DAYANANDA SAGAR UNIVERSITY

Devarakaggalahalli, Harohalli , Kanakapura Road, Ramanagara - 562112, Karnataka, India

SCHOOL OF ENGINEERING

Bachelor of Technology

in

COMPUTER SCIENCE AND ENGINEERING

Full Stack Development
Mini Project Report
On
YOUTUBE CLONE

By

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING,

SCHOOL OF ENGINEERING

DAYANANDA SAGAR UNIVERSITY,

(2023-2024)

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CERTIFICATE

This is to certify that the Full Stack Development Mini Project work titled **"YOUTUBE CLONE"** is carried out by **Sinchana M (ENG22CS0170),Sneha Ilager (ENG22CS0174),Spandana (ENG22CS0182)** bonafide students of Third semester of Bachelor of Technology in Computer Science and Engineering at the School of Engineering, Dayananda Sagar University, Bangalore in partial fulfillment for the award of degree in Bachelor of Technology in Computer Science and Engineering, during the year **2023-2024**.

Guide Name	**Dr. Girisha G S**
Prof Yashpal Gupta S	Chairman CSE
Prof Vishwas D B	School of Engineering
Dept. of CS&E,	Dayananda Sagar University
School of Engineering	
Dayananda Sagar University	
Date:4th Jan 2024	Date:4th Jan 2024

Name of the Examiner **Signature of Examiner**

DECLARATION

We, **Sinchana M (ENG22CS0170),Sneha Ilager (ENG22CS0174),Spandana (ENG22CS0182),** are students of Third semester B. Tech in **Computer Science and Engineering**, at School of Engineering, **Dayananda Sagar University**, hereby declare that the Mini Project titled **"YOUTUBE CLONE"** has been carried out by us and submitted in partial fulfilment for the award of degree in **Bachelor of Technology in Computer Science and Engineering** during the academic year **2023-2024.**

Student **Signature**

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Date : 4th Jan 2024

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TABLE OF CONTENTS

ABSTRACT

The YouTube clone project aims to replicate key features of the popular video-sharing platform. With a user-friendly interface, the clone includes a responsive navigation bar with search functionality, allowing users to explore and interact seamlessly. The main video display section showcases a featured video with essential details, including tags, views, and likes. A comments section encourages user engagement, and a right sidebar presents a list of recommended videos.

The purpose is to provide a familiar and functional platform for video consumption and user interaction. The project investigates user experience design, video playback, and content presentation. The methods involve HTML for structure, CSS for styling, and JavaScript for dynamic elements. The clone prioritizes simplicity and accessibility, promoting an engaging and efficient environment for content creators and viewers alike.

CHAPTER 1: INTRODUCTION

HTML:

HTML (Hyper Text Markup Language) stands as the bedrock of web development, serving as the fundamental language used to create the structure and content of web pages. In the context of crafting an English dictionary for the web, HTML plays a pivotal role in organizing and presenting the vast repository of lexical information in a coherent and accessible manner. At its essence, HTML provides the scaffolding upon which the dictionary's content is built. It employs a system of tags that define the different elements within a web page, such as headers, paragraphs, lists, tables, and more. When constructing an English dictionary, these HTML tags are utilized to delineate the various sections and components of the dictionary, ensuring clarity and ease of navigation for users. In the context of an English dictionary, HTML is employed to structure definitions, examples, pronunciation guides, synonyms, antonyms, and various other lexical elements. For instance, each entry might be enclosed in specific HTML tags, distinguishing the word itself, its pronunciation, the definition, and any additional contextual information.

CSS:

CSS, or Cascading Style Sheets, is an integral component of web development that complements HTML by providing the means to style and visually enhance the elements created with HTML. CSS functions by defining styles for HTML elements, determining attributes such as colour, typography, layout, spacing, and more. In the context of an English dictionary, CSS can be utilized to define the typography for word entries, establish a consistent colour scheme, structure the layout of definitions and examples, stylize navigation elements for ease of use, and create an overall visually appealing interface.

JAVASCRIPT:

JavaScript stands as a cornerstone in modern web development, providing dynamic functionality and interactivity to web pages. In the domain of crafting an English dictionary for the web, JavaScript plays a pivotal role in enabling interactive features, enhancing user experience, and facilitating real-time interactions with the dictionary's content. In the development of an English dictionary, JavaScript empowers developers to create a more engaging and user-centric experience. It can be utilized to implement autocomplete functionality in search bars, create interactive quizzes or exercises for language learners, enable audio playback for pronunciation guides, and much more.

CHAPTER 2: OVERVIEW OF PROJECT

This project appears to be a YouTube clone webpage, replicating the layout and functionality of the popular video-sharing platform. The HTML structure defines a navigation bar with a left section containing a menu icon and YouTube logo, a middle section with a search box and voice search icon, and a right section with icons for upload, more options, notifications, and a user profile. The main content includes a video player with details such as video title, tags, views, and publication date. Below the video, there is information about the channel, video description, comments section, and a list of related videos in the right sidebar. Additionally, there is a sidebar on the left with shortcut links and a list of subscribed channels. The CSS stylesheet is likely used for styling, and the JavaScript code toggles a small sidebar and a large container when the menu icon is clicked, providing a responsive design.

2.1. Purpose and Goals:

The project aims to create a responsive YouTube-like web application with a focus on user interface design and functionality. It includes features such as a navigation bar, search functionality, video playback with details, a right sidebar displaying recommended videos, and a left sidebar with shortcut links and a list of subscribed channels. The project's purpose is to provide users with a visually appealing and intuitive platform for browsing and watching videos, emphasizing a seamless user experience reminiscent of the YouTube interface. The JavaScript code toggles the sidebar's visibility to enhance the user's control over the layout.

2.2 Technologies Used:

The project appears to be a basic YouTube clone with HTML, CSS, and JavaScript. Here are the main technologies used:

• HTML: The project uses HTML (Hypertext Markup Language) for structuring the web pages. HTML is essential for creating the layout and content of the web.

• CSS: Cascading Style Sheets (CSS) are employed for styling and layout. The project includes an external CSS file ("style.css") to define the appearance of various elements such as navigation, containers, thumbnails, etc.

• JavaScript: JavaScript is used for dynamic behavior on the client side. In this project, JavaScript is employed to handle the click event on the menu icon, toggling classes to show/hide the sidebar and adjust the container size accordingly.

• Images: Various images are used throughout the project for icons, thumbnails, logos, and user profile pictures.

• Video: The project includes an HTML5 element for embedding and playing videos. It uses an MP4 video file as the source.

• Links: Hyperlinks (tags) are used for navigation within the project. They link to other pages or external resources.

• External Resources: The project references external resources such as fonts, images, and video files.

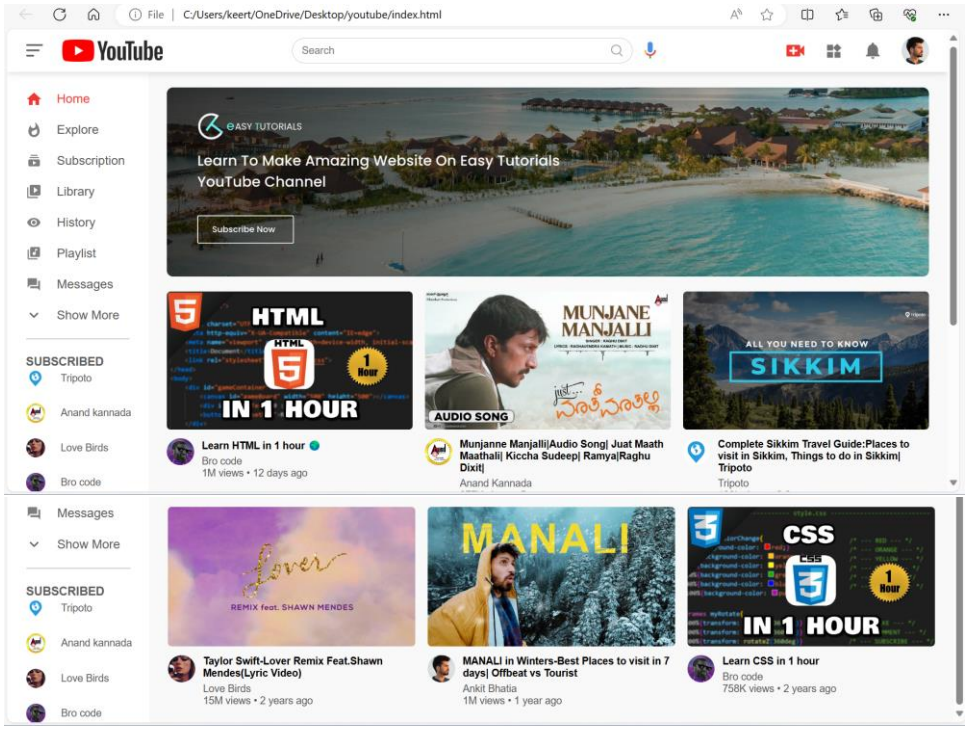
It's worth noting that while the project demonstrates the structure and styling of a basic YouTube-like page, it may lack certain functionalities present in the actual YouTube platform, such as user authentication, video upload capabilities, and a server-side backend for handling data.

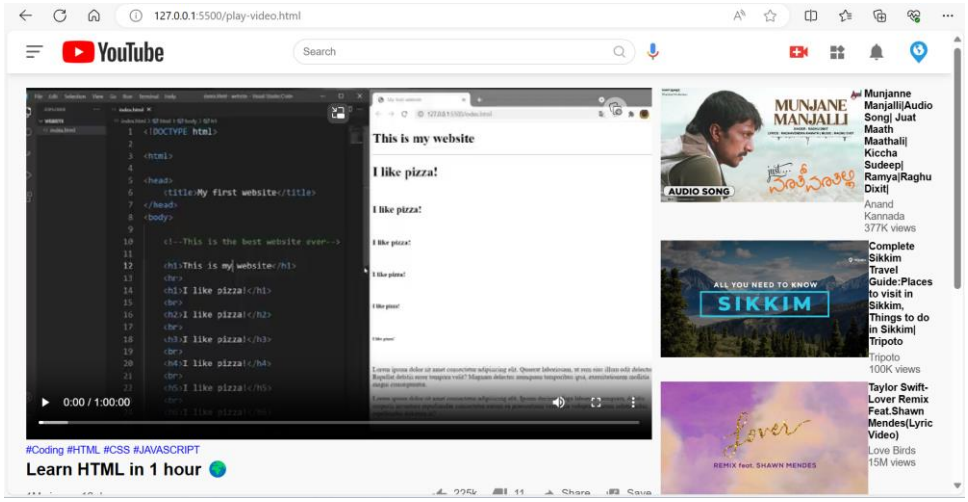
CHAPTER 3: FUNCTIONAL REQUERMENTS

Functional requirements for a YouTube clone can be categorized into various aspects of the application. Below are some key functional requirements:

- **Navigation and Interface:**
  - Navigation should include a menu with links to home, explore, subscriptions, library, history, playlists, and messages.
  - The interface should be user-friendly and responsive for various devices.
- **Video Upload and Management:**
  - Users with content creator roles should be able to upload videos.
  - Video upload should support various formats, with size and duration limitations.
  - Users should be able to edit video details, such as title, description, and tags.
- **Video Playback:**
  - Videos should be playable in a player with controls (play, pause, seek, volume).
  - Support for various video formats and resolutions.
  - Auto-play and related video suggestions based on user preferences.
- **Search and Discovery:**
  - Users should be able to search for videos using keywords.
  - Recommendations and personalized content based on user history and preferences.
  - Trending and popular videos should be displayed.
- **Subscription and Notification:**
  - Users should be able to subscribe to channels.
  - Subscribed users should receive notifications for new uploads.
  - Notifications for comments, likes, and other user interactions.
- **User Interaction:**
  - Users should be able to like, dislike, comment, and share videos.
  - Commenting should support threaded discussions and replies.
  - Users can create and manage playlists.
- **User Profile:**
  - Users should have a profile page with details like profile picture, subscriber count, and recent activity.
  - Users can customize their profile settings.
- **Social Features:**
  - Integration with social media platforms for sharing videos.
  - Users can connect with each other, send messages, and collaborate.

CHAPTER 4: RESULT





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CONCLUSION:

In conclusion, the code appears to be a basic structure for a YouTube clone web page. It incorporates essential elements such as a navigation bar, video player, video list, and sidebar, closely mimicking the design and functionality of the YouTube platform. The use of HTML for structure, CSS for styling, and potential JavaScript (referenced in the code as "script.js") for interactivity indicates a well-rounded web development approach.

However, it's important to note that a complete YouTube clone would involve more complex features such as user authentication, video uploading, comments functionality, and dynamic content loading. The provided code focuses on the visual representation of the page and basic static content. To create a fully functional YouTube clone, additional backend programming, database integration, and server-side scripting would be required.

In practical terms, building a YouTube clone involves a comprehensive understanding of web development technologies, security considerations, and scalability concerns. It's a complex project that requires careful planning and implementation. The provided code is a starting point but would need further development to achieve the full scope of features found on the actual YouTube platform

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