Business Requirement Document (BRD)

Field	Details
Project Name	Game Recommendation System
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Document Type	Business Requirement Document (BRD)
Target Audience	Project Supervisors, Teachers, and Evaluators

Project Objective

The objective of the Game Suggestion System is to develop a smart, data-driven solution that helps users discover games aligned with their preferences and play habits. By analyzing available game attributes such as genres, platforms, user ratings, and popularity, the system will generate meaningful recommendations that improve user engagement and streamline the game discovery process.
This project also aims to support future scalability by designing the solution in a modular way, enabling its integration into larger ecosystems such as online game stores, review sites, or community platforms.

Project Scope

The Game Suggestion System is designed to provide intelligent and personalized game recommendations based on data analysis of available game attributes such as genre, platform compatibility, ratings, and user engagement. This system aims to assist users in discovering games that match their preferences while also helping developers or platform owners gain insights into gaming trends.
The system will analyze a curated dataset to generate useful visual insights and patterns. It will not include real-time user activity tracking or actual recommendation engine integration but will instead focus on laying the foundational structure for a future recommendation-based microservice.

Executive Summary

The Game Suggestion System is designed to enhance user engagement and satisfaction by recommending video games tailored to individual preferences and behavior. As the digital gaming industry continues to grow, users are often overwhelmed by the number of options available. This system aims to simplify the decision-making process by offering personalized game recommendations based on user interest trends, platform compatibility, and historical data.
This document outlines the business objectives, system functionality, and requirements for developing the Game Suggestion System. The solution leverages user-centric insights to deliver meaningful suggestions, thereby improving user experience and supporting smarter content discovery. The end goal is to increase game discovery, boost user retention, and support data-driven product improvement strategies.

Business Requirements

The following high-level business requirements outline the goals this system aims to achieve:

1. **Game Discovery Enhancement**
   Enable users to find games that align with their interests based on key attributes such as genre, rating, platform support, and popularity.

2. **Data-Driven Decision Making**
   Provide stakeholders with meaningful insights into game trends, user preferences, and platform usage patterns through visual analysis.

3. **Segment-Based Understanding**
   Allow identification of popular genres, high-performing platforms, and user sentiment (positive vs. negative ratings) to guide future development or feature improvements.

4. **Foundation for Future Recommendation Engine**
   Establish an organized data and visualization framework that can later be scaled into a full-fledged microservice-based recommendation system.

5. **Content Filtering**
   Support filtering out inappropriate or unwanted content to ensure data presented is suitable for academic or presentation purposes.

Use Case Example	
Use Case 1: Generate Game Recommendations	Use Case 2: View Game Insights
Actors Registered User, System	**Actors** Admin, System
Description The system provides personalized game recommendations based on user preferences such as genre, tags, and previous play history.	**Description** Admin accesses visual insights to analyze overall platform performance and user preferences.
Steps 1. User logs into the system. 2. System retrieves the user's genre/tag preferences and play data. 3. System processes data and applies the recommendation algorithm. 4. Recommended games are displayed to the user.	**Steps** 1. Admin logs into the dashboard. 2. Admin selects filters (genre, platform, user region, etc.). 3. System updates charts and KPIs accordingly. 4. Admin exports reports if needed.

User Roles	Permissions
Role	Description
Guest User	Can browse the platform, view game recommendations, and search games.
Registered User	Can set preferences, receive personalized recommendations, and track viewed games.
Admin	Full access to manage game entries, user accounts, and system configurations.

Project Constraints

Constraint	Description
Limited Timeframe	The project must be completed within the academic semester or defined schedule.
Budget Limitations	Development must stay within a limited/no-cost environment using free tools.
Platform Restrictions	The system should be compatible with specific platforms (e.g., Windows, Web).
Data Availability	Data used for recommendations may be limited to what's publicly accessible.
Skill Set of Team Members	Team members may be learning technologies while developing the system.

Key Stakeholders

Name	Role	Responsibility
Project Sponsor	Oversees the project	Provides funding, high-level direction, and supports resource allocation.
Product Owner	Defines product features	Ensures business needs are translated into functional requirements.
Business Analyst	Requirements facilitator	Bridges communication between stakeholders and the development team.
Development Team	Builders of the system	Responsible for designing, developing, and testing the recommendation system.
QA/Testers	Ensures system quality	Performs testing to validate functionality, usability, and performance.
End Users (Gamers)	Target audience	Uses the final recommendation system; feedback used to shape functionality.
UI/UX Designer	Enhances user interaction	Designs intuitive and engaging interfaces based on user needs.

Cost-Benefit Analysis

Cost	Benefit
Time investment by students in research & dev	Practical hands-on learning and skill development
Use of free/open-source tools	No financial burden, encourages resourcefulness
Effort in data collection and cleaning	Better quality recommendations for end-users
Learning curve of new technologies/tools	Exposure to real-world tech stack used in the industry
Limited access to premium APIs or datasets	Encourages use of creative alternatives and deeper data understanding