CS661 Project Proposal [Group 24]

Project Title

Optimizing Steam User Experience

About Project

We are exploring trends in Steam Games to learn what will be an ideal strategy for:

- Improving reach
- User retention and satisfaction with updates and seasonal updates
- User experience enhancement through Steam game data analysis
- Difficulty and price-to-profit analysis

The goal is to align the development and improvement of games with player preferences, ultimately improving user satisfaction, retention, and overall success on the Steam platform.

Application Domain

In broader terms, the application domain of this work is in the gaming industry. The primary aim of our project is to help visualize an enhanced version of Steam. Steam is an app and platform that lets you buy and install games, interact with other players, live stream, and more. Since Steam is a widely used platform among gamers and has an array of features along with multiple performance metrics, this analysis could prove vital in the evolution of gaming platforms.

Source of Data

Steam Games Dataset on Kaggle.

Specific Tasks for Visualization

1. Price Sensitivity Analysis:
    a. Conduct price sensitivity analysis for each genre to determine the price elasticity of demand.
    b. Visualize demand or price-response curves to identify optimal pricing strategies for maximizing revenue.

2. Player Engagement and Game Duration:
    a. Explore the correlation between player engagement metrics (such as playtime, and number of sessions) and game genres to understand which genres attract more dedicated players.
    b. Analyze the relationship between game duration and player age to identify games that appeal to different age groups based on their time commitment.
3. Seasonal Trends in Gaming:
    a. Investigate how game releases correlate with seasonal trends and holidays.
    b. Explore whether certain genres or types of games tend to perform better during specific seasons or holidays, such as horror games during Halloween or sports games during major sports events.
4. Effect of Cross-platform Availability on Game Sales:
    a. Investigate how the availability of games on multiple platforms (e.g., PC, consoles, mobile) affects sales and player engagement.
    b. Compare sales performance and user demographics across different platforms for games of various genres.
5. Timeline of Game Releases and Technological Milestones:
    a. Visualize a timeline showing major game releases alongside significant technological advancements, such as the launch of new gaming consoles, graphics technology breakthroughs, or game engine innovations.
    b. Analyze how game releases coincide with or follow major technological milestones, indicating shifts in development strategies or adoption of new technologies.

Team Member Responsibilities

Group Member	Task Numbers
Manas Gupta	1 2
Ankur Kumar	3 4
Abhishek Pardhi	5 1
Girik Maskara	2 3
Siddharth Yadav	4 5
Pranshu Gaur	1 2
Sharib Athar	3 4
Abhishek Shree	5 1