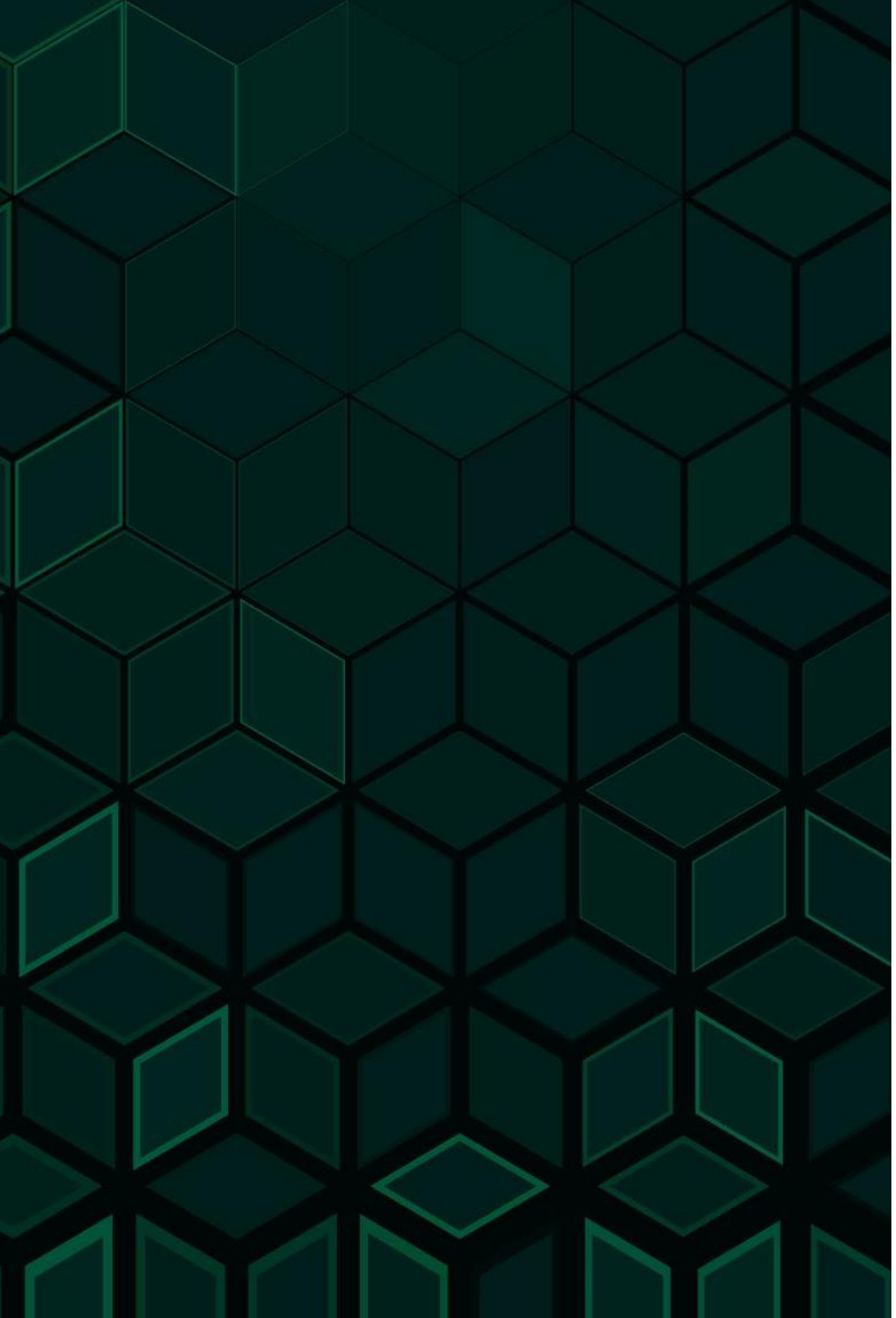

CS 210
PROJECT REPORT

COMPARISON OF MY SPOTIFY 2020 AND 2023 DATA

About My Project

Motivation

- I wanted to see the alteration of my taste in music through 2020 to 2023 years. In addition to this I wanted to apply the techniques that we learnt throughout the CS 210 semester.I had 5 hypothesis that motivated me to do this project:
  - Through 2020 to 2023 my music genre did not change and stayed same and stayed as Rock (Turkish).
  - Through 2020 to 2023 the tempo (BPM) of the musics that I listened increased.
  - Duman (Turkish rock group) was always in my top 5 artists.
  - The average Energy of the songs that I listened through 2020 to 2023 was increased.
  - Correlation values between BPM and Energy were need to be very strong for both 2020 and 2023 years.

Data Sources

- **Data Source**
  - I used my spotify datas. I used my 2020 most listened (top 100) songs playlist and my 2023 most listened (top 100) songs playlist). I created two seperated csv files that show my 2020 most listened (top 100) songs playlist and my 2023 most listened (top 100) songs playlist) which you can see in my CS-210-Sotify-Project repository. I imported this files by using chosic.
  - During the Data Source process I analyzed various parameters to obtain detailed information and I learnt specific things about my taste in music. I got all this things by applpying the following statements which are belong to EDA:

1) Preprocessing → I arranged my Spotify datas and made corrections on my csv file. I extracted the properties like BPM, Energy, Artist.

2) Artists→ I printed the artists that I most listened and I extracted the percentages of artists that I listened.

3) Genres → I found the genres that I listened most and compared my 2020 and 2023 genre datas.

4)BPM → BPM of the songs was very important to understand the tempos of the songs. Therefore I printed a average BPM of my playlists seperately.

5) Energy → I was very curious about wheter there is a correlation between BPM and Energy. Therefore I used the data of my Spotify playlists Energy datas to see the correlation level of BPM and Energy.

Findings

1)Through 2020 to 2023, my music genre changed Turkish Rock to Turkish Drill. However, as an average genre, I mostly listened to Turkish rock.

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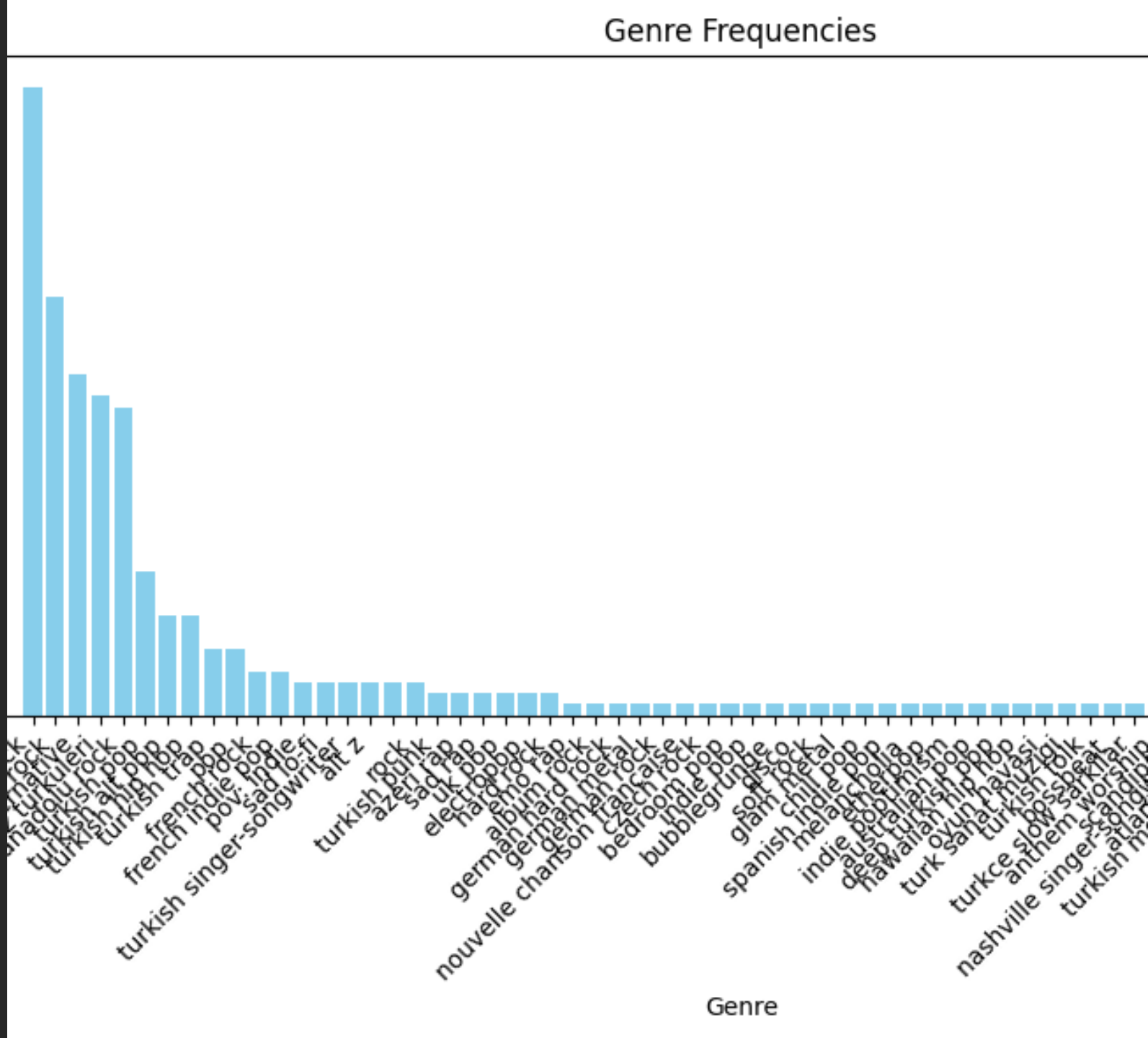
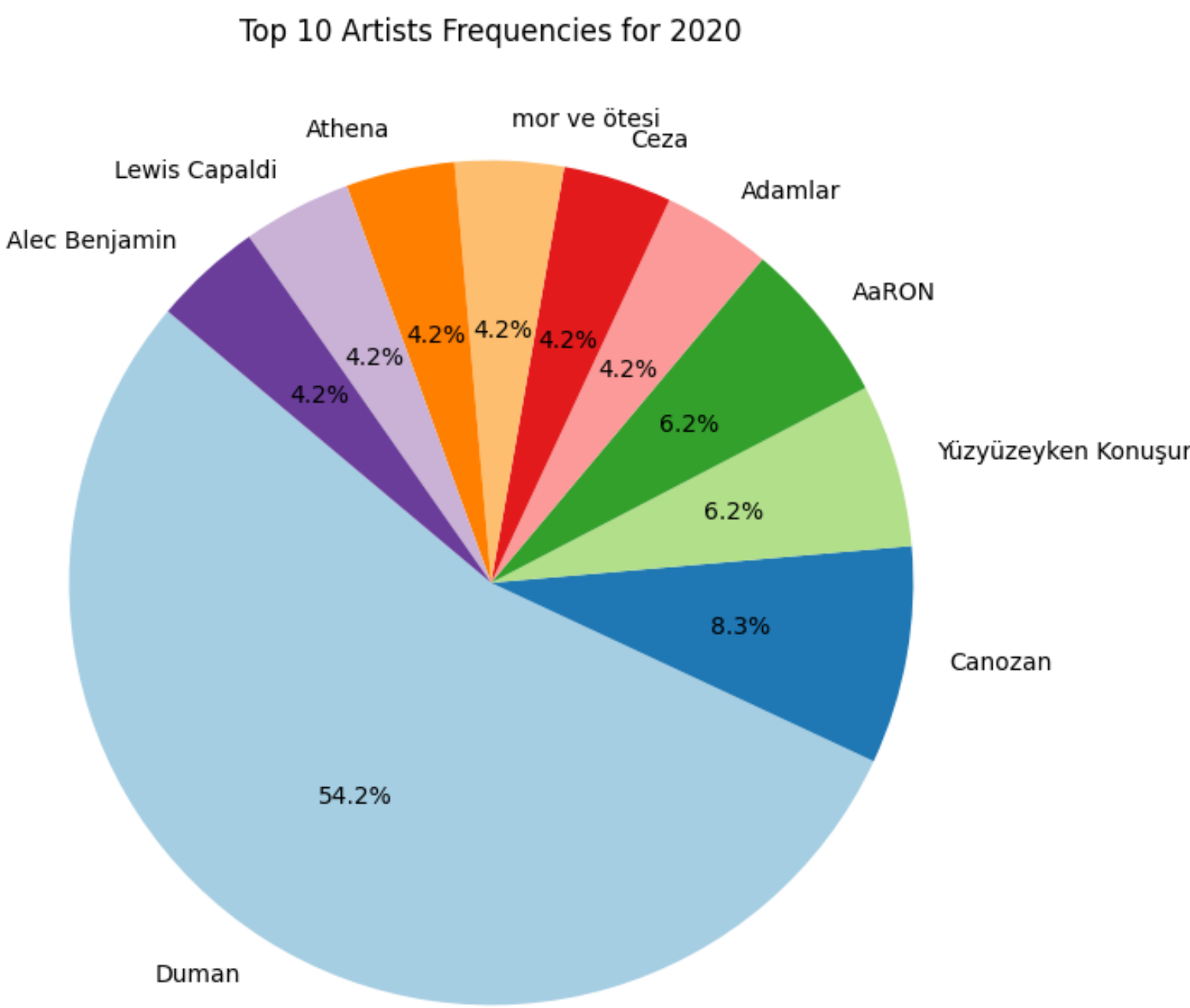


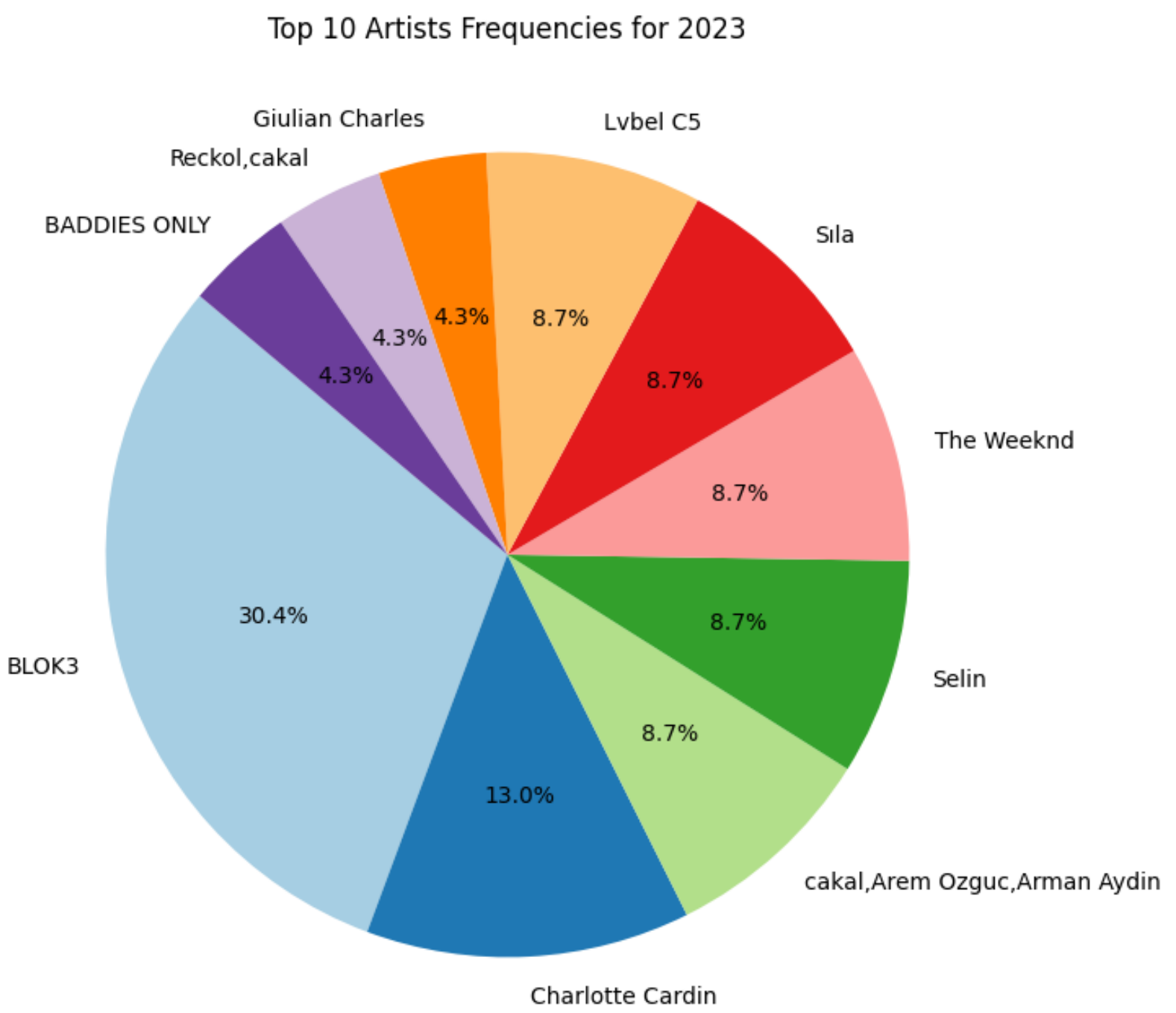
Findings

2) Duman (Turkish rock group) was not in my top 5 artists lists in 2023.
My 2020 the most listened artist was Duman however my 2023 most listened artist was BLOK3 (Turkish drill artist).



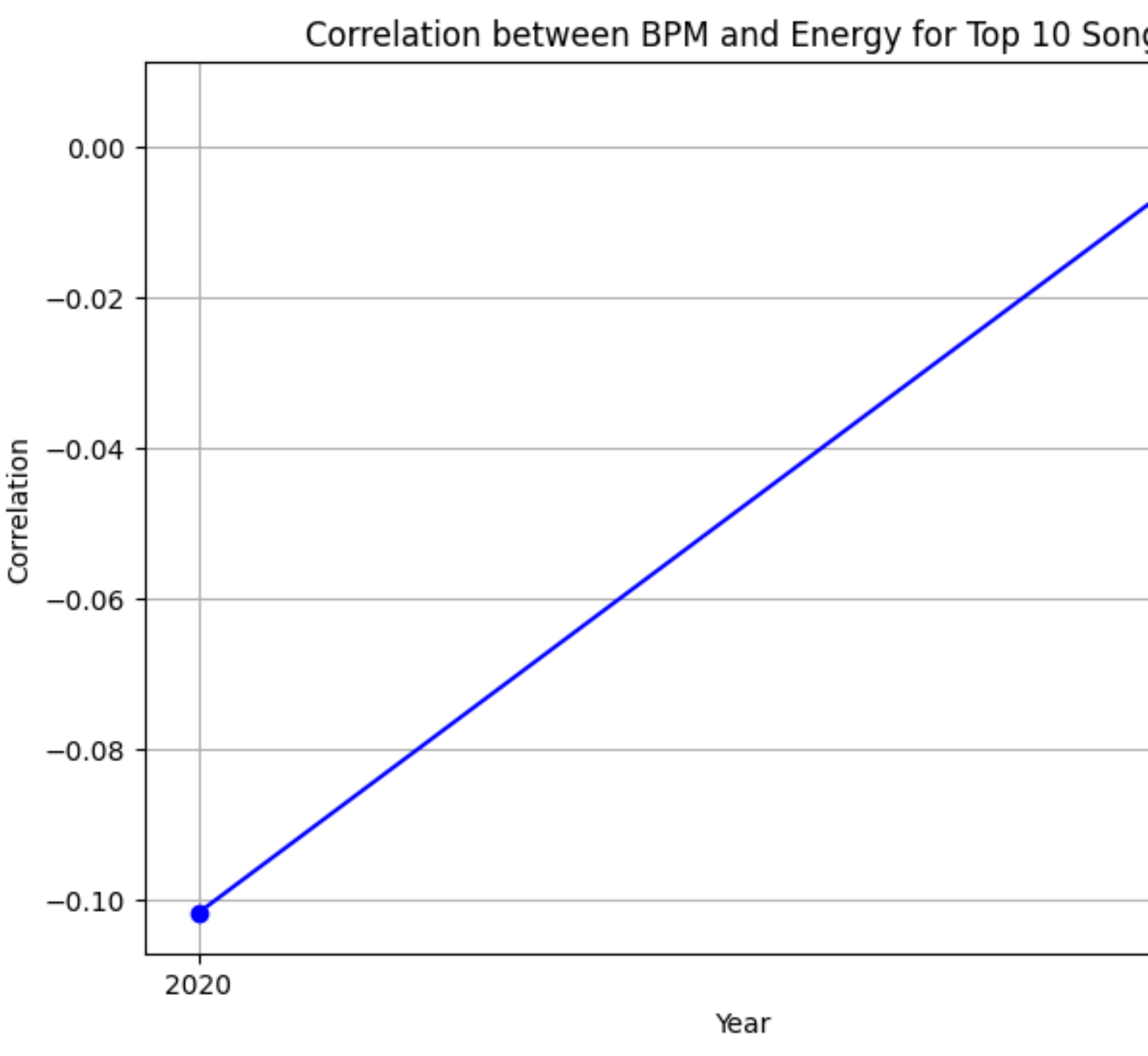
Findings

2) Duman (Turkish rock group) was not in my top 5 artists lists in 2023. My 2020 the most listened artist was Duman however my 2023 most listened



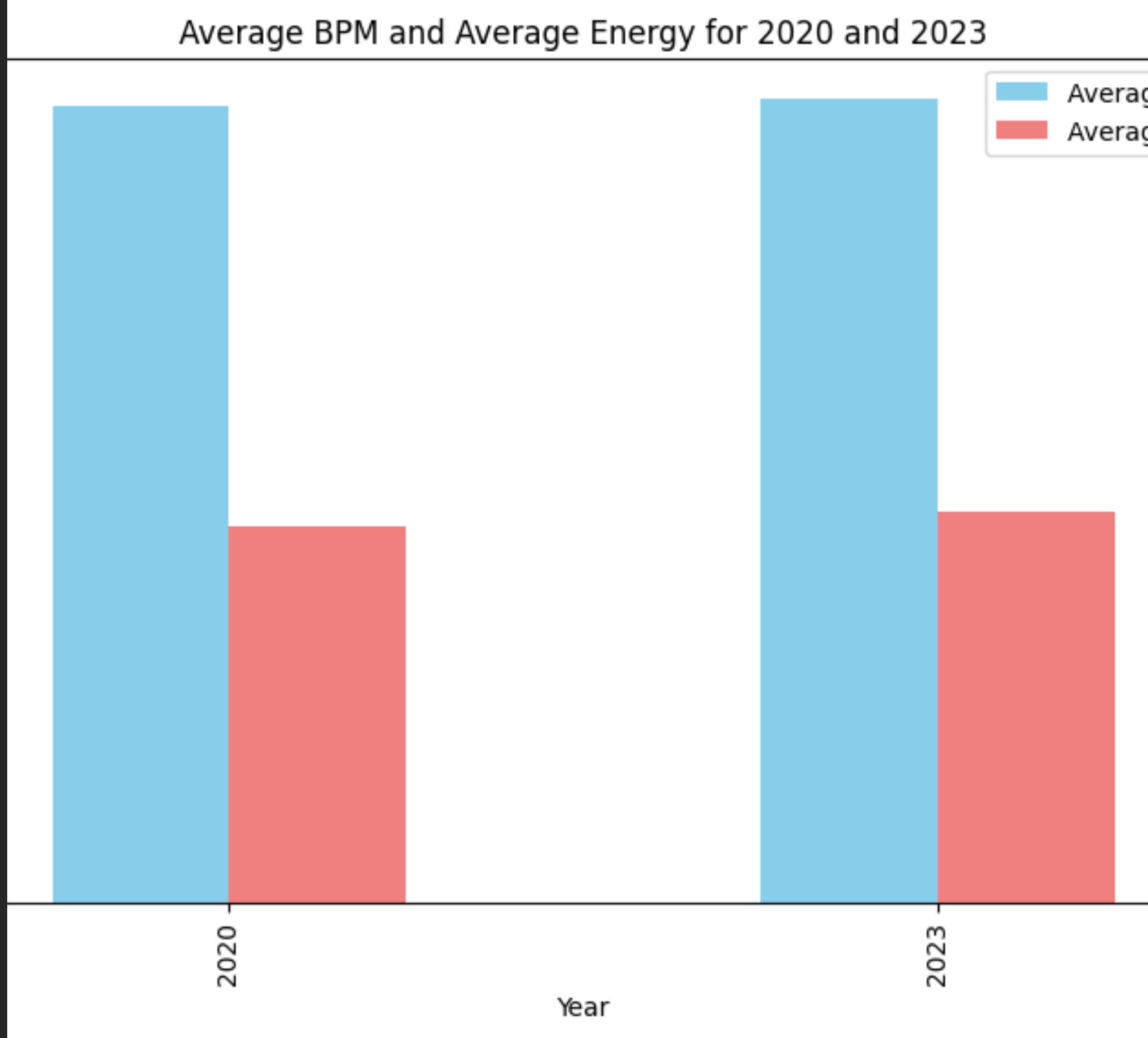
Findings

3) Correlation values between BPM and Energy was very weak for both 2020 and 2023 years. Correlation between BPM and Energy for the top 100 songs in 2020 is -0.10 and Correlation between BPM and Energy for the top 100 songs in 2023 is 0.01. Here you can see the Correlation between BPM and Energy.



Findings

4) Through 2020 to 2023 the tempo (BPM) of the musics that I listened increased. In 2020 the average tempo of 100 songs was 122.04 and in 2023 the average tempo of 100 songs was 123.28. There is slightly difference between this two years but the average tempo of 100 songs was increased. Here you can see the Average of BPM and Energy.



Findings

5) The average Energy of the songs that I listened through 2020 to 2023 was increased. Average Energy for 2020 dataset is 57.72 and average Energy for 2023 dataset was 59.96.

Limitations and Future Work

I could have done a more detailed data analysis. For example instead of using 100 songs I could have used 200 or more songs to see more detailed informations about my music of taste. In the future I will study on my last 5 year (2020,2021,2022,2023,2024) spotify datas. I will be trying to enhance my examinations and reach more detailed informations about my music taste.