DBMS PROJECT
VR GAMES DATABASE
SUBMITTED BY :

ABDUL MANIO AND MISBAH HASSAN

INTRODUCTION

Our database schema is designed to support a dynamic gaming platform, facilitating user interaction, game management, and developer engagement.

With eleven primary entities, including Users, Games, Reviews, Transactions, Gameplay Data, Wishlist, Comments, Developers, Tags, Game_Tags, and User Status, our schema provides a comprehensive solution for a gaming platform.

Purpose:

This schema forms the backbone of a feature-rich gaming platform, ensuring seamless user interactions, efficient game management, and effective developer engagement.

Objective:

Our project aims to provide a solid foundation for the development of a gaming platform by designing a robust and scalable database schema.

Significance:

By offering a structured and efficient database solution, our schema enhances the overall gaming experience for users while facilitating growth and management for developers and platform administrators.

OVERVIEW

This Database designs comprehensive schema for a gaming platform, addressing user interaction, games management, and developers' engagement. The proposed database includes entities such as Users, Games, Reviews, Transactions, gameplay data, Wishlist, comments, developers, tags, and their associated attributes This report provides a solid foundation for developing a feature-rich gaming platform, ensuring seamless user interactions, efficient game management, and effective developer engagement.

1.Problem statement

the gaming industry is rapidly evolving with an increasing number of users and engaging in online platform. however, many existing platforms face challenges in managing users interaction, game data with developers engagement efficiently.

The current application lack of robust system often results in difficulties in organizing user information, game data and developers' interaction effectively.

2.Solution

The primary aim of this database design proposal is to address these challenges by developing a comprehensive database schema for a gaming platform.

The proposed database will focus on:

1. Efficiently managing user interactions, including user registration, profile management, and social interactions such as game reviews, comments, and wish lists.
2. Effective game management, including detailed game information, user reviews, gameplay data tracking, and transaction management (if games are being sold).
3. Enhancing developer engagement by providing a platform for developers to register, submit games, and interact with users.

   Following description of database will solve problem and solution is implemented

3.SCHEMA

The following schema that we have made encountering the problem

1. Users:
    - UserID (Primary Key)
    - Username
    - Email
    - Password
    - Date of Birth
    - Country
    - Last Login Date
2. Games:
    - GameID (Primary Key)
    - Game Title
    - Description
    - Genre
    - DeveloperID (Foreign Key)
    - Release Date
    - Price
    - Average Rating
    - Number of Downloads
3. Reviews:
    - ReviewID (Primary Key)
    - GameID (Foreign Key)
    - UserID (Foreign Key)
    - Review Text
    - Rating
    - Review Date
4. Transactions
    - TransactionID (Primary Key)
    - UserID (Foreign Key)
    - GameID (Foreign Key)
    - Transaction Date
    - Amount
5. Gameplay Data (optional, for tracking user activity):
    - GameplayID (Primary Key)
    - UserID (Foreign Key)
    - GameID (Foreign Key)

- Session Start Time
- Session End Time
- Duration
- Score (if applicable)

6. Wishlist (if users can add games to a wishlist):
    - WishlistID (Primary Key)
    - UserID (Foreign Key)
    - GameID (Foreign Key)
    - Date Added
7. Comments (for user interaction):
    - CommentID (Primary Key)
    - UserID (Foreign Key)
    - GameID (Foreign Key)
    - Comment Text
    - Comment Date
8. Developer:
    - DeveloperID (Primary Key)
    - Developer Name
    - Headquarters
    - Description
    - Website
    - Contact Email
    - Contact Phone
9. Tags (for categorizing games):
    - TagID (Primary Key)
    - Tag Name
10. Game_Tags (to associate tags with games):
    - GameTagID (Primary Key)
    - GameID (Foreign Key)
    - TagID (Foreign Key)
11. User status
    - userID int
    - subscription status
    - account_open

4.DESCRIPTION

1. Users
    - Information about the users using this platform.
    - Includes things like username, DOB, country etc.
    - Also keep the tract when they last log in
2. Games
    - Information about available games
    - Includes details like game title, genre, developer, release date, price etc.
3. Reviews**:**
    - Users can write detailed reviews of particular games, providing feedback and opinions on their gaming experience.
    - Reviews include the game ID, user ID, review text, rating, and review date. They serve as comprehensive assessments of the game's quality and user experience.
4. Transactions:
    - If games are sold that transaction record is saved on database.
    - Includes user_id, game_id, and date of transaction and amount paid
5. Gameplay data:
    - The platform can track how much and which game user play the most. Useful for analyzing user’s choice.

- Includes details like user id, game id, start time, end time etc.

6. Wishlist:
    - Users can add games to their wish list for future shopping.
    - Keeps track that user want to play.
    - Includes user id, game id, and date added.

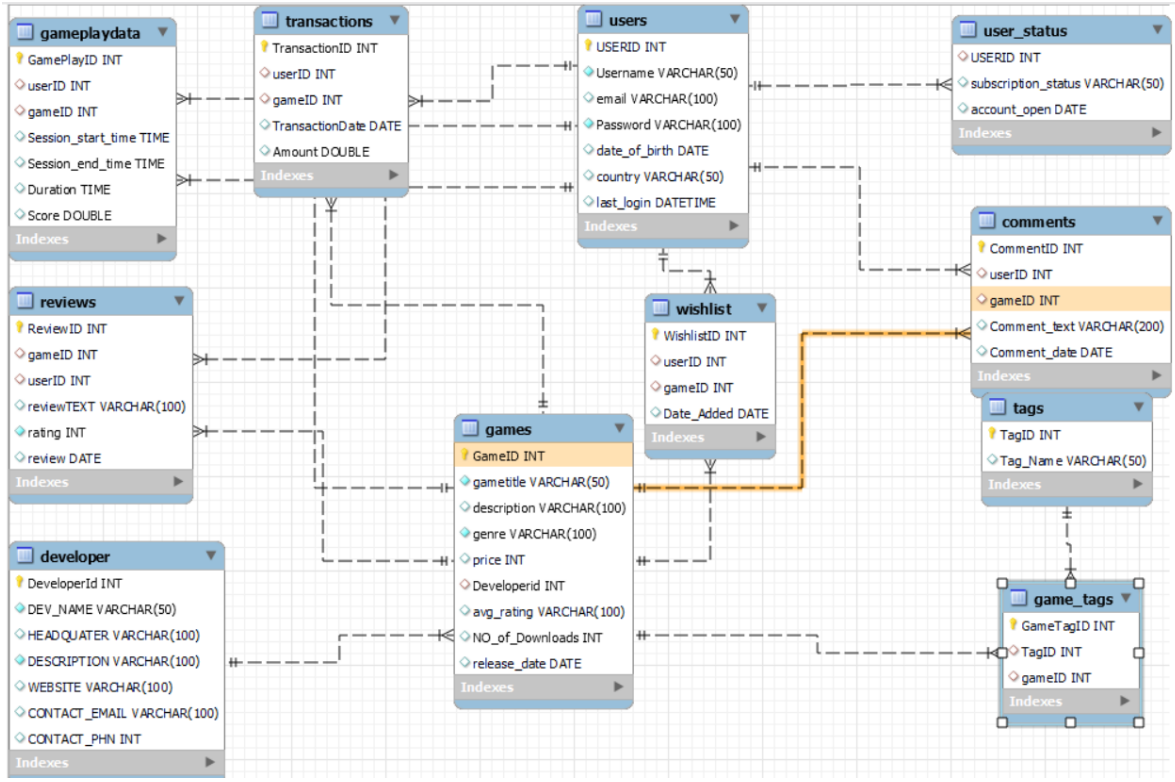
7. Comments**:**
    - Users can leave brief comments on games, allowing for quick interactions and discussions within the gaming community.
    - Comments include the user ID, game ID, comment text, and date. Unlike reviews, comments are shorter and more conversational, often focusing on specific aspects of the game or user experiences.

8. Developers
    - Information about the companies or people who are owner or developer of game.
    - Include developer name, company headquarter, description, website etc.
9. Tags:
    - games can be categorized with tags.
    - tags are word or phrases like adventure, strategy or multiplayer etc.
10. gamertags
    - This link tags with the game.

- Includes the game_id and tag id so games can be easily found by tags user want.

This database helps the gaming platform keep track of users, games, reviews, transactions, gameplay data, wish lists, comments, developers, and game tags, making it easier for users to find and enjoy the games they love.

5.ER DIAGRAM


gameplaydata
GamePlayID INT
userID INT
gameID INT
Session_start_time TIME
Session_end_time TIME
Duration TIME
Score DOUBLE
Indexes
transactions
TransactionID INT
userID INT
gameID INT
TransactionDate DATE
Amount DOUBLE
Indexes
users
USERID INT
Username VARCHAR(50)
email VARCHAR(100)
Password VARCHAR(100)
date_of_birth DATE
country VARCHAR(50)
last_login DATETIME
Indexes
user_status
USERID INT
subscription_status VARCHAR(50)
account_open DATE
Indexes
comments
CommentID INT
userID INT
gameID INT
Comment_text VARCHAR(200)
Comment_date DATE
Indexes
reviews
ReviewID INT
gameID INT
userID INT
reviewTEXT VARCHAR(100)
rating INT
review DATE
Indexes
wishlist
WishlistID INT
userID INT
gameID INT
Date_Added DATE
Indexes
games
GameID INT
gametitle VARCHAR(50)
description VARCHAR(100)
genre VARCHAR(100)
price INT
Developerid INT
avg_rating VARCHAR(100)
NO_of_Downloads INT
release_date DATE
Indexes
tags
TagID INT
Tag_Name VARCHAR(50)
Indexes
developer
DeveloperId INT
DEV_NAME VARCHAR(50)
HEADQUATER VARCHAR(100)
DESCRIPTION VARCHAR(100)
WEBSITE VARCHAR(100)
CONTACT_EMAIL VARCHAR(100)
CONTACT_PHN INT
Indexes
game_tags
GameTagID INT
TagID INT
gameID INT
Indexes