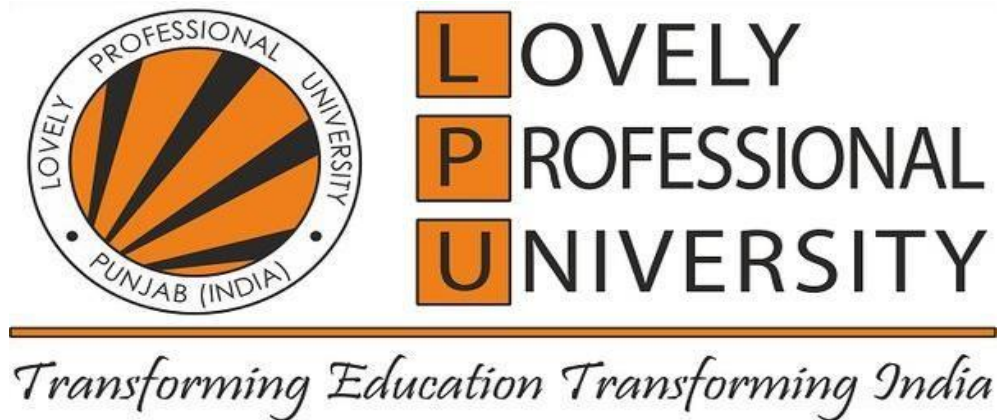**INT405: COMPUTING PRACTICUM-III(IOS APP DEVELOPMENT)**

(Project Semester: August-December 2023)

MOVIE REVIEW SYSTEM

By:

Alapati Vishnu Vardhan

Under the Guidance of

Dr. Ravikant Sahu (16920)

Discipline of CSE/IT

Lovely School of Computer Science & Engineering

CERTIFICATE

This is to certify that the declaration statement made by this group of students is correct to the best of my knowledge and belief. They have completed this Final Project under my guidance and supervision. The present work is the result of their original investigation, effort and study. No part of the work has ever been submitted for any other degree at any University. The Project is fit for the submission and partial fulfillment of the conditions for the award of B.Tech degree in (Computer Science and Engineering) from Lovely Professional University, Phagwara.

Dr. Ravikant Sahu
Assistant Professor
School of Computer Science And Engineering
Lovely Professional University
Phagwara, Punjab.

Date: 06-11-2023

TABLE OF CONTENTS

ACKNOWLEDGEMENT

Undertaking the development of my iOS project, a movie review rating app, has been a rewarding journey, and I owe a debt of gratitude to many individuals who have played a pivotal role in its success.

First and foremost, I want to express my deep appreciation to Dr. DR. Ravikant Sahu Moharana for his continuous support, mentorship, and invaluable guidance throughout the course of this project. His expertise and dedication to teaching have been instrumental in shaping my understanding of iOS development and provided me with the skills necessary to bring this project to fruition. Dr. Bhatia's unwavering commitment to his students has not only fueled my passion for app development but has also set a remarkable example for academic excellence.

I also extend my heartfelt thanks to the entire faculty and teaching staff who have created an enriching learning environment at our institution. Their dedication to fostering our academic growth and providing the necessary resources has been a cornerstone in the successful completion of this project.

To my fellow students and peers, I express my gratitude for the invaluable feedback and support they have provided during this project's development. Their diverse perspectives and collaboration have enriched the project and made it a more comprehensive and polished application.

I would like to acknowledge my friends and family for their unwavering support, understanding, and encouragement throughout this project. Their belief in my abilities has been a constant source of motivation.

This project marks a significant milestone in my journey as a beginner in iOS development, and I am thankful for the collective efforts of everyone involved.

In closing, I want to reiterate my sincere appreciation to Dr. DR. Ravikant Sahu Moharanafor his mentorship and the indelible mark he has left on my academic and professional development.

Thank you to all who have been a part of this project's success.

ABSTRACT

Mobile applications have become an integral part of modern life, with millions of users relying on them for various purposes daily. This term paper explores the process of developing a mobile application for the iOS platform using SwiftUI and Xcode, two cutting-edge tools in the field of app development. The project showcases the iterative journey from concept to a fully functional application, highlighting the challenges, design considerations, and coding techniques that were employed throughout the development process.

The paper begins by introducing SwiftUI and Xcode, explaining their significance and potential for rapid application development. It then delves into the initial stages of the project, including the identification of the target audience, market research, and the establishment of project goals. The development phases are detailed, providing insight into the creation of the user interface, navigation structures, data handling, and integration of third-party libraries.

Furthermore, the project's design principles are examined, with a focus on user experience, visual aesthetics, and accessibility. The paper also discusses the strategies employed to ensure the application's responsiveness and adaptability across various iOS devices.

A crucial aspect of the development process covered in this paper is debugging and testing, including the use of the Xcode debugger and the

Simulator to identify and resolve issues. The project's integration with core iOS features, such as Core Data and SwiftUI's declarative syntax, is also explored in-depth.

INTRODUCTION

In today's digital age, mobile applications have revolutionized the way we interact with the world around us. They have become an integral part of our daily lives, offering endless possibilities and enriching experiences. This project represents a significant milestone in my journey as a novice iOS developer and stands as a testament to the boundless potential that lies within the realm of mobile app development.

The DC Movie Review and Rating App for iOS is a project that blends creativity, innovation, and a profound passion for cinema. It is a dynamic and captivating application designed to cater to the interests of movie enthusiasts, particularly those who hold a deep affection for the DC Extended Universe (DCEU) films. This app is not just a static platform; it is an interactive portal to the world of cinematic art.

The primary goal of this application is to provide a user-friendly and immersive environment where users can explore and engage with DCEU movies in a way that transcends the traditional movie-watching experience. With the DC Movie Review and Rating App, users can:

Discover a Wealth of Information: Dive into a treasure trove of data about DCEU movies. From trailers and ratings to engaging synopses, this app offers a one-stop destination for fans.
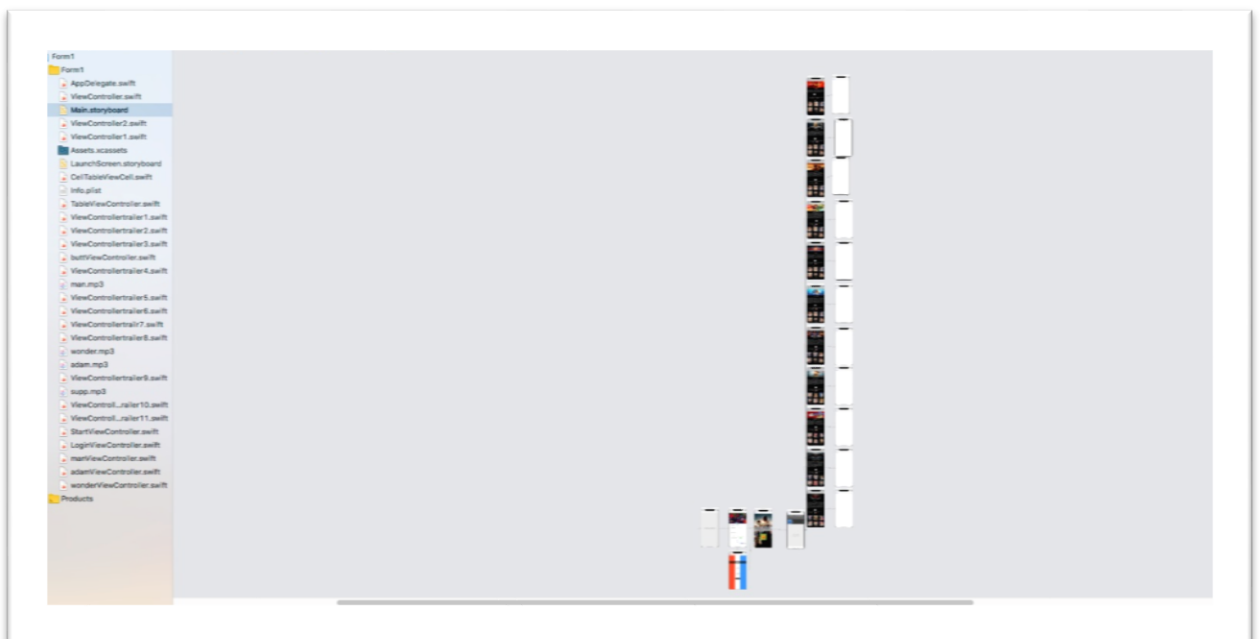
Personalization: The app respects user preferences, offering a Dark Mode for those who favour a subdued interface, making the user experience both flexible and engaging.

Enhanced Entertainment: Immerse yourself in the world of DC movies with a background music feature that sets the mood for your cinematic journey.

Comprehensive Movie Database: The app hosts an extensive library of DCEU films, presented in an interactive table format that makes movie discovery an enjoyable and informative experience.

Individualized Movie Pages: Each movie is featured with an array of information, including stunning images, comprehensive synopses, the cast, and ratings from IMDB and Rotten Tomatoes, all of which enrich the user's understanding and appreciation of the films.

Seamless Trailer Integration: The integration of YouTube trailers for selected movies ensures that users can seamlessly transition from reading about a film to watching its captivating trailer.

This project report serves as an in-depth exploration of the DC Movie Review and Rating App, delving into its development, the technologies used, the design choices made, and the thought process behind them. It also stands as a testament to the collaborative efforts of peers, friends, and family who have contributed to this journey in myriad ways.
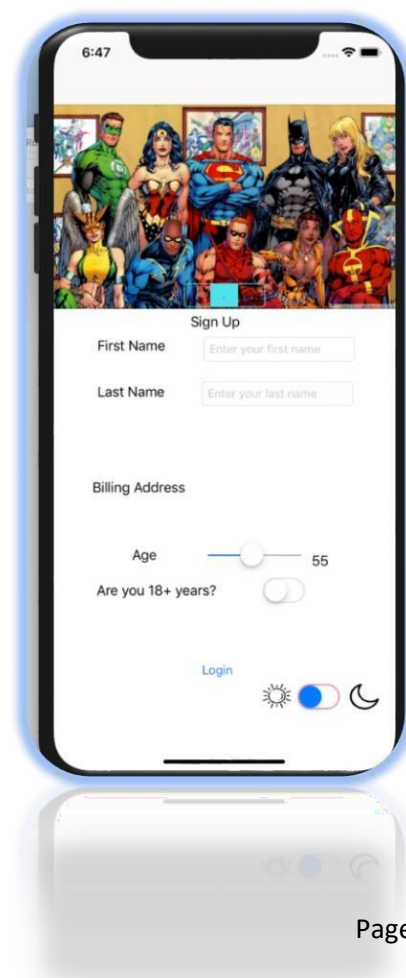
As you navigate through the following sections, you will gain a comprehensive understanding of the app's development and its

significance in the world of iOS application development. It is more than just lines of code; it is a reflection of passion, creativity, and the invaluable lessons learned in the realm of iOS development.

Embark on this journey with us as we explore the immersive and dynamic cinematic world, now accessible with a simple tap on your device's screen.
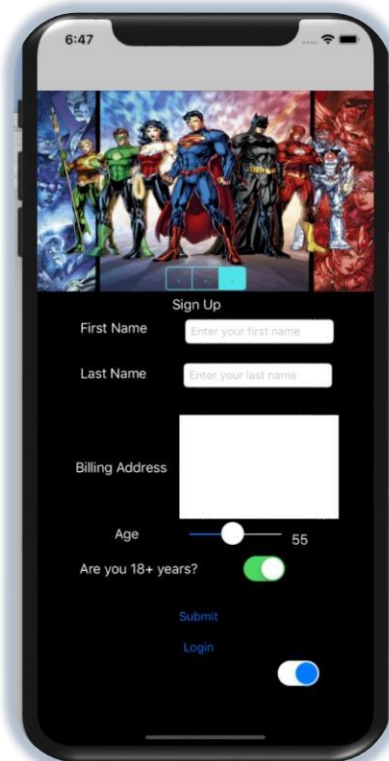
View Controller One: Sign-Up and Preferences

View Controller One serves as the gateway to the DC Movie Review and Rating App, offering users the first glimpse of the application's captivating interface and an opportunity to personalize their experience. This view controller encapsulates a multifaceted set of features and functionalities

designed to enhance user engagement and tailor the app to individual preferences.

User Registration

The first and foremost function of View Controller One is to facilitate user registration. It provides an intuitive and secure environment where users can create an account. The registration process consists of two key elements:

User Information

Name: Users are prompted to enter their name, which personalizes their interaction with the app.

Password: Users can set a password of their choice to protect their account.

Age Preference

This view controller introduces a dynamic age preference feature. A segmented control allows users to specify their age group, tailoring the content and movie recommendations accordingly. Additionally, a slider enables users to fine-tune their age for more precise content suggestions.

Dark Mode

User preferences extend to the app's appearance as well. A switch offers users the option to enable or disable Dark Mode, a visual theme that optimizes the interface for low-light environments. This feature contributes to user comfort and accessibility.

Submission Control

Another essential feature of View Controller One is the submission control. A switch provides users with the ability to control when they submit their information. If the switch is turned off, the "Submit" button remains hidden, ensuring users have the opportunity to review their input before proceeding.

Login Button

View Controller One also includes a "Login" button, which, when activated, navigates users to View Controller Two, where they can log in using their registered credentials. The login functionality is an essential aspect of this view controller, ensuring that access to the app is reserved for registered users only.

Key Takeaways

User Registration: Personalization begins with name and password entry.

Age Preference: A dynamic age preference system caters to different user groups.

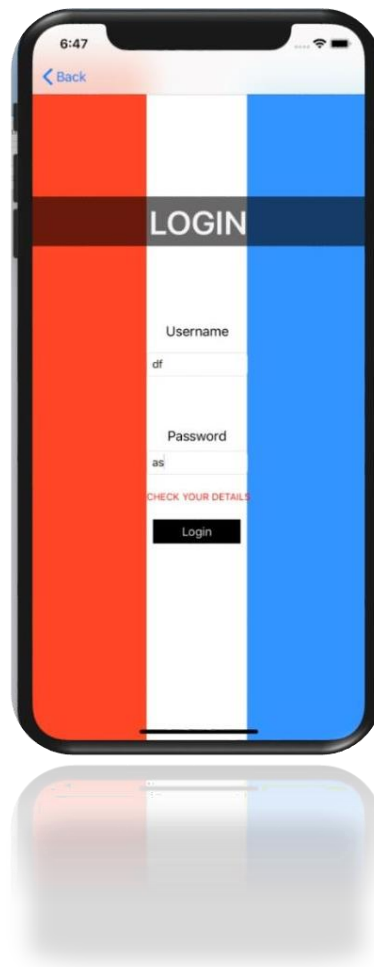**Dark Mode:** A visual theme switch enhances user comfort.

Submission Control: A switch allows users to control when they submit their registration information.

Login Button: Allows registered users to proceed to the next stage of the app.

View Controller One is not just an entry point; it is a vital component in creating a personalized and engaging experience for users of the DC Movie Review and Rating App. Its user-centric approach and innovative features are foundational elements of the application, setting the stage for a dynamic and enjoyable journey through the world of DCEU movies.

Second View Controller: Login Page

The Second View Controller, known as the "Login Page," is a crucial element of the DC Movie Review and Rating App. This view controller serves as the entry point for registered users, allowing them to access the

app's rich content and features. With a focus on security and user-friendly interactions, the Login Page provides a seamless and secure path for users to log in to their accounts.

User Authentication

One of the primary functions of the Login Page is user authentication. Here, users are required to enter their registered credentials, which typically consist of their name and password. The authentication process serves to verify the user's identity, ensuring that only authorized individuals gain access to the app's features and content.
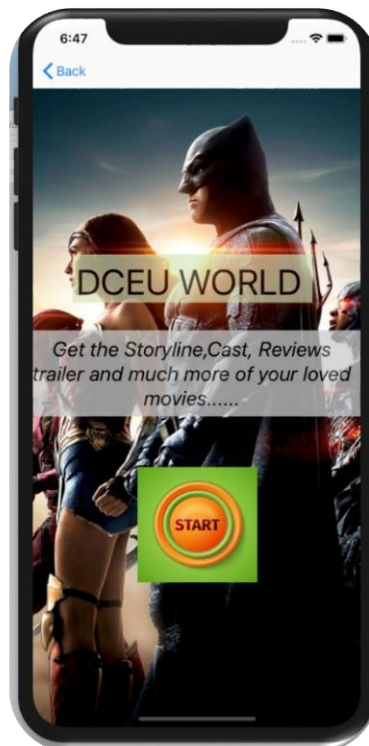
Error Handling

To enhance the user experience, the Login Page includes error handling mechanisms. If a user enters incorrect login details, the page provides informative error messages, such as "Enter correct details," guiding the user toward the correct input. This feature minimizes user frustration and ensures a smooth login process.

Transition to Start Page

Upon successful login, users are seamlessly transitioned to the Third View Controller, known as the "Start Page." This transition is executed using the performSegue method, allowing users to explore the app's extensive features, including accessing the DCEU movie database and individual movie pages.

Third View Controller: Start Page

The Third View Controller, aptly titled the "Start Page," stands as a crucial juncture in the DC Movie Review and Rating App, offering users a gateway to a multifaceted cinematic journey. This view controller is designed to be a user-friendly and engaging hub, providing seamless access to the application's rich and diverse features.
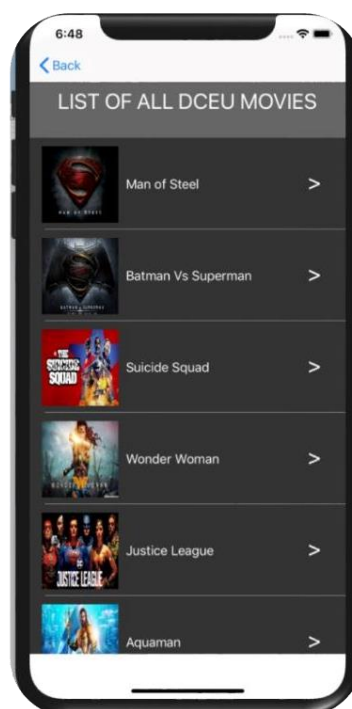

The most prominent feature of the Start Page is its role as the entry point to the app's expansive movie database. Users can explore a comprehensive list of DCEU movies, presented in a visually appealing format. The database is thoughtfully designed to facilitate easy scrolling, and it dynamically loads additional movie entries as the user scrolls down, ensuring a smooth and uninterrupted browsing experience.

Further enhancing the user's interaction with the app, the Start Page acts as a launchpad to individual movie pages, which are hosted in the "Fourth View Controller." These pages offer an in-depth exploration of each movie, showcasing images, synopses, cast details, and ratings. Users can also watch movie trailers via a seamlessly integrated YouTube player, adding to the immersive experience.

In summary, the Third View Controller, the Start Page, plays a pivotal role in providing users with access to the app's extensive features, including the movie database and individual movie pages. It contributes to an immersive experience by seamlessly integrating background music and enhancing navigation, allowing users to dive headfirst into the world of DC Extended Universe films.

Fourth View Controller: Movie List Table

The Fourth View Controller, which houses the "Movie List Table," plays a central role in the DC Movie Review and Rating App, serving as a user-friendly gateway to the rich world of DC Extended Universe (DCEU)

movies. This dynamic and interactive table view is designed to provide users with a comprehensive, visually engaging, and organized platform for exploring a diverse array of cinematic options.

Movie Database Presentation

At the core of the Movie List Table is the presentation of the DCEU movie database. The table view is thoughtfully crafted to display a wide range of DCEU films, presenting users with essential information for each movie. This includes the movie's title, a captivating image, and key details that intrigue users to delve further into the world of the DCEU.

Dynamic Loading

To ensure a smooth and efficient browsing experience, the Movie List Table incorporates dynamic loading capabilities. As users scroll through the list of movies, additional entries are loaded automatically, eliminating the need for manual navigation to explore the extensive catalog of films. This feature not only provides a convenient user experience but also showcases a user-centric approach to design.

Selection for Detailed Information

The table view serves as a launchpad to explore detailed information about specific movies. Users can select a movie entry from the table, and this action seamlessly transitions them to the "Movie Details" page, which resides in the Fifth View Controller. Here, users can find an image, a captivating synopsis, ratings from sources like IMDb and Rotten Tomatoes, as well as a comprehensive cast list. The inclusion of a "Play" button allows users to watch the movie's trailer, adding an interactive and immersive dimension to the exploration.
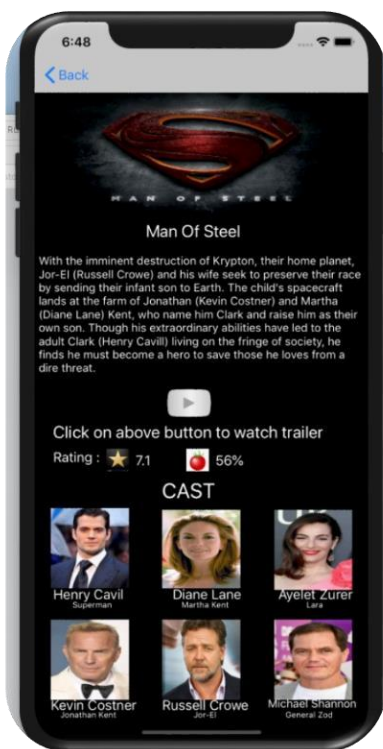
Easy Navigation

To maintain a cohesive and user-friendly experience, the Movie List Table offers intuitive controls and navigation options. These controls ensure that users can effortlessly return to the Start Page or other sections of the app, facilitating a seamless journey through the application.

The Fourth View Controller, the Movie List Table, stands as a pivotal element in the DC Movie Review and Rating App, providing users with an

accessible and engaging platform for exploring the vast universe of DCEU movies. Its dynamic loading capabilities, seamless transitions to detailed movie information, and user-friendly navigation options collectively enhance the overall user experience and exemplify the app's commitment to an immersive cinematic journey.

Fifth View Controller: Movie Details

The Fifth View Controller, commonly referred to as "Movie Details," serves as a dedicated and information-rich platform within the DC Movie Review and Rating App. This view controller offers users in-depth insights into a selected DC Extended Universe (DCEU) movie, creating an immersive and captivating cinematic experience.

Comprehensive Movie Information

The core purpose of the Movie Details page is to provide users with a wealth of information about the specific DCEU movie they have selected. This comprehensive information includes:

Movie Image: A visually striking image that represents the selected movie, setting the visual tone for the user's exploration.

Synopsis: A detailed and engaging synopsis of the movie's storyline, offering users a quick understanding of the film's plot and theme.

Ratings: Critical and audience ratings from well-known sources such as IMDb and Rotten Tomatoes, providing insights into the movie's acclaim and popularity.

Cast and Crew: A list of actors, directors, writers, and other key contributors to the film, helping users recognize and appreciate the talent behind the scenes.

Immersive Background

To create an immersive cinematic atmosphere, the Movie Details page plays background music. This ambient soundtrack complements the user's exploration, enhancing the overall cinematic experience and drawing them deeper into the world of the selected DCEU movie.
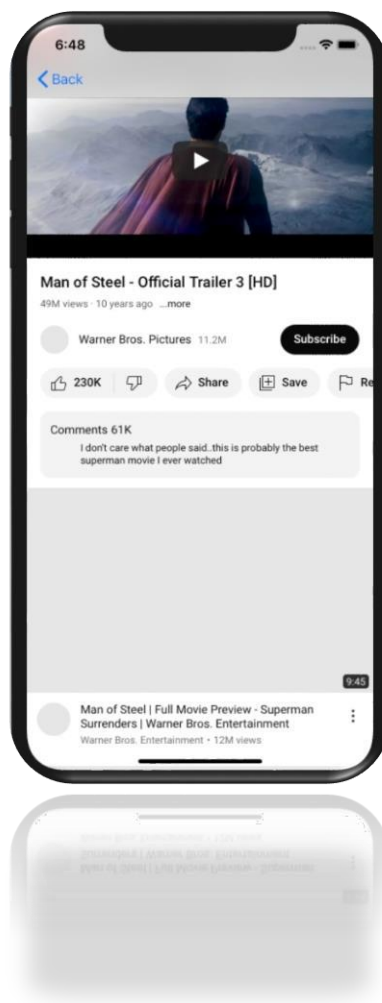
User-Friendly Navigation

The Movie Details page provides intuitive navigation controls, enabling users to return to the Movie List Table or other sections of the app seamlessly. This thoughtful design ensures a user-friendly and cohesive experience throughout their cinematic journey.

Seamless Trailer Integration

One of the standout features of the Movie Details page is its seamless integration of movie trailers. Users can initiate the playback of a selected

movie's trailer by clicking the "Play" button, which utilizes a web-based YouTube player. This feature not only allows users to get a preview of the movie's visual and auditory experience but also adds an interactive dimension to their exploration.

The Fifth View Controller, Movie Details, is a pivotal component of the DC Movie Review and Rating App, offering users a platform to explore and appreciate the selected DCEU movie in depth. Its combination of rich movie information, seamless trailer integration, immersive background music, and user-friendly navigation ensures an engaging and captivating cinematic journey for users.

CONCLUSION

In this comprehensive exploration of the DC Movie Review and Rating App, it becomes evident that the journey of its creation is more than just lines of code; it's a testament to the fusion of technology, creativity, and a

deep passion for cinematic storytelling. From the initial user registration, login, and preferences on the First View Controller to the immersive experience of the Start Page, complete with an extensive DCEU movie database and individual movie details, the app unfolds as a dynamic and engaging platform.

The app's progression mirrors a cinematic narrative itself, with each View Controller contributing to the overall plot, introducing new twists and revelations in the form of features and functionalities. As users embark on their cinematic journey, they can seamlessly explore DCEU movies with comprehensive information and trailers, all set against an immersive backdrop of background music that elevates the experience.

This project is a testament to the potential of mobile application development. It signifies a commitment to delivering a user-friendly, engaging, and informative platform for movie enthusiasts, and it sets the stage for further creative exploration and innovation in the world of iOS development. The collaboration and guidance of Dr. DR. Ravikant Sahu have played a pivotal role in shaping the project's success, underscoring the importance of mentorship in the learning journey.

As we conclude this report, it is clear that the DC Movie Review and Rating App is not just an app; it's an exciting journey, a bridge between technology and art, and a gateway to the captivating world of DCEU movies. This project is a stepping stone in the ongoing pursuit of knowledge, creativity, and excellence in the realm of iOS development, and it represents the endless possibilities that await in this dynamic field.0

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