1. INTRODUCTION
2. Describe the problem:

eSports is becoming huge in the world. The global eSports audience will reach 380 million this year, made up of 165 million dedicated eSports fans and 215 million occasional viewers. League of Legends is one of the highest view eSport in the world with many Tournaments. Because of that, a database to manage these tournaments is essential. This assignment aims to design such a database to manage teams of each regions.

1. Management objective:

Manage team and members of team.

Manage matches of each season.

Manage penalty (if any) of each player in the tournament.

**Important output:**

Total points of each team in the season

1. ENTITY – RELATIONSHIP – ER
2. Definition entity - Attribute

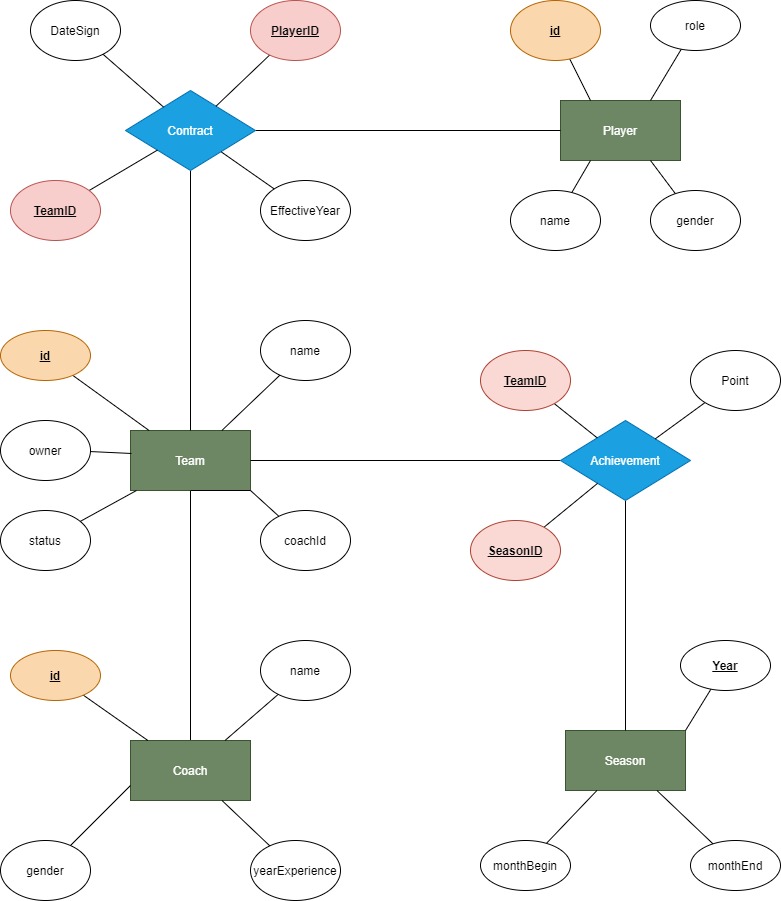
* Player: **id**, name, gender, role
* Coach: **id**, name, gender, yearExperience
* Team: **id**, name, owner, status, **coachID**
* Season: **year**, monthBegin, monthEnd
* Achievement: **teamID**, **seasonId**, point
* Contract: **playerID**, **teamID**, DateSign, EffectiveYear

1. Set up entity – relationship

\* Some symbols used in the model

**Attibute**

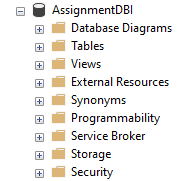
|  |  |
| --- | --- |
| * Key / identifier attribute |  |
| * Attribute description / description | **ENTITY**  Attribute |
| * Entity | **WEAK ENTIRY** |
| * Weak entity | *Relationship* |
| * Relationship |  |
| * Connectivity (force) = 1 |  |
| * Connectivity = N |  |



1. DATA DICTIONARY
2. Create database AssignmentDBI

-create database

CREATE DATABASE PROJECTDBI202



1. CREATE TABLE PLAYER

| Column Name | Data Type | Default | Check | Key/ Index/ Constraint |
| --- | --- | --- | --- | --- |
| ID | Char(8) |  | KORP+number | unique |
| Name | Nvarchar(100) |  |  | Not null |
| Gender | Nvarchar(1) |  | ‘M’ or ‘F’ | Not null |
| Role | Nvarchar(255) |  |  | Not null |

Code:

CREATE TABLE Player(

id CHAR(8) PRIMARY KEY NOT NULL CHECK(id LIKE 'KORP[0-9][0-9][0-9][0-9]'),

name NVARCHAR(100),

gender CHAR(1) DEFAULT 'M' CHECK(Gender IN('F','M')) NOT NULL,

role NVARCHAR(10)

)

Example:

| ID | Name | Gender | Role |
| --- | --- | --- | --- |
| KORP0001 | Lee "Faker" Sang-hyeok | M | Mid |
| KORP0002 | Kim"Roach" Kang-hui | M | Top |
| KORP0003 | Moon "Cuzz" Woo-chan | M | Jungle |
| KORP0004 | Park "Teddy" Jin-seong | M | ADC |
| KORP0005 | Ryu "Keria" Min-seok | M | Support |

1. CREATE TABLE COACH

| Column Name | Data Type | Default | Check | Key/ Index/ Constraint |
| --- | --- | --- | --- | --- |
| ID | Char(8) |  | KORC+number | unique |
| Name | Nvarchar(100) |  |  | Not null |
| Gender | Nvarchar(1) |  | ‘M’ or ‘F’ | Not null |
| YearExperience | int |  |  |  |

Code:

CREATE TABLE Coach(

id CHAR(8) PRIMARY KEY NOT NULL CHECK(id LIKE 'KORC[0-9][0-9][0-9][0-9]'),

name NVARCHAR,

gender CHAR(1) DEFAULT 'M' CHECK(Gender IN('F','M')) NOT NULL,

yearExperience INT,

)

Example:

| ID | Name | Gender | yearExperience |
| --- | --- | --- | --- |
| KORC0001 | Kim Jeong-soo | M | 3 |
| KORC0002 | Song Chang-geun | M | 5 |
| KORC0003 | Kang Dong-hoon | M | 7 |
| KORC0004 | Lee Chang-seok | M | 4 |
| KORC0005 | Kang Tae-su | M | 2 |

1. CREATE TABLE TEAM

| Column Name | Data Type | Default | Check | Key/ Index/ Constraint |
| --- | --- | --- | --- | --- |
| ID | int |  |  | unique |
| Name | Nvarchar(100) |  |  | Not null |
| Status | Bit |  |  | Not null |
| Owner | Nvarchar(100) |  |  | Not null |
| coachID | Char(8) |  |  | FOREIGN KEY REFERENCES Coach(ID) |

Code:

CREATE TABLE Team(

id INT PRIMARY KEY,

name NVARCHAR(100),

Owner NVARCHAR(100),

Status BIT,

coachId CHAR(8) UNIQUE NOT NULL

FOREIGN KEY (coachId) REFERENCES Coach(id)

)

Example:

| Int | Name | Owner | Status | CoachID |
| --- | --- | --- | --- | --- |
| 1 | T1 | SK Telecom |  | KORC0001 |
| 2 | Sandbox Gaming | Sandbox Network |  | KORC0002 |
| 3 | KT Rolster | KT |  | KORC0003 |
| 4 | Griffin | STILL8 |  | KORC0004 |