**Group Project Documentation**

**Project Title:** COS221 Practical Assignment 5

**Group Members:**

1. Sipho (SE) Sehlapelo(u2353521)
2. Owethu (OPS) Dlamini (u23546702)
3. David (DK) Musa-Aisien (u23681978)
4. Kelsey (KD) Hamann (u23547627)
5. Ndamulelo (N) Vele (u23554607)

**Date:** 11 May 2024

**1. Introduction:** This document serves as a comprehensive overview of the tasks, progress, and upcoming objectives of each member involved in the project. It outlines the roles and responsibilities undertaken by each member, provides updates on their progress thus far, and delineates the next steps to be taken collectively. By documenting individual contributions and project milestones, this document aims to ensure clarity, accountability, and effective coordination within the group.

Top of Form

**2. Progress Summary:** Document the progress made since the last update. Include any milestones achieved, challenges encountered, and solutions implemented.

**3. Individual Contributions:**

* Sipho (SE) Sehlapelo(u2353521):
  + Sipho and Kesey are responsible for developing the backend infrastructure of the application. This includes:
  + Sipho and Kesey will collaborate on designing the database schema, ensuring efficient data storage and retrieval.
  + They will implement appropriate database management systems (DBMS) and establish protocols for data integrity and security.
  + Sipho and Kesey will work together to develop server-side scripts and applications using suitable programming languages and frameworks.
  + They will ensure seamless communication between the frontend and backend components of the application.
  + Sipho and Kesey will design and implement APIs (Application Programming Interfaces) to facilitate communication between different modules of the application.
  + They will define API endpoints, request-response formats, and authentication mechanisms as per project requirements.
* Owethu (OPS) Dlamini (u23546702):
  + Vele and Owethu are responsible for developing the frontend interface of the application.
  + They will collaborate on designing the user interface (UI) and user experience (UX) elements.
  + Implement responsive design principles to ensure compatibility across various devices and screen sizes.
  + Vele and Owethu will work together to write client-side scripts using HTML, CSS, and JavaScript.
  + They will utilize front-end frameworks and libraries such as React, Angular, or Vue.js as per project requirements.
  + Vele and Owethu will focus on creating visually appealing and intuitive interfaces.
  + They will consider user feedback and usability testing to refine the design and enhance user satisfaction.
* David (DK) Musa-Aisien (u23681978):
  + David is responsible for managing the databases and SQL aspects of the project.
  + He will oversee database design, optimization, and administration.
  + Implement SQL queries and ensure database performance and reliability.
  + Collaborate with the backend team to integrate database solutions seamlessly into the application architecture.
* Kelsey (KD) Hamann (u23547627):
  + Sipho and Kesey are responsible for developing the backend infrastructure of the application. This includes:
  + Sipho and Kesey will collaborate on designing the database schema, ensuring efficient data storage and retrieval.
  + They will implement appropriate database management systems (DBMS) and establish protocols for data integrity and security.
  + Sipho and Kesey will work together to develop server-side scripts and applications using suitable programming languages and frameworks.
  + They will ensure seamless communication between the frontend and backend components of the application.
  + Sipho and Kesey will design and implement APIs (Application Programming Interfaces) to facilitate communication between different modules of the application.
  + They will define API endpoints, request-response formats, and authentication mechanisms as per project requirements.
* Ndamulelo (N) Vele (u23554607):
  + Vele and Owethu are responsible for developing the frontend interface of the application.
  + They will collaborate on designing the user interface (UI) and user experience (UX) elements.
  + Implement responsive design principles to ensure compatibility across various devices and screen sizes.
  + Vele and Owethu will work together to write client-side scripts using HTML, CSS, and JavaScript.
  + They will utilize front-end frameworks and libraries such as React, Angular, or Vue.js as per project requirements.
  + Vele and Owethu will focus on creating visually appealing and intuitive interfaces.
  + They will consider user feedback and usability testing to refine the design and enhance user satisfaction.

**4. Next Steps:** Integrate all our tasks using Github

**5. Challenges and Concerns:** Identify any obstacles hindering progress. Discuss potential solutions or strategies to address these challenges effectively.

**6. Meetings and Communication:** We met on the 11 May 2024 to discuss the allocation of each group members duties and tasks. We noted down each persons tasks and duties. The meeting took from 15-20 minutes and we concluded and left

**7. Timeline:** Provide a timeline or schedule outlining project milestones and deadlines. Update as necessary to reflect any changes or adjustments.

**8. Conclusion:** Summarize key points discussed in the document. Reiterate the importance of collaboration, communication, and accountability within the group.

# Research

**Research Overview: Enhancing User Experience in Streaming Platforms**

Streaming entertainment has fundamentally transformed the way people consume media globally, and Hoop aims to elevate this experience by offering a curated collection of movies and TV series to viewers worldwide. This research outlines strategies for developing a user-friendly streaming application that not only showcases existing content but also enriches it with additional data and social features, enhancing user engagement and satisfaction.

**Utilizing IMDb and Netflix Datasets:** Hoop has access to IMDb's non-commercial datasets, providing comprehensive information about movies and TV shows, including titles, genres, ratings, cast, crew, and user reviews. Additionally, data from Netflix offers insights into titles available on the platform, including descriptions, release years, runtime, genres, and ratings from multiple sources such as IMDb and TMDB.

**Key Features and Functionalities:**

1. **Content Discovery:** Users can easily explore and filter movies and TV series based on genres, ratings, release dates, and more, utilizing the extensive dataset from IMDb and Netflix.
2. **Detailed Title Information:** Each title page will provide comprehensive details, including plot summaries, cast, crew, runtime, genres, ratings, and reviews aggregated from IMDb and other sources.
3. **Social Features:** Users can create profiles, rate and review titles, and share their favorite content with friends, fostering a sense of community and engagement within the platform.
4. **Integration of External APIs:** Hoop can leverage external APIs like OMDb to further enrich title information with additional data on actors, directors, producers, studios, and more.

**Enhancing User Engagement:**

1. **Personalized Recommendations:** Implementing algorithms to analyze user preferences and viewing history, Hoop can offer personalized recommendations tailored to individual tastes.
2. **Interactive User Interface:** Designing an intuitive and visually appealing interface that facilitates seamless navigation, content discovery, and social interactions, enhancing user experience.
3. **Real-Time Updates:** Regularly refreshing the dataset from IMDb and Netflix ensures that users have access to the latest content, ratings, and reviews, keeping the platform dynamic and engaging.

**Conclusion:** By leveraging IMDb and Netflix datasets, integrating external APIs, and incorporating social features, Hoop can develop a robust streaming platform that not only offers a vast array of content but also enhances user experience through personalized recommendations, detailed information, and social interactions. This approach aims to captivate users, foster community engagement, and establish Hoop as a leading destination for streaming entertainment globally.