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00892 ADVANCE DATABASE MANAGEMENT SYSTEM
PROJECT Report
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E-Sports Management System

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UI Design	50%	0%	0%	0%	50(%)
Normalization	50%	50%	0%	0%	100(%)
SQL Query	0%	0%	0%	0%	0(%)
Relational Algebra	0%	0%	0%	0%	0(%)
Report Writing	50%	30%	0%	0%	80(%)

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Introduction

Esports Management System is an innovative platform that will revolutionize the management and organization of esports teams, participants, tournaments, and sponsors. This system seeks to provide users with an efficient and user-friendly way to search for their preferred professional esports players.

A user-friendly interface is at the core of the Esports Management System, allowing users to seamlessly navigate and explore the realm of professional esports. With only a few clicks, users can search for potential professional athletes and teams, as well as access valuable information such as their winning records and accomplishments. This enables fans and enthusiasts to remain up-to-date on their preferred players and teams, nurturing a stronger connection within the esports community.

The Esports Management System's ability to facilitate sponsorships is a crucial feature. Numerous organizations and businesses can engage in sponsorship activities, whether for the purpose of supporting tournaments or individual athletes. The system serves as a centralized repository where the information and details of these sponsors can be efficiently stored and managed. This facilitates the sponsorship process and ensures that sponsors and the esports industry collaborate effectively.

There are specialized administrators within the Esports Management System who play crucial roles in managing and enhancing the overall experience. The social media manager is among these supervisors; he or she supervises the organization's online presence and engagement on various social media platforms. In addition, the content creator/VFX/GFX team assures the creation of visually stunning and captivating content that enhances the overall esports experience.

Dynamic features and functionalities make the Esports Management System an indispensable instrument for the esports industry. It makes it easier for fans to discover and connect with professional esports players, allowing them to remain informed and engaged. It enhances collaboration between organizations and the esports community by providing a centralized platform for sponsorship management. In addition, the system enables administrators to enhance the organization's online presence and develop visually appealing content, ensuring that all stakeholders have an engaging experience.

In the following sections, we will delve deeper into the features, functionalities, and innovative aspects of the Esports Management System, demonstrating its potential to revolutionize the management and celebration of esports teams, players, tournaments, and sponsors.

1.1 Project Proposal

This proposal for the development and implementation of an Esports Management System is presented with pleasure. This revolutionary platform seeks to transform the management and organization of esports teams, players, tournaments, and sponsors. The Esports Management System will improve the user experience, encourage community engagement, and expedite operations within the esports industry by leveraging advanced technology and comprehensive functionalities.

1.1.1 Purposes

- Create an intuitive web-based platform that serves as the central hub for esports administration, catering to the requirements of teams, players, tournament organizers, and sponsors.
- Implement a sophisticated matching algorithm to facilitate the search and discovery of favored professional esports players, thereby enhancing the fan experience and fostering esports community connections.
- Provide efficient sponsorship administration capabilities, enabling organizations and businesses to support tournaments or individual athletes through sponsorship activities.
- Enhance the organization's online presence by supervising social media platforms and having the content creator/VFX/GFX team produce visually spectacular and engaging content.

1.1.2 Methodology

System Development:

- Conduct exhaustive investigation on the necessary requirements and features of an effective Esports Management System.
- Utilize industry-standard programming languages and technologies to create a scalable and secure web-based platform.
- Implement a user-friendly interface with intuitive navigation in order to provide a seamless and enjoyable user experience.

Matching Algorithm

- Collaboration with data scientists and psychologists to create a matching algorithm based on personality traits, values, and beliefs.
- Integrate the matching algorithm into the system to recommend professional esports players compatible with the user's preferences.

Sponsorship Management

- Create an all-encompassing sponsorship management module to facilitate collaborations between organizations and the esports industry.
- Provide a centralized repository for sponsor information to facilitate communication and sponsorship efficiency.

Online Presence Enhancement

- Appoint a social media manager to supervise the organization's online presence and interact with the esports community.
- Appoint a social media manager to supervise the organization's online presence and interact with the esports community.

1.2 Project Scenario

Imagine an eSports organization called "eSports FTW" that manages various teams and tournaments in the gaming industry. The organization is led by an Admin who oversees the operations. The Admin entity contains attributes such as email, picture, password, name, and a unique ID.

Under the Admin, there are multiple Managers responsible for different departments. Each Manager has attributes including hire date, picture, salary, email, name, department ID, and a unique ID. One Manager specifically manages the Finance department, ensuring financial stability and handling the accounts for the organization. The Finance entity consists of attributes such as a unique ID, account number, and balance.

In addition to managing the finances, each Manager is in charge of a specific team. The Teams entity includes details such as the team's established date, country, name, team ID, team icon, winning numbers, and total prize money. Each team has a unique Manager assigned to it, ensuring proper coordination and organization. The Manager entity is linked to the Teams entity through the Manager ID attribute.

Within each team, there are multiple Players who represent the organization in various games. The Players entity contains attributes such as name, player ID, picture, salary, winning prize money, total hours played, phone number, and address (including country, city, zip code, and road number). Additionally, players have links to their social media profiles on platforms like Facebook, Instagram, Twitter, and YouTube.

The organization hosts tournaments, bringing together teams from different games. The Tournament entity consists of attributes such as tournament ID, name, prize pool, starting date, and ending date. Each tournament features various games such as Valorant, Mobile Legends: Bang Bang (MLBB), and Rainbow Six Siege. The Game entity contains attributes like name, release date, genre, game picture, publisher, platform, game ID, and prize pool. Each tournament may have different games associated with it, creating diverse competitive environments.

To support the teams and tournaments financially, eSports FTW seeks sponsorships from different companies. The Companies entity includes attributes such as name, company ID, location, sponsor date, and phone number. Multiple companies can sponsor both teams and tournaments, forming a many-to-many relationship between the Companies, Teams, and Tournament entities.

Additionally, eSports FTW employs a Social Media Manager responsible for managing the organization's online presence. The Social Media Manager entity contains attributes such as name, picture, email, manager ID, hire date, salary, phone number, and social media links (Facebook, Instagram, Twitter, YouTube). The Social Media Manager oversees the VFX/GFX and Content Creator teams, ensuring engaging content creation and visual effects. The VFX/GFX and Content Creator entities include attributes like name, picture, VFX/GFX ID, email, phone number, salary, and address (country, city, zip code, and road number).

Diagrams

2.1 ER Diagram



ER Diagram

2.2 Class Diagram



Class Diagram

2.3 Use Case Diagram



Use Case Diagram

2.4 Activity Diagram



Activity Diagram

User Interface

3.1 Technologies Used

- SvelteKit
 - Tailwind CSS
-

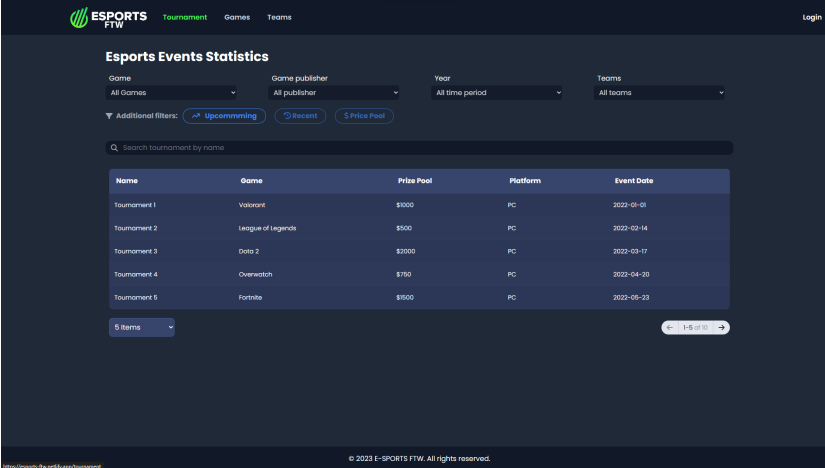
3.1.1 Login Page



3.1.2 Home Page



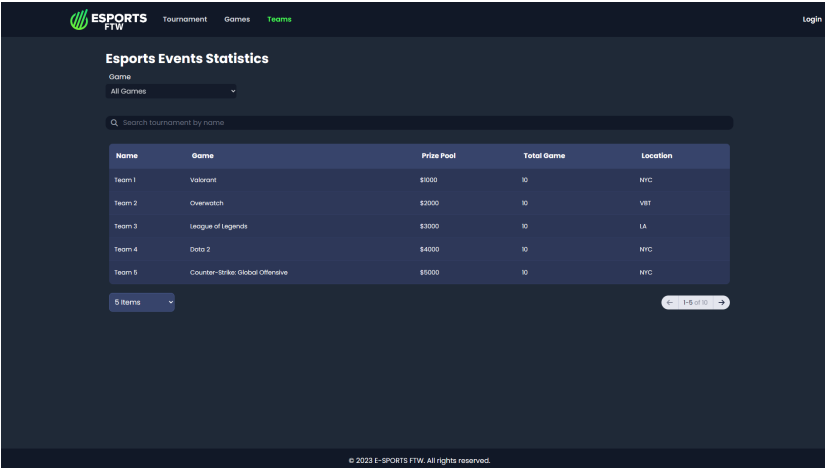
3.1.3 Tournament Page



The screenshot shows the 'Esports Events Statistics' page. At the top, there are navigation tabs for 'Tournament', 'Games', and 'Teams'. Below the header, there are filters for 'Game' (All Games), 'Game publisher' (All publisher), 'Year' (All time period), and 'Teams' (All teams). There are also buttons for 'Additional filters', 'Upcoming', 'Recent', and '5 Price Pool'. A search bar is present with the text 'Search tournament by name'. The main table lists tournaments with columns: Name, Game, Prize Pool, Platform, and Event Date. The table contains 5 items, and a pagination bar shows '1-5 of 10'.

Name	Game	Prize Pool	Platform	Event Date
Tournament 1	Valorant	\$1000	PC	2022-01-01
Tournament 2	League of Legends	\$500	PC	2022-02-14
Tournament 3	Dota 2	\$2000	PC	2022-03-17
Tournament 4	Overwatch	\$750	PC	2022-04-20
Tournament 5	Fortnite	\$1500	PC	2022-05-23

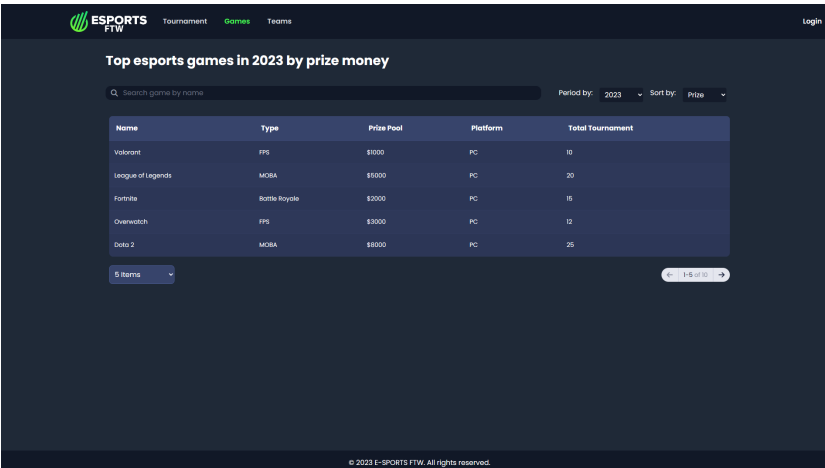
3.1.4 Team Page



The screenshot shows the 'Esports Events Statistics' page. At the top, there are navigation tabs for 'Tournament', 'Games', and 'Teams'. Below the header, there are filters for 'Game' (All Games). There is a search bar with the text 'Search tournament by name'. The main table lists teams with columns: Name, Game, Prize Pool, Total Game, and Location. The table contains 5 items, and a pagination bar shows '1-5 of 10'.

Name	Game	Prize Pool	Total Game	Location
Team 1	Valorant	\$1000	10	NYC
Team 2	Overwatch	\$2000	10	VBT
Team 3	League of Legends	\$3000	10	LA
Team 4	Dota 2	\$4000	10	NYC
Team 5	Counter-Strike: Global Offensive	\$5000	10	NYC

3.1.5 Game Page



The screenshot shows the 'Esports Events Statistics' page. At the top, there are navigation tabs for 'Tournament', 'Games', and 'Teams'. Below the header, there is a title 'Top esports games in 2023 by prize money'. There is a search bar with the text 'Search games by name'. The main table lists games with columns: Name, Type, Prize Pool, Platform, and Total Tournament. The table contains 5 items, and a pagination bar shows '1-5 of 10'.

Name	Type	Prize Pool	Platform	Total Tournament
Valorant	FPS	\$1000	PC	10
League of Legends	MOBA	\$1000	PC	20
Fortnite	Battle Royale	\$2000	PC	15
Overwatch	FPS	\$3000	PC	12
Dota 2	MOBA	\$8000	PC	25

Normalization and Schema Design

4.1 Manage branch

4.1.1 (Admin → Manager)

UNF

(Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture, Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone)

1NF

Phone is multi-valued attribute.

- (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture, Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone)

2NF

- Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture
- Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone

3NF

No transitive dependencies found. Same as 2NF

Table after Normalization

- **Manager** (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, **Admin_ID**)
- **Admin** (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
- **Manager_Phone** (Mp_ID, **Manager_ID**, Manager_Phone)

4.1.2 (Manager \rightarrow Finance)

UNF

(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone, Finance_ID, Finance_Account_Number, Finance_Balance)

1NF

Phone is multi-valued attribute.

- (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone, Finance_ID, Finance_Account_Number, Finance_Balance)

2NF

- **Manager**(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone)
- **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Manager**(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate)
- **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance, **Manager_ID**)
- **Manager_Phone** (Mp_ID, **Manager_ID**, Manager_Phone)

4.1.3 (Manager \rightarrow Teams)

UNF

(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone, Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Price_Money, Team_Winnig)

1NF

Winning & Phone are multi-valued attribute.

- (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone, Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Team_Total_Price_Money, Team_Winnig)

2NF

- **Manager**(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone)
- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Total_Price_Money, Team_country)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Manager**(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate)
- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Price_Money, **Manager_ID**)
- **Team_Winnig**(Tw_ID, **Team_ID**, Team_Winnig)
- **Manager_Phone**(Mp_ID, **Manager_ID**, Manager_Phone)

4.1.4 (SocialMedia → ContentCreator)

UNF

(SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone , SocialMedia_Hiredate , SocialMedia_Salary, ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Phone , ContentCreator_Hiredate , ContentCreator_Salary, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link , ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)

1NF

Phone is multi-valued attribute.

- (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone , SocialMedia_Hiredate , SocialMedia_Salary, ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Phone , ContentCreator_Hiredate , ContentCreator_Salary, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link , ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)

2NF

- **SocialMedia** (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone , SocialMedia_Hiredate , SocialMedia_Salary)
- **ContentCreator** (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Phone , ContentCreator_Hiredate , ContentCreator_Salary, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link , ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)

3NF

- **SocialMedia** SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary)
- **ContentCreator** ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture , ContentCreator_Hiredate , ContentCreator_Salary)
- **ContentCreator_SocialMedia** (**ContentCreator_ID**, **SocialMedia_ID** , ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link)
- **ContentCreator_Address** (**ContentCreator_ID**, ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)

Table after Normalization

- **SocialMedia** (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary)
- **ContentCreator** (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture , ContentCreator_Hiredate , ContentCreator_Salary)
- **ContentCreator_SocialMedia** (Ccs_ID, **ContentCreator_ID** , ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link)
- **ContentCreator_Address** (Cca_ID, **ContentCreator_ID**, ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
- **ContentCreator_Phone** (Ccp_ID, **ContentCreator_ID**, ContentCreator_Phone)
- **SocialMedia_Phone** (Smp_ID, **SocialMedia_ID**, SocialMedia_Phone)
- **ContentCreator_SocialMedia_Phone** (Ccp_ID, **ContentCreator_ID**, ContentCreator_Phone)

4.2 Pay branch

4.2.1 (Finance \rightarrow SocialMedia)

UNF

(Finance_ID, Finance_Account_Number, Finance_Balance, SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone , SocialMedia_Hiredate , SocialMedia_Salary)

1NF

Phone is multi-valued attribute.

- (Finance_ID, Finance_Account_Number, Finance_Balance, SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone , SocialMedia_Hiredate , SocialMedia_Salary)

2NF

- **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)
- **SocialMedia**(SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone , SocialMedia_Hiredate , SocialMedia_Salary)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)
- **SocialMedia**(SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary, **Finance_ID**)
- **SocialMedia_Phone** (Smp_ID, **SocialMedia_ID**, SocialMedia_Phone)

4.2.2 (Finance \rightarrow organization)

UNF

(Finance_ID, Finance_Account_Number, Finance_Balance, Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

1NF

Phone is multi-valued attribute.

- (Finance_ID, Finance_Account_Number, Finance_Balance, Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

2NF

- **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)
- **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)
- **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone, **Finance_ID**)
- **Organization_Phone** (Op_ID, **Organization_ID**, Organization_Phone)

4.3 Formed branch

4.3.1 (Teams → Player)

UNF

(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning,

Team_Winnig, Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Phone, Player_Salary, Player_Winnig_Money, Player_Play_Hours, Player_country, Player_City, Player_Street, Player_Zip_Code, Player_DOB, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)

1NF

Phone & Wining number are multi-valued attribute.

- (Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Phone, Player_Salary, Player_Winnig_Money, Player_Play_Hours, Player_country, Player_City, Player_Street, Player_Zip_Code, Player_DOB, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)

2NF

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Player**(Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Salary, Player_Winnig_Money, Player_Play_Hours, Player_country, Player_City, Player_Street, Player_Zip_Code, Player_DOB, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)

3NF

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Player**(Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Salary, Player_Winnig_Money, Player_Play_Hours, Player_DOB)
- **Player_Address** (Pa_ID, **Player_ID**, Player_country, Player_City, Player_Street, Player_Zip_Code)
- **Player_Social_Link** (PsL_ID, **Player_ID**, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)

Table after Normalization

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Player**(Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)

- **Player_Address** (Pa_ID, **Player_ID**, Player_country, Player_City, Player_Street, Player_Zip_Code)
- **Player_Social_Link** (Psl_ID, **Player_ID**, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
- **Player_Phone** (Pp_ID, **Player_ID**, Player_Phone)
- **Player_Wining** (Pw_ID, **Player_ID**, Player_Winnig)
- **Player_Team** (Pt_ID, **Player_ID**, **Team_ID**)

4.4 Has branch

4.4.1 (Record \rightarrow Tournament)

UNF

(Record_ID, Record_Date, Record_Price_Pool, Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

1NF

- (Record_ID, Record_Date, Record_Price_Pool, Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

2NF

- **Record**(Record_ID, Record_Date, Record_Price_Pool, **Tournament_ID**)
- **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Record**(Record_ID, Record_Date, Record_Price_Pool, **Tournament_ID**)
- **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

4.4.2 (Tournament → Game)

UNF

(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

1NF

- (Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

2NF

- **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
- **Tournament_Game**(Tournament_ID, Game_ID)

4.5 Participate branch

4.5.1 (Teams \rightarrow Game)

UNF

(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

1NF

- (Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

2NF

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
- **Team_Game**(Team_ID, Game_ID)

4.6 Host branch

4.6.1 (Organizer \rightarrow Tournament)

UNF

(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

1NF

Phone is a multi-valued attribute.

- (Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

2NF

- **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
- **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
- **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture)
- **Organization_Phone**(Organization_ID, Organization_Phone)
- **Organization_Tournament**(Organization_ID, Tournament_ID)

4.7 Sponsor branch

4.7.1 (Companies \rightarrow Organization)

UNF

(Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Organization_Phone, Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)

1NF

phone is a multi-value attribute.

- (Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Organization_Phone, Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)

2NF

- **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Organization_Phone, Company_ID)
- **Company**(Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Company_ID)
- **Organization_Phone**(Organization_ID, Organization_Phone)
- **Company**(Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)
- **Company_Phone**(Company_ID, Company_Phone)
- **Organization_Company**(Organization_ID, Company_ID)

4.7.2 (Companies \rightarrow Teams)

UNF

(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)

1NF

Phone is multi-value attribute.

- (Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)

2NF

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Company**(Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)

3NF

No transitive dependency found. Same as 2NF.

Table after Normalization

- **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- **Company**(Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)
- **Team_Company**(Team_ID, Company_ID)
- **Company_Phone**(Company_ID, Company_Phone)

4.8 Temporary Tables

1. **Manager** (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, **Admin_ID**)
2. **Admin** (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
3. **Manager_Phone** (Mp_ID, **Manager_ID**, Manager_Phone)
4. **Manager**(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate)
5. **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance, **Manager_ID**)
6. **Manager_Phone** (Mp_ID, **Manager_ID**, Manager_Phone)
7. **Manager**(Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate)
8. **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Price_Money, **Manager_ID**)
9. **Team_Winnig**(Tw_ID, **Team_ID**, Team_Winnig)
10. **Manager_Phone** (Mp_ID, **Manager_ID**, Manager_Phone)
11. **SocialMedia** (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary)
12. **ContentCreator** (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture , ContentCreator_Hiredate , ContentCreator_Salary)
13. **ContentCreator_SocialMedia** (Ccs_ID, **ContentCreator_ID** , ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link)
14. **ContentCreator_Address** (Cca_ID, **ContentCreator_ID**, ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
15. **ContentCreator_Phone** (Ccp_ID, **ContentCreator_ID**, ContentCreator_Phone)
16. **SocialMedia_Phone** (Smp_ID, **SocialMedia_ID**, SocialMedia_Phone)
17. **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)
18. **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone, **Finance_ID**)
19. **Organization_Phone** (Op_ID, **Organization_ID**, Organization_Phone)
20. **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance)
21. **SocialMedia**(SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary, **Finance_ID**)
22. **SocialMedia_Phone** (Smp_ID, **SocialMedia_ID**, SocialMedia_Phone)

23. **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
24. **Player**(Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
25. **Player_Address** (Pa_ID, **Player_ID**, Player_country, Player_City, Player_Street, Player_Zip_Code)
26. **Player_Social_Link** (Psl_ID, **Player_ID**, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
27. **Player_Phone** (Pp_ID, **Player_ID**, Player_Phone)
28. **Player_Wining** (Pw_ID, **Player_ID**, Player_Winnig)
29. **Player_Team** (Pt_ID, **Player_ID**, **Team_ID**)
30. **Record**(Record_ID, Record_Date, Record_Price_Pool, **Tournament_ID**)
31. **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
32. **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
33. **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
34. **Tournament_Game**(Tournament_ID, Game_ID)
35. **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
36. **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture)
37. **Organization_Phone**(Organization_ID, Organization_Phone)
38. **Organization_Tournament**(Organization_ID, Tournament_ID)
39. **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
40. **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
41. **Team_Game**(Team_ID, Game_ID)
42. **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Company_ID)
43. **Organization_Phone**(Organization_ID, Organization_Phone)
44. **Company**(Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)

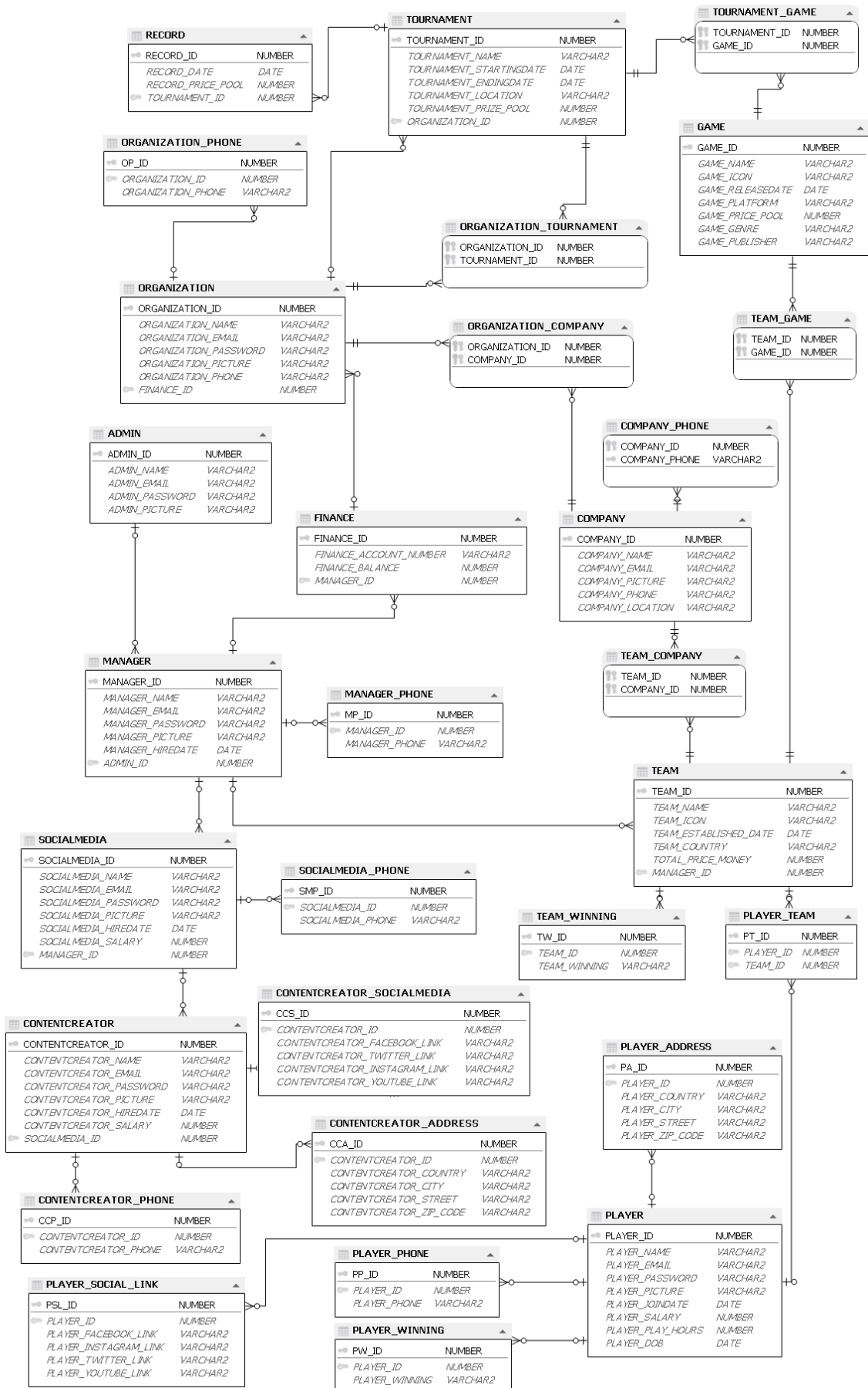
45. **Company_Phone**(Company_ID, Company_Phone)
46. **Organization_Company**(Organization_ID, Company_ID)
47. ~~**Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)~~
48. ~~**Company**(Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_Location)~~
49. **Team_Company**(Team_ID, Company_ID)
50. ~~**Company_Phone**(Company_ID, Company_Phone)~~

4.9 Final Tables

1. **Manager** (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, **Admin_ID**)
2. **Admin** (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
3. **Manager_Phone** (Mp_ID, **Manager_ID**, Manager_Phone)
4. **Finance**(Finance_ID, Finance_Account_Number, Finance_Balance, **Manager_ID**)
5. **Team**(Team_ID, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Price_Money, **Manager_ID**)
6. **Team_Winnig**(Tw_ID, **Team_ID**, Team_Winnig)
7. **SocialMedia** (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary)
8. **ContentCreator** (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture , ContentCreator_Hiredate , ContentCreator_Salary)
9. **ContentCreator_SocialMedia** (Ccs_ID, **ContentCreator_ID** , ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link, ContentCreator_Youtube_Link)
10. **ContentCreator_Address** (Cca_ID, **ContentCreator_ID**, ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
11. **ContentCreator_Phone** (Ccp_ID, **ContentCreator_ID**, ContentCreator_Phone)
12. **SocialMedia_Phone** (Smp_ID, **SocialMedia_ID**, SocialMedia_Phone)

13. **Organization**(Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone, **Finance_ID**)
14. **Organization_Phone** (Op_ID, **Organization_ID**, Organization_Phone)
15. **Player**(Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
16. **Player_Address** (Pa_ID, **Player_ID**, Player_country, Player_City, Player_Street, Player_Zip_Code)
17. **Player_Social_Link** (Psl_ID, **Player_ID**, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
18. **Player_Phone** (Pp_ID, **Player_ID**, Player_Phone)
19. **Player_Wining** (Pw_ID, **Player_ID**, Player_Winnig)
20. **Player_Team** (Pt_ID, **Player_ID**, **Team_ID**)
21. **Record**(Record_ID, Record_Date, Record_Price_Pool, **Tournament_ID**)
22. **Tournament**(Tournament_ID, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
23. **Game**(Game_ID, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
24. **Tournament_Game**(Tournament_ID, Game_ID)
25. **Organization_Tournament**(Organization_ID, Tournament_ID)
26. **Team_Game**(Team_ID, Game_ID)
27. **Company**(Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)
28. **Company_Phone**(Company_ID, Company_Phone)
29. **Organization_Company**(Organization_ID, Company_ID)
30. **Team_Company**(Team_ID, Company_ID)

4.10 Schema Diagram



Schema Diagram

SQL Queries

5.1 Table Creation

```
1 CREATE TABLE Admin (  
2   Admin_ID INT PRIMARY KEY,  
3   Admin_Name VARCHAR(100),  
4   Admin_Email VARCHAR(100),  
5   Admin_Password VARCHAR(100),  
6   Admin_Picture VARCHAR(100)  
7 );
```

Create Admin table

Results	Explain	Describe	Saved SQL		History				
Object Type			TABLE ?		Object		ADMIN ?		
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ADMIN	ADMIN_ID	NUMBER	22	-	0	1	-	-	-
	ADMIN_NAME	VARCHAR2	100	-	-	-	✓	-	-
	ADMIN_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	ADMIN_PASSWORD	VARCHAR2	100	-	-	-	✓	-	-
	ADMIN_PICTURE	VARCHAR2	100	-	-	-	✓	-	-

Admin table description

```
1 CREATE TABLE Manager (  
2   Manager_ID INT PRIMARY KEY,  
3   Manager_Name VARCHAR(100),  
4   Manager_Email VARCHAR(100),  
5   Manager_Password VARCHAR(100),  
6   Manager_Picture VARCHAR(100),  
7   Manager_Hiredate DATE,  
8   Admin_ID INT,  
9   FOREIGN KEY (Admin_id) REFERENCES Manager (Admin_ID)  
10 );
```

Create Manager table

Object Type		TABLE ?	Object		MANAGER ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MANAGER	MANAGER_ID	NUMBER	22	-	0	1	-	-	-
	MANAGER_NAME	VARCHAR2	100	-	-	-	✓	-	-
	MANAGER_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	MANAGER_PASSWORD	VARCHAR2	100	-	-	-	✓	-	-
	MANAGER_PICTURE	VARCHAR2	100	-	-	-	✓	-	-
	MANAGER_HIREDATE	DATE	7	-	-	-	✓	-	-
	ADMIN_ID	NUMBER	22	-	0	-	✓	-	-

Manager table description

```

1 CREATE TABLE Manager_Phone (
2     Mp_ID INT PRIMARY KEY,
3     Manager_ID INT,
4     Manager_Phone VARCHAR(20),
5     FOREIGN KEY (Manager_ID) REFERENCES Manager (Manager_ID)
6 );

```

Create Manager Phone table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		MANAGER_PHONE ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MANAGER_PHONE	MP_ID	NUMBER	22	-	0	1	-	-	-
	MANAGER_ID	NUMBER	22	-	0	-	✓	-	-
	MANAGER_PHONE	VARCHAR2	20	-	-	-	✓	-	-

Manager Phone table description

```

1 CREATE TABLE Finance (
2     Finance_ID INT PRIMARY KEY,
3     Finance_Account_Number VARCHAR(100),
4     Finance_Balance DECIMAL(10, 2),
5     Manager_ID INT,
6     FOREIGN KEY (Manager_ID) REFERENCES Manager (Manager_ID)
7 );

```

Create Finance table

Results	Explain	Describe	Saved SQL		History				
Object Type		TABLE ?	Object		FINANCE ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
FINANCE	FINANCE_ID	NUMBER	22	-	0	1	-	-	-
	FINANCE_ACCOUNT_NUMBER	VARCHAR2	100	-	-	-	✓	-	-
	FINANCE_BALANCE	NUMBER	-	10	2	-	✓	-	-
	MANAGER_ID	NUMBER	22	-	0	-	✓	-	-

Finance table description

```

1 CREATE TABLE Team (
2     Team_ID INT PRIMARY KEY,
3     Team_Name VARCHAR(100),
4     Team_Icon VARCHAR(100),
5     Team_Established_Date DATE,
6     Team_Country VARCHAR(100),
7     Total_Price_Money DECIMAL(10, 2),
8     Manager_ID INT,
9     FOREIGN KEY (Manager_ID) REFERENCES Manager (Manager_ID)
10 );

```

Create Team table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		TEAM ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEAM	TEAM_ID	NUMBER	22	-	0	1	-	-	-
	TEAM_NAME	VARCHAR2	100	-	-	-	✓	-	-
	TEAM_ICON	VARCHAR2	100	-	-	-	✓	-	-
	TEAM_ESTABLISHED_DATE	DATE	7	-	-	-	✓	-	-
	TEAM_COUNTRY	VARCHAR2	100	-	-	-	✓	-	-
	TOTAL_PRICE_MONEY	NUMBER	-	10	2	-	✓	-	-
	MANAGER_ID	NUMBER	22	-	0	-	✓	-	-

Team table description

```

1 CREATE TABLE Team_Winning (
2     Tw_ID INT PRIMARY KEY,
3     Team_ID INT,
4     Team_Winning VARCHAR(100),
5     FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID)
6 );

```

Create Team Winning table

Results	Explain	Describe	Saved SQL		History				
Object Type		TABLE ?	Object		TEAM_WINNING ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEAM_WINNING	TW_ID	NUMBER	22	-	0	1	-	-	-
	TEAM_ID	NUMBER	22	-	0	-	✓	-	-
	TEAM_WINNING	VARCHAR2	100	-	-	-	✓	-	-

Team Winning table description

```

1 CREATE TABLE SocialMedia (
2     SocialMedia_ID INT PRIMARY KEY,
3     SocialMedia_Name VARCHAR(100),
4     SocialMedia_Email VARCHAR(100),
5     SocialMedia_Password VARCHAR(100),
6     SocialMedia_Picture VARCHAR(100),
7     SocialMedia_Hiredate DATE,
8     SocialMedia_Salary DECIMAL(10, 2),
9     Manager_ID INT,
10    FOREIGN KEY (Manager_ID) REFERENCES Manager (Manager_ID)
11 );

```

Create SocialMedia table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object	SOCIALMEDIA ?					
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SOCIALMEDIA	SOCIALMEDIA_ID	NUMBER	22	-	0	1	-	-	-
	SOCIALMEDIA_NAME	VARCHAR2	100	-	-	-	✓	-	-
	SOCIALMEDIA_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	SOCIALMEDIA_PASSWORD	VARCHAR2	100	-	-	-	✓	-	-
	SOCIALMEDIA_PICTURE	VARCHAR2	100	-	-	-	✓	-	-
	SOCIALMEDIA_HIREDATE	DATE	7	-	-	-	✓	-	-
	SOCIALMEDIA_SALARY	NUMBER	-	10	2	-	✓	-	-
	MANAGER_ID	NUMBER	22	-	0	-	✓	-	-

SocialMedia table description

```

1 CREATE TABLE ContentCreator (
2   ContentCreator_ID INT PRIMARY KEY,
3   ContentCreator_Name VARCHAR(100),
4   ContentCreator_Email VARCHAR(100),
5   ContentCreator_Password VARCHAR(100),
6   ContentCreator_Picture VARCHAR(100),
7   ContentCreator_Hiredate DATE,
8   ContentCreator_Salary DECIMAL(10, 2),
9   SocialMedia_ID INT,
10  FOREIGN KEY (SocialMedia_ID) REFERENCES SocialMedia (SocialMedia_ID)
11 );

```

Create ContentCreator table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object	CONTENTCREATOR ?					
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CONTENTCREATOR	CONTENTCREATOR_ID	NUMBER	22	-	0	1	-	-	-
	CONTENTCREATOR_NAME	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_PASSWORD	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_PICTURE	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_HIREDATE	DATE	7	-	-	-	✓	-	-
	CONTENTCREATOR_SALARY	NUMBER	-	10	2	-	✓	-	-
	SOCIALMEDIA_ID	NUMBER	22	-	0	-	✓	-	-

ContentCreator table description

```

1 CREATE TABLE ContentCreator_SocialMedia (
2   Ccs_ID INT PRIMARY KEY,
3   ContentCreator_ID INT,
4   ContentCreator_Facebook_Link VARCHAR(100),
5   ContentCreator_Twitter_Link VARCHAR(100),
6   ContentCreator_Instagram_Link VARCHAR(100),
7   ContentCreator_Youtube_Link VARCHAR(100),
8   FOREIGN KEY (ContentCreator_ID) REFERENCES ContentCreator (ContentCreator_ID)
9 );

```

Create ContentCreator SocialMedia table

Results	Explain	Describe	Saved SQL		History				
Object Type			TABLE	Object		CONTENTCREATOR_SOCIALMEDIA			
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CONTENTCREATOR_SOCIALMEDIA	CCS_ID	NUMBER	22	-	0	1	-	-	-
	CONTENTCREATOR_ID	NUMBER	22	-	0	-	✓	-	-
	CONTENTCREATOR_FACEBOOK_LINK	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_TWITTER_LINK	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_INSTAGRAM_LINK	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_YOUTUBE_LINK	VARCHAR2	100	-	-	-	✓	-	-

ContentCreator SocialMedia table description

```

1 CREATE TABLE ContentCreator_Address (
2   Cca_ID INT PRIMARY KEY,
3   ContentCreator_ID INT,
4   ContentCreator_Country VARCHAR(100),
5   ContentCreator_City VARCHAR(100),
6   ContentCreator_Street VARCHAR(100),
7   ContentCreator_Zip_Code VARCHAR(20),
8   FOREIGN KEY (ContentCreator_ID) REFERENCES ContentCreator (ContentCreator_ID)
9 );

```

Create ContentCreator Address table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object CONTENTCREATOR_ADDRESS ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CONTENTCREATOR_ADDRESS	CCA_ID	NUMBER	22	-	0	1	-	-	-
	CONTENTCREATOR_ID	NUMBER	22	-	0	-	✓	-	-
	CONTENTCREATOR_COUNTRY	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_CITY	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_STREET	VARCHAR2	100	-	-	-	✓	-	-
	CONTENTCREATOR_ZIP_CODE	VARCHAR2	20	-	-	-	✓	-	-

ContentCreator Address table description

```

1 CREATE TABLE ContentCreator_Phone (
2   Ccp_ID INT PRIMARY KEY,
3   ContentCreator_ID INT,
4   ContentCreator_Phone VARCHAR(20),
5   FOREIGN KEY (ContentCreator_ID) REFERENCES ContentCreator (ContentCreator_ID)
6 );

```

Create ContentCreator Phone table

```

1 CREATE TABLE SocialMedia_Phone (
2     Smp_ID INT PRIMARY KEY,
3     SocialMedia_ID INT,
4     SocialMedia_Phone VARCHAR(20),
5     FOREIGN KEY (SocialMedia_ID) REFERENCES SocialMedia (SocialMedia_ID)
6 );

```

Create SocialMedia Phone table

Results	Explain	Describe	Saved SQL		History				
Object Type		TABLE ?	Object		SOCIALMEDIA_PHONE ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SOCIALMEDIA_PHONE	SMP_ID	NUMBER	22	-	0	1	-	-	-
	SOCIALMEDIA_ID	NUMBER	22	-	0	-	✓	-	-
	SOCIALMEDIA_PHONE	VARCHAR2	20	-	-	-	✓	-	-

SocialMedia Phone table description

```

1 CREATE TABLE Organization (
2     Organization_ID INT PRIMARY KEY,
3     Organization_Name VARCHAR(100),
4     Organization_Email VARCHAR(100),
5     Organization_Password VARCHAR(100),
6     Organization_Picture VARCHAR(100),
7     Organization_Phone VARCHAR(20),
8     Finance_ID INT,
9     FOREIGN KEY (Finance_ID) REFERENCES Finance (Finance_ID)
10 );

```

Create Organization table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		ORGANIZATION ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORGANIZATION	ORGANIZATION_ID	NUMBER	22	-	0	1	-	-	-
	ORGANIZATION_NAME	VARCHAR2	100	-	-	-	✓	-	-
	ORGANIZATION_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	ORGANIZATION_PASSWORD	VARCHAR2	100	-	-	-	✓	-	-
	ORGANIZATION_PICTURE	VARCHAR2	100	-	-	-	✓	-	-
	ORGANIZATION_PHONE	VARCHAR2	20	-	-	-	✓	-	-
	FINANCE_ID	NUMBER	22	-	0	-	✓	-	-

Organization table description

```

1 CREATE TABLE Organization_Phone (
2     Op_ID INT PRIMARY KEY,
3     Organization_ID INT,
4     Organization_Phone VARCHAR(20),
5     FOREIGN KEY (Organization_ID) REFERENCES Organization (Organization_ID)
6 );

```

Create Organization Phone table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object ORGANIZATION_PHONE ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORGANIZATION_PHONE	OP_ID	NUMBER	22	-	0	1	-	-	-
	ORGANIZATION_ID	NUMBER	22	-	0	-	✓	-	-
	ORGANIZATION_PHONE	VARCHAR2	20	-	-	-	✓	-	-

Organization Phone table description

```

1 CREATE TABLE Player (
2     Player_ID INT PRIMARY KEY,
3     Player_Name VARCHAR(100),
4     Player_Email VARCHAR(100),
5     Player_Password VARCHAR(100),
6     Player_Picture VARCHAR(100),
7     Player_JoinDate DATE,
8     Player_Salary DECIMAL(10, 2),
9     Player_Play_Hours INT,
10    Player_DOB DATE
11 );

```

Create Player table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		PLAYER ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER	PLAYER_ID	NUMBER	22	-	0	1	-	-	-
	PLAYER_NAME	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_PASSWORD	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_PICTURE	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_JOINDATE	DATE	7	-	-	-	✓	-	-
	PLAYER_SALARY	NUMBER	-	10	2	-	✓	-	-
	PLAYER_PLAY_HOURS	NUMBER	22	-	0	-	✓	-	-
	PLAYER_DOB	DATE	7	-	-	-	✓	-	-

Player table description

```

1 CREATE TABLE Player_Address (
2     Pa_ID INT PRIMARY KEY,
3     Player_ID INT,
4     Player_Country VARCHAR(100),
5     Player_City VARCHAR(100),
6     Player_Street VARCHAR(100),
7     Player_Zip_Code VARCHAR(20),
8     FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)
9 );

```

Create Player Address table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		PLAYER_ADDRESS ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER_ADDRESS	PA_ID	NUMBER	22	-	0	1	-	-	-
	PLAYER_ID	NUMBER	22	-	0	-	✓	-	-
	PLAYER_COUNTRY	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_CITY	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_STREET	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_ZIP_CODE	VARCHAR2	20	-	-	-	✓	-	-

Player Address table description

```

1 CREATE TABLE Player_Social_Link (
2     Psl_ID INT PRIMARY KEY,
3     Player_ID INT,
4     Player_Facebook_Link VARCHAR(100),
5     Player_Instagram_Link VARCHAR(100),
6     Player_Twitter_Link VARCHAR(100),
7     Player_Youtube_Link VARCHAR(100),
8     FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)
9 );

```

Create Player Social Link table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		PLAYER_SOCIAL_LINK ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER_SOCIAL_LINK	PSL_ID	NUMBER	22	-	0	1	-	-	-
	PLAYER_ID	NUMBER	22	-	0	-	✓	-	-
	PLAYER_FACEBOOK_LINK	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_INSTAGRAM_LINK	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_TWITTER_LINK	VARCHAR2	100	-	-	-	✓	-	-
	PLAYER_YOUTUBE_LINK	VARCHAR2	100	-	-	-	✓	-	-

Player Social Link table description

```

1 CREATE TABLE Player_Phone (
2     Pp_ID INT PRIMARY KEY,
3     Player_ID INT,
4     Player_Phone VARCHAR(20),
5     FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)
6 );

```

Create Player Phone table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object						
			PLAYER_PHONE ?						
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER_PHONE	PP_ID	NUMBER	22	-	0	1	-	-	-
	PLAYER_ID	NUMBER	22	-	0	-	✓	-	-
	PLAYER_PHONE	VARCHAR2	20	-	-	-	✓	-	-

Player Phone table description

```

1 CREATE TABLE Player_Winning (
2     Pw_ID INT PRIMARY KEY,
3     Player_ID INT,
4     Player_Winning VARCHAR(100),
5     FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)
6 );

```

Create Player Winning table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object	PLAYER_WINNING ?					
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER_WINNING	PW_ID	NUMBER	22	-	0	1	-	-	-
	PLAYER_ID	NUMBER	22	-	0	-	✓	-	-
	PLAYER_WINNING	VARCHAR2	100	-	-	-	✓	-	-

Player Winning table description

```

1 CREATE TABLE Player_Team (
2     Pt_ID INT PRIMARY KEY,
3     Player_ID INT,
4     Team_ID INT,
5     FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID),
6     FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID)
7 );

```

Create Player Team table

Results

Explain

Describe

Saved SQL

History

Object Type

TABLE ?

Object

PLAYER_TEAM ?

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PLAYER_TEAM	PT_ID	NUMBER	22	-	0	1	-	-	-
	PLAYER_ID	NUMBER	22	-	0	-	✓	-	-
	TEAM_ID	NUMBER	22	-	0	-	✓	-	-

Player Team table description

```

1 CREATE TABLE Tournament (
2     Tournament_ID INT PRIMARY KEY,
3     Tournament_Name VARCHAR(100),
4     Tournament_StartingDate DATE,
5     Tournament_EndingDate DATE,
6     Tournament_Location VARCHAR(100),
7     Tournament_Prize_Pool DECIMAL(10, 2),
8     Organization_ID INT,
9     FOREIGN KEY (Organization_ID) REFERENCES Organization (Organization_ID)
10 );

```

Create Tournament table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		TOURNAMENT ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TOURNAMENT	TOURNAMENT_ID	NUMBER	22	-	0	1	-	-	-
	TOURNAMENT_NAME	VARCHAR2	100	-	-	-	✓	-	-
	TOURNAMENT_STARTINGDATE	DATE	7	-	-	-	✓	-	-
	TOURNAMENT_ENDINGDATE	DATE	7	-	-	-	✓	-	-
	TOURNAMENT_LOCATION	VARCHAR2	100	-	-	-	✓	-	-
	TOURNAMENT_PRIZE_POOL	NUMBER	-	10	2	-	✓	-	-
	ORGANIZATION_ID	NUMBER	22	-	0	-	✓	-	-

Tournament table description

```

1 CREATE TABLE Record (
2     Record_ID INT PRIMARY KEY,
3     Record_Date DATE,
4     Record_Price_Pool DECIMAL(10, 2),
5     Tournament_ID INT,
6     FOREIGN KEY (Tournament_ID) REFERENCES Tournament (Tournament_ID)
7 );

```

Create Record table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object RECORD ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
RECORD	RECORD_ID	NUMBER	22	-	0	1	-	-	-
	RECORD_DATE	DATE	7	-	-	-	✓	-	-
	RECORD_PRICE_POOL	NUMBER	-	10	2	-	✓	-	-
	TOURNAMENT_ID	NUMBER	22	-	0	-	✓	-	-

Record table description

```

1 CREATE TABLE Game (
2     Game_ID INT PRIMARY KEY,
3     Game_Name VARCHAR(100),
4     Game_Icon VARCHAR(100),
5     Game_ReleaseDate DATE,
6     Game_Platform VARCHAR(100),
7     Game_Price_Pool DECIMAL(10, 2),
8     Game_Genre VARCHAR(100),
9     Game_Publisher VARCHAR(100)
10 );

```

Create Game table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		GAME ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
GAME	GAME_ID	NUMBER	22	-	0	1	-	-	-
	GAME_NAME	VARCHAR2	100	-	-	-	✓	-	-
	GAME_ICON	VARCHAR2	100	-	-	-	✓	-	-
	GAME_RELEASEDATE	DATE	7	-	-	-	✓	-	-
	GAME_PLATFORM	VARCHAR2	100	-	-	-	✓	-	-
	GAME_PRICE_POOL	NUMBER	-	10	2	-	✓	-	-
	GAME_GENRE	VARCHAR2	100	-	-	-	✓	-	-
	GAME_PUBLISHER	VARCHAR2	100	-	-	-	✓	-	-

Game table description

```

1 CREATE TABLE Tournament_Game (
2     Tournament_ID INT,
3     Game_ID INT,
4     PRIMARY KEY (Tournament_ID, Game_ID),
5     FOREIGN KEY (Tournament_ID) REFERENCES Tournament (Tournament_ID),
6     FOREIGN KEY (Game_ID) REFERENCES Game (Game_ID)
7 );

```

Create Tournament Game table

Results

Explain

Describe

Saved SQL

History

Object Type

TABLE

Object

TOURNAMENT_GAME

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TOURNAMENT_GAME	TOURNAMENT_ID	NUMBER	22	-	0	1	-	-	-
	GAME_ID	NUMBER	22	-	0	2	-	-	-

Tournament Game table description

```

1 CREATE TABLE Organization_Tournament (
2     Organization_ID INT,
3     Tournament_ID INT,
4     PRIMARY KEY (Organization_ID, Tournament_ID),
5     FOREIGN KEY (Organization_ID) REFERENCES Organization (Organization_ID),
6     FOREIGN KEY (Tournament_ID) REFERENCES Tournament (Tournament_ID)
7 );

```

Create Organization Tournament table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object ORGANIZATION_TOURNAMENT ?						
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORGANIZATION_TOURNAMENT	ORGANIZATION_ID	NUMBER	22	-	0	1	-	-	-
	TOURNAMENT_ID	NUMBER	22	-	0	2	-	-	-

Organization Tournament table description

```

1 CREATE TABLE Team_Game (
2     Team_ID INT,
3     Game_ID INT,
4     PRIMARY KEY (Team_ID, Game_ID),
5     FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID),
6     FOREIGN KEY (Game_ID) REFERENCES Game (Game_ID)
7 );

```

Create Team Game table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object TEAM_GAME ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEAM_GAME	TEAM_ID	NUMBER	22	-	0	1	-	-	-
	GAME_ID	NUMBER	22	-	0	2	-	-	-

Team Game table description

```

1 CREATE TABLE Company (
2     Company_ID INT PRIMARY KEY,
3     Company_Name VARCHAR(100),
4     Company_Email VARCHAR(100),
5     Company_Picture VARCHAR(100),
6     Company_Phone VARCHAR(20),
7     Company_Location VARCHAR(100)
8 );

```

Create Company table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object COMPANY ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COMPANY	COMPANY_ID	NUMBER	22	-	0	1	-	-	-
	COMPANY_NAME	VARCHAR2	100	-	-	-	✓	-	-
	COMPANY_EMAIL	VARCHAR2	100	-	-	-	✓	-	-
	COMPANY_PICTURE	VARCHAR2	100	-	-	-	✓	-	-
	COMPANY_PHONE	VARCHAR2	20	-	-	-	✓	-	-
	COMPANY_LOCATION	VARCHAR2	100	-	-	-	✓	-	-

Company table description

```

1 CREATE TABLE Company_Phone (
2     Company_ID INT,
3     Company_Phone VARCHAR(20),
4     PRIMARY KEY (Company_ID, Company_Phone),
5     FOREIGN KEY (Company_ID) REFERENCES Company (Company_ID)
6 );

```

Create Company Phone table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object COMPANY_PHONE ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COMPANY_PHONE	COMPANY_ID	NUMBER	22	-	0	1	-	-	-
	COMPANY_PHONE	VARCHAR2	20	-	-	2	-	-	-

Company Phone table description

```

1 CREATE TABLE Organization_Company (
2   Organization_ID INT,
3   Company_ID INT,
4   PRIMARY KEY (Organization_ID, Company_ID),
5   FOREIGN KEY (Organization_ID) REFERENCES Organization (Organization_ID),
6   FOREIGN KEY (Company_ID) REFERENCES Company (Company_ID)
7 );

```

Create Organization Company table

Results	Explain	Describe	Saved SQL	History					
Object Type TABLE ? Object ORGANIZATION_COMPANY ?									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORGANIZATION_COMPANY	ORGANIZATION_ID	NUMBER	22	-	0	1	-	-	-
	COMPANY_ID	NUMBER	22	-	0	2	-	-	-

Organization Company table description

```

1 CREATE TABLE Team_Company (
2   Team_ID INT,
3   Company_ID INT,
4   PRIMARY KEY (Team_ID, Company_ID),
5   FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID),
6   FOREIGN KEY (Company_ID) REFERENCES Company (Company_ID)
7 );

```

Create Team Company table

Results	Explain	Describe	Saved SQL	History					
Object Type		TABLE ?	Object		TEAM_COMPANY ?				
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEAM_COMPANY	TEAM_ID	NUMBER	22	-	0	1	-	-	-
	COMPANY_ID	NUMBER	22	-	0	2	-	-	-

Team Company table description

5.2 Sequence Creation

```
1  -- Create sequence for Manager table
2  CREATE SEQUENCE seq_manager_id START WITH 1 INCREMENT BY 1;
3  -- Create sequence for Admin table
4  CREATE SEQUENCE seq_admin_id START WITH 1 INCREMENT BY 1;
5  -- Create sequence for Manager_Phone table
6  CREATE SEQUENCE seq_mp_id START WITH 1 INCREMENT BY 1;
7  -- Create sequence for Finance table
8  CREATE SEQUENCE seq_finance_id START WITH 1 INCREMENT BY 1;
9
10 -- Create sequence for Team table
11 CREATE SEQUENCE seq_team_id START WITH 1 INCREMENT BY 1;
12 -- Create sequence for Team_Winning table
13 CREATE SEQUENCE seq_tw_id START WITH 1 INCREMENT BY 1;
14 -- Create sequence for SocialMedia table
15 CREATE SEQUENCE seq_socialmedia_id START WITH 1 INCREMENT BY 1;
16 -- Create sequence for ContentCreator table
17 CREATE SEQUENCE seq_contentcreator_id START WITH 1 INCREMENT BY 1;
18 -- Create sequence for ContentCreator_SocialMedia table
19 CREATE SEQUENCE seq_ccs_id START WITH 1 INCREMENT BY 1;
20 -- Create sequence for ContentCreator_Address table
21 CREATE SEQUENCE seq_cca_id START WITH 1 INCREMENT BY 1;
22 -- Create sequence for ContentCreator_Phone table
23 CREATE SEQUENCE seq_ccp_id START WITH 1 INCREMENT BY 1;
24
25 -- Create sequence for SocialMedia_Phone table
26 CREATE SEQUENCE seq_smp_id START WITH 1 INCREMENT BY 1;
27 -- Create sequence for Organization table
28 CREATE SEQUENCE seq_organization_id START WITH 1 INCREMENT BY 1;
29 -- Create sequence for Organization_Phone table
30 CREATE SEQUENCE seq_op_id START WITH 1 INCREMENT BY 1;
31 -- Create sequence for Player table
32 CREATE SEQUENCE seq_player_id START WITH 1 INCREMENT BY 1;
33 -- Create sequence for Player_Address table
34 CREATE SEQUENCE seq_pa_id START WITH 1 INCREMENT BY 1;
35 -- Create sequence for Player_Social_Link table
36 CREATE SEQUENCE seq_psl_id START WITH 1 INCREMENT BY 1;
37
38 -- Create sequence for Player_Phone table
39 CREATE SEQUENCE seq_pp_id START WITH 1 INCREMENT BY 1;
40 -- Create sequence for Player_Winning table
41 CREATE SEQUENCE seq_pw_id START WITH 1 INCREMENT BY 1;
42 -- Create sequence for Record table
43 CREATE SEQUENCE seq_record_id START WITH 1 INCREMENT BY 1;
44 -- Create sequence for Tournament table
45 CREATE SEQUENCE seq_tournament_id START WITH 1 INCREMENT BY 1;
46 -- Create sequence for Game table
47 CREATE SEQUENCE seq_game_id START WITH 1 INCREMENT BY 1;
48 -- Create sequence for Company table
49 CREATE SEQUENCE seq_company_id START WITH 1 INCREMENT BY 1;
50 -- Create sequence for Company_Phone table
51 CREATE SEQUENCE seq_cp_id START WITH 1 INCREMENT BY 1;
52 -- Create sequence for Organization_Company table
53 CREATE SEQUENCE seq_oc_id START WITH 1 INCREMENT BY 1;
54 --
```

Sequence Creation

5.3 Index for Table

```
1  -- Create index for Manager table
2  CREATE INDEX idx_manager_email ON Manager (Manager_Email);
3  -- Create index for Admin table
4  CREATE INDEX idx_admin_email ON Admin (Admin_Email);
5  -- Create index for Manager_Phone table
6  CREATE INDEX idx_manager_phone_manager_id ON Manager_Phone (Manager_ID);
7  -- Create index for Finance table
8  CREATE INDEX idx_finance_manager_id ON Finance (Manager_ID);
9  -- Create index for Team table
10 CREATE INDEX idx_team_manager_id ON Team (Manager_ID);
11
12 -- Create index for Team_Winning table
13 CREATE INDEX idx_team_winning_team_id ON Team_Winning (Team_ID);
14 -- Create index for SocialMedia table
15 CREATE INDEX idx_socialmedia_name ON SocialMedia (SocialMedia_Name);
16 -- Create index for ContentCreator table
17 CREATE INDEX idx_contentcreator_name ON ContentCreator (ContentCreator_Name);
18 -- Create index for ContentCreator_SocialMedia table
19 CREATE INDEX idx_ccs_contentcreator_id ON ContentCreator_SocialMedia (ContentCreator_ID)
20 ;
21 -- Create index for ContentCreator_Address table
22 CREATE INDEX idx_cca_contentcreator_id ON ContentCreator_Address (ContentCreator_ID);
23 -- Create index for ContentCreator_Phone table
24 CREATE INDEX idx_ccp_contentcreator_id ON ContentCreator_Phone (ContentCreator_ID);
25 -- Create index for SocialMedia_Phone table
26 CREATE INDEX idx_smp_socialmedia_id ON SocialMedia_Phone (SocialMedia_ID);
27 -- Create index for Organization table
28 CREATE INDEX idx_organization_name ON Organization (Organization_Name);
29 -- Create index for Organization_Phone table
30 CREATE INDEX idx_op_organization_id ON Organization_Phone (Organization_ID);
31 -- Create index for Player table
32 CREATE INDEX idx_player_name ON Player (Player_Name);
33
34 -- Create index for Player_Address table
35 CREATE INDEX idx_pa_player_id ON Player_Address (Player_ID);
36 -- Create index for Player_Social_Link table
37 CREATE INDEX idx_psl_player_id ON Player_Social_Link (Player_ID);
38 -- Create index for Player_Phone table
39 CREATE INDEX idx_pp_player_id ON Player_Phone (Player_ID);
40 -- Create index for Player_Winning table
41 CREATE INDEX idx_pw_player_id ON Player_Winning (Player_ID);
42 -- Create index for Record table
43 CREATE INDEX idx_record_date ON Record (Record_Date);
44
45 -- Create index for Tournament table
46 CREATE INDEX idx_tournament_name ON Tournament (Tournament_Name);
47 -- Create index for Game table
48 CREATE INDEX idx_game_name ON Game (Game_Name);
49 -- Create index for Company table
50 CREATE INDEX idx_company_name ON Company (Company_Name);
51 -- Create index for Company_Phone table
52 CREATE INDEX idx_cp_company_id ON Company_Phone (Company_ID);
53 -- Create index for Organization_Company table
54 CREATE INDEX idx_oc_organization_id ON Organization_Company (Organization_ID);
55 --
```

Index for Table

5.4 Alter Table for effective indexing

```
1  -- Alter Manager table to add index
2  ALTER TABLE Manager ADD CONSTRAINT idx_manager_email UNIQUE (Manager_Email);
3  -- Alter Admin table to add index
4  ALTER TABLE Admin ADD CONSTRAINT idx_admin_email UNIQUE (Admin_Email);
5  -- Alter Manager_Phone table to add index
6  ALTER TABLE Manager_Phone ADD CONSTRAINT idx_manager_phone_manager_id UNIQUE (Manager_ID
7  );
8  -- Alter Finance table to add index
9  ALTER TABLE Finance ADD CONSTRAINT idx_finance_manager_id UNIQUE (Manager_ID);
10 -- Alter Team table to add index
11 ALTER TABLE Team ADD CONSTRAINT idx_team_manager_id UNIQUE (Manager_ID);
12 -- Alter Team_Winning table to add index
13 ALTER TABLE Team_Winning ADD CONSTRAINT idx_team_winning_team_id UNIQUE (Team_ID);
14
15 -- Alter SocialMedia table to add index
16 ALTER TABLE SocialMedia ADD CONSTRAINT idx_socialmedia_name UNIQUE (SocialMedia_Name);
17 -- Alter ContentCreator table to add index
18 ALTER TABLE ContentCreator ADD CONSTRAINT idx_contentcreator_name UNIQUE (
19     ContentCreator_Name);
20 -- Alter ContentCreator_SocialMedia table to add index
21 ALTER TABLE ContentCreator_SocialMedia ADD CONSTRAINT idx_ccs_contentcreator_id UNIQUE (
22     ContentCreator_ID);
23 -- Alter ContentCreator_Address table to add index
24 ALTER TABLE ContentCreator_Address ADD CONSTRAINT idx_cca_contentcreator_id UNIQUE (
25     ContentCreator_ID);
26 -- Alter ContentCreator_Phone table to add index
27 ALTER TABLE ContentCreator_Phone ADD CONSTRAINT idx_ccp_contentcreator_id UNIQUE (
28     ContentCreator_ID);
29 -- Alter SocialMedia_Phone table to add index
30 ALTER TABLE SocialMedia_Phone ADD CONSTRAINT idx_smp_socialmedia_id UNIQUE (
31     SocialMedia_ID);
32 -- Alter Organization table to add index
33 ALTER TABLE Organization ADD CONSTRAINT idx_organization_name UNIQUE (Organization_Name)
34 ;
35 -- Alter Organization_Phone table to add index
36 ALTER TABLE Organization_Phone ADD CONSTRAINT idx_op_organization_id UNIQUE (
37     Organization_ID);
38
39 -- Alter Player table to add index
40 ALTER TABLE Player ADD CONSTRAINT idx_player_name UNIQUE (Player_Name);
41 -- Alter Player_Address table to add index
42 ALTER TABLE Player_Address ADD CONSTRAINT idx_pa_player_id UNIQUE (Player_ID);
43 -- Alter Player_Social_Link table to add index
44 ALTER TABLE Player_Social_Link ADD CONSTRAINT idx_psl_player_id UNIQUE (Player_ID);
45 -- Alter Player_Phone table to add index
46 ALTER TABLE Player_Phone ADD CONSTRAINT idx_pp_player_id UNIQUE (Player_ID);
47 -- Alter Player_Winning table to add index
48 ALTER TABLE Player_Winning ADD CONSTRAINT idx_pw_player_id UNIQUE (Player_ID);
49 -- Alter Record table to add index
50 ALTER TABLE Record ADD CONSTRAINT idx_record_date UNIQUE (Record_Date);
51
52 -- Alter Tournament table to add index
53 ALTER TABLE Tournament ADD CONSTRAINT idx_tournament_name UNIQUE (Tournament_Name);
54 -- Alter Game table to add index
55 ALTER TABLE Game ADD CONSTRAINT idx_game_name UNIQUE (Game_Name);
56 -- Alter Company table to add index
57 ALTER TABLE Company ADD CONSTRAINT idx_company_name UNIQUE (Company_Name);
58 -- Alter Company_Phone table to add index
59 ALTER TABLE Company_Phone ADD CONSTRAINT idx_cp_company_id UNIQUE (Company_ID);
60 -- Alter Organization_Company table to add index
61 ALTER TABLE Organization_Company ADD CONSTRAINT idx_oc_organization_id UNIQUE (
62     Organization_ID);
63 --
```

Alter Table

Relational Algebra

6.1 Selection

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Conclusion

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