**Summary of Yandex Music Data**

The Yandex Music dataset provides valuable insights into user listening habits, covering a range of information such as user IDs, tracks, artists, genres, listening cities, timestamps, and days of the week. The dataset contains 65,079 records with seven columns, offering a detailed look at the behaviour of users in Moscow and Saint-Petersburg. While some columns, such as Track, artist, and genre, have missing values, the data remains rich and meaningful for analyzing trends in music streaming.

The dataset reveals interesting trends for activity levels, genre preferences, and temporal listening patterns. Users from Moscow appear to have higher engagement levels overall, as the most active users in Moscow played up to 70 tracks, while in Saint-Petersburg, the most active users played around 50 tracks. This trend indicates a generally higher engagement level in Moscow, though user activity varies significantly between cities.

Regarding genre preferences, Moscow and Saint-Petersburg share similarities, with rock and pop dominating the charts in both cities. However, subtle differences highlight the unique characteristics of each city's audience. In Moscow, dance music has a significant market share, reflecting a strong preference for energetic genres. On the other hand, Saint-Petersburg exhibits more diversity, with folk and electronic genres occupying notable portions of the audience's preferences. These patterns suggest that while mainstream genres unite listeners across cities, cultural and regional differences influence secondary preferences.

Temporal listening patterns further enrich the analysis, providing a clearer picture of how users engage with music throughout the day. Across both cities, activity peaks are observed during the morning hours between 8:00 and 9:00, likely corresponding to users' morning routines, and in the evening hours between 20:00 and 21:00, reflecting leisure time. Afternoon activity dips slightly, especially between 13:00 and 14:00, possibly due to work or school commitments. Fridays, in particular, see elevated evening activity levels as users unwind at the start of the weekend. This temporal distribution suggests opportunities for optimizing playlist releases and targeted campaigns.

A deeper analysis using a heatmap of activity by hour and genre reveals dynamic listening preferences throughout the day. Genres like pop and rock dominate during morning hours, while dance and electronic genres see increased popularity during the evening. Such findings demonstrate that user preferences evolve based on the time of day, providing actionable insights for playlist curation and user engagement.

These insights provide a foundation for strategic decisions. Yandex Music could focus marketing efforts on rock and pop genres, which are consistently popular across both cities. In Moscow, retaining highly active users through personalized recommendations could further enhance engagement, while in Saint-Petersburg, promoting niche genres like folk and electronic might encourage broader participation. Releasing playlists during peak activity hours—particularly in the morning and evening—could maximize user interaction and drive streaming numbers.

While the dataset enables robust analysis, it is not without limitations. Missing values in key columns like Track, artist, and genre may slightly affect the reliability of specific insights, particularly those focused on genre distribution. Furthermore, the temporal scope of the dataset is unclear, making it difficult to assess trends over longer periods, such as months or seasons. Addressing these gaps in future data collection could enable more nuanced analyses, including the impact of seasonal trends and external factors like holidays or major events.

In conclusion, the Yandex Music dataset highlights key trends in user behaviour across Moscow and Saint-Petersburg. Despite shared preferences for mainstream genres, the subtle differences in niche genres and user engagement levels point to opportunities for tailored strategies. By leveraging these insights, Yandex Music can enhance its offerings, improve user satisfaction, and further solidify its position in the music streaming market.