**Project Report**

Olympic Database

# Database Systems Semester 2

# Purpose

This database contains information on Athletes, Coaches, Events and Medals at the Tokyo Olympic games.

# **ERD:**

Diagram

Description automatically generated

# **Entitities**:

Table

Description automatically generated with low confidence

Country:

Team or Nation the athlete represents

Hold Rank information

Athlete:

# **Relationships**:

Table

Description automatically generated

**represents**

Country - (1 : N) – Athlete

Athletes or coaches can only belong to one national team

**part of**

Country - (1 : N) – Coach

Athletes or coaches can only belong to one national team

**competes**

Athlete - (1 : N) – Discipline

Athletes can only perform at very highest level in single discipline (a discipline may be an umbrella of events such as “Athletics”).

**specialises on**

Coach - (1 : N) – Discipline

Coaches can only specialise at very highest level in single discipline (a discipline may be an umbrella of events such as “Athletics”).

**trains**

Coach - (1 : N) – Athlete

A single coach may train multiple athletes, athletes have one coach assigned to them.

**wins**

Athlete - (N : N) – Country

A single athlete can win multiple medals for their country, a country may have multiple medallists.

Text

Description automatically generated

# Relational Schema

Country(countryID*, ranking, gold, silver, bronze)*

Athlete(athleteID, surname, givenNames , *coachID, disciplineID, genderOrType, countryID*)

Coach(coachID, surname, givenNames, *disciplineID, countryID*)

Discipline(disciplineID, maleCount, femaleCount)

# Data types

TABLE **Country**

countryID VARCHAR(60) **PK**

**#***used as main identifier also serves as name of nation. Must be unique.*

ranking SMALLINT

**#***used as main identifier also serves as name of nation. Must be unique.*

gold SMALLINT

silver SMALLINT

bronze SMALLINT

TABLE **Discipline**

disciplineID VARCHAR(60) **NOT NULL**

***#****used as main identifier also serves as name of discipline. Must be unique.*

maleCount SMALLINT,

***#****data is numeric, never negative and never goes above 255.*

femaleCount SMALLINT,

***#****data is numeric, never negative and never goes above 255.*

TABLE **Athlete**

athleteID CHAR(6) **PK**

***#****used as main identifier generated for DB. Must be unique.*

surname VARCHAR(30) **NOT NULL**

***#****derived from dataset. Must not be null.*

givenNames VARCHAR(150)

***#****derived from dataset. Can be null as not every athlete will have 2 names.*

discipline VARCHAR(60) **FK**

***#Foreign key****. Must not be null.*

country VARCHAR(60) **FK**

***#Foreign key****. Must not be null.*

TABLE **Coach**

coachID CHAR(6) **PK**

***#****used as main identifier generated for DB. Must be unique.*

surname VARCHAR(30) **NOT NULL**

***#****derived from dataset. Must not be null.*

givenNames VARCHAR(150)

***#****derived from dataset. Can be null as not every athlete will have 2 names.*

discipline VARCHAR(60) **FK**

***#Foreign key****. Must not be null.*

country VARCHAR(60) **FK**

***#Foreign key****. Must not be null.*