Gisma University
of Applied Sciences

Assessment Submission Form

Student Number (If this is group work, please include the student numbers of all group participants)	GH1023448
Assessment Title	Individual Final Project
Module Code	B107R
Module Title	B107 Data Driven Strategic Decision Making
Module Tutor	Mahmoudreza Babaei
Date Submitted	11.07.2024

Declaration of Authorship

I declare that all material in this assessment is my own work except where there is clear acknowledgement and appropriate reference to the work of others.

I fully understand that the unacknowledged inclusion of another person's writings or ideas or works in this work may be considered plagiarism and that, should a formal investigation process confirms the allegation, I would be subject to the penalties associated with plagiarism, as per GISMA Business School, University of Applied Sciences' regulations for academic misconduct.

Signed *Stefan-Bogdan Zbyrko* Date 11.07.2024

Github link
https://github.com/LvivGuyOrSmth/DDSMRetake.git

Dataset Description

This dataset presents a comprehensive compilation of the most streamed songs on Spotify in 2024. It provides extensive insights into each track's attributes, popularity, and presence on various music platforms, offering a valuable resource for music analysts, enthusiasts, and industry professionals. The dataset includes information such as track name, artist, release date, ISRC, streaming statistics, and presence on platforms like YouTube, TikTok, and more.

Nelgiriya, A. (2024). *Most Streamed Spotify Songs 2024*. Available at: https://www.kaggle.com/datasets/nelgiriyewithana/most-streamed-spotify-songs-2024 (Accessed: 01 July 2024).

Research Question

To what extent is the track score of a song influenced by the total number of Spotify streams?

Observation

Erdős-Rényi (ER) Network:

- The random connections in the ER network lead to a slower and less cohesive spread of influence. This suggests that the track score of a song is moderately influenced by the total number of Spotify streams, as the influence spread is more evenly distributed without distinct hubs or clusters driving the process.

Watts-Strogatz (WS) Network:

- The high clustering in the WS network results in a faster and more localized spread of influence. This implies that the track score of a song is more significantly influenced by the total number of Spotify streams, especially within tightly-knit listener communities or clusters that quickly adopt and propagate the song's popularity.

Barabási-Albert (BA) Network:

- The presence of highly connected hubs in the BA network leads to a rapid and widespread influence spread. This indicates that the track score of a song is highly influenced by the total number of Spotify streams, as influential hubs (e.g., popular playlists or influencers) play a critical role in amplifying the song's reach and score.

Conclusion

The track score of a song on Spotify is influenced by the total number of streams tp varying extents, depending on the network structure:

- **Moderate Influence** in random, evenly distributed connections (ER network).
- **Significant Influence** within clustered communities (WS network).
- **High Influence** driven by key influential hubs (BA network).

In conclusion, while the track score is always influenced by the number of streams, the extent of this influence is amplified in networks with higher clustering and prominent hubs