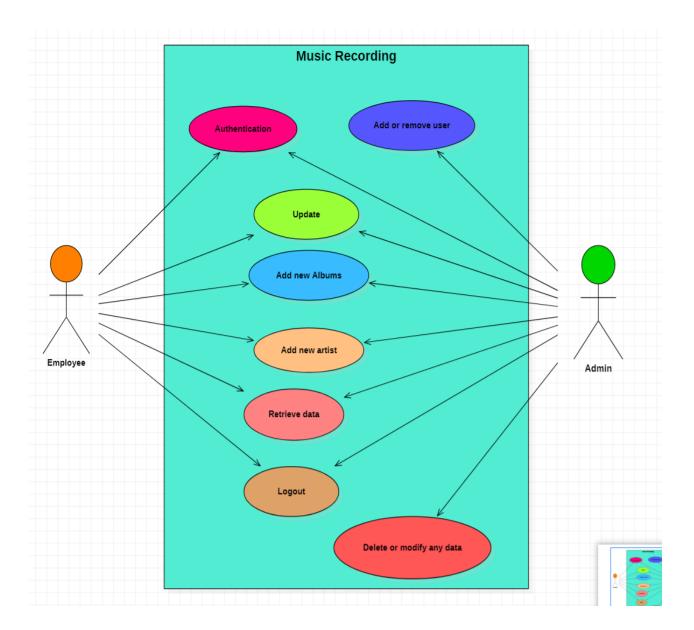
# • Deleting data from database:

Use case ID	Delete or modify any data
Brief description	Only admin can delete data
Primary actors	Admin
Precondition	The data must already be present.
Post condition	Admin add or deletes data into database
Main success Scenario	Admin can perform any changes regarding data
Actor Action	System Response
1. admin check the information about data	2. then perform required the changes.

# • Signing off:

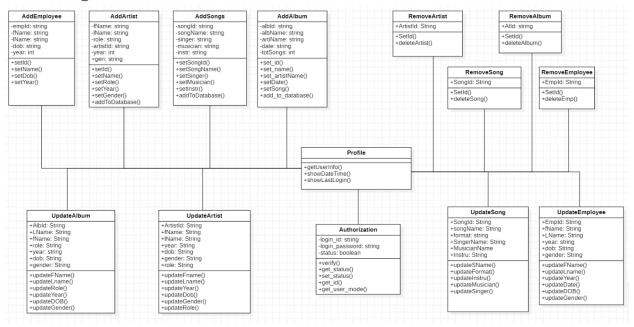
Use case ID	logout
Brief description	After performing certain works user can logout
Primary actors	user
Precondition	User already completed work
Post condition	User can exit
Main success Scenario	Logout success
Actor Action	System Response
1. the user perform all the modifications	2. exit the system

# Use case Diagram:



A user case diagram depicts the various actions done by users.

# Class Diagram:

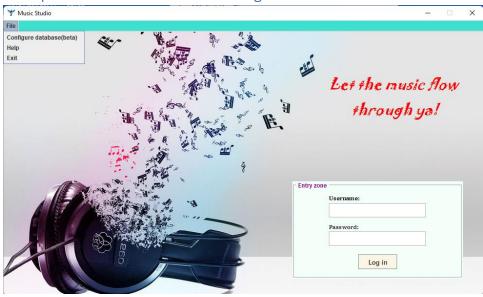


# User Interface Design:

#### Features:

- All images in application are loaded from GitHub to overcome the need of changing local directory of all images
- We have added database configuration panel that make sure we need not to change configuring details of postgres and acts as a security layer.

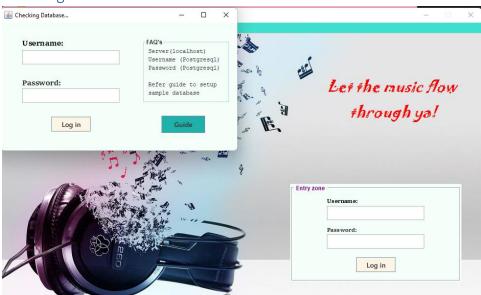




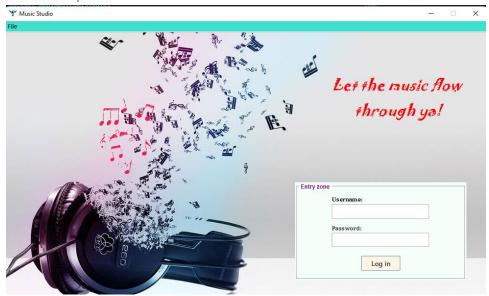
At top left corner we have file which has Configure database, help and exit features.

- Configure database: To get access first employee must configure the database (connect with database we need to login using our postgres credentials).
- **Help:** Redirects us to GitHub.
- **Exit:** Ensures you to exit the page.

## Checking Database:



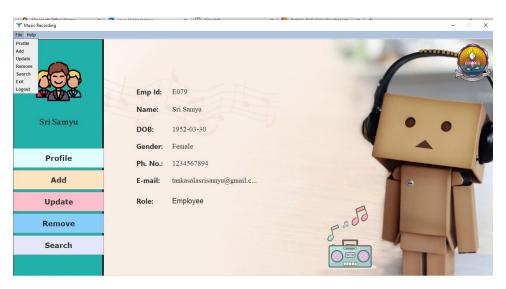
# Welcome panel:



# User profile:



In profile we find the details of employee or admin



On jmenu we can find file and help file gives all the information of pannels as by clicking particular pannel it directs to respective pannel.



By clicking help it opens guide which redirects to GitHub account it is simple guide to get to know about our project details.

#### Constraints

Note: Employees can only have access to perform changes regarding artist, album, songs, musician whereas admin can also control employee details besides performing all the tasks.

\*Add or remove employees (only accessed by admin)

Employees or admin can add the appropriate details according to the information given in use cases.

There are some conditions for filling in the details. They are:

(All this validations are shown by small dialogue box with respective errors)

- 1. The name must be greater than 3 characters.
- 2. There is date validator which validates date.
- 3. email should be in proper format like <a href="mailto:name@gmail.com">name@gmail.com</a> which matches regex expression below

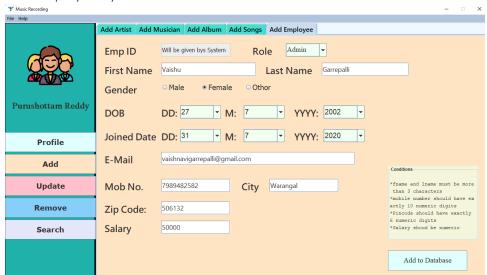
```
"^[\\w!#$%&'*+/=?`{|}~^-]+(?:\\.[\\w!#$%&'*+/=?`{|}~^-]+)*@(?:[a-zA-Z0-9-]+\\.)+[a-zA-Z]{2,6}$"
```

- 4. Mobile number must be exactly 10 numeric digits
- 5. Zip code must contain 6 numeric digits.
- 6. Salary validator which takes only numeric values.
- 7. And there is role validator which confirms weather role is selected or not.

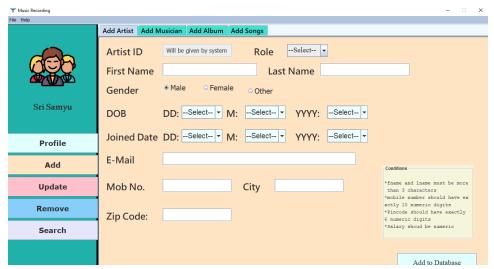
The id is generated by system according to the data in the database

#### ADD

## Add Employee by admin:



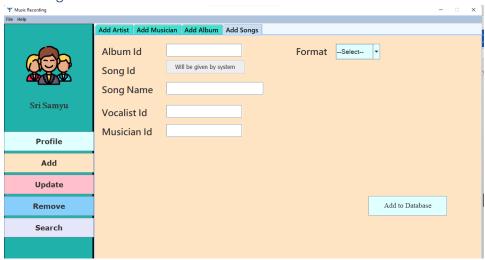
#### Add artist:



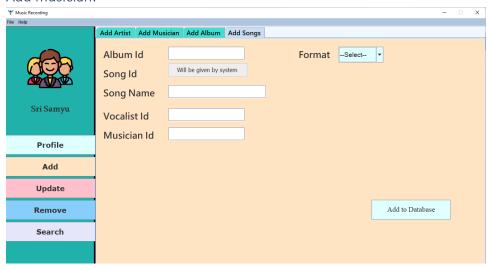
### Add album:



## Add songs:



#### Add musician:

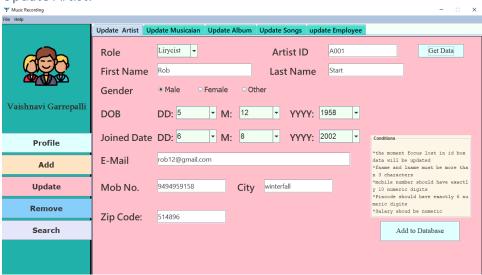


### Update

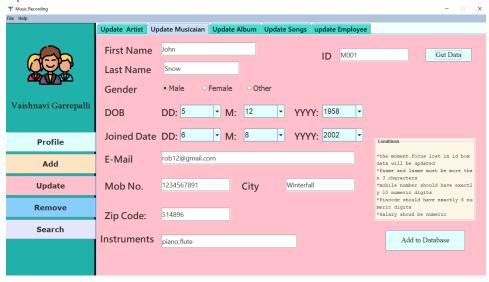
Employees or admin can update the details of respective use cases.

There are two features in Update. We can get the details of respective id either by clicking the Get Data button or moving the focus to another box.

### Update Artist:



#### **Update Musician:**

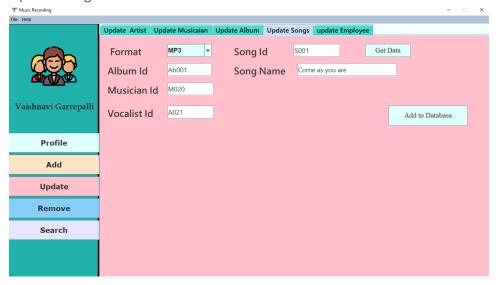


#### Update Album:

In update album once if we give album id all the information(songs) regarding album will be displayed in below workspace.



## Update Songs:

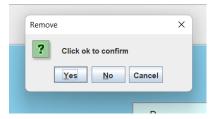


### Update Employee:

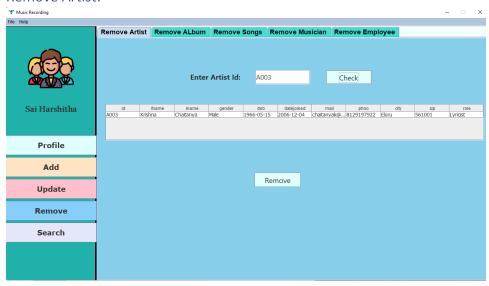


#### Remove

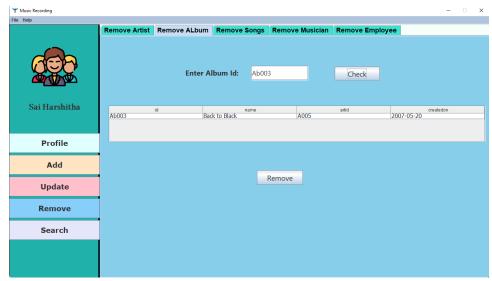
Employees or admin can remove details in use case by giving id. Before removing, employees or admin can check the details of respective id in the table given below and confirm whether to remove or not by verifying with dialogue box.



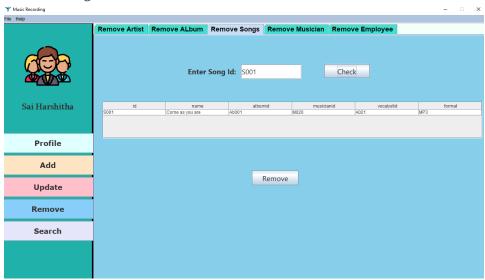
#### Remove Artist:



### Remove Album:



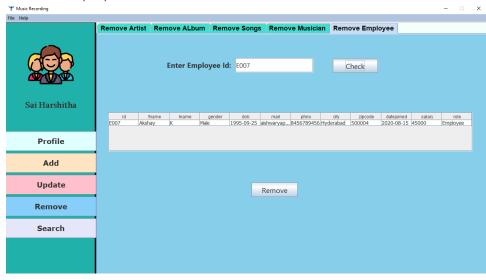
## Remove Songs:



#### Remove Musician:



## Remove Employee:

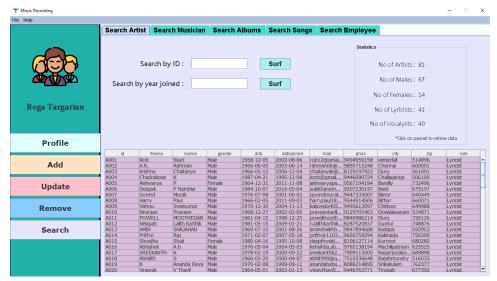


#### Search

Employees or admin can search the details with the help of id or by date joined/created (year).

And all the details of respective id or year will be displayed in the table below. In right side of the panel, we can find statistics (refresh statistics by single click on panel).

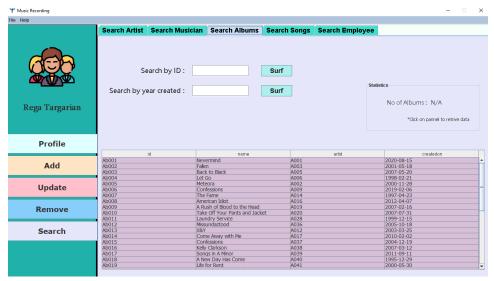
#### Search Artist:



### Search Musician:

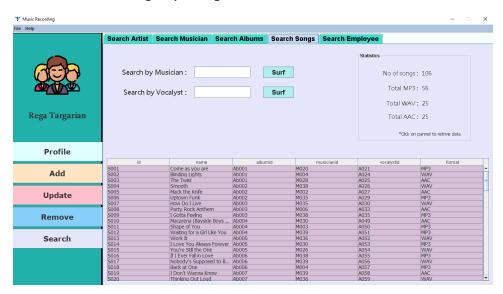


#### Search Album:



## Search Songs:

We can search songs by using musician id or vocalist.



# Search Employee:



-----Thanking You-----