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# **Software Requirements Specification**

**for**

## **Game Zone**

**Version 1.0 approved**

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## DESCRIPTION

The project will be an SQL database which will be created in a modern database management system. This will allow it to use the most modern features in DBMS. This will allow us to access the database through the provided GUI, pgadmin for postgres, or the CLI (command line interface), psql for postgres. So, the data can be conveniently modified or inserted into using these interfaces.

So, The project will have the following features for the GameZone management system.

- **Managing List of Players :-** The database application will store all details of players who open their account in GameZone. The database will store the personal details of players like name, age, height, weight, contact number, address, team Id/name. (If it exists) etc. Players are allowed to view details of Games, Other Player's profile, Team's profile and their own account details and payment records. Which details of Players should be provided in a profile handled by Database Administrator or any Employee. Players can modify their details and close the account on some terms and conditions. Players are not allowed to modify other Player's personal details and account related details.
- **Content Management (Games) :-** The database application will store the details of Games like Game Id, Game's Name, Type, the mode of playing (Online/Offline), Multiplayer or Solo, Price of game, Rewards, Age constraint (if any), Height constraint (If any), weight constraint (If any) etc. Players can retrieve the details of Games. Games are managed by employees or Manager(Owner). Employees or Owner can add new games and can modify the details of the game. Rules of Game are provided in Gamezone website or in gamezone as catalogue. Players are advised to read rules carefully and check terms and conditions and constraints.
- **Manager :-** Here, We are assuming the manager, owner of gamezone are the same. The database application will store the details of the manager like name, age, contact number, email address etc. Manager has rights to decide the salary of Employee, he can grant or revoke privileges given to employees. He can insert, manage and delete the details of players, games, game records etc.
- **Employee :-** The database application will store the details of Employees like name, contact details, age, salary, task etc. He can manage the data allowed to handle him by the manager. The only administrator or manager can modify, delete or insert the details of Employees.
- **Account :-** When a Player visits GameZone, he will be asked to open his account in the GameZone system. For that he has to pay some money and

upload some required documents and details as per decided by the owner. After this process, one debit card will be provided to the player by gamezone. Using this debit card player can make payments and get prize money. So the Number of debit card will be stored in Account class. Account class contains details of Player ID (referenced from Player class), Account ID (Autogenerated), Debit card no. (Provided by Gamezone), Current Balance in account, Date of joining the gamezone etc. The players and Manager are allowed to see their own account's details.

- Transaction :- The database application will store all payment records details like Player id (Who makes payment), Game ID (For which game), Date and Time of Payment, Paid Amount etc. It will be managed by Employee or Manager of Gamezone. Others are not allowed to see payment details without permission of the manager. Players are allowed to see their own Payment records.
- Game history :- The database application will store the real time game history which includes the details like who is playing which game means Player Id and Game ID, Player's score, the player's current rank, the amount that player won or lost, the Date and Time etc. Players are allowed to see their own game history details. Employees and Manager are allowed to see the details, but are not allowed to make any change. The details will be directly inserted through game interfaces.
- Team :- The database application will store the details of Team like Team ID(provided by database), name, Game ID, Team rank on leaderboard, No of games won etc. So Players are allowed to make a team, and play multiplayer games. Players are allowed to view their own team's profile and team member's profile. Only Manager or Employee can modify this table.
- LeaderBoard :- The database application will store the details of player's rank in leaderboard, it also includes player id, game id, scores, and amount won using game history table. Players, Manager and Employee all are allowed to retrieve information on the leaderboard. But they are not allowed to make any changes.
- Queue :- the database application will store the details of player who are currently playing a particular game and also store the number of players that are playing a particular game currently. It maintains the max number players are allowed to play at a time. If the number of the players that are playing currently reach beyond capacity then they are added to the Waiting list table. It has the information about a player's status like Online or offline or in the waiting list. Using status we can manage the performance of the game by

maintaining players through waiting lists. Only manager are allowed to manage the details of the queue.

- **Waiting List :-** The database application stores the details of players who are waiting to play a particular game. The players are arranged according to their corresponding game session time. The application will allow new players to enter according to the game which they want to play when there is any vacancy in the corresponding game. System will automatically remove his record from the waiting list and add it into the queue.

### **All Extracted Nouns & Verbs from Problem Description**

<b>Nouns</b>	<b>Verbs</b>
Database	Maintain
Interface	Connect
System	Automate
GameZone	Develop
Player	Entertain
Game	works
Employee	Create
Account	Play
Player team	Store
Rewards	Manage
Payment	Create
Age	Wait
Height	get
Weight	Access
Player Name	leave
Player ID	Follow
Team	Maintain

Application	Scroll
Capacity	Type
Table	Check
Status	Revoke
Manager	Grant
Record	Update
profile	Alter
Task	Delete
Owner	Insert
Prize	modify
Waiting people	Travel
Salary	
Administrator	
Awareness	
Debit Card	
Game History	
Modern	
Score	
Rank	
Date	
Time	
Game Interfaces	
Storage	
feature	
Team ID	
Team Name	

Team rank	
Leaderboard	
Multiplayer Game	
Member	
Queue	
vacancy	
Application	
Website	
Rules	
Game mode	
Game Type	
Game Name	
Player Age	
Contact number	
Developer	
Record	
Address	
Engineers	