

American International University-Bangladesh Department of Computer Science and Engineering Dhaka, Bangladesh

$00892~{\rm ADVANCE~DATABASE~MANAGEMENT~SYSTEM}$

PROJECT Report

 $[\mathrm{B}][\mathrm{SUMMER}\ 22\text{-}23]$

E-Sports Management System

Group 5

Submitted by

Names of Students	ID
AJRAN HOSSAIN	19-39334-1
SHARIF HADI MAHATAB	20-43625-2
MD. SARAFAT ALI ADIR	20-41926-1
MEDHA CHOWDHURY	20-41930-1

Date of Submission

August 27, 2023

Submitted to JUENA AHMED NOSHIN

Assistant Professor, Faculty
Department of Computer Science and Engineering
American International University-Bangladesh

Contribution

	AJRAN HOSSAIN	SHARIF HADI MAHATAB	MD. SARAFAT ALI ADIR	MEDHA CHOWDHURY	Contribution (%)
	19-39334-1	20-43625-2	20-41926-1	20-41930-1	
Diagram	60%	20%	10%	10%	100(%)
UI Design	100%	0%	0%	0%	100(%)
Normalization	50%	50%	0%	0%	100(%)
SQL Query	85%	5%	5%	5%	100(%)
Relational Algebra	15%	0%	85%	0%	100(%)
Report Writing	55%	35%	5%	5%	100(%)
App Coding	40%	20%	20%	20%	100(%)

Contents

1	Intr	oduction 1				
	1.1	Project Proposal				
		1.1.1 Purposes				
		1.1.2 Methodology				
	1.2	Project Scenario				
2 Diagrams						
	2.1	ER Diagram				
	2.2	Class Diagram				
	2.3	Use Case Diagram				
	2.4	Activity Diagram				
3	Use	r Interface 8				
	3.1	Technologies Used				
		3.1.1 Home Page				
		3.1.2 About Page				
		3.1.3 Login Page				
		3.1.4 Profile Page				
		3.1.5 Tournament Page				
		3.1.6 Team Page				
		3.1.7 Game Page				
4	NF	and Schema 11				
	4.1	Manage branch				
		4.1.1 (Admin \rightarrow Manager)				
		4.1.2 (Manager \rightarrow Finance)				
		$4.1.3$ (Manager \rightarrow Teams)				
		$4.1.4$ (SocialMedia \rightarrow ContentCreator)				
	4.2	Pay branch				
		4.2.1 (Finance \rightarrow SocialMedia)				
		4.2.2 (Finance \rightarrow organization)				
	4.3	Formed branch				
		$4.3.1$ (Teams \rightarrow Player)				
	4.4	Has branch				
		$4.4.1$ (Record \rightarrow Tournament)				
		$4.4.2$ (Tournament \rightarrow Game)				
	4.5	Participate branch				
		$4.5.1 (\text{Teams} \rightarrow \text{Game}) \dots \dots \dots \dots \dots \dots \dots \dots \dots $				
	4.6	Host branch				
	1.0	$4.6.1$ (Organizer \rightarrow Tournament)				
	4.7	Sponsor branch				
	1.1	4.7.1 (Companies \rightarrow Organization)				
		4.7.2 (Companies \rightarrow Teams)				
	4.8	Temporary Tables				
	4.9	Final Tables				
		Schema Diagram				
	1.10	~~::::::::::::::::::::::::::::::::::::				

5	SQI	L Queries	31
	5.1	User Creation	31
	5.2	Table Creation	32
	5.3	Sequence Creation	45
	5.4	Index for Table	46
	5.5	Alter Table	47
	5.6	Data Insertion	48
	5.7	Single Row Functions	59
	5.8	Group Functions	60
	5.9	SubQuery	61
	5.10	Join Queries	63
	5.11	Creating View	65
	5.12	Synonyms	66
	5.13	PL/SQL	67
		5.13.1 Functions	67
		5.13.2 Procedure	68
		5.13.3 Record	70
		5.13.4 Cursors	72
		5.13.5 Triggers	74
		5.13.6 Package	75
6	Rela	ational Algebra	77
7	Con	aclusion	78

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

A company called EsportsFTW oversees a number of gaming industry teams and competitions. This company is run by an administrator who is in charge of everything. A unique ID is used to save the admin profile in the system. It was also necessary to register other data in the system, such as an email, photo, password, and name.

There are many Managers that report to the Admin and are in charge of several specialized departments. The system keeps track of each Manager's information, including their name, email address, pay, and date of hiring. The system produced a unique Department and Manager id for them. The Finance division is exclusively managed by one Manager, who also oversees the organization's finances and ensures financial stability. Data from the finances, including account numbers and balances, are also maintained in the system. Also created by the system is an ID.

Each Manager oversees a certain team in addition to the money. The Teams profile contains information about the team, including its name, country of origin, winning streaks, and total prize money. A different Manager is given to each team, guaranteeing effective structure and collaboration. The system-generated id serves as a connection between the Manager and the Teams object.

There are a number of Players who play for each squad and represent the organization in different games. Name, photo, income, winning prize money, total hours played, phone number, and address (including nation, city, zip code, and road number) are just a few of the details that may be found in a player's profile. The URLs to the athletes' social media accounts on websites like Facebook, Instagram, Twitter, and YouTube are also available.

The organization organizes competitions that bring together teams from various video games. Data from the Tournament profile includes the name, price pool, start date, and finish date. Games like Valorant, Mobile Legends: Bang Bang (MLBB), and Rainbow Six Siege are all included in each event. Name, release date, genre, game image, publisher, platform, and pricing pool are only a few examples of the game data. Different games might be linked to each event via the game id.

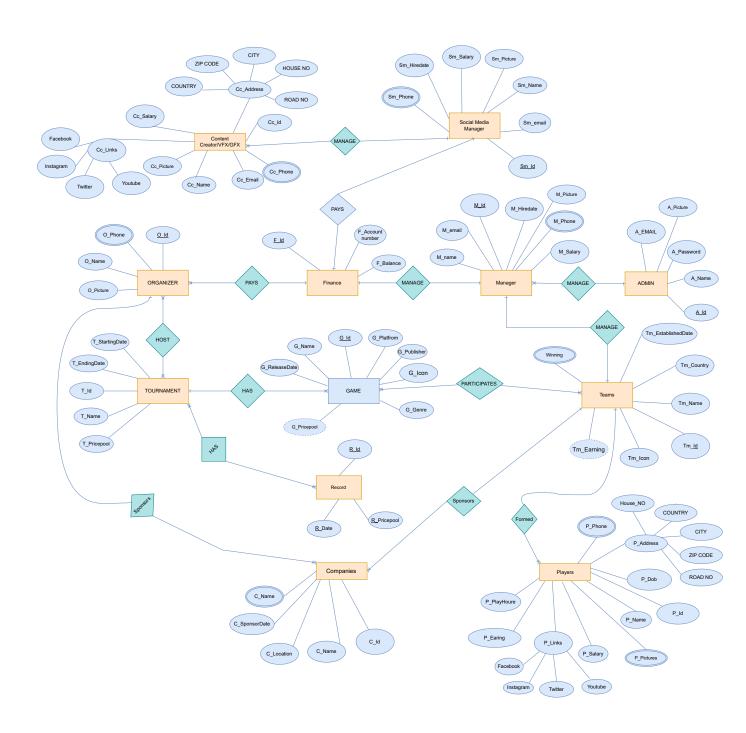
EsportsFTW looks for corporate sponsorships to help pay for the teams and competitions. The company's information, including name, address, sponsoring date, and phone number. Both teams and tournaments may have several corporate sponsors, creating a many-to-many link between the data for the corporations, teams, and tournaments via the system-generated id.

A Social Media Manager is also employed by EsportsFTW to oversee the company's online presence. Information like name, image, email, date of hiring, salary, phone number, and social media links (Facebook, Instagram, Twitter, and YouTube) are all included in the profile for the Social Media Manager. The VFX/GFX and material Creator teams are under the Social Media Manager's control, and both teams are responsible for producing interesting material. Data like name, image, email, phone number, income, and address (country, city, zip code, and road number) are all included in the VFX/GFX and Content Creator profiles.

The whole organization of EsportsFTW is described in this scenario, including its administration, management structure, teams, players, coaches, competitions, sponsorships, and social media management. The database offers a thorough way to arrange and monitor all parts of the business' operations, guaranteeing efficient administration and achievement in the cutthroat world of eSports.

Diagrams

2.1 ER Diagram

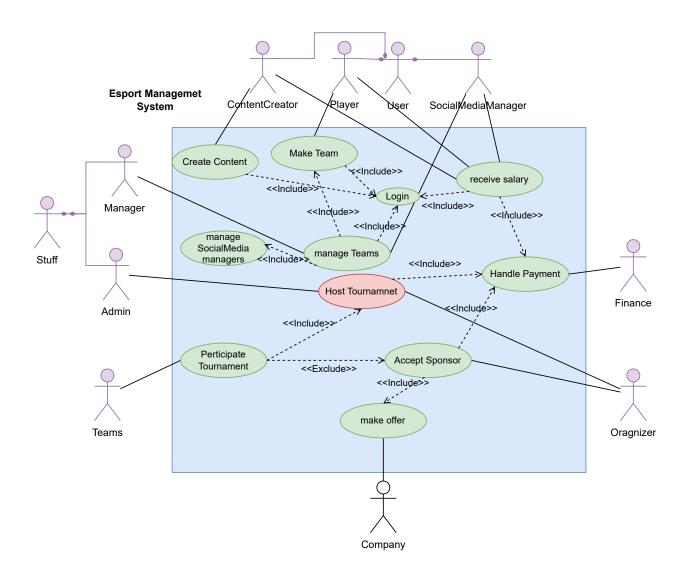


2.2 Class Diagram

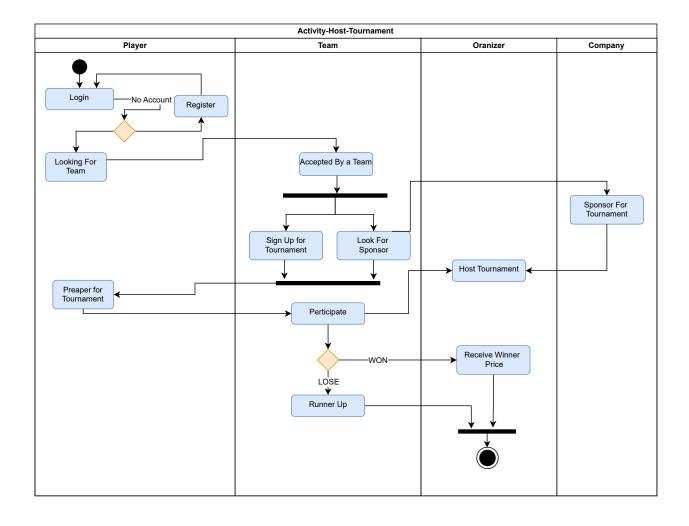


Class Diagram

2.3 Use Case Diagram



2.4 Activity Diagram



User Interface

3.1 Technologies Used

- SvelteKit
- Tailwind CSS

3.1.1 Home Page



3.1.2 About Page



3.1.3 Login Page



3.1.4 Profile Page



3.1.5 Tournament Page



3.1.6 Team Page



3.1.7 Game Page



Normalization and Schema Design

4.1 Manage branch

$4.1.1 \quad (Admin \rightarrow Manager)$

UNF

(<u>Admin_ID</u>, Admin_Name, Admin_Email, Admin_Password, Admin_Picture, <u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Manager_Phone)

1NF

Phone is multi-valued attribute.

 (<u>Admin_ID</u>, Admin_Name, Admin_Email, Admin_Password, Admin_Picture, <u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, <u>Manager_Hiredate</u>, Manager_Phone)

2NF

- 1. Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture
- 2. <u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, <u>Manager_Hiredate</u>, Manager_Phone

3NF

No transitive dependencies found. Same as 2NF

- 1. Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture
- 2. <u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, <u>Manager_Hiredate</u>, Manager_Phone

- 1. (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate, Admin_ID)
- 2. (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
- 3. (Mp_ID, Manager_ID, Manager_Phone)

4.1.2 (Manager \rightarrow Finance)

UNF

(<u>Manager_ID</u>, 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.

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

2NF

- 1. (<u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password,Manager_Picture, Manager_Hiredate, Manager_Phone)
- 2. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance)

3NF

No transitive dependency found. Same as 2NF.

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

- 1. (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate)
- 2. (Finance_ID, Finance_Account_Number, Finance_Balance, Manager_ID)
- 3. (Mp_ID, Manager_ID, Manager_Phone)

4.1.3 (Manager \rightarrow Teams)

UNF

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

1NF

Winning & Phone are multi-valued attribute.

1. (<u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password,Manager_Picture, Manager_Hiredate, Manager_Phone, <u>Team_ID</u>, Team_Name,Team_Icon, Team_established_date, Team_country,Team_Total_Price_Money,Team_Winnig)

2NF

- 1. (<u>Manager_ID</u>, Manager_Name, Manager_Email, Manager_Password,Manager_Picture, Manager_Hiredate, Manager_Phone)
- 2. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Total_Price_Money, Team_country)

3NF

No transitive dependency found. Same as 2NF.

- 1. (Manager_ID, Manager_Name, Manager_Email, Manager_Password,Manager_Picture, Manager_Hiredate, Manager_Phone)
- 2. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Total_Price_Money, Team_country)

- 1. (Manager_ID, Manager_Name, Manager_Email, Manager_Password, Manager_Picture, Manager_Hiredate)
- 2. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Price_Money, **Manager_ID**
- 3. (Tw_ID, **Team_ID**, Team_Winnig)
- 4. (Mp_ID, Manager_ID, Manager_Phone)

4.1.4 (SocialMedia \rightarrow ContentCreator)

UNF

(<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone, SocialMedia_Hiredate, SocialMedia_Salary, <u>ContentCreator_ID</u>, 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_ator_

 $Instagram_Link, ContentCreator_Youtube_Link \ , ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)$

2NF

- 1. (<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone, SocialMedia_Hiredate, SocialMedia_Salary)
- 2. (<u>ContentCreator_ID</u>, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Phone, ContentCreator_Hiredate, ContentCreator_Salary, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_ator_

 $Instagram_Link, ContentCreator_Youtube_Link \ , ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)$

3NF

- 1. <u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture , SocialMedia_Hiredate , SocialMedia_Salary)
- 2. <u>ContentCreator_ID</u>, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate, ContentCreator_Salary)
- 3. (ContentCreator_ID, SocialMedia_ID, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_ Instagram_Link, ContentCreator_Youtube_Link)
- 4. (ContentCreator_ID, ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)

- 1. (<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary)
- 2. (<u>ContentCreator_ID</u>, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate, ContentCreator_Salary)
- 3. (<u>Ccs_ID</u>, **ContentCreator_ID**, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_ Instagram_Link, ContentCreator_Youtube_Link)
- 4. (<u>Cca_ID</u>, **ContentCreator_ID**, ContentCreator_Country, ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
- 5. (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)
- 6. (Smp_ID, SocialMedia_ID, SocialMedia_Phone)
- 7. (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)

4.2 Pay branch

4.2.1 (Finance \rightarrow SocialMedia)

UNF

(<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance, <u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone, SocialMedia_Hiredate, SocialMedia_Salary)

1NF

Phone is multi-valued attribute.

1. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance, <u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone, SocialMedia_Hiredate, SocialMedia_Salary)

2NF

- 1. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance)
- 2. (<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone, SocialMedia_Hiredate, SocialMedia_Salary)

3NF

No transitive dependency found. Same as 2NF.

- 1. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance)
- 2. (<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Phone, SocialMedia_Hiredate, SocialMedia_Salary)

- 1. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance)
- 2. (<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary, **Finance_ID**)
- 3. (Smp_ID, SocialMedia_ID, SocialMedia_Phone)

4.2.2 (Finance \rightarrow organization)

UNF

(<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance, Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

1NF

Phone is multi-valued attribute.

 (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance, <u>Organization_ID</u>, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

2NF

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

3NF

No transitive dependency found. Same as 2NF.

- 1. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance)
- 2. (<u>Organization_ID</u>, Organization_Name, Organization_Email, Organization_Password, <u>Organization_Picture</u>, Organization_Phone)

- 1. (<u>Finance_ID</u>, Finance_Account_Number, Finance_Balance)
- 2. (Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone, Finance_ID)
- 3. (Op_ID, **Organization_ID**, Organization_Phone)

4.3 Formed branch

$4.3.1 \quad (\text{Teams} \rightarrow \text{Player})$

\mathbf{UNF}

(<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning,

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

1NF

Phone & Wining number are multi-valued attribute.

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

2NF

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- 2. (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

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- 2. (<u>Player_ID</u>, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, <u>Player_Salary</u>, Player_Winnig_Money, Player_Play_Hours, Player_DOB)
- 3. (Pa_ID, Player_ID, Player_country, Player_City, Player_Street, Player_Zip_Code)
- 4. (Psl_ID, Player_ID, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Yo

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- 2. (<u>Player_ID</u>, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, <u>Player_Salary</u>, Player_Play_Hours, Player_DOB)
- 3. (Pa_ID, Player_ID, Player_country, Player_City, Player_Street, Player_Zip_Code)
- 4. (Psl_ID, Player_ID, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_You
- 5. (Pp_ID, **Player_ID**, Player_Phone)
- 6. (<u>Pw_ID</u>, **Player_ID**, Player_Winnig)
- 7. (Pt_ID, Player_ID, Team_ID)

4.4 Has branch

$4.4.1 \pmod{ ext{Tournament}}$

\mathbf{UNF}

(<u>Record_ID</u>, Record_Date, Record_Price_Pool, <u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

1NF

1. (<u>Record_ID</u>, Record_Date, Record_Price_Pool, <u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

2NF

- 1. (<u>Record_ID</u>, Record_Date, Record_Price_Pool, **Tournament_ID**)
- 2. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate,Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

3NF

No transitive dependency found. Same as 2NF.

- 1. (Record_ID, Record_Date, Record_Price_Pool, **Tournament_ID**)
- 2. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate,Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

- 1. (Record_ID, Record_Date, Record_Price_Pool, **Tournament_ID**)
- 2. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate,Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)

4.4.2 (Tournament \rightarrow Game)

UNF

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

1NF

1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, <u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

2NF

- 1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- 2. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

3NF

No transitive dependency found. Same as 2NF.

- 1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- 2. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

- 1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- 2. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
- 3. (Tournament_ID, Game_ID)

4.5 Participate branch

$4.5.1 \quad ({ m Teams} ightarrow { m Game})$

UNF

(<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, <u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePoolGame_Genre, Game_Publisher))

1NF

1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, <u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

2NF

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- 2. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

3NF

No transitive dependency found. Same as 2NF.

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- 2. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig)
- 2. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
- 3. (Team_ID, Game_ID)

4.6 Host branch

$\textbf{4.6.1} \quad \textbf{(Organizer} \rightarrow \textbf{Tournament)}$

UNF

(<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, <u>Organization_ID</u>, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

1NF

Phone is a multi-vale attribute.

1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, <u>Organization_ID</u>, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

2NF

- 1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
- 2. (Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

3NF

No transitive dependency found. Same as 2NF.

- 1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
- 2. (Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture, Organization_Phone)

- 1. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
- 2. (Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture)
- 3. (Organization_ID, Organization_Phone)
- 4. (Organization_ID, Tournament_ID)

4.7 Sponsor branch

4.7.1 (Companies \rightarrow Organization)

\mathbf{UNF}

(<u>Organization_ID</u>, Organization_Name, Organization_Email, Organization_Picture, Organization_Phone, <u>Company_ID</u>, Company_Name, Company_Email, Company_Picture, Company_Phone, location)

1NF

phone is a multi-value attribute.

1. (<u>Organization_ID</u>, Organization_Name, Organization_Email, Organization_Picture, Organization_Phone, <u>Company_ID</u>, Company_Name, Company_Email, Company_Picture, Company_Phone, <u>location</u>)

2NF

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

3NF

No transitive dependency found. Same as 2NF.

- 1. (Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Organization_Phone, Company_ID)
- 2. (<u>Company_ID</u>, Company_Name, Company_Email, Company_Picture, Company_Phone, location)

- 1. (Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Company_ID)
- 2. **Organization_Phone**(Organization_ID, Organization_Phone)
- 3. (Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)
- 4. (Company_ID, Company_Phone)
- 5. (Organization_ID, Company_ID)

4.7.2 (Companies \rightarrow Teams)

UNF

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

1NF

Phone is multi-value attribute.

1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig, <u>Company_ID</u>, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)

2NF

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig
- 2. (Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)

3NF

No transitive dependency found. Same as 2NF.

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig
- 2. (Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)

- 1. (<u>Team_ID</u>, Team_Name, Team_Icon, Team_established_date, Team_country, Total_Earning, Team_Winnig
- 2. (Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)
- 3. (<u>Team_ID</u>, Company_ID)
- 4. (Company_ID, Company_Phone)

4.8 Temporary Tables

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

- 23. (<u>Team_ID</u>, <u>Team_Name</u>, <u>Team_Icon</u>, <u>Team_established_date</u>, <u>Team_country</u>, <u>Total_Earning</u>, <u>Team_Winnig</u>)
- 24. (Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture, Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
- 25. (Pa_ID, Player_ID, Player_country, Player_City, Player_Street, Player_Zip_Code)
- $26. \ \ (\underline{Psl_ID}, \mathbf{Player_ID}, Player_Facebook_Link, Player_Instagram_Link, Player_Twitter_Link, Player_Young Facebook_Link, Player_Facebook_Link, Pl$
- 27. (Pp_ID, Player_ID, Player_Phone)
- 28. (Pw_ID, Player_ID, Player_Winnig)
- 29. (Pt_ID, Player_ID, Team_ID)
- 30. (Record_ID, Record_Date, Record_Price_Pool, Tournament_ID)
- 31. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate,Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- 32. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- 33. (<u>Game_ID</u>, Game_Name, Game_Icon, Game_ReleaseDate, Game_Platform, Game_PricePool, Game_Genre, Game_Publisher)
- 34. (Tournament_ID, Game_ID)
- 35. (<u>Tournament_ID</u>, Tournament_Name, Tournament_StartingDate, Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool, Organization_ID)
- 36. (Organization_ID, Organization_Name, Organization_Email, Organization_Password, Organization_Picture)
- 37. (Organization_ID, Organization_Phone)
- 38. (Organization_ID, Tournament_ID)
- 39. (<u>Team_ID</u>, <u>Team_Name</u>, <u>Team_Icon</u>, <u>Team_established_date</u>, <u>Team_country</u>, <u>Total_Earning</u>, <u>Team_Winnig</u>)
- 40. (<u>Game_ID</u>, <u>Game_Name</u>, <u>Game_Icon</u>, <u>Game_ReleaseDate</u>, <u>Game_Platform</u>, <u>Game_PricePool</u>, <u>Game_Genre</u>, <u>Game_Publisher</u>)
- 41. (Team_ID, Game_ID)
- 42. (Organization_ID, Organization_Name, Organization_Email, Organization_Picture, Company_ID)
- 43. (Organization_ID, Organization_Phone)
- 44. (Company_ID, Company_Name, Company_Email, Company_Picture, Company_Phone, location)
- 45. (Company_ID, Company_Phone)
- 46. (Organization_ID, Company_ID)

- 47. (<u>Team_ID</u>, <u>Team_Name</u>, <u>Team_Icon</u>, <u>Team_established_date</u>, <u>Team_country</u>, <u>Total_Earning</u>, <u>Team_Winnig</u>
- 48. (Company_ID, Company_Name, Company_Email, Company_Password, Company_Picture, Company_Phone, Company_location)
- 49. (<u>Team_ID</u>, Company_ID)
- 50. (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**(<u>Team_ID</u>, 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** (<u>SocialMedia_ID</u>, SocialMedia_Name, SocialMedia_Email, SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary)
- 8. **ContentCreator** (<u>ContentCreator_ID</u>, ContentCreator_Name, ContentCreator_Email, ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate, ContentCreator_Salary)
- 9. ContentCreator_SocialMedia (<u>Ccs_ID</u>,ContentCreator_ID, ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_ Instagram_Link, ContentCreator_Youtube_Link)
- 10. ContentCreator_Address (<u>Cca_ID</u>, 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** (<u>Psl_ID</u>, **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**_ID, Tournament_Name, Tournament_StartingDate,Tournament_EndingDate, Tournament_Location, Tournament_Prize_Pool)
- 23. **Game**(<u>Game_ID</u>, 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 User Creation

```
1 -- Create the users
2 CREATE USER admin IDENTIFIED BY bossman;
3 CREATE USER manager IDENTIFIED BY lessbossman;
4 CREATE USER finance IDENTIFIED BY calulator;
```

User Creation

```
Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production

SQL> CREATE USER admin IDENTIFIED BY bossman;
User created.

SQL> CREATE USER manager IDENTIFIED BY lessbossman;
User created.

SQL> CREATE USER finance IDENTIFIED BY calulator;
User created.

SQL> CREATE USER finance IDENTIFIED BY calulator;
User created.
```

Screenshot of User Creation from SQL Plus

```
-- Grant All privileges to admin user
GRANT ALL PRIVILEGES TO admin;

4 -- Grant DML privileges to manager user
GRANT SELECT ANY TABLE TO MANAGER;
GRANT UPDATE ANY TABLE TO MANAGER;

-- Grant Read only privileges to finance user
GRANT SELECT ANY TABLE TO FINANCE;
```

User Creation

```
© root@4248e0b0d0a4:/ × + V

SQL> GRANT ALL PRIVILEGES TO admin;

Grant succeeded.

SQL> GRANT SELECT ANY TABLE TO MANAGER;

Grant succeeded.

SQL> GRANT UPDATE ANY TABLE TO MANAGER;

Grant succeeded.

SQL> GRANT SELECT ANY TABLE TO FINANCE;

Grant succeeded.

SQL> GRANT SELECT ANY TABLE TO FINANCE;
```

Screenshot of User Privileges from SQL Plus

5.2 Table Creation

```
CREATE TABLE Admin (

Admin_ID INT PRIMARY KEY,

Admin_Name VARCHAR(100),

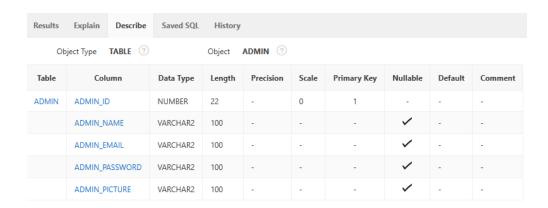
Admin_Email VARCHAR(100),

Admin_Password VARCHAR(100),

Admin_Picture VARCHAR(100)

);
```

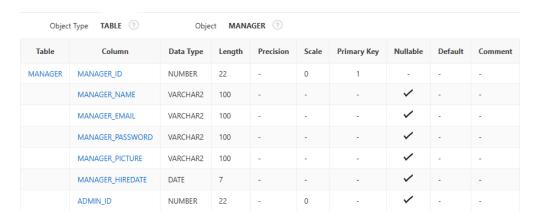
Create Admin table



Admin table description

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

Create Manager table



Manager table description

```
CREATE TABLE Manager_Phone (

Mp_ID INT PRIMARY KEY,

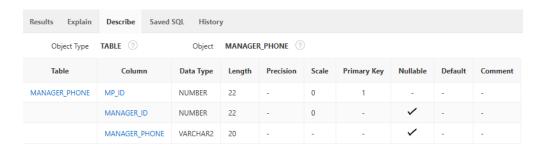
Manager_ID INT,

Manager_Phone VARCHAR(20),

FOREIGN KEY (Manager_ID) REFERENCES Manager (Manager_ID)

);
```

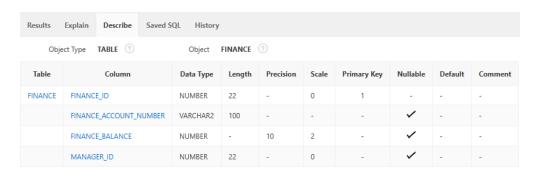
Create Manager Phone table



Manager Phone table description

```
CREATE TABLE Finance (
Finance_ID INT PRIMARY KEY,
Finance_Account_Number VARCHAR(100),
Finance_Balance DECIMAL(10, 2),
Manager_ID INT,
FOREIGN KEY (Manager_ID) REFERENCES Manager (Manager_ID)
);
```

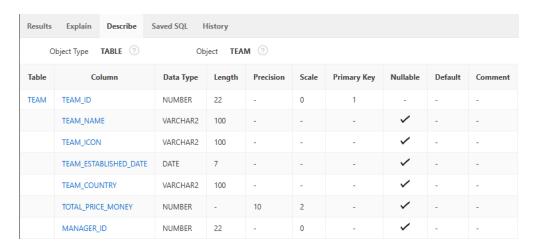
Create Finance table



Finance table description

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

Create Team table



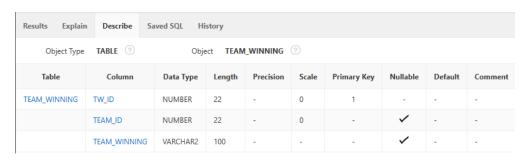
Team table description

```
CREATE TABLE Team_Winning (
Tw_ID INT PRIMARY KEY,

Team_ID INT,
Team_Winning VARCHAR(100),
FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID)

);
```

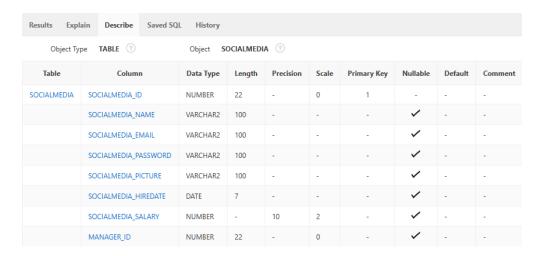
Create Team Winning table



Team Winning table description

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

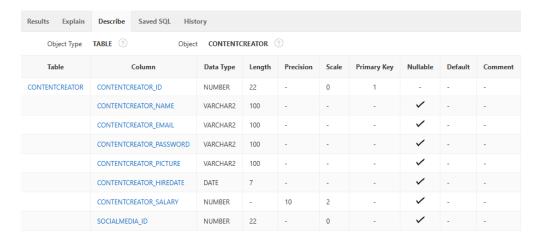
Create SocialMedia table



SocialMedia table description

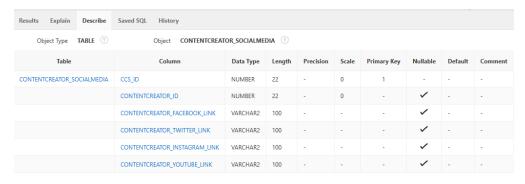
```
1
        CREATE TABLE ContentCreator (
2
            ContentCreator_ID INT PRIMARY KEY,
            ContentCreator_Name VARCHAR(100),
3
            ContentCreator_Email VARCHAR (100),
4
            ContentCreator_Password VARCHAR (100),
            ContentCreator_Picture VARCHAR(100),
6
7
            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



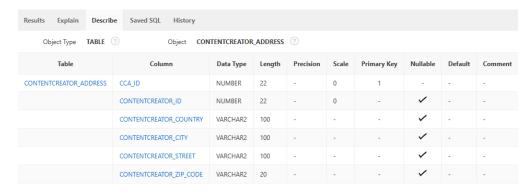
ContentCreator table description

Create ContentCreator SocialMedia table



ContentCreator SocialMedia table description

Create ContentCreator Address table



ContentCreator Address table description

Create ContentCreator Phone table

```
CREATE TABLE SocialMedia_Phone (
Smp_ID INT PRIMARY KEY,
SocialMedia_ID INT,
SocialMedia_Phone VARCHAR(20),
FOREIGN KEY (SocialMedia_ID) REFERENCES SocialMedia (SocialMedia_ID)
);
```

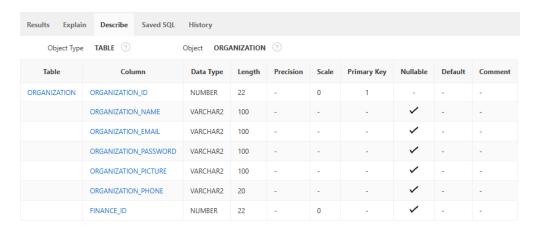
Create SocialMedia Phone table



SocialMedia Phone table description

```
1
        CREATE TABLE Organization (
2
            Organization_ID INT PRIMARY KEY,
3
            Organization_Name VARCHAR(100),
            Organization_Email VARCHAR(100),
4
5
            {\tt Organization\_Password\ VARCHAR}\,({\tt 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



Organization table description

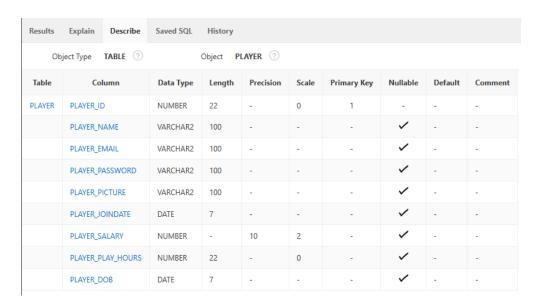
Create Organization Phone table



Organization Phone table description

```
CREATE TABLE Player (
2
             Player_ID INT PRIMARY KEY,
             Player_Name VARCHAR(100),
Player_Email VARCHAR(100),
3
4
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



Player table description

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

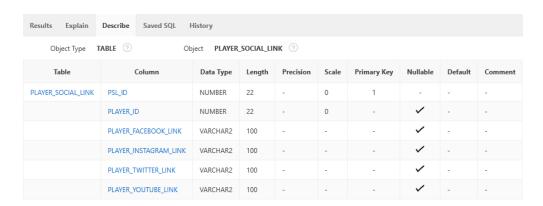
Create Player Address table



Player Address table description

```
CREATE TABLE Player_Social_Link (
1
2
           Psl_ID INT PRIMARY KEY,
3
           Player_ID INT,
           Player_Facebook_Link VARCHAR(100),
5
           {\tt Player\_Instagram\_Link~VARCHAR(100),}
6
7
           Player_Twitter_Link VARCHAR(100),
            Player_Youtube_Link VARCHAR(100),
8
           FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)
9
       );
```

Create Player Social Link table



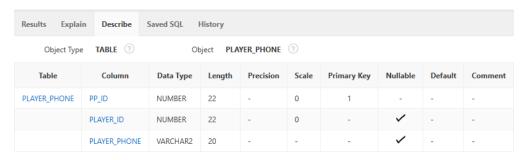
Player Social Link table description

```
CREATE TABLE Player_Phone (
Pp_ID INT PRIMARY KEY,

Player_ID INT,
Player_Phone VARCHAR(20),
FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)

);
```

Create Player Phone table



Player Phone table description

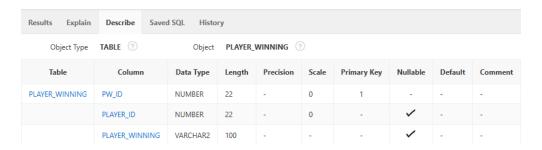
```
CREATE TABLE Player_Winning (
Pw_ID INT PRIMARY KEY,

Player_ID INT,

Player_Winning VARCHAR(100),
FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID)

);
```

Create Player Winning table



Player Winning table description

```
CREATE TABLE Player_Team (

Pt_ID INT PRIMARY KEY,

Player_ID INT,

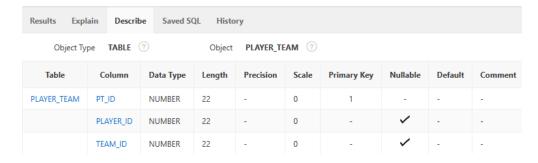
Team_ID INT,

FOREIGN KEY (Player_ID) REFERENCES Player (Player_ID),

FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID)

);
```

Create Player Team table



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),
            Organization_ID INT,
8
9
            FOREIGN KEY (Organization_ID) REFERENCES Organization (Organization_ID)
10
       );
```

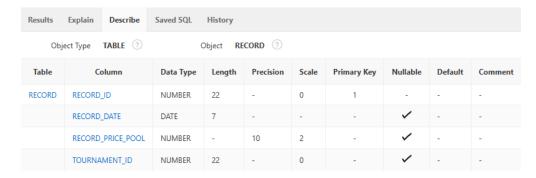
Create Tournament table



Tournament table description

```
CREATE TABLE Record (
Record_ID INT PRIMARY KEY,
Record_Date DATE,
Record_Price_Pool DECIMAL(10, 2),
Tournament_ID INT,
FOREIGN KEY (Tournament_ID) REFERENCES Tournament (Tournament_ID)
);
```

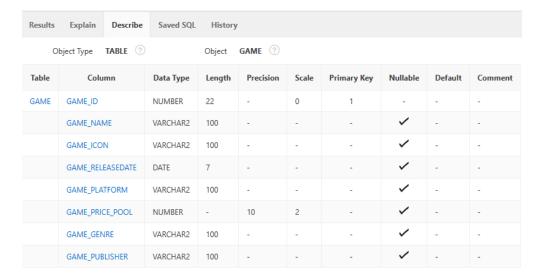
Create Record table



Record table description

```
CREATE TABLE Game (
2
            Game_ID INT PRIMARY KEY,
3
            Game_Name VARCHAR(100),
            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
       );
```

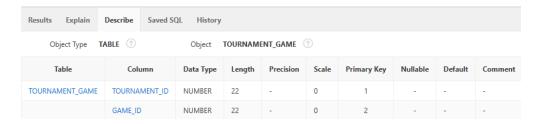
Create Game table



Game table description

```
CREATE TABLE Tournament_Game (
Tournament_ID INT,
Game_ID INT,
PRIMARY KEY (Tournament_ID, Game_ID),
FOREIGN KEY (Tournament_ID) REFERENCES Tournament (Tournament_ID),
FOREIGN KEY (Game_ID) REFERENCES Game (Game_ID)
);
```

Create Tournament Game table



Tournament Game table description

Create Organization Tournament table

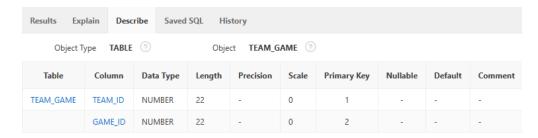


Organization Tournament table description

```
CREATE TABLE Team_Game (
Team_ID INT,
Game_ID INT,
Game_ID INT,
PRIMARY KEY (Team_ID, Game_ID),
FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID),
FOREIGN KEY (Game_ID) REFERENCES Game (Game_ID)

7 );
```

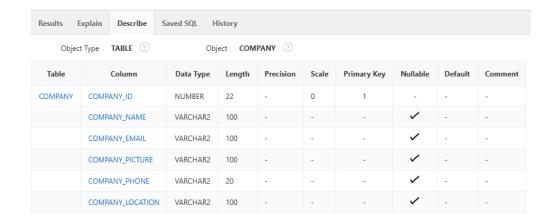
Create Team Game table



Team Game table description

```
CREATE TABLE Company (
Company_ID INT PRIMARY KEY,
Company_Name VARCHAR(100),
Company_Email VARCHAR(100),
Company_Picture VARCHAR(100),
Company_Phone VARCHAR(20),
Company_Location VARCHAR(100)
);
```

Create Company table



Company table description

```
CREATE TABLE Company_Phone (
Company_ID INT,
Company_Phone VARCHAR(20),
PRIMARY KEY (Company_ID, Company_Phone),
FOREIGN KEY (Company_ID) REFERENCES Company (Company_ID)
);
```

Create Company Phone table



Company Phone table description

Create Organization Company table

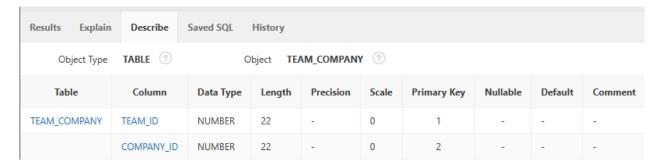


Organization Company table description

```
CREATE TABLE Team_Company (
Team_ID INT,
Company_ID INT,
PRIMARY KEY (Team_ID, Company_ID),
FOREIGN KEY (Team_ID) REFERENCES Team (Team_ID),
FOREIGN KEY (Company_ID) REFERENCES Company (Company_ID)

7 );
```

Create Team Company table



Team Company table description

5.3 Sequence Creation

```
-- Create sequence for Manager table
   CREATE SEQUENCE seq_manager_id START WITH 1 INCREMENT BY 1;
   -- Create sequence for Admin table
   CREATE SEQUENCE seq_admin_id START WITH 1 INCREMENT BY 1;
    -- Create sequence for Manager_Phone table
6
   CREATE SEQUENCE seq_mp_id START WITH 1 INCREMENT BY 1;
   -- Create sequence for Finance table
   CREATE SEQUENCE seq_finance_id START WITH 1 INCREMENT BY 1;
8
9
10
   -- Create sequence for Team table
   CREATE SEQUENCE seq_team_id START WITH 1 INCREMENT BY 1;
11
12
   -- Create sequence for Team_Winning table
   CREATE SEQUENCE seq_tw_id START WITH 1 INCREMENT BY 1;
13
14
    -- Create sequence for SocialMedia table
15
   CREATE SEQUENCE seq_socialmedia_id START WITH 1 INCREMENT BY 1;
16
    - Create sequence for ContentCreator table
   CREATE SEQUENCE seq_contentcreator_id START WITH 1 INCREMENT BY 1;
17
   -- Create sequence for ContentCreator_SocialMedia table
18
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
   -- Create sequence for SocialMedia_Phone table
25
26
   CREATE SEQUENCE seq_smp_id START WITH 1 INCREMENT BY 1;
27
    -- Create sequence for Organization table
   CREATE SEQUENCE seq_organization_id START WITH 1 INCREMENT BY 1;
28
   -- Create sequence for Organization_Phone table
30
   CREATE SEQUENCE seq_op_id START WITH 1 INCREMENT BY 1;
31
   -- Create sequence for Player table
   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;
   -- Create sequence for Player_Social_Link table
35
36
   CREATE SEQUENCE seq_psl_id START WITH 1 INCREMENT BY 1;
37
38
   -- Create sequence for Player_Phone table
   CREATE SEQUENCE seq_pp_id START WITH 1 INCREMENT BY 1;
39
40

    Create sequence for Player_Winning table

   CREATE SEQUENCE seq_pw_id START WITH 1 INCREMENT BY 1;
41
42
   -- Create sequence for Record table
43
   CREATE SEQUENCE seq_record_id START WITH 1 INCREMENT BY 1;
44
   -- Create sequence for Tournament table
   CREATE SEQUENCE seq_tournament_id START WITH 1 INCREMENT BY 1;
    -- Create sequence for Game table
46
   CREATE SEQUENCE seq_game_id START WITH 1 INCREMENT BY 1;
47
    -- Create sequence for Company table
   CREATE SEQUENCE seq_company_id START WITH 1 INCREMENT BY 1;
49
50
   -- Create sequence for Company_Phone table
   CREATE SEQUENCE seq_cp_id START WITH 1 INCREMENT BY 1;
51
52
   -- Create sequence for Organization_Company table
   CREATE SEQUENCE seq_oc_id START WITH 1 INCREMENT BY 1;
53
54
```

Sequence Creation

5.4 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);
        -- Create index for Manager_Phone table
       CREATE INDEX idx_manager_phone_manager_id ON Manager_Phone (Manager_ID);
6
7
        -- Create index for Finance table
       CREATE INDEX idx_finance_manager_id ON Finance (Manager_ID);
8
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
       CREATE INDEX idx_team_winning_team_id ON Team_Winning (Team_ID);
13
14
        -- Create index for SocialMedia table
15
       CREATE INDEX idx_socialmedia_name ON SocialMedia (SocialMedia_Name);
16
         - Create index for ContentCreator table
       CREATE INDEX idx_contentcreator_name ON ContentCreator (ContentCreator_Name);
17
        -- Create index for ContentCreator_SocialMedia table
18
       CREATE INDEX idx_ccs_contentcreator_id ON ContentCreator_SocialMedia (ContentCreator_ID)
19
20
        -- Create index for ContentCreator_Address table
       CREATE INDEX idx_cca_contentcreator_id ON ContentCreator_Address (ContentCreator_ID);
21
22
        -- Create index for ContentCreator_Phone table
23
       CREATE INDEX idx_ccp_contentcreator_id ON ContentCreator_Phone (ContentCreator_ID);
24
        -- Create index for SocialMedia_Phone table
25
       CREATE INDEX idx_smp_socialmedia_id ON SocialMedia_Phone (SocialMedia_ID);
26
        - Create index for Organization table
27
       CREATE INDEX idx_organization_name ON Organization (Organization_Name);
        -- Create index for Organization_Phone table
29
       CREATE INDEX idx_op_organization_id ON Organization_Phone (Organization_ID);
30
        -- Create index for Player table
31
       CREATE INDEX idx_player_name ON Player (Player_Name);
32
33
        -- Create index for Player_Address table
34
       CREATE INDEX idx_pa_player_id ON Player_Address (Player_ID);
35
        -- Create index for Player_Social_Link table
36
       CREATE INDEX idx_psl_player_id ON Player_Social_Link (Player_ID);
37
        -- Create index for Player_Phone table
38
       CREATE INDEX idx_pp_player_id ON Player_Phone (Player_ID);
39
          Create index for Player_Winning table
       CREATE INDEX idx_pw_player_id ON Player_Winning (Player_ID);
40
41
        -- Create index for Record table
42
       CREATE INDEX idx_record_date ON Record (Record_Date);
43
        -- Create index for Tournament table
       CREATE INDEX idx_tournament_name ON Tournament (Tournament_Name);
45
46
        -- Create index for Game table
47
       CREATE INDEX idx_game_name ON Game (Game_Name);
48
        -- Create index for Company table
49
       CREATE INDEX idx_company_name ON Company (Company_Name);
        -- Create index for Company_Phone table
50
       CREATE INDEX idx_cp_company_id ON Company_Phone (Company_ID);
51
        -- Create index for Organization_Company table
        CREATE INDEX idx_oc_organization_id ON Organization_Company (Organization_ID);
53
54
```

Index for Table

5.5 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
       ALTER TABLE Manager_Phone ADD CONSTRAINT idx_manager_phone_manager_id UNIQUE (Manager_ID
6
           );
7
          Alter Finance table to add index
       ALTER TABLE Finance ADD CONSTRAINT idx_finance_manager_id UNIQUE (Manager_ID);
8
9
        -- Alter Team table to add index
       ALTER TABLE Team ADD CONSTRAINT idx_team_manager_id UNIQUE (Manager_ID);
10
11
        -- Alter Team_Winning table to add index
       ALTER TABLE Team_Winning ADD CONSTRAINT idx_team_winning_team_id UNIQUE (Team_ID);
12
13
14
        -- Alter SocialMedia table to add index
15
       ALTER TABLE SocialMedia ADD CONSTRAINT idx_socialmedia_name UNIQUE (SocialMedia_Name);
16
        -- Alter ContentCreator table to add index
       ALTER TABLE ContentCreator ADD CONSTRAINT idx_contentcreator_name UNIQUE (
17
           ContentCreator_Name);
18
        -- Alter ContentCreator_SocialMedia table to add index
19
       ALTER TABLE ContentCreator_SocialMedia ADD CONSTRAINT idx_ccs_contentcreator_id UNIQUE (
           ContentCreator_ID);
20
       -- Alter ContentCreator_Address table to add index
21
       ALTER TABLE ContentCreator_Address ADD CONSTRAINT idx_cca_contentcreator_id UNIQUE (
           ContentCreator_ID);
22
        -- Alter ContentCreator_Phone table to add index
23
       ALTER TABLE ContentCreator_Phone ADD CONSTRAINT idx_ccp_contentcreator_id UNIQUE (
           ContentCreator_ID);
        -- Alter SocialMedia_Phone table to add index
       ALTER TABLE SocialMedia_Phone ADD CONSTRAINT idx_smp_socialmedia_id UNIQUE (
25
           SocialMedia_ID);
        -- Alter Organization table to add index
       ALTER TABLE Organization ADD CONSTRAINT idx_organization_name UNIQUE (Organization_Name)
27
28
        -- Alter Organization_Phone table to add index
29
       ALTER TABLE Organization_Phone ADD CONSTRAINT idx_op_organization_id UNIQUE (
           Organization_ID);
30
31
        -- Alter Player table to add index
32
       ALTER TABLE Player ADD CONSTRAINT idx_player_name UNIQUE (Player_Name);
33
        -- Alter Plaver Address table to add index
34
        ALTER TABLE Player_Address ADD CONSTRAINT idx_pa_player_id UNIQUE (Player_ID);
35
        -- Alter Player_Social_Link table to add index
       ALTER TABLE Player_Social_Link ADD CONSTRAINT idx_psl_player_id UNIQUE (Player_ID);
36
        -- Alter Player_Phone table to add index
       ALTER TABLE Player_Phone ADD CONSTRAINT idx_pp_player_id UNIQUE (Player_ID);
38
39
        -- Alter Player_Winning table to add index
       ALTER TABLE Player_Winning ADD CONSTRAINT idx_pw_player_id UNIQUE (Player_ID);
41
        -- Alter Record table to add index
42
       ALTER TABLE Record ADD CONSTRAINT idx_record_date UNIQUE (Record_Date);
43
44
        -- Alter Tournament table to add index
       ALTER TABLE Tournament ADD CONSTRAINT idx_tournament_name UNIQUE (Tournament_Name);
        -- Alter Game table to add index
46
47
       ALTER TABLE Game ADD CONSTRAINT idx_game_name UNIQUE (Game_Name);
        -- Alter Company table to add index
       ALTER TABLE Company ADD CONSTRAINT idx_company_name UNIQUE (Company_Name);
49
50
        -- Alter Company_Phone table to add index
       ALTER TABLE Company_Phone ADD CONSTRAINT idx_cp_company_id UNIQUE (Company_ID);
51
52
        -- Alter Organization_Company table to add index
        ALTER TABLE Organization_Company ADD CONSTRAINT idx_oc_organization_id UNIQUE (
           Organization_ID);
54
```

Alter Table

5.6 Data Insertion

```
INSERT INTO Admin (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
1
   VALUES (seq_admin_id.NEXTVAL, 'Admin 1', 'admin1@example.com', 'adminpass1', 'admin1.jpg');
3
   INSERT INTO Admin (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
   VALUES (seq_admin_id.NEXTVAL, 'Admin 2', 'admin2@example.com', 'adminpass2', 'admin2.jpg');
6
   INSERT INTO Admin (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
8
   VALUES (seq_admin_id.NEXTVAL, 'Admin 3', 'admin3@example.com', 'adminpass3', 'admin3.jpg');
9
   INSERT INTO Admin (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
11
   VALUES (seq_admin_id.NEXTVAL, 'Admin 4', 'admin4@example.com', 'adminpass4', 'admin4.jpg');
12
13
   INSERT INTO Admin (Admin_ID, Admin_Name, Admin_Email, Admin_Password, Admin_Picture)
   VALUES (seq_admin_id.NEXTVAL, 'Admin 5', 'admin5@example.com', 'adminpass5', 'admin5.jpg');
14
```

Inserting data into Admin table

Results	Results Explain Describe Saved SQL History					
			•			
ADMI	IN_ID	ADMIN_NAME	ADMIN_EMAIL	ADMIN_PASSWORD	ADMIN_PICTURE	
1		Admin 1	admin1@example.com	adminpass1	admin1.jpg	
2		Admin 2	admin2@example.com	adminpass2	admin2.jpg	
3		Admin 3	admin3@example.com	adminpass3	admin3.jpg	
4		Admin 4	admin4@example.com	adminpass4	admin4.jpg	
5		Admin 5	admin5@example.com	adminpass5	admin5.jpg	

5 rows returned in 0.00 seconds

Inserted data of Admin table

```
INSERT INTO Manager (Manager_ID, Manager_Name, Manager_Email, Manager_Password,
1
        Manager_Picture, Manager_Hiredate, Admin_ID)
    VALUES (seq_manager_id.NEXTVAL, 'John Doe', 'john.doe@example.com', 'password123', 'profile.
    jpg', TO_DATE('2022-01-01', 'YYYY-MM-DD'), 1);
2
3
    INSERT INTO Manager (Manager_ID, Manager_Name, Manager_Email, Manager_Password,
4
        Manager_Picture, Manager_Hiredate, Admin_ID)
    VALUES (seq_manager_id.NEXTVAL, 'Jane Smith', 'jane.smith@example.com', 'password456', '
5
       profile2.jpg', TO_DATE('2022-02-01', 'YYYY-MM-DD'), 2);
6
7
    INSERT INTO Manager (Manager_ID, Manager_Name, Manager_Email, Manager_Password,
       Manager_Picture, Manager_Hiredate, Admin_ID)
8
    VALUES (seq_manager_id.NEXTVAL, 'Mike Johnson', 'mike.johnson@example.com', 'password789', '
       profile3.jpg', TO_DATE('2022-03-01', 'YYYY-MM-DD'), 1);
9
10
    INSERT INTO Manager (Manager_ID, Manager_Name, Manager_Email, Manager_Password,
       Manager_Picture, Manager_Hiredate, Admin_ID)
11
    VALUES (seq_manager_id.NEXTVAL, 'Sarah Williams', 'sarah.williams@example.com', 'password123
        ', 'profile4.jpg', TO_DATE('2022-04-01', 'YYYY-MM-DD'), 2);
12
13
    INSERT INTO Manager (Manager_ID, Manager_Name, Manager_Email, Manager_Password,
        Manager_Picture, Manager_Hiredate, Admin_ID)
    VALUES (seq_manager_id.NEXTVAL, 'Robert Davis', 'robert.davis@example.com', 'password456', '
14
        profile5.jpg', TO_DATE('2022-05-01', 'YYYY-MM-DD'), 1);
```

Inserting data into manager tables



Inserted data of manager table

```
1
   INSERT INTO Manager_Phone (Mp_ID, Manager_ID, Manager_Phone)
2
   VALUES (seq_mp_id.NEXTVAL, 1, '1234567890');
3
   INSERT INTO Manager_Phone (Mp_ID, Manager_ID, Manager_Phone)
5
   VALUES (seq_mp_id.NEXTVAL, 2, '0987654321');
6
   INSERT INTO Manager_Phone (Mp_ID, Manager_ID, Manager_Phone)
7
8
   VALUES (seq_mp_id.NEXTVAL, 3, '1112223333');
9
10
   INSERT INTO Manager_Phone (Mp_ID, Manager_ID, Manager_Phone)
11
   VALUES (seq_mp_id.NEXTVAL, 4, '4445556666');
12
13
   INSERT INTO Manager_Phone (Mp_ID, Manager_ID, Manager_Phone)
14
   VALUES (seq_mp_id.NEXTVAL, 5, '7778889999');
```

Inserting data into manager phone tables



Inserted data of manager phone table

```
INSERT INTO Finance (Finance_ID, Finance_Account_Number, Finance_Balance, Manager_ID)
    VALUES (seq_finance_id.NEXTVAL, 'ABC123456', 10000, 1);
3
    INSERT INTO Finance (Finance_ID, Finance_Account_Number, Finance_Balance, Manager_ID)
    VALUES (seq_finance_id.NEXTVAL, 'DEF789012', 20000, 2);
5
6
7
    INSERT INTO Finance (Finance_ID, Finance_Account_Number, Finance_Balance, Manager_ID)
    VALUES (seq_finance_id.NEXTVAL, 'GHI345678', 15000, 3);
8
9
    INSERT INTO Finance (Finance_ID, Finance_Account_Number, Finance_Balance, Manager_ID)
VALUES (seq_finance_id.NEXTVAL, 'JKL901234', 18000, 4);
10
11
12
    INSERT INTO Finance (Finance_ID, Finance_Account_Number, Finance_Balance, Manager_ID)
VALUES (seq_finance_id.NEXTVAL, 'MN0567890', 22000, 5);
13
14
```

Inserting data into Finance tables

Results Explain Describe Saved SQL History						
FINANCE_ID	FINANCE_ACCOUNT_NUMBER	FINANCE_BALANCE	MANAGER_ID			
1	ABC123456	10000	1			
2	DEF789012	20000	2			
3	GHI345678	15000	3			
4	JKL901234	18000	4			
5	MNO567890	22000	5			
5 rows returned in 0.00 seconds						

Inserted data of Finance table

```
1
2
   INSERT INTO Team (Team_ID, Team_Name, Team_Icon, Team_Established_Date, Team_Country,
       Total_Price_Money , Manager_ID)
3
   VALUES (seq_team_id.NEXTVAL, 'Team A', 'teamA.png', TO_DATE('2022-01-01', 'YYYY-MM-DD'), '
       USA', 50000, 1);
4
5
   INSERT INTO Team (Team_ID, Team_Name, Team_Icon, Team_Established_Date, Team_Country,
       Total_Price_Money , Manager_ID)
6
   VALUES (seq_team_id.NEXTVAL, 'Team B', 'teamB.png', TO_DATE('2022-02-01', 'YYYY-MM-DD'), 'UK
        <sup>'</sup>, 60000, 2);
7
8
   INSERT INTO Team (Team_ID, Team_Name, Team_Icon, Team_Established_Date, Team_Country,
       Total_Price_Money , Manager_ID)
   VALUES (seq_team_id.NEXTVAL, 'Team C', 'teamC.png', TO_DATE('2022-03-01', 'YYYY-MM-DD'), '
9
       Australia', 45000, 3);
10
11
   INSERT INTO Team (Team_ID, Team_Name, Team_Icon, Team_Established_Date, Team_Country,
       Total_Price_Money, Manager_ID)
   VALUES (seq_team_id.NEXTVAL, 'Team D', 'teamD.png', TO_DATE('2022-04-01', 'YYYY-MM-DD'), '
12
       Canada', 55000, 4);
13
   INSERT INTO Team (Team_ID, Team_Name, Team_Icon, Team_Established_Date, Team_Country,
14
       Total_Price_Money, Manager_ID)
   VALUES (seq_team_id.NEXTVAL, 'Team E', 'teamE.png', TO_DATE('2022-05-01', 'YYYY-MM-DD'), '
15
       Germany', 70000, 5);
```

Inserting data into Team tables

Results Explain Describe Saved SQL History					
TEAM_NAME	TEAM_ICON	TEAM_ESTABLISHED_DATE	TEAM_COUNTRY	TOTAL_PRICE_MONEY	MANAGER_ID
Team A	teamA.png	01-JAN-22	USA	50000	1
Team B	teamB.png	01-FEB-22	UK	60000	2
Team C	teamC.png	01-MAR-22	Australia	45000	3
Team D	teamD.png	01-APR-22	Canada	55000	4
Team E	teamE.png	01-MAY-22	Germany	70000	5
	Team A Team B Team C Team D	Team A teamA.png Team B teamB.png Team C teamC.png Team D teamD.png Team E teamE.png	Team A teamA.png 01-JAN-22 Team B teamB.png 01-FEB-22 Team C teamC.png 01-MAR-22 Team D teamD.png 01-APR-22 Team E teamE.png 01-MAY-22	Team A teamA.png 01-JAN-22 USA Team B teamB.png 01-FEB-22 UK Team C teamC.png 01-MAR-22 Australia Team D teamD.png 01-APR-22 Canada Team E teamE.png 01-MAY-22 Germany	Team A teamA.png 01-JAN-22 USA 50000 Team B teamB.png 01-FEB-22 UK 60000 Team C teamC.png 01-MAR-22 Australia 45000 Team D teamD.png 01-APR-22 Canada 55000 Team E teamE.png 01-MAY-22 Germany 70000

Inserted data of Team table

```
2
   INSERT INTO Team_Winning (Tw_ID, Team_ID, Team_Winning)
3
   VALUES (seq_tw_id.NEXTVAL, 1, 'Championship 2022');
4
5
   INSERT INTO Team_Winning (Tw_ID, Team_ID, Team_Winning)
6
   VALUES (seq_tw_id.NEXTVAL, 2, 'Tournament 2023');
7
   INSERT INTO Team_Winning (Tw_ID, Team_ID, Team_Winning)
8
9
   VALUES (seq_tw_id.NEXTVAL, 3, 'Cup 2022');
10
11
   INSERT INTO Team_Winning (Tw_ID, Team_ID, Team_Winning)
12
   VALUES (seq_tw_id.NEXTVAL, 4, 'League 2022');
13
14
   INSERT INTO Team_Winning (Tw_ID, Team_ID, Team_Winning)
15
   VALUES (seq_tw_id.NEXTVAL, 5, 'Championship 2023');
```

Inserting data into Team_Winning tables

Results Explain Describe Saved SQL	History			
TW_ID	TEAM_ID	TEAM_WINNING		
1	1	Championship 2022		
2	2	Tournament 2023		
3	3	Cup 2022		
4	4	League 2022		
5	5	Championship 2023		
rows returned in 0.00 seconds				

Inserted data of Team Winning table

```
2
   INSERT INTO SocialMedia (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email,
       SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary,
       MANAGER ID)
3
   VALUES (seq_socialmedia_id.NEXTVAL, 'SocialMediaUser221', 'social.user1@example.com', '
       socialpass1', 'social1.jpg', TO_DATE('2022-01-01', 'YYYY-MM-DD'), 5000, 1);
5
   INSERT INTO SocialMedia (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email,
       SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary,
       MANAGER_ID)
6
   VALUES (seq_socialmedia_id.NEXTVAL, 'SocialMediaUser442', 'social.user2@example.com', '
       socialpass2', 'social2.jpg', TO_DATE('2022-02-01', 'YYYY-MM-DD'), 6000, 2);
   INSERT INTO SocialMedia (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email,
8
       SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary,
       MANAGER_ID)
   VALUES (seq_socialmedia_id.NEXTVAL, 'SocialMediaUser423', 'social.user3@example.com', '
9
       socialpass3', 'social3.jpg', TO_DATE('2022-03-01', 'YYYY-MM-DD'), 7000, 3);
10
11
   INSERT INTO SocialMedia (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email,
       SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary,
       MANAGER ID)
   VALUES (seq_socialmedia_id.NEXTVAL, 'SocialMediaUser4234', 'social.user4@example.com', '
12
       socialpass4', 'social4.jpg', TO_DATE('2022-04-01', 'YYYY-MM-DD'), 8000, 4);
13
   INSERT INTO SocialMedia (SocialMedia_ID, SocialMedia_Name, SocialMedia_Email,
14
       SocialMedia_Password, SocialMedia_Picture, SocialMedia_Hiredate, SocialMedia_Salary,
       MANAGER_ID)
   VALUES (seq_socialmedia_id.NEXTVAL, 'SocialMediaUser5523', 'social.user5@example.com', '
15
       socialpass5', 'social5.jpg', TO_DATE('2022-05-01', 'YYYY-MM-DD'), 9000, 5);
```

Inserting data into SocialMedia tables



Inserted data of Social Media table

```
INSERT INTO ContentCreator (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email,
       ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate,
       ContentCreator_Salary, SOCIALMEDIA_ID)
2
   VALUES (seq_contentcreator_id.NEXTVAL, 'ContentCreator 1', 'cc1@example.com', 'ccpass1', '
       cc1.jpg', TO_DATE('2022-01-01', 'YYYY-MM-DD'), 3000, 1)
3
4
   INSERT INTO ContentCreator (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email,
       ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate,
        ContentCreator_Salary, SOCIALMEDIA_ID)
   VALUES (seq_contentcreator_id.NEXTVAL, 'ContentCreator 2', 'cc2@example.com', 'ccpass2', '
5
       cc2.jpg', TO_DATE('2022-02-01', 'YYYY-MM-DD'), 3500, 2)
6
   INSERT INTO ContentCreator (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email,
7
        ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate,
       ContentCreator_Salary, SOCIALMEDIA_ID)
   VALUES (seq_contentcreator_id.NEXTVAL, 'ContentCreator 3', 'cc3@example.com', 'ccpass3', '
8
       cc3.jpg', TO_DATE('2022-03-01', 'YYYY-MM-DD'), 4000, 3)
9
10
   INSERT INTO ContentCreator (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email,
       ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate,
       {\tt ContentCreator\_Salary}\;,\;\; {\tt SOCIALMEDIA\_ID})
11
   VALUES (seq_contentcreator_id.NEXTVAL, 'ContentCreator 4', 'cc4@example.com', 'ccpass4', '
       cc4.jpg', TO_DATE('2022-04-01', 'YYYY-MM-DD'), 4500, 4)
12
13
   INSERT INTO ContentCreator (ContentCreator_ID, ContentCreator_Name, ContentCreator_Email,
       ContentCreator_Password, ContentCreator_Picture, ContentCreator_Hiredate,
        ContentCreator_Salary, SOCIALMEDIA_ID)
14
   VALUES (seq_contentcreator_id.NEXTVAL, 'ContentCreator 5', 'cc5@example.com', 'ccpass5', '
       cc5.jpg', TO_DATE('2022-05-01', 'YYYY-MM-DD'), 5000, 5)
```

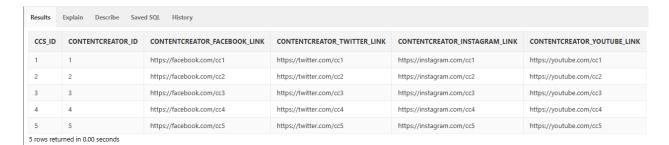
Inserting data into ContentCreator tables



Inserted data of Content Creator table

```
1
    INSERT INTO ContentCreator_SocialMedia (Ccs_ID, ContentCreator_ID,
        ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link
          ContentCreator_Youtube_Link)
 2
    VALUES (seq_ccs_id.NEXTVAL, 1, 'https://facebook.com/cc1', 'https://twitter.com/cc1', 'https
        ://instagram.com/cc1', 'https://youtube.com/cc1');
 3
    INSERT INTO ContentCreator_SocialMedia (Ccs_ID, ContentCreator_ID,
        {\tt ContentCreator\_Facebook\_Link}\;,\;\; {\tt ContentCreator\_Twitter\_Link}\;,\;\; {\tt ContentCreator\_Instagram\_Link}
          ContentCreator_Youtube_Link)
    VALUES (seq_ccs_id.NEXTVAL, 2, 'https://facebook.com/cc2', 'https://twitter.com/cc2', 'https://instagram.com/cc2', 'https://youtube.com/cc2');
 5
 6
 7
    INSERT INTO ContentCreator_SocialMedia (Ccs_ID, ContentCreator_ID,
        {\tt ContentCreator\_Facebook\_Link}\;,\;\; {\tt ContentCreator\_Twitter\_Link}\;,\;\; {\tt ContentCreator\_Instagram\_Link}\;
          ContentCreator_Youtube_Link)
    VALUES (seq_ccs_id.NEXTVAL, 3, 'https://facebook.com/cc3', 'https://twitter.com/cc3', 'https://instagram.com/cc3', 'https://youtube.com/cc3');
 8
10
    INSERT INTO ContentCreator_SocialMedia (Ccs_ID, ContentCreator_ID,
        {\tt ContentCreator\_Facebook\_Link}\;,\;\; {\tt ContentCreator\_Twitter\_Link}\;,\;\; {\tt ContentCreator\_Instagram\_Link}\;
         , ContentCreator_Youtube_Link)
11
    VALUES (seq_ccs_id.NEXTVAL, 4, 'https://facebook.com/cc4', 'https://twitter.com/cc4', 'https
        ://instagram.com/cc4', 'https://youtube.com/cc4');
12
13
    INSERT INTO ContentCreator_SocialMedia (Ccs_ID, ContentCreator_ID,
        ContentCreator_Facebook_Link, ContentCreator_Twitter_Link, ContentCreator_Instagram_Link
          ContentCreator_Youtube_Link)
14
    VALUES (seq_ccs_id.NEXTVAL, 5, 'https://facebook.com/cc5', 'https://twitter.com/cc5', 'https
        ://instagram.com/cc5', 'https://youtube.com/cc5');
```

Inserting data into ContentCreator_SocialMedia tables



Inserted data of Content Creator Social Media table

```
1
   INSERT INTO ContentCreator_Address (Cca_ID, ContentCreator_ID, ContentCreator_Country,
        ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
2
   VALUES (seq_cca_id.NEXTVAL, 1, 'USA', 'New York', '123 Street', '10001');
3
   INSERT INTO ContentCreator_Address (Cca_ID, ContentCreator_ID, ContentCreator_Country,
4
        ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
   VALUES (seq_cca_id.NEXTVAL, 2, 'USA', 'Los Angeles', '456 Avenue', '90001');
5
6
7
   INSERT INTO ContentCreator_Address (Cca_ID, ContentCreator_ID, ContentCreator_Country,
       {\tt ContentCreator\_City}\;,\;\; {\tt ContentCreator\_Street}\;,\;\; {\tt ContentCreator\_Zip\_Code})
8
   VALUES (seq_cca_id.NEXTVAL, 3, 'UK', 'London', '789 Road', 'SW1A 1AA');
9
10
   INSERT INTO ContentCreator_Address (Cca_ID, ContentCreator_ID, ContentCreator_Country,
        ContentCreator_City, ContentCreator_Street, ContentCreator_Zip_Code)
11
   VALUES (seq_cca_id.NEXTVAL, 4, 'Canada', 'Toronto', '321 Boulevard', 'M5V 2T3');
12
   INSERT INTO ContentCreator_Address (Cca_ID, ContentCreator_ID, ContentCreator_Country,
13
        {\tt ContentCreator\_City}\;,\;\; {\tt ContentCreator\_Street}\;,\;\; {\tt ContentCreator\_Zip\_Code})
14
   VALUES (seq_cca_id.NEXTVAL, 5, 'Germany', 'Berlin', '987 Strasse', '12345');
```

Inserting data into ContentCreator_Address tables

Results Explain Describe Saved SQL History						
CCA_ID	CONTENTCREATOR_ID	CONTENTCREATOR_COUNTRY	CONTENTCREATOR_CITY	CONTENTCREATOR_STREET	CONTENTCREATOR_ZIP_CODE	
1	1	USA	New York	123 Street	10001	
2	2	USA	Los Angeles	456 Avenue	90001	
3	3	UK	London	789 Road	SW1A 1AA	
4	4	Canada	Toronto	321 Boulevard	M5V 2T3	
5	5	Germany	Berlin	987 Strasse	12345	

Inserted data of Content Creator Address table

```
INSERT INTO ContentCreator_Phone (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)
   VALUES (seq_ccp_id.NEXTVAL, 1, '9876543210');
3
   INSERT INTO ContentCreator_Phone (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)
   VALUES (seq_ccp_id.NEXTVAL, 2, '1234567890');
5
6
7
   INSERT INTO ContentCreator_Phone (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)
8
   VALUES (seq_ccp_id.NEXTVAL, 3, '5551234567');
9
10
   INSERT INTO ContentCreator_Phone (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)
   VALUES (seq_ccp_id.NEXTVAL, 4, '7775558888');
11
12
13
   INSERT INTO ContentCreator_Phone (Ccp_ID, ContentCreator_ID, ContentCreator_Phone)
   VALUES (seq_ccp_id.NEXTVAL, 5, '9990001111');
14
```

Inserting data into ContentCreator_Phone tables



Inserted data of Content Creator Phone table

```
INSERT INTO SocialMedia_Phone (Smp_ID, SocialMedia_ID, SocialMedia_Phone)
2
   VALUES (seq_smp_id.NEXTVAL, 1, '5551234567');
3
   INSERT INTO SocialMedia_Phone (Smp_ID, SocialMedia_ID, SocialMedia_Phone)
   VALUES (seq_smp_id.NEXTVAL, 2, '6669876543');
5
6
7
   INSERT INTO SocialMedia_Phone (Smp_ID, SocialMedia_ID, SocialMedia_Phone)
   VALUES (seq_smp_id.NEXTVAL, 3, '7774561230');
9
10
   INSERT INTO SocialMedia_Phone (Smp_ID, SocialMedia_ID, SocialMedia_Phone)
11
   VALUES (seq_smp_id.NEXTVAL, 4, '8887890123');
12
13
   INSERT INTO SocialMedia_Phone (Smp_ID, SocialMedia_ID, SocialMedia_Phone)
14
   VALUES (seq_smp_id.NEXTVAL, 5, '9996547890');
```

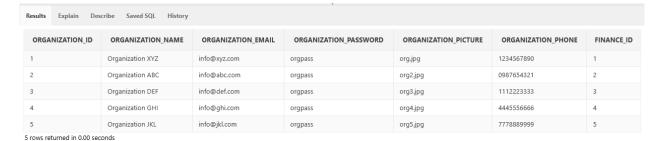
Inserting data into SocialMedia_Phone tables

Results Explain Describe Saved SQL History					
SMP_ID	SOCIALMEDIA_ID	SOCIALMEDIA_PHONE			
1	1	5551234567			
2	2	6669876543			
3	3	7774561230			
4	4	8887890123			
5	5	9996547890			
rows returned in 0.00 seconds					

Inserted data of Social Media Phone table

```
INSERT INTO Organization (Organization_ID, Organization_Name, Organization_Email,
1
       Organization_Password, Organization_Picture, Organization_Phone, Finance_ID)
2
   VALUES (seq_organization_id.NEXTVAL, 'Organization XYZ', 'info@xyz.com', 'orgpass', 'org.jpg
3
   INSERT INTO Organization (Organization_ID, Organization_Name,Organization_Email,
4
       Organization_Password, Organization_Picture, Organization_Phone, Finance_ID)
   VALUES (seq_organization_id.NEXTVAL, 'Organization ABC', 'info@abc.com', 'orgpass', 'org2.
5
       jpg',
             '0987654321', 2);
6
   INSERT INTO Organization (Organization_ID, Organization_Name, Organization_Email,
7
       Organization_Password, Organization_Picture, Organization_Phone, Finance_ID)
8
   VALUES (seq_organization_id.NEXTVAL, 'Organization DEF', 'info@def.com', 'orgpass', 'org3.
              '1112223333', 3);
9
10
   INSERT INTO Organization (Organization_ID, Organization_Name, Organization_Email,
       Organization_Password, Organization_Picture, Organization_Phone, Finance_ID)
11
   VALUES (seq_organization_id.NEXTVAL, 'Organization GHI', 'info@ghi.com', 'orgpass', 'org4.
       jpg', '4445556666', 4);
12
   INSERT INTO Organization (Organization_ID, Organization_Name, Organization_Email,
13
       Organization_Password, Organization_Picture, Organization_Phone, Finance_ID)
   VALUES (seq_organization_id.NEXTVAL, 'Organization JKL', 'info@jkl.com', 'orgpass', 'org5.
       jpg', '7778889999', 5);
```

Inserting data into Organization tables



Inserted data of Organization table

```
INSERT INTO Organization_Phone (Op_ID, Organization_ID, Organization_Phone)
2
   VALUES (seq_op_id.NEXTVAL, 1, '9998887777');
3
   INSERT INTO Organization_Phone (Op_ID, Organization_ID, Organization_Phone)
   VALUES (seq_op_id.NEXTVAL, 2, '8887776666');
5
6
7
   INSERT INTO Organization_Phone (Op_ID, Organization_ID, Organization_Phone)
8
   VALUES (seq_op_id.NEXTVAL, 3, '7776665555');
9
10
   INSERT INTO Organization_Phone (Op_ID, Organization_ID, Organization_Phone)
   VALUES (seq_op_id.NEXTVAL, 4, '6665554444');
11
12
13
   INSERT INTO Organization_Phone (Op_ID, Organization_ID, Organization_Phone)
   VALUES (seq_op_id.NEXTVAL, 5, '5554443333');
14
```

Inserting data into Organization_Phone tables

Results Explain Describe Saved SQL History						
OP_ID	ORGANIZATION_ID	ORGANIZATION_PHONE				
1	1	9998887777				
2	2	8887776666				
3	3	7776665555				
4	4	6665554444				
5	5	5554443333				
rows returned in 0.00 seconds						

Inserted data of Organization Phone table

```
1
     INSERT INTO Player (Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture,
         {\tt Player\_JoinDate}\;,\;\; {\tt Player\_Salary}\;,\;\; {\tt Player\_Play\_Hours}\;,\;\; {\tt Player\_DOB})
 2
     VALUES (seq_player_id.NEXTVAL, 'Player 1', 'player1@example.com', 'playerpass', 'player1.jpg
          ', TO_DATE('2022-01-01', 'YYYY-MM-DD'), 5000, 100, TO_DATE('1990-01-01', 'YYYY-MM-DD'));
 3
     INSERT INTO Player (Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture,
 4
         Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
    VALUES (seq_player_id.NEXTVAL, 'Player 2', 'player2@example.com', 'playerpass', 'player2.jpg
', TO_DATE('2022-02-01', 'YYYY-MM-DD')), 6000, 200, TO_DATE('1992-05-10', 'YYYY-MM-DD'));
 5
 6
 7
     INSERT INTO Player (Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture,
          Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
     VALUES (seq_player_id.NEXTVAL, 'Player 3', 'player3@example.com', 'playerpass', 'player3.jpg
', TO_DATE('2022-03-01', 'YYYY-MM-DD')), 7000, 150, TO_DATE('1994-09-20', 'YYYY-MM-DD'));
 8
 9
10
     INSERT INTO Player (Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture,
          Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
     VALUES (seq_player_id.NEXTVAL, 'Player 4', 'player4@example.com', 'playerpass', 'player4.jpg
', TO_DATE('2022-04-01', 'YYYY-MM-DD'), 8000, 120, TO_DATE('1996-12-05', 'YYYY-MM-DD'));
11
12
     INSERT INTO Player (Player_ID, Player_Name, Player_Email, Player_Password, Player_Picture,
13
          Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
     VALUES (seq_player_id.NEXTVAL, 'Player 5', 'player5@example.com', 'playerpass', 'player5.jpg
', TO_DATE('2022-05-01', 'YYYY-MM-DD')), 9000, 180, TO_DATE('1998-03-15', 'YYYY-MM-DD'));
14
```

Inserting data into Player tables



Inserted data of Player table

```
1
   INSERT INTO Player_Address (Pa_ID, Player_ID, Player_Country, Player_City, Player_Street,
       Player_Zip_Code)
2
   VALUES (seq_pa_id.NEXTVAL, 1, 'USA', 'New York', '123 Street', '10001');
3
   INSERT INTO Player_Address (Pa_ID, Player_ID, Player_Country, Player_City, Player_Street,
       Player_Zip_Code)
   VALUES (seq_pa_id.NEXTVAL, 2, 'USA', 'Los Angeles', '456 Avenue', '90001');
4
   INSERT INTO Player_Address (Pa_ID, Player_ID, Player_Country, Player_City, Player_Street,
5
       Player_Zip_Code)
6
   VALUES (seq_pa_id.NEXTVAL, 3, 'UK', 'London', '789 Road', 'SW1A 1AA');
   INSERT INTO Player_Address (Pa_ID, Player_ID, Player_Country, Player_City, Player_Street,
7
       Player_Zip_Code)
8
   VALUES (seq_pa_id.NEXTVAL, 4, 'Canada', 'Toronto', '321 Boulevard', 'M5V 2T3');
   INSERT INTO Player_Address (Pa_ID, Player_ID, Player_Country, Player_City, Player_Street,
9
       Player_Zip_Code)
   VALUES (seq_pa_id.NEXTVAL, 5, 'Germany', 'Berlin', '987 Strasse', '12345');
10
```

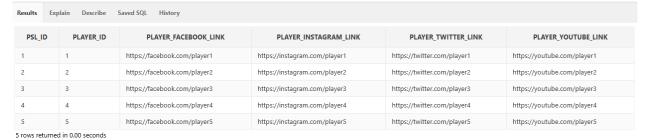
Inserting data into Player_Address tables

		Results Explain Describe Saved SQL History						
PLAYER_ID	PLAYER_COUNTRY	PLAYER_CITY	PLAYER_STREET	PLAYER_ZIP_CODE				
1	USA	New York	123 Street	10001				
2	USA	Los Angeles	456 Avenue	90001				
3	UK	London	789 Road	SW1A 1AA				
4	Canada	Toronto	321 Boulevard	M5V 2T3				
5	Germany	Berlin	987 Strasse	12345				
	1 2 3 4	1 USA 2 USA 3 UK 4 Canada 5 Germany	1 USA New York 2 USA Los Angeles 3 UK London 4 Canada Toronto 5 Germany Berlin	1 USA New York 123 Street 2 USA Los Angeles 456 Avenue 3 UK London 789 Road 4 Canada Toronto 321 Boulevard 5 Germany Berlin 987 Strasse				

Inserted data of Player Address table

```
INSERT INTO PLAYER_SOCIAL_LINK (Psl_ID, Player_ID, Player_Facebook_Link,
       Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
2
   VALUES (seq_psl_id.NEXTVAL, 1, 'https://facebook.com/player1', 'https://instagram.com/
       player1', 'https://twitter.com/player1', 'https://youtube.com/player1');
3
   INSERT INTO PLAYER_SOCIAL_LINK (Psl_ID, Player_ID, Player_Facebook_Link,
4
       Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
5
   VALUES (seq_psl_id.NEXTVAL, 2, 'https://facebook.com/player2', 'https://instagram.com/
       player2', 'https://twitter.com/player2', 'https://youtube.com/player2');
6
7
   INSERT INTO PLAYER_SOCIAL_LINK (Psl_ID, Player_ID, Player_Facebook_Link,
       Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
8
   VALUES (seq_psl_id.NEXTVAL, 3, 'https://facebook.com/player3', 'https://instagram.com/
       player3', 'https://twitter.com/player3', 'https://youtube.com/player3');
9
   INSERT INTO PLAYER_SOCIAL_LINK (Psl_ID, Player_ID, Player_Facebook_Link,
10
       Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
   VALUES (seq_psl_id.NEXTVAL, 4, 'https://facebook.com/player4', 'https://instagram.com/
11
       player4', 'https://twitter.com/player4', 'https://youtube.com/player4');
12
   INSERT INTO PLAYER_SOCIAL_LINK (Psl_ID, Player_ID, Player_Facebook_Link,
13
       Player_Instagram_Link, Player_Twitter_Link, Player_Youtube_Link)
14
   VALUES (seq_psl_id.NEXTVAL, 5, 'https://facebook.com/player5', 'https://instagram.com/
       player5', 'https://twitter.com/player5', 'https://youtube.com/player5');
```

Inserting data into Player_SocialLink tables



Inserted data of Player Social Link table

```
1
   INSERT INTO Player_Phone (Pp_ID, Player_ID, Player_Phone)
2
   VALUES (seq_pp_id.NEXTVAL, 1, '1112223333');
4
   INSERT INTO Player_Phone (Pp_ID, Player_ID, Player_Phone)
   VALUES (seq_pp_id.NEXTVAL, 2, '2223334444');
5
7
   INSERT INTO Player_Phone (Pp_ID, Player_ID, Player_Phone)
8
   VALUES (seq_pp_id.NEXTVAL, 3, '3334445555');
10
   INSERT INTO Player_Phone (Pp_ID, Player_ID, Player_Phone)
11
   VALUES (seq_pp_id.NEXTVAL, 4, '4445556666');
12
   INSERT INTO Player_Phone (Pp_ID, Player_ID, Player_Phone)
13
14
   VALUES (seq_pp_id.NEXTVAL, 5, '5556667777');
```

Inserting data into Player_Phone tables

esults Explain Describe Saved SQL History					
PP_ID	PLAYER_ID	PLAYER_PHONE			
1	1	1112223333			
2	2	2223334444			
3	3	3334445555			
4	4	4445556666			
5	5	5556667777			
s rows returned in 0.00 seconds					

Inserted data of Player Phone table

```
INSERT INTO Player_Winning (Pw_ID, Player_ID, Player_Winning)
   VALUES (seq_pw_id.NEXTVAL, 1, 'Tournament 2022');
4
   INSERT INTO Player_Winning (Pw_ID, Player_ID, Player_Winning)
   VALUES (seq_pw_id.NEXTVAL, 2, 'Championship 2023');
5
   INSERT INTO Player_Winning (Pw_ID, Player_ID, Player_Winning)
7
8
   VALUES (seq_pw_id.NEXTVAL, 3, 'Cup 2022');
10
   INSERT INTO Player_Winning (Pw_ID, Player_ID, Player_Winning)
11
   VALUES (seq_pw_id.NEXTVAL, 4, 'Tournament 2023');
12
13
   INSERT INTO Player_Winning (Pw_ID, Player_ID, Player_Winning)
   VALUES (seq_pw_id.NEXTVAL, 5, 'League 2022');
```

Inserting data into Player_Winning tables



5 rows returned in 0.00 seconds

Inserted data of Player Winning table

```
INSERT INTO Player_Team (Pt_ID, Player_ID, Team_ID)
1
2
   VALUES (seq_pt_id.NEXTVAL, 1, 1);
3
   INSERT INTO Player_Team (Pt_ID, Player_ID, Team_ID)
5
   VALUES (seq_pt_id.NEXTVAL, 2, 2);
6
7
   INSERT INTO Player_Team (Pt_ID, Player_ID, Team_ID)
8
   VALUES (seq_pt_id.NEXTVAL, 3, 3);
9
10
   INSERT INTO Player_Team (Pt_ID, Player_ID, Team_ID)
11
   VALUES (seq_pt_id.NEXTVAL, 4, 4);
12
13
   INSERT INTO Player_Team (Pt_ID, Player_ID, Team_ID)
   VALUES (seq_pt_id.NEXTVAL, 5, 5);
14
```

Inserting data into Player_Team tables



5 rows returned in 0.00 seconds

Inserted data of Player Team table

5.7 Single Row Functions

1. Retrieve the email domain for the admin with Admin_ID = 1

```
SELECT Admin_Email, SUBSTR(Admin_Email, INSTR(Admin_Email, '@') + 1) AS Email_Domain FROM Admin
WHERE Admin_ID = 1;
```

Query 1



Result of Query 1

2. Get the hire date of the manager named 'John Doe' formatted in a specific way

```
SELECT Manager_Name, TO_CHAR(Manager_Hiredate, 'DD-Mon-YYYY') AS Hire_Date
FROM Manager
WHERE Manager_Name = 'John Doe';
```

Query 2



Result of Query 2

3. Concatenate first and last name of the content creator with ContentCreator_ID = 1

Query 3



Result of Query 3

5.8 Group Functions

1. Calculate the average balance for all finance records

```
SELECT AVG(Finance_Balance) AS Average_Balance
FROM Finance;
```

Query 1

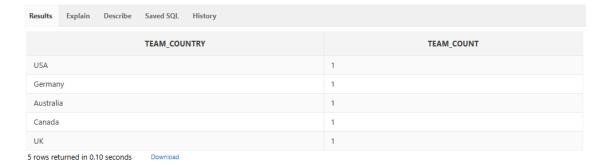


Result of Query 1

2. Count the number of teams established in each country

```
SELECT Team_Country, COUNT(*) AS Team_Count
FROM Team
GROUP BY Team_Country;
```

Query 2



Result of Query 2

3. Calculate the total salary expense for content creators

```
SELECT SUM(ContentCreator_Salary) AS Total_Salary_Expense FROM ContentCreator;
```

Query 3



Result of Query 3

5.9 SubQuery

1. Retrieve the managers associated with teams established before a specific date

```
SELECT Manager_Name
FROM Manager
WHERE Manager_ID IN (
SELECT Manager_ID
FROM Team
WHERE Team_Established_Date < TO_DATE('2022-03-01', 'YYYY-MM-DD')
);</pre>
```

Query 1



Result of Query 1

2. Get the content creators who have a higher salary than the average salary of all content creators

```
SELECT ContentCreator_Name
FROM ContentCreator
WHERE ContentCreator_Salary > (
SELECT AVG(ContentCreator_Salary)
FROM ContentCreator
);
```

Query 2



Result of Query 2

3. Retrieve the teams managed by managers who have won a championship

```
SELECT Team_Name
 1
2
        FROM Team
3
        WHERE Manager_ID IN (
4
        SELECT Manager_ID
        FROM Manager
5
        WHERE Manager_ID IN (
SELECT DISTINCT Manager_ID
6
7
8 9
             FROM Team_Winning
             WHERE Team_Winning LIKE '%Championship%'
10
        )
   );
11
```

Query 3



Result of Query 3

5.10 Join Queries

1. Get the team name and manager name for each team

```
SELECT t.Team_Name, m.Manager_Name
FROM Team t
JOIN Manager m ON t.Manager_ID = m.Manager_ID;
```

Query 1

Results Explain Describe Saved SQL History		
TEAM_NAME	MANAGER_NAME	
Team A	John Doe	
Team B	Jane Smith	
Team C	Mike Johnson	
Team D	Sarah Williams	
Team E	Robert Davis	
5 rows returned in 0.00 seconds Download		

Result of Query 1

2. Retrieve the player name, team name, and country for each player

```
SELECT p.Player_Name, t.Team_Name, t.Team_Country
FROM Player p
JOIN Player_Team pt ON p.Player_ID = pt.Player_ID
JOIN Team t ON pt.Team_ID = t.Team_ID;
```

Query 2



Result of Query 2

3. Get the content creator name, social media name, and email for each content creator

```
SELECT cc.ContentCreator_Name, sm.SocialMedia_Name, sm.SocialMedia_Email
FROM ContentCreator cc
JOIN SocialMedia sm ON cc.SOCIALMEDIA_ID = sm.SocialMedia_ID;
```

Query 3

Results Explain Describe Saved SQL History				
CONTENTCREATOR_NAME	SOCIALMEDIA_NAME	SOCIALMEDIA_EMAIL		
ContentCreator 1	SocialMediaUser221	social.user1@example.com		
ContentCreator 2	Social Media User 442	social.user2@example.com		
ContentCreator 3	SocialMediaUser423	social.user3@example.com		
ContentCreator 4	Social Media User 4234	social.user4@example.com		
ContentCreator 5	Social Media User 5523	social.user5@example.com		
5 rows returned in 0.01 seconds Download				

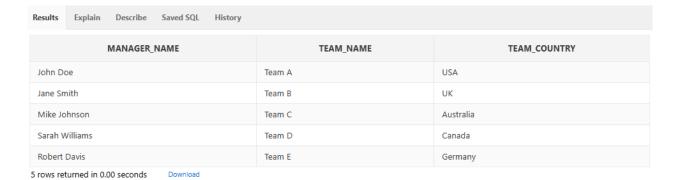
Result of Query 3

5.11 Creating View

1. Create a view to display the details of managers and their associated teams

```
CREATE VIEW ManagerTeamView AS
SELECT m.Manager_Name, t.Team_Name, t.Team_Country
FROM Manager m
JOIN Team t ON m.Manager_ID = t.Manager_ID;
```

ManagerTeamView



Result of ManagerTeamView

2. Create a view to show the average salary of content creators

```
CREATE VIEW AverageSalaryView AS
SELECT AVG(ContentCreator_Salary) AS Average_Salary
FROM ContentCreator;
```

AvgSalaryView



Result of AverageSalaryView

3. Create a view to list the players and their corresponding teams

```
CREATE VIEW PlayerTeamView AS

JOIN Team t ON pt.Team_ID = t.Team_ID;

SELECT p.Player_Name, t.Team_Name

FROM Player p

JOIN Player_Team pt ON p.Player_ID = pt.Player_ID
```

PlayerTeamView

Results	Explain Descri	be Saved SQL	History	
		PLAYER_NAM	ИΕ	TEAM_NAME
Player 1				Team A
Player 2	2			Team B
Player 3	1			Team C
Player 4	ļ			Team D
Player 5	i			Team E
5 rows ret	urned in 0.00 secor	nds Download		

Result of PlayerTeamView

5.12 Synonyms

```
-- Create synonym for the ORGANIZATION_TOURNAMENT table
CREATE SYNONYM org_tour FOR Organization_Tournament;

4 -- Create synonym for the CONTENTCREATOR_SOCIALMEDIA table
CREATE SYNONYM cc_sm FOR ContentCreator_SocialMedia;

6 -- Create synonym for the CONTENTCREATOR_PHONE table
CREATE SYNONYM cc_ph FOR ContentCreator_Phone;
```

Synonyms

Results Explain Describe Saved SQL History				
OWNER	SYNONYM_NAME	TABLE_OWNER	TABLE_NAME	DB_LINK
ESPORTFTW	CC_PH	ESPORTFTW	CONTENTCREATOR_PHONE	-
ESPORTFTW	CC_SM	ESPORTFTW	CONTENTCREATOR_SOCIALMEDIA	-
ESPORTFTW	ORG_TOUR	ESPORTFTW	ORGANIZATION_TOURNAMENT	-
3 rows returned in 1.38 seconds Download				

List of Synonyms

5.13 PL/SQL

5.13.1 Functions

1. Calculate Age using a Function

```
CREATE OR REPLACE FUNCTION calculate_age(birth_date DATE) RETURN NUMBER IS
age NUMBER;

BEGIN

age := TRUNC(MONTHS_BETWEEN(SYSDATE, birth_date) / 12);
RETURN age;

END;

/ /
```

Query 1

2. Get Team Member Count using a Function

```
CREATE OR REPLACE FUNCTION get_team_member_count(team_id INT) RETURN INT IS
1
2
       member_count INT;
3
   BEGIN
       SELECT COUNT(*) INTO member_count
4
       FROM Player_Team
5
6
       WHERE Team_ID = team_id;
7
       RETURN member_count;
8
   END;
9
```

Query 2

3. Get Total Earnings using a Function

```
CREATE OR REPLACE FUNCTION get_total_earnings(player_id INT) RETURN DECIMAL IS
1
2
       total_earnings DECIMAL(10, 2);
3
   BEGIN
       SELECT SUM(Player_Winning) INTO total_earnings
4
5
       FROM Player_Winning
6
       WHERE Player_ID = player_id;
7
       RETURN total_earnings;
8
   END;
```

Query 3

5.13.2 Procedure

1. Create a procedure to insert data into the Player table with address details

```
CREATE OR REPLACE PROCEDURE Insert_Player_Data (
1
        p_Ign VARCHAR2,
2
3
       p_Name VARCHAR2
       p_Email VARCHAR2,
4
5
       p_Password VARCHAR2,
6
       p_Picture VARCHAR2,
       p_JoinDate DATE,
7
8
       p_Salary DECIMAL,
       p_Play_Hours INT,
9
10
       p_DOB DATE,
       p_Country VARCHAR2,
11
       p_City VARCHAR2,
12
13
       p_Street VARCHAR2,
       p_Zip_Code VARCHAR2
14
15
   )
16
   IS
17
        v_Player_ID INT;
   BEGIN
18
19
          Insert data into Player table
       INSERT INTO Player (Player_ID, Player_Ign, Player_Name, Player_Email, Player_Password,
20
            Player_Picture, Player_JoinDate, Player_Salary, Player_Play_Hours, Player_DOB)
        VALUES (SEQ_PLAYER_ID.nextval, p_Ign, p_Name, p_Email, p_Password, p_Picture, p_JoinDate
            , p_Salary, p_Play_Hours, p_DOB);
22
23
        -- Get the last inserted Player_ID
        SELECT MAX(Player_ID) INTO v_Player_ID FROM Player;
24
25
26
        -- Insert data into Player_Address table
        INSERT INTO Player_Address (Pa_ID, Player_ID, Player_Country, Player_City, Player_Street
27
            , Player_Zip_Code)
28
        VALUES (SEQ_CCA_ID.nextval, v_Player_ID, p_Country, p_City, p_Street, p_Zip_Code);
29
30
31
32
        DBMS_OUTPUT.PUT_LINE('Data inserted successfully.');
33
    EXCEPTION
        WHEN OTHERS THEN
34
35
            ROLLBACK;
            DBMS_OUTPUT.PUT_LINE('Error inserting data: ' || SQLERRM);
36
37
   END;
   /
```

Query 1

2. Create a procedure to update data in the Player and Player_Address tables

```
-- To update data in Player and Player_Address tables
1
    CREATE OR REPLACE PROCEDURE Update_Player_Data (
2
3
       p_Player_ID INT,
       p_Name VARCHAR2,
4
       p_Play_Hours INT,
5
6
       p_DOB DATE,
       p_City VARCHAR2,
7
        p_Street VARCHAR2,
8
9
       p_Zip_Code VARCHAR2
10
   )
11
   IS
12
   BEGIN
13
        -- Update data in Player table
14
        UPDATE Player
        SET Player_Name = p_Name,
15
            Player_Play_Hours = p_Play_Hours,
16
       Player_DOB = p_DOB
WHERE Player_ID = p_Player_ID;
17
18
19
        -- Update data in Player_Address table
20
21
        UPDATE Player_Address
       22
23
24
            Player_Zip_Code = p_Zip_Code
25
        WHERE Player_ID = p_Player_ID;
26
27
        COMMIT;
28
29
       DBMS_OUTPUT.PUT_LINE('Data updated successfully.');
30
   EXCEPTION
        WHEN OTHERS THEN
31
32
            ROLLBACK;
33
            DBMS_OUTPUT.PUT_LINE('Error updating data: ' || SQLERRM);
34
   END;
35
   /
```

Query 2

3. Update Team Name using Procedure

```
CREATE OR REPLACE PROCEDURE update_team_name(
1
2
        p_team_id INT,
       p_new_name VARCHAR2
3
   ) IS
4
5
   BEGIN
6
       UPDATE Team
7
        SET Team_Name = p_new_name
        WHERE Team_ID = p_team_id;
8
9
        COMMIT;
10
   END;
11
```

Query 3

5.13.3 Record

1. Create a Player Record Type and show the details of a player.

```
DECLARE
1
2
        TYPE player_rec IS RECORD (
3
            player_id INT,
            player_name VARCHAR2(100).
4
5
            player_email VARCHAR2(100)
6
       );
7
        p_info player_rec;
8
9
        SELECT Player_ID, Player_Name, Player_Email
10
        INTO p_info
        FROM Player
11
        WHERE Player_ID = 1;
12
        DBMS_OUTPUT.PUT_LINE('Player ID: ' || p_info.player_id);
13
        DBMS_OUTPUT.PUT_LINE('Player Name: ' | p_info.player_name);
14
        DBMS_OUTPUT.PUT_LINE('Player Email: ' || p_info.player_email);
15
16
17
```

Query 1

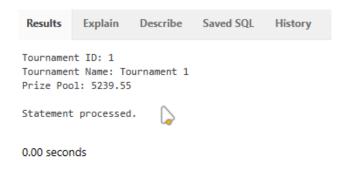


Result of Query 1

2. Create a Team Record Type and show the details of a team.

```
DECLARE
 1
2
         TYPE team_rec IS RECORD (
3
             team_id INT,
             team_name VARCHAR2(100),
4
5
             team_country VARCHAR2(100)
6
        );
 7
         t_info team_rec;
8
    BEGIN
9
         SELECT Team_ID, Team_Name, Team_Country
10
         INTO t_info
         {\color{red} \textbf{FROM}} \  \, {\color{blue} \textbf{Team}}
11
12
         WHERE Team_ID = 1;
         DBMS_OUTPUT.PUT_LINE('Team ID: ' || t_info.team_id);
13
         DBMS_OUTPUT.PUT_LINE('Team Name: ' || t_info.team_name);
14
15
         DBMS_OUTPUT.PUT_LINE('Team Country: ' || t_info.team_country);
16
    END:
17
```

Query 2

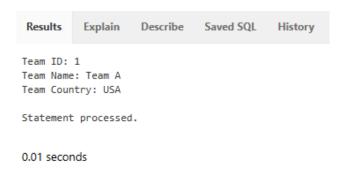


Result of Query 2

3. Create a Tournament Record Type and show the details of a tournament.

```
DECLARE
1
2
        TYPE tournament_rec IS RECORD (
3
            tournament_id INT,
            tournament_name VARCHAR2(100),
4
5
            prize_pool DECIMAL(10, 2)
6
7
        t_info tournament_rec;
8
    BEGIN
9
        SELECT Tournament_ID, Tournament_Name, Tournament_Prize_Pool
10
        INTO t_info
11
        FROM Tournament
        WHERE Tournament_ID = 1;
12
13
        DBMS_OUTPUT.PUT_LINE('Tournament ID: ' || t_info.tournament_id);
        DBMS_OUTPUT.PUT_LINE('Tournament Name: ' || t_info.tournament_name);
14
        DBMS_OUTPUT.PUT_LINE('Prize Pool: ' || t_info.prize_pool);
15
16
   END;
17
```

Query 3



Result of Query 3

5.13.4 Cursors

1. Create a Players Cursor and show the details of all the players.

```
DECLARE
 1
 2
           {\tt CURSOR} \ {\tt player\_cursor} \ {\tt IS}
 3
           SELECT Player_ID, Player_Name, Player_Email
           FROM Player;
 4
 5
           p_info player_cursor%ROWTYPE;
 6
     BEGIN
           OPEN player_cursor;
7
 8
9
                 FETCH player_cursor INTO p_info;
                 EXIT WHEN player_cursor%NOTFOUND;
10
                DBMS_OUTPUT_PUT_LINE('Player ID: ' || p_info.Player_ID);
DBMS_OUTPUT.PUT_LINE('Player Name: ' || p_info.Player_Name);
DBMS_OUTPUT.PUT_LINE('Player Email: ' || p_info.Player_Email);
11
12
13
14
           END LOOP;
15
           CLOSE player_cursor;
16
17
```

Query 1

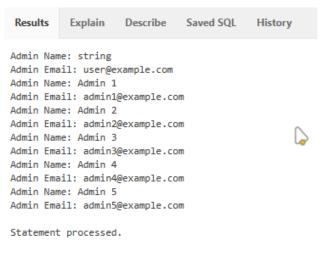


Result of Query 1

2. Create an Admin Cursor and show the details of all the administrators.

```
1
        DECLARE.
2
        CURSOR admin_cursor IS
        SELECT Admin_Name, Admin_Email
3
4
        FROM Admin;
5
6
        admin_rec admin_cursor%ROWTYPE;
7
    BEGIN
8
        OPEN admin_cursor;
9
        T.OOP
10
            FETCH admin_cursor INTO admin_rec;
11
            EXIT WHEN admin_cursor%NOTFOUND;
            DBMS_OUTPUT.PUT_LINE('Admin Name: ' || admin_rec.Admin_Name);
12
            DBMS_OUTPUT.PUT_LINE('Admin Email: ' || admin_rec.Admin_Email);
13
14
        END LOOP;
15
        CLOSE admin_cursor;
16
   END;
17
```

Query 2



Result of Query 2

3. Create an Organization Finance Cursor and show the details of all the organizations and their finances.

```
DECLARE
 1
2
        CURSOR finance_cursor IS
3
        {\tt SELECT} \  \, {\tt o.Organization\_Name} \, , \  \, {\tt f.Finance\_Balance}
 4
        {\tt FROM} Organization o
        JOIN Finance f ON o.Finance_ID = f.Finance_ID;
5
6
        fin_info finance_cursor%ROWTYPE;
7
    BEGIN
8
        OPEN finance_cursor;
9
        LOOP
10
             FETCH finance_cursor INTO fin_info;
             EXIT WHEN finance_cursor%NOTFOUND;
11
             DBMS_OUTPUT.PUT_LINE('Organization Name: ' || fin_info.Organization_Name);
12
13
             DBMS_OUTPUT.PUT_LINE('Finance Balance: ' || fin_info.Finance_Balance);
        END LOOP;
14
15
        CLOSE finance_cursor;
16
    END;
17
```

Query 3

```
Results
          Explain
                     Describe
                                Saved SQL
                                             History
Organization Name: Organization XYZ
Finance Balance: 10000
Organization Name: Organization ABC
Finance Balance: 20000
Organization Name: Organization DEF
Finance Balance: 15000
Organization Name: Organization GHI
Finance Balance: 18000
Organization Name: Organization JKL
Finance Balance: 22000
Statement processed.
```

Result of Query 3

5.13.5 Triggers

1. Create a trigger to update the salary of a player when the player's play hours are updated.

```
CREATE OR REPLACE TRIGGER player_salary_update
2
       BEFORE UPDATE ON Player
3
       FOR EACH ROW
4
       BEGIN
5
           IF : NEW.Player_Salary < :OLD.Player_Salary THEN</pre>
                RAISE_APPLICATION_ERROR(-20001, 'Salary decrease not allowed.');
6
           END IF;
7
8
       END;
       /
```

Query 1

2. Create a trigger to update the prize pool of a tournament when the tournament's start date is updated.

```
CREATE OR REPLACE TRIGGER tournament_prize_pool_trigger

BEFORE INSERT ON Tournament

FOR EACH ROW

BEGIN

IF :NEW.Tournament_Prize_Pool <= 0 THEN

:NEW.Tournament_Prize_Pool := NULL;

END IF;

END;

//
```

Query 2

3. Create a trigger to update the team member limit of a team when the team's country is updated.

```
CREATE OR REPLACE TRIGGER team_member_limit_trigger
1
   BEFORE INSERT ON Player_Team
   FOR EACH ROW
4
    DECLARE
        team_size INT;
6
    BEGIN
7
        SELECT COUNT(*) INTO team_size
8
        FROM Player_Team
        WHERE Team_ID = :NEW.Team_ID;
9
10
        IF team_size >= 7 THEN
11
            RAISE_APPLICATION_ERROR(-20002, 'Team member limit reached.');
12
13
        END IF;
14
   END;
15
```

Query 3

5.13.6 Package

1. Create a package to manage players. The package should contain the following procedures:

```
CREATE OR REPLACE PACKAGE player_management_pkg AS
2
        PROCEDURE add_new_player(
            p_name VARCHAR2,
3
            p_email VARCHAR2,
4
5
            p_dob DATE,
            p_salary DECIMAL
6
7
        );
8
        PROCEDURE update_player_salary(
9
10
            p_player_id INT,
11
            p_new_salary DECIMAL
12
13
14
        FUNCTION get_player_age(
            p_player_id INT
15
16
        ) RETURN INT;
17
18
        FUNCTION get_player_total_earnings(
            p_player_id INT
19
        ) RETURN DECIMAL;
20
21
22
        PROCEDURE remove_player(
23
            p_player_id INT
24
25
   END player_management_pkg;
26
```

Query 1

2. Create a package to manage teams. The package should contain the following procedures:

```
CREATE OR REPLACE PACKAGE team_management_pkg AS
2
        PROCEDURE update_team_name(
3
            p_team_id INT,
4
            p_new_name VARCHAR2
5
6
        PROCEDURE add_player_to_team(
            p_player_id INT,
8
9
            p_team_id INT
10
11
12
        FUNCTION get_team_member_count(
            p_team_id INT
13
14
        ) RETURN INT;
15
        PROCEDURE remove_player_from_team(
16
17
            p_player_id INT,
            p_team_id INT
18
19
20
        FUNCTION get_team_players(
21
22
            p_team_id INT
23
        ) RETURN SYS_REFCURSOR;
24
   END team_management_pkg;
25
```

Query 2

3. Create a package to manage tournaments. The package should contain the following procedures:

```
CREATE OR REPLACE PACKAGE tournament_management_pkg AS
1
2
        {\tt PROCEDURE} \  \  {\tt create\_new\_tournament} \  \, (
3
             p_name VARCHAR2,
             p_start_date DATE,
4
5
             p_end_date DATE,
 6
             p_location VARCHAR2,
             p_prize_pool DECIMAL
7
        );
8
9
10
        PROCEDURE delete_tournament(
             p_tournament_id INT
11
12
        );
13
14
        FUNCTION get_tournament_prize_pool(
             p_tournament_id INT
15
        ) RETURN DECIMAL;
16
17
        {\tt FUNCTION} \  \, {\tt get\_tournament\_winner} \, (
18
19
             p_tournament_id INT
20
        ) RETURN VARCHAR2;
21
22
        PROCEDURE update_tournament_location(
             p_tournament_id INT,
23
24
             p_new_location VARCHAR2
25
26
    END tournament_management_pkg;
27
```

Query 3

Relational Algebra

1. Find the name of the manager whose manager id is 5.

$$\Pi_{\text{Manager_Name}}(\sigma_{\text{Manager_ID}=5(\text{Manager})})$$

2. Find the Salary of 'Player 1'.

$$\Pi_{\text{Player_Salary}}(\sigma_{\text{name}=\text{"Player 1"(Player)}})$$

3. Find Player id whose birthday is on 1992-05-10.

$$\Pi_{\text{Player_ID}}(\sigma_{\text{Player_DOB}="1992-05-10"(Player)})$$

4. Find the Country, City, Street, and Zip code where Content Creator ID is equal to 4.

$$\Pi_{ContentCreator_Country,\ ContentCreator_City,ContentCreator_Street,\ ContentCreator_Zip_Code}$$

$$\left(\sigma_{ContentCreator_ID=4(ContentCreator_Address)}\right)$$

5. Find the Team ID that won the Championship 2023.

$$\Pi_{\text{Team_ID}}(\sigma_{\text{Team_Winning}} = \text{"Championship 2023"}(\text{Team_Winning}))$$

Conclusion

In conclusion, the project for the development and implementation of an Esports Management System has outlined a revolutionary platform that aims to transform the management and organization of esports teams, players, tournaments, and sponsors. The proposed system seeks to improve user experience, encourage community engagement, and streamline operations within the esports industry by leveraging advanced technology and comprehensive functionalities.

For the final term, we plans to enhance the existing project by developing a web application using Dotnet and Sveltekit frameworks. This transition to a web app will provide greater accessibility and flexibility to users, allowing them to access the Esports Management System from any device with an internet connection.