MUSIC HUB

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OBJECTIVE

Develop an application that facilitates connections among Pakistani musicians based on their interests. We intend to provide valuable insights into the Pakistani music industry and enable musicians to discover potential collaborators, expand their networks, and Increase creativity.

DATASET

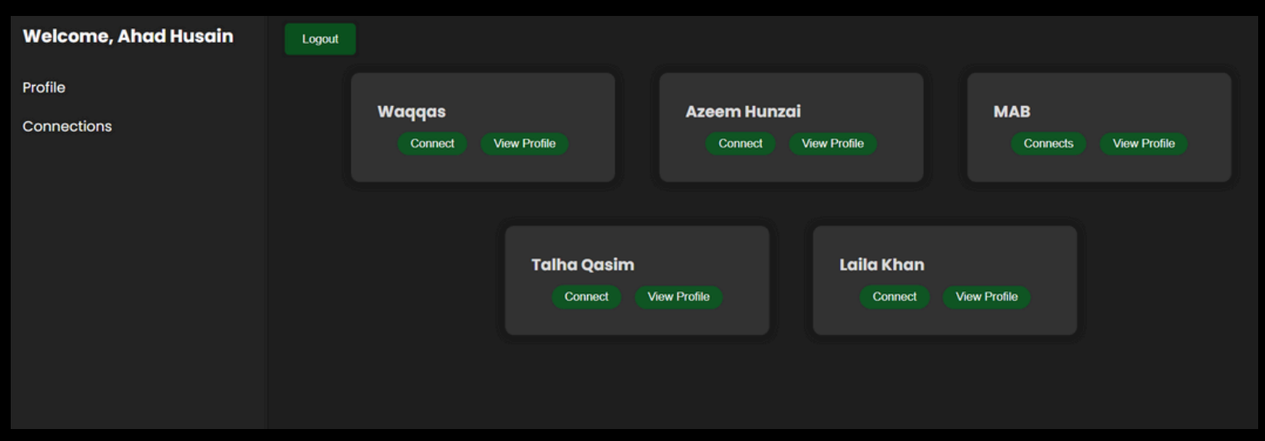
We utilized Spotify's API to gather comprehensive data about Pakistani musicians, including their profiles, genres, tracks, and popularity metrics into a CSV file format. The data served as the foundation for our graph database.

METHODOLOGY

- utilize Spotify's API to gather comprehensive data about Pakistani musicians.
- clean data and load into neo4j
- run graph analytics queries which include finding the Genre Preference, Average Popularity, average Track Duration, closeness centrality, community detection using Louvain modularity, and Latest Album release dates.
- Build a link prediction model using GDS library
- Train the model using Random Forest and then predict the recommended artists.
- Integrate the results in our Music Hub app

RESULTS

Leveraging the GDS library and Random Forest algorithm, we developed a robust link prediction model to recommend potential collaborations between Pakistani musicians. By analyzing the network topology and different analytics, the model accurately predicts synergistic partnerships, fostering creativity and innovation within the music industry.



CONCLUSION

WE SUCCESSFULLY CREATED A PLATFORM THAT CONNECTS PAKISTANI MUSICIANS BASED ON THEIR INTERESTS AND PREFERENCES. BY APPLYING GRAPH ANALYSIS TECHNIQUES AND MACHINE LEARNING ALGORITHMS, WE AIMED TO EMPOWER MUSICIANS TO DISCOVER NEW OPPORTUNITIES, ENHANCE THEIR CREATIVITY, AND CONTRIBUTE TO THE GROWTH OF THE PAKISTANI MUSIC INDUSTRY.