# Dance Class Management System

**A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT
OF REQUIREMENT
FOR THE AWARD OF THE DEGREE**


**MASTER OF COMPUTER APPLICATIONS (MCA)**

OF

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

BY


# Devu Suresh
## Reg. No:22pmc122



# Marian College Kuttikanam Autonomous

**Peermade, Kerala – 685 531**

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**Under the guidance of**
Ms. KOCHUMOL ABRAHAM
Assistant Professor
PG Department of Computer Applications
Marian College Kuttikkanam Autonomous



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# PG DEPARTMENT OF COMPUTER APPLICATIONS

# Marian College Kuttikkanam Autonomous

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

**KUTTIKKANAM – 685 531, KERALA.**

# CERTIFICATE

This is to certify that the project work entitled

"Dance Class Management System"

is a bonafide record of work done by

# Devu Suresh

**Reg. No:22pmc122**

In partial fulfillment of the requirements for the award of Degree of

# MASTER OF COMPUTER APPLICATIONS [MCA]

During the academic year 2022-2023

**Ms. Kochumol Abraham**
Assistant Professor
PG Department of Computer Applications
Marian College Kuttikkanam Autonomous

**Mr Win Mathew John**
Head of the Department
PG Department of Computer Applications
Marian College Kuttikkanam Autonomous

**External Examiner**

**External Examiner**

# Acknowledgement

First of all I want to thank my parents for giving an opportunity to study in this college and i thank my friends who support me to complete this project and at last but not the least I wish to thank my internal guide Ms. Kochumol Abraham who provided all her services at any time as a guidance for this project.


Devu Suresh

# ABSTRACT

Dance Class Management System is a comprehensive software solution designed to address the limitations of the existing system and introduce a more efficient and streamlined approach to managing dance classes. is a web application developed using Django, a Python-based web framework. It provides an efficient and streamlined solution for managing various aspects of dance classes, including user registration, event management, video content, and category association. The system categorizes different dance styles or types, enabling users to associate themselves with specific categories during the registration process. Users can explore a collection of dance videos stored in the system. Events can be created and managed by the admin, so that user can  see the upcoming events.

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# 1.INTRODUCTION

# 1.1 OVERVIEW OF THE PROJECT

For some people dancing is a hobby, for others - a way of life. In this project the people who love dance can use this website for their admission in the dance school and can study the dance forms. The Dance Class Management System is a web application developed using Django, a Python-based web framework. It provides an efficient and streamlined solution for managing various aspects of dance classes, including user registration, event management, video content, and category association. The system categorizes different dance styles or types, enabling users to associate themselves with specific categories during the registration process. Users can explore a collection of dance videos stored in the system. Events can be created and managed by the admin, so that user can see the upcoming events. By implementing the Dance Class Management System, dance studios can optimize their administrative processes, improve communication, and provide a better experience for students.

# 2.SYSTEM STUDY

## 2.1 EXISTING SYSTEM

The existing system for the Dance Class Management project refers to the manual or traditional methods and processes used before the implementation of the Dance Class Management System. In such systems, various administrative tasks, communication, and record-keeping were typically carried out manually, leading to several challenges and limitations. Here are some key aspects of the existing system:

- Manual Registration: In the absence of an automated system, user registrations were likely done through paper forms or offline methods.

- Paper-Based Communication: Communication between instructors, students relied heavily on physical notices, flyers, or verbal exchanges. This could lead to miscommunication, missed updates, and difficulties in maintaining a consistent flow of information.

- Limited Access to Information: Without a centralized system, accessing information such as event details relying on verbal communication. This limited access made it difficult to retrieve information quickly and hindered effective decision-making.

- Lack of Automation: Overall, the existing system lacked automation and streamlined processes, resulting in inefficiencies, data inconsistencies, and increased administrative burden.

## 2.2PROPOSED SYSTEM

The proposed Dance Class Management System is a comprehensive software solution designed to address the limitations of the existing system and introduce a more efficient and streamlined approach to managing dance classes. The key features and improvements of the proposed system include:

- It is very users friendly.
- Users can register for the system by providing their personal information
- Administrators can create and manage dance events or sessions by specifying the title, date, venue, dress code, time, and fee.
- The system will allow administrators to create and manage different dance categories or types.
- Each category can have a name, description, and an associated image.
- Users can enroll in dance classes by associating themselves with specific categories during the registration process.
- The system will provide a registration interface where users can select their preferred dance categories and provide additional details such as age.
- The system will support the uploading and management of dance-related videos.
- Each video will have a title, description, video file, thumbnail image, and an associated category.
- User can watch the videos according to their registration

# 3.SYSTEM ANALYSIS

# 3.1 REQUIREMENT DEFINITION

Requirements Analysis is the process of defining the expectations of the users for the website that is to be built or modified. The goal is to produce a document of the client's requirements and fulfill their needs. This document forms the basis of development and software validation. It involves all the tasks that are conducted to identify the needs of different stakeholders.

*ADMIN*

- Admin can add events.
- Delete and update the events.
- Add categories of different dance forms.
- Can add the videos according to different categories.
- Can add or delete a user.

*USER*

- Users can register to different dance forms.
- Users can see the upcoming events.
- Users can watch the videos according to their registration.
- User can see their profile and edit the profile.

# 4.FUNCTIONAL REQUIREMENTS

# 4.1 MODULE SPECIFICATION

- Login Module
- Sign up Module
- Dance Register Module
- Event Module
- Video Module
- User Profile and Password Module

## *User Login Module*

This feature allows users who have already registered with the system to log in using their credentials, such as username and password.

## *User Signup Module*

This feature allows new users to create an account on to the system by filling in their personal information such as username, first name, last name, email, phone number, and password. After successful registration, users can log in to the system.

## *Dance Register Module*

This feature enables users to register for different dance forms according to their wish.

## *Event Module*

This feature provides different upcoming events and this will be added by the admin. So, the user can delete or confirm the events according to their wish.

## *Video Module*

This feature allows users to watch the videos based on their registration to different dance forms and the user is only allow to watch the videos according to their registration and rest of them will be locked.

## *Update User Profile and Password Module*

This feature enables users to update their personal information and change their login password. Users can modify their name, phone number, and other details as per their requirements.

# 5.NON FUNCTIONAL REQUIREMENTS

# 5 NON-FUNCTIONAL REQUIREMENTS

## 5.1 Reliability

The reliability of the overall project depends on the reliability of the separate components. The main pillar of reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes, Also the system will be functioning inside a container. Thus, the overall stability of the system depends on the stability of container and its underlying operating system.

## 5.2 Availability

The system should be always available, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. A customer-friendly system which is accessible to people around the world should work 24 hours. In case of a hardware failure or database corruption, a replacement page will be shown. Also, in case of a hardware failure or database corruption, backup of the database should be retrieved from the server and saved by the Organizer. Then the services will be restarted. It means 24 X 7 availability.

## 5.3 Maintainability

A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the project will be done. Also, the software design is being done with modularity in mind so that maintainability can be done efficiently.

## 5.4 Supportability

The code and supporting modules of the system will be well documented and easy to understand. Online documentation and help system requirements.

# 6.SYSTEM DESIGN

## 6.1 INPUT DESIGN

In the input design, the user-oriented inputs are converted into computer recognizable format. The collection of input data is the most expensive part of the system in terms of equipment used, time and number of users involved. Input design is the process of converting user-oriented inputs to a computer-based format. The goal of designing input data is to make data entry as easy, logical and free from errors as possible.

- Signup Form- Here the user creates their accounts using the relevant details asked to fill in and it is stored on the database and used whenever it is needed.
- Login Form- The admin and the user login to the website, to their account using their username and password.
- Dance Register Form- The user can register for different dance forms according to their wish.
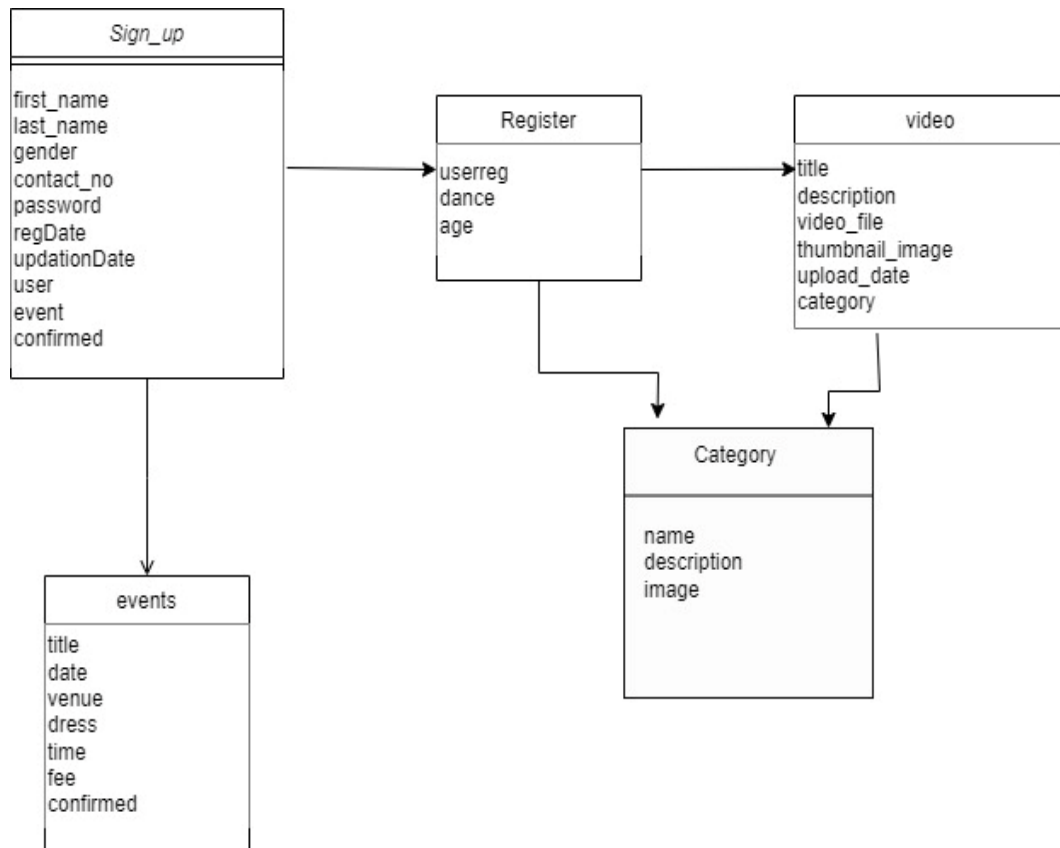
## 6.2 OUTPUT DESIGN

The goal of the output design is to capture the output and get the data into format suitable for the computer. One of the important features of an information system for users is the output it produces. Output is the information delivered to the users through the information system. Without quality output the entire system appears to be unnecessary so that users will avoid using it. The output design is the key to the success of any system because it is the system relationship with the user, we must determine the information is present and arrange the information in the acceptable format that is when to display the information.

- Watch.: This button helps the user to watch the videos added by the admin.
- Submit: This button helps the user to register to different dance forms.
- Confirm: This button redirects to the user home by confirming the events.
- Logout: The button that helps the user to log out from the website.
- Login: The button helps to log in to the website.
- Signup: The button that allows the user to sign up for their account.

- Delete: The button will help to delete the events that the user is not interested in.

# 6.3 DATABASE DESIGN

## *6.3.1 CLASS DIAGRAM*

**Sign_up**

first_name
last_name
gender
contact_no
password
regDate
updationDate
user
event
confirmed

**Register**

userreg
dance
age

**video**

title
description
video_file
thumbnail_image
upload_date
category

**Category**

name
description
image

**events**

title
date
venue
dress
time
fee
confirmed

## 6.4 TECHNICAL ASPECTS

Programming Language: Python

Web Framework: Django (backend)

Frontend Framework: HTML, CSS, JavaScript, Bootstrap

Database : SQLite3 (supported by Django)

Third Party Libraries:  Jazzmin

## 6.5 ARCHITECTURE

The architecture of the Dance Class Management System can be designed using the Model-View-Controller (MVC) architectural pattern, which separates the system into three main components: the model, the view, and the controller. Here's an overview of the architecture:

*Model*

The model represents the data and business logic of the system. In this project, the models you provided (Signup, events, Category, Register, Video, user login) serve as the models in the MVC architecture. Each model represents a specific entity or concept in the system and contains the necessary fields, relationships, and methods to interact with and manipulate the data.

*View*

The view component handles the presentation layer of the system, responsible for rendering the user interface and displaying information to users. In the Dance Class Management System, views will be implemented using Django's template system or frontend frameworks like HTML, CSS, and JavaScript. Views will be created to display registration forms, event details, video content, reports, and other relevant information.

### *Database*

The database component is responsible for storing and retrieving data used by the system. Django's Object-Relational Mapping (ORM) facilitates interaction with the database, providing a higher-level abstraction for data operations. The models defined in the system (Signup, events, Category, Register, Video, user login) will be mapped to corresponding database tables.

### *User Interface*

The user interface component encompasses the visual design and user experience of the system. It includes the layout, navigation menus, forms, buttons, and other interactive elements that enable users to interact with the system effectively. The user interface will be implemented using HTML, CSS, and JavaScript, following best practices for a responsive and intuitive design.

# 7. CHALLENGES FACED

# 7.1 CHALLENGES FACED

Developing a bus booking system using Django, I faced several challenges. The most difficult challenge I faced was ensuring secure user authentication, designing a user-friendly interface, implementing validation mechanisms, and managing a robust database structure.

- **User Experience**

  Designing a user-friendly and intuitive interface can be challenging. Balancing functionality with usability, and providing a seamless experience for users across different devices and platforms requires careful planning and testing.

- **Data Validation and Integrity**

  Validating user input and ensuring data integrity can be complex, especially when dealing with various forms and user-submitted data.

- **Testing And Debugging**

  Thorough testing and debugging are essential to identify and fix any issues or bugs in the application.

# 8. FUTURE ENHANCEMENT

# 8.1 FUTURE ENHANCEMENT

➢ Payment Integration

Integrate popular online payment gateways to provide users with more options for making secure and convenient payments. This can streamline the payment process, reduce administrative tasks, and enhance the user experience.

➢ Advanced Search and Filtering

Enable users to search for specific classes, events and allow users to filter classes, events, or videos based on dance categories.

➢ Interactive Community Feature

Provide users with the ability to contribute their own dance-related content, such as videos, tutorials, or choreography. This encourages creativity, collaboration, and knowledge sharing among the community. Allow users to rate and review dance classes, videos, or events they have attended.

➢ Mobile Application

The mobile app can send push notifications to users, reminding them of upcoming classes, events, or important updates. This helps users stay informed and engaged with the dance community.

# 9.CONCLUSION

# 9.1 CONCLUSION

In conclusion, the Dance Class Management System, with its models and proposed enhancements, offers a comprehensive solution for managing dance classes, events, and videos. The system provides a platform for users to register for classes, manage their profiles, access video content, and engage in vibrant events.

The models presented, including Signup, events, Category, Register, Video, and user login, form the foundation of the system. These models enable user registration, event management, dance class registration, video content management, and user authentication. While developing the system, challenges may arise, such as data management, user interface design, security implementation. However, with careful planning, effective project management, and adherence to best practices, these challenges can be overcome to deliver a robust and user-friendly system.

Looking to the future, there are opportunities for additional enhancements, including integrating online payment gateways, implementing virtual classrooms, and expanding the system's reporting and analytics capabilities. These enhancements can further streamline administrative tasks, enhance the learning experience, and provide valuable insights for decision-making.

Overall, the Dance Class Management System, with its models, proposed enhancements, and future possibilities, holds great potential to facilitate efficient dance class management, foster a strong dance community, and provide an enjoyable and engaging experience for instructors, students, and parents.
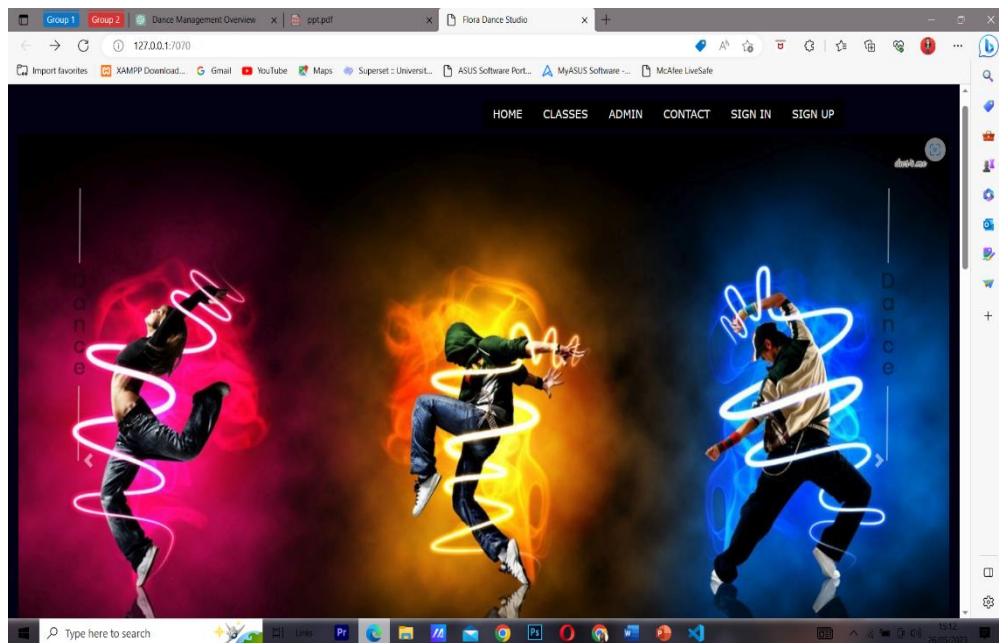
# 1O. REFERENCES

## 10.1 REFERENCES

- Stack Overflow: https://stackoverflow.com/

- ChatGPT

- Django Jazzmin Documentation: https://django-jazzmin.readthedocs.io/

# 11.APPENDIX

# SCREENSHOTS

## Home Page



## User Home
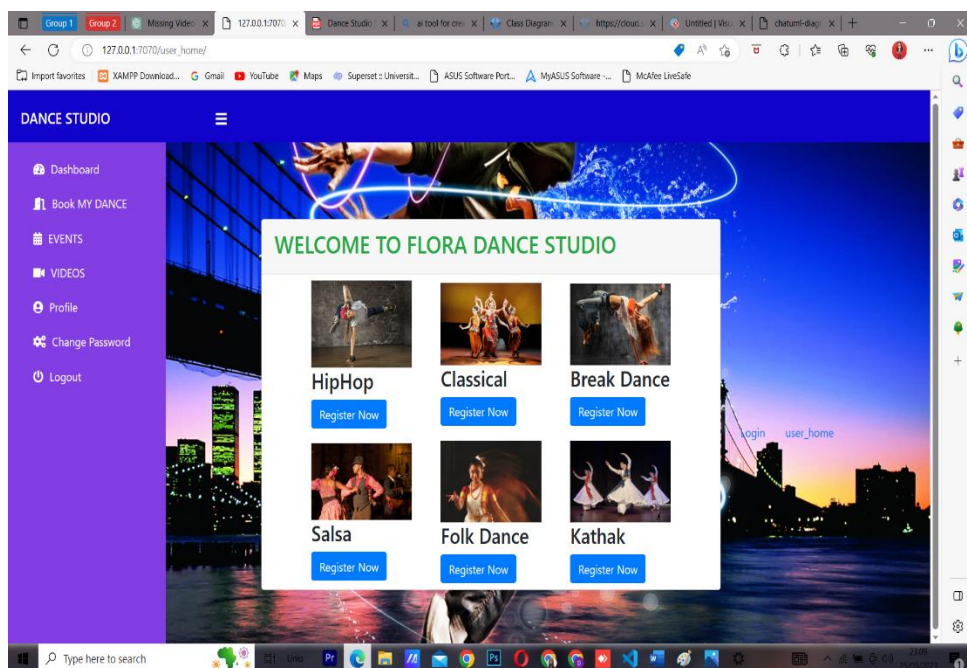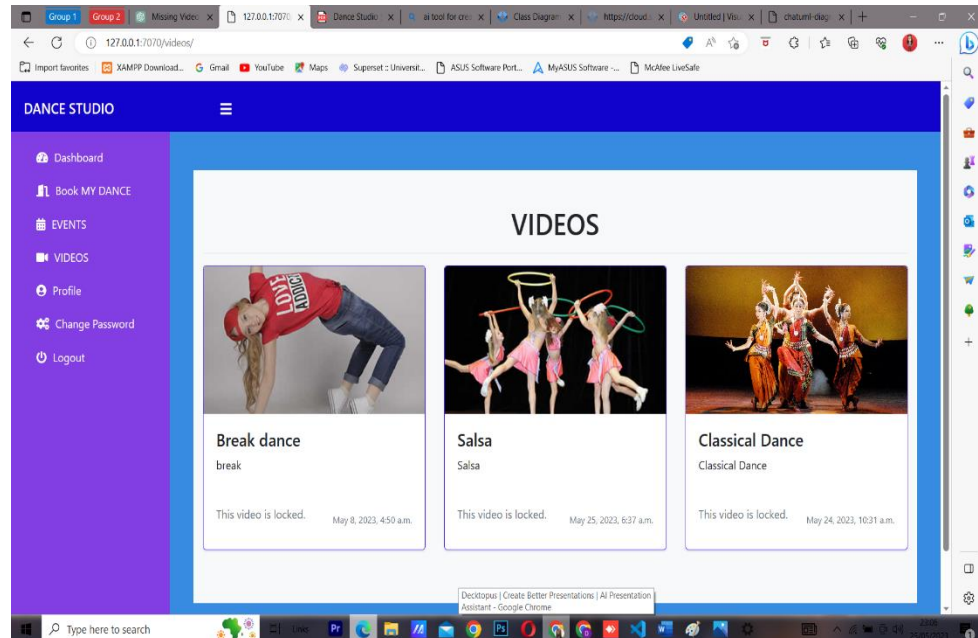
**Events**
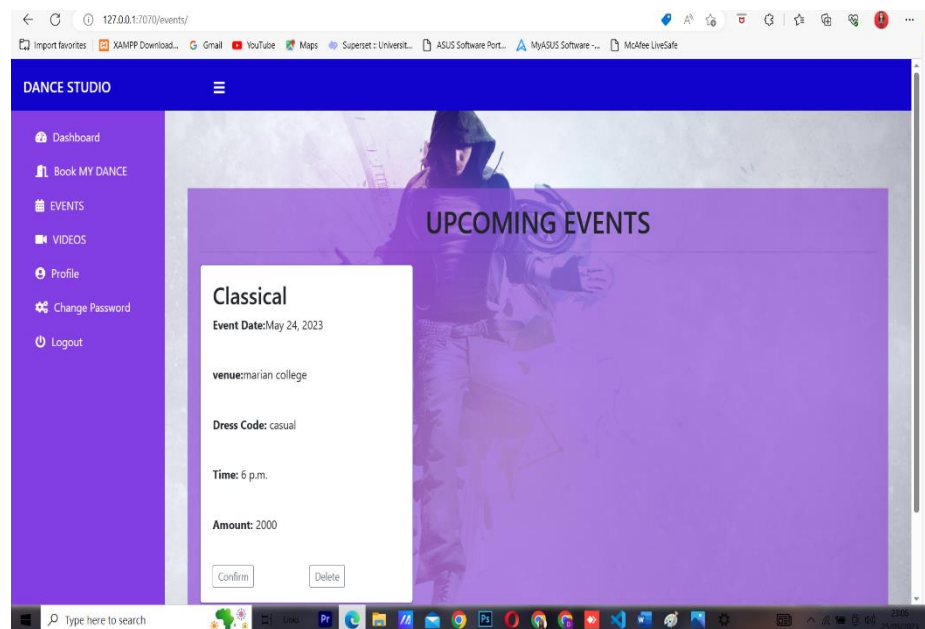


**Dance Registration**

### Videos



### Profile