Street Dancers Web Application

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Abstract

A lot of social video services are emerging as the internet keeps growing. Each platform has a distinct design and technology for delivering information. Many well-known videos sharing websites, including YouTube, as well as well-known ones, such as TikTok, Instagram, and many others exist. The development of the program's front end, the creation and maintenance of the back-end database, and eventually the deployment of the application to a remote or local server make up the three main domains of this application. The server-deployable application is created using Python for the back end and HTML, CSS, and Jscript are used for the front end. With the help of this program, every street dancer now has a stage to showcase their abilities and talents. A client-server computer program known as a web application or web app is one that the client executes in a web browser. Mission-critical web applications are now getting more and more complicated. They should be modelled in order to aid in managing their complexity.
Street dancers is one such web application designed using html and CSS and modelled using the python framework. The street dancers web application is platform that givers every street dancer a stage to showcase their talent and enhance their growth professionally. The users with maximum number of likes for the uploaded videos get a chance to get in touch with the top choreographers. In this way Street dancers helps all the dancers with talent who lack a platform to showcase their talents.

Keywords—*Street dancers, Html, CSS, Jscript.*

1. INTRODUCTION

We've come a long way from the days when individuals had to travel great distances and wait weeks to perform in front of an audience and connect with them. Now, it only takes a few seconds to share a video with the entire globe. Social media has essentially taken over our daily lives in this fast-paced society. One of the most useful means by which individuals from all over the world communicate with one another is social media. Within minutes, one may learn what is happening on the opposite side of the globe or in space.

There are several individuals who possess remarkable skill but lack the resources to hone it, show it off, or be recognized for it. Additionally, there are some who lack access to the proper platforms to display their talent. Street Dancers gives all of these folks a platform. A solid network for each talent in the entertainment business is the driving force behind the collaboration.

The user's productivity is the app's focus, allowing them to either showcase their own abilities or promote those of others.

We provide outstanding dancers a virtual platform to display their talent by posting a 60-second video on our platform. Based on their content, we will choose one dancer as the best for the month.

At the conclusion of the year, we will have 12 finalists as a result, and they will engage in a massive competition with one another. The video will score highly based on the number of interactions, which we define as votes and views. Votes and views are therefore helpful to our future research as we choose the finalists.

The front end of this project is built using HTML, CSS, and JavaScript and the back end is programmed using python. JASON files are used for storing lager number of files. JSON files are used for the storage of the videos. JASON is used because it allows for the safe transmission of digital data via the JWT protocol between two parties. API calls are used to link the website to the local server.

Local Storage is a data storage type of web storage. With no expiration date, this enables JavaScript websites and applications to retain and retrieve data. This indicates that the data won't lose its validity and will always be persistent. Therefore, even after exiting the browser window, the data that was kept there will still be accessible. Before, cookies were the only way to store this kind of momentary data locally, but now local Storage is an alternative as well. The storage limit for local storage is large. Additionally, it is not always provided together with HTTP requests. This makes it a superior option for client-side storage right. Local Storage is synchronous, each operation happens one after the other.

Fig 1.1: Local Storage

High-definition (HD) video services are becoming more widely available throughout the globe much more quickly because to recent technology developments in the form of video cameras, displays, broadband networks, and video compression techniques. Additionally, a surprising amount of different video sharing services are becoming popular online.
Therefore, a more effective and engaging manner to experience this vast amount of video content is anticipated. Users can browse and view a large amount of high definition dance videos efficiently on street dancer's website and cast their votes according to their preference.

2.   RELATED WORKS

The challenges and methods of video transcoding have been researched. Video transcoding consumes a lot of time and processing power. Huge computational capacities and infrastructures are needed for handling. For providers of real-time features, using cloud services is more common. One of the biggest bandwidth consumers is expected to be live video streaming, which would use more than 50 Tbps. Long research packages might have an impact on the quality. There are mainly two problems: packet delays and audio latency. Bandwidth: The range of frequencies that a signal may travel over when it is broadcast. If the sender's bandwidth is less than the necessary bandwidth, several live video content providers, such as Twitch, Periscope, and YouTube Live, nonetheless transmit live video to millions of viewers.
YouTube is used by more than a billion people, and every minute 300 hours of video are added. In the past, efforts have been concentrated on streamlining cloud resources for live streaming in order to lower total expenses. The cost of using the cloud rose due to a proposed strategy for choosing the transcoding cloud area depending on the viewers' location and renting cloud resources to optimize cloud sites for video transcoding.
Building databases of subjective video quality has been a major focus during the last ten years. The LIVE VQA Database among them has 10 flawless videos that have undergone compression and packet loss distortions.
The YouTube UGC Dataset comprises 1500 20-second video clips from major UGC video categories, such gaming and sports.

3.   PROPOSED WORK

The front end of the web application Street Dancers has been designed using HTML, CSS and JS. This online application was created primarily using HTML. For this online application, HTML offers the fundamental framework of the website, which is then improved and altered by other technologies like CSS and JavaScript. Presentation, formatting, styling, and layout are all controlled by CSS. Python has been used for backend coding.
Python is a popular choice for a back-end language and drives a lot of major web projects. Python web framework like Django have been used to create the proposed Python-driven online application
The three components that make up the planned Street Dancers web application are as follows:
• Upload page
• Home page

• Profile page

 All the videos that the various users have posted are available on the home page. Users can vote for the dance video they liked the most among the many dances that have been uploaded by the various users. The number of votes received for a user's dance video and the other personal details of the user like the user's name and the comments received for a particular video uploaded by the user are available on the profile page. This page also includes a rank component that shows at what place the particular user stands among the many other users across the world.

The user uploads the intended video through the upload page, the uploaded video can then be viewed by the various users. The popular Python web framework Django was used to construct this web application. Django is an extremely popular Python framework used for Backend Purpose. Additionally, Django provides multiple features in order to implement the backend for any website. Django offers a rapid and flexible way to build web applications by offering tools and modules for managing internet requests, keeping sessions, and integrating with databases.

JSON (JavaScript Object Notation) and API (Application Programming Interface) calls are frequently used in this web application to exchange data between a client-side (like a web browser) and a server-side (like a web server) application.
Here is a quick explanation of how JSON and API calls are usually applied in web applications:
JSON: JSON is a condensed data-exchange format that is easy for both humans and machines to process and produce. Data can be transferred between client-side and server-side programmers in a web application using JSON. For instance, when a user submits a form on a website, data may be encoded as JSON and sent to the server via an API request. Similar to this, JSON encoding can be used to make data delivered from the server to the client easier for client-side applications to use.
API Calls: Using an API call, a client-side application can communicate with a server-side application to get information or perform tasks. An API call often involves sending a request to a server, and the server then provides a structured response, like JSON, in response. API calls are often used in web applications to receive data from a server-side database, perform operations on it, and update the database with any changes.
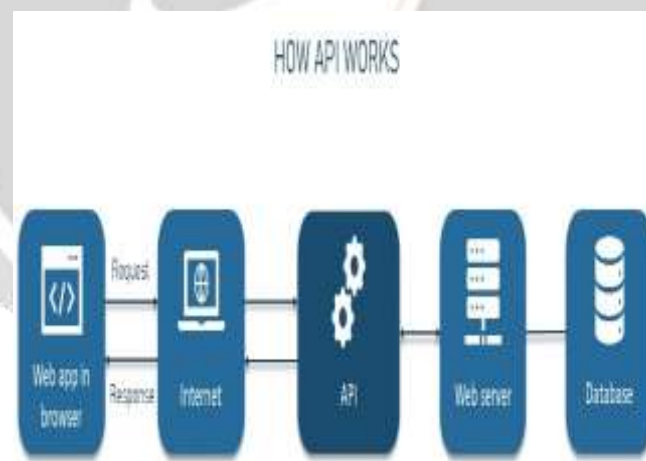
Fig 3.1 : API Working procedure

When used together, JSON and API calls make it simple for client-side and server-side apps to connect with one another. Adopting a structured format like JSON makes it feasible to create strong and dynamic web programs since the data sent between the client and server can be readily parsed and utilized by either program. The mentioned Street dancers web application works in a similar manner as mentioned above. It makes use of JSON and API calls to transfer and communicate the data. The web application makes use of the local storage to store the user's data. The user can then retrieve the required specific data from the local storage.
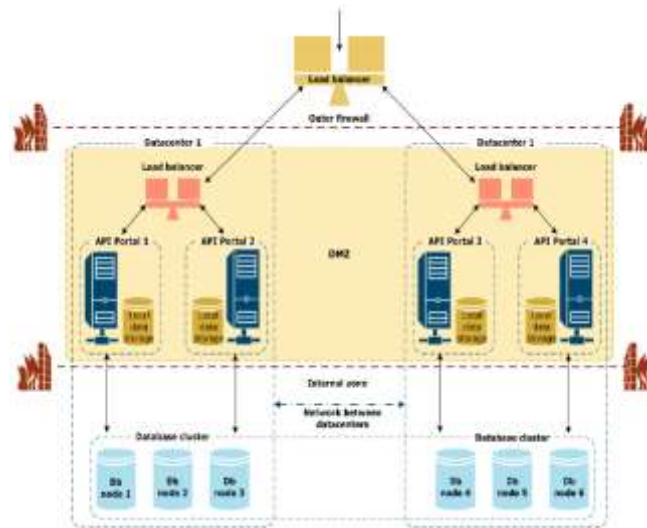
Fig 3.2: figure depicts how the API portal operates on a single or multiple data centers using the local storage space.
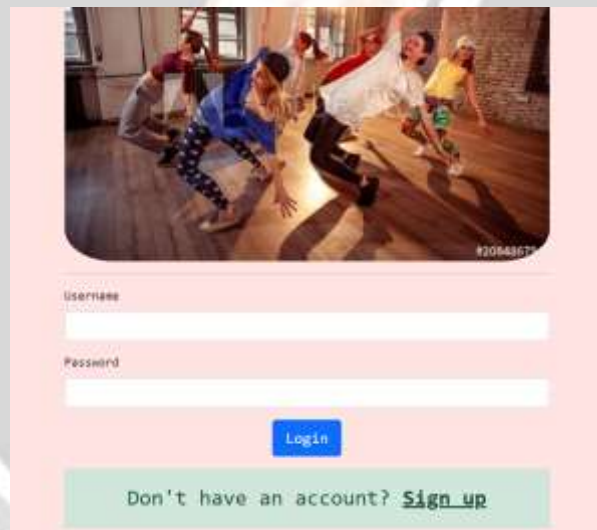
4.RESULT ANALYSIS


Fig 4.1. Login Page.

Image from the internet was used as the cover page for the login page. The completed prototype for the suggested webpage is shown in Figure 4.1.

Fig 4.2. Video Section.

In the proposed webpage, when any user uploads a video on their channel multiple other users have the access to it and can hence comment, like, or add it to their watch later playlist.

All the users using the DanceApp can view what others are commenting and can even see the number of likes per video uploaded. Multiple other options for sharing as well as Uploaders channel subscribers are visible too.
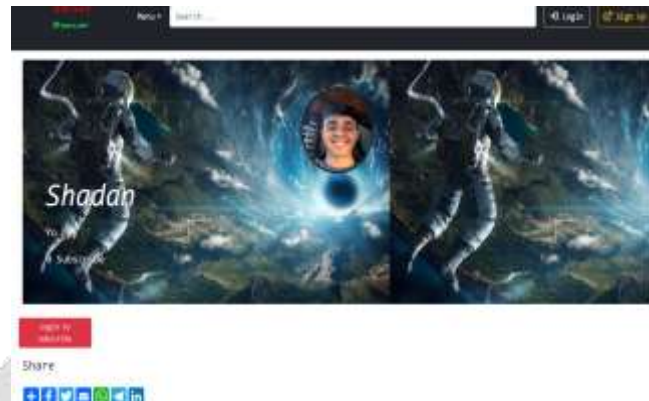

Fig 4.3. Channel Detail.

This page lands on the details about the channel owner. As visible, the channel cover image as well as the profile picture is visible. The user can add any image for their banner image or profile image. They can even use any bio or description they want. The page also displays the number of subscribers the channel has. In addition, the number of videos uploaded with their title are displayed too.

Fig 4.4 Sign Up Page.

Image shown above displays the sign-up page for any new user who want to create an account. If the users already have their account registered at the DanceApp, they even have the option to login. The 'Login' option lands the users to the login page displayed at the Fig 4.1.

The details are saved on the database and if matched with an already existing account are then informed about that.
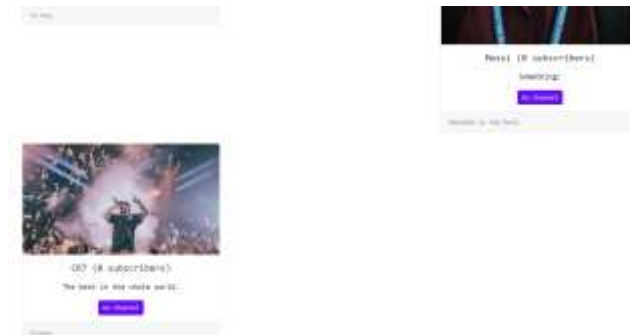
Fig 4.5 Users Page.

This page displays all the users that currently have their channel uploaded on the DanceApp website. All the users details and security is saved on the Sqlite3 databases. Fig 4.5. shows there are more than one users currently using the DanceApp.

5.CONCLUSION

Social media platforms like Facebook, Instagram, and WeChat have seen a rise in the willingness of users to share their daily images and events as a result of the proliferation of social apps. Both data scientists and psychologists have focused a lot of emphasis on post popularity prediction in social media data mining. Current study focuses more on examining the popularity of a post over a population of users and taking into account broad aspects like temporal information, user connections, number of comments, and so forth. However, because the characteristics of this user are fixed, these frameworks are not appropriate for helping that user create a well-liked post. Because of this, earlier frameworks could only provide an answer to the question of "whether a video is popular", "how to use posting videos to demonstrate their talent." With the help of this web application, we hope to highlight the dancers' skills by gauging user interest in posted videos. In order to achieve this, the user profile will be updated with the likes gathered.

Massive volumes of media data are being stored, maintained, and recovered by an expanding number of applications where the material needs to be online available or nearly so. The usage of video streaming technology has the potential to greatly change and advance the digital industry, we conclude as a result. This technology is better than some of the other streaming services.

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