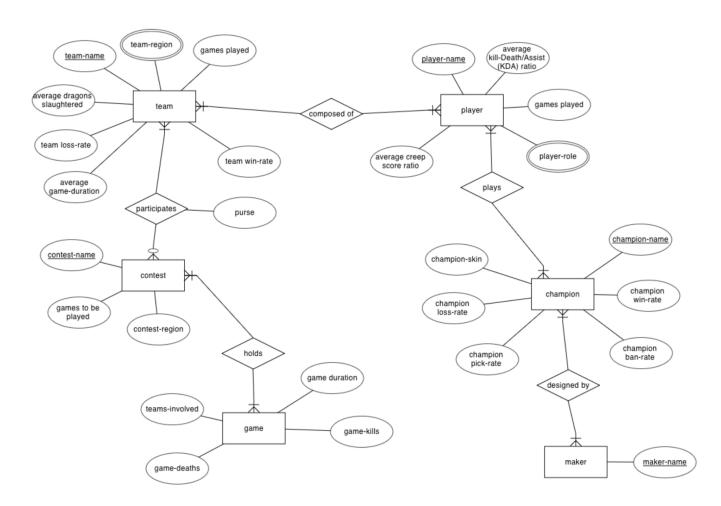# RYERSON UNIVERSITY

Faculty of Engineering, Architecture and Science

Department of Electrical and Computer Engineering

Course Number	848
Course Title	Fundamentals of Data Engineering
Semester/Year	W2023

Instructor	Dr. Faezeh Ensan

Lab No.	2

Lab Title	Entity-Relation Diagram Design

Submission Date	January 31st, 2023
Due Date	February 5th, 2023

Student Name	Student ID	Signature*
Abdulrehman Khan	500968727	A.K.

ER-DIAGRAM:

RELATIONSHIPS:

team — player	Many to Many	Each team will have many players and each player will be part of one team at a time. Players could have been part of different teams prior.
team — contest	Many to Many	It is optional for a team to participate in a contest and many teams can participate in many contests. But, each contest must have teams participating and can have many teams participating.
contest — game	Many to Many	Each contest can hold many games, and each game can be played in many contests.

player — champion	Many to Many	Each player can play many champions, and each champion can be played by different players.
champion — maker	Many to Many	Each champion can be designed by many designers and each designer can design numerous champions.

TEAM ENTITY: Possesses the details pertaining to the team

team-name	Name of group
team-region	Region the team plays in
team win-rate	# of wins / Total # of games played
team loss-rate	Derived from 100% - # of wins
games-played	Total # of games played
average dragons slaughtered	Total dragons slaughtered per game / Total # of games played
average game-duration	Total duration of game / Total # of games played

PLAYER ENTITY: Possesses the individual's data

player-name	Individual's in-game name
average creep score ratio	Average creep score per minute
average kill-death/assist (KDA) ratio	Average kill-death/assist (KDA) ratio
games -played	Total # of games played
player-role	Lane the individual will play in

CONTEST ENTITY: Possesses the contest's statistics

contest-name	Name of the contest
games to be played	Total # of games to be played within the contest
contest-region	Region the contest will be held in

CHAMPION ENTITY: Possesses the character's statistics

champion-name	Name of character
champion-skin	Cosmetic costume of character
champion win-rate	# of wins / Total # of games played
champion loss-rate	Derived from 100% - win-rate
champion pick-rate	# of games champion is chosen / Total games
champion ban-rate	# of games champion is banned / Total games

GAME ENTITY: Possesses the game's details

game-duration	Total time the game lasts
game-kills	Total # of game kills performed per team
game-deaths	Derived from 100% - game-kills
teams-involved	Name of the teams that have participated in this game

MAKER ENTITY: Holds the details of the champion designer

maker-name	Name of the champion designer