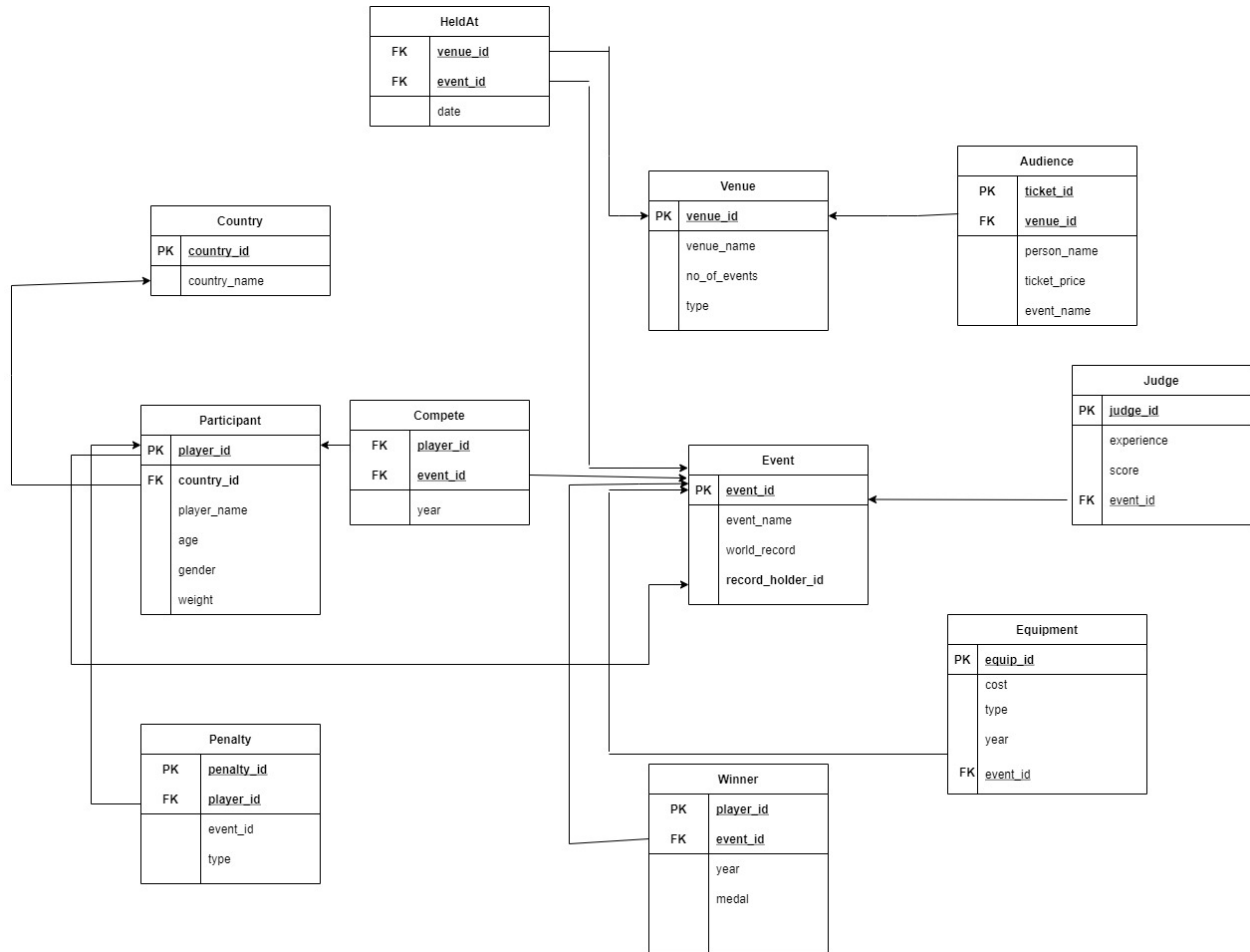# DBMS PROJECT – OLYMPICS DATABASE

DELIVERABLE -2: RELATIONAL SCHEMA, DDL COMMANDS AND INSERTING VALUES INTO THE DATABASE

Relational Schema:

DDL Commands:

1) Create tables
2) Add columns/attributes
3) Define CHECK and DEFAULT constraints
4) Add foreign key referencing
5) Add UNIQUE and NOT NULL constraints
6) Perform delete on cascade

```
drop database olympics;
create database olympics;

\c olympics


CREATE TABLE  COUNTRY
 (  country_id INT NOT NULL ,
  country_name VARCHAR(15) NOT NULL,

  UNIQUE (country_name) ,
  PRIMARY KEY (country_id)        );


CREATE TABLE  PARTICIPANT
 (  player_id INT NOT NULL ,
  country_id INT NOT NULL ,
  player_name VARCHAR(50) NOT NULL,
  gender VARCHAR(1) ,
  age INT CHECK (age > 16),
  weight INT,

  PRIMARY KEY (player_id),
  FOREIGN KEY (country_id) REFERENCES COUNTRY(country_id)     );
```

```
C:\Program Files\PostgreSQL\14\bin>psql -U postgres -f "C:\Users\navvu\Documents\5th_Semester\DBMS\Project Deliverables\olympics_ddl.sql"
Password for user postgres:
DROP DATABASE
CREATE DATABASE
You are now connected to database "olympics" as user "postgres".
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
CREATE TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
```

Inserting commands:

```
\c olympics

INSERT into COUNTRY values(1, 'Denmark');
INSERT into COUNTRY values(2, 'Netherlands');
INSERT into COUNTRY values(3,'Australia');
INSERT into COUNTRY values(4,'Spain');
INSERT into COUNTRY values(5,'Phillipines');
INSERT into COUNTRY values(6,'USA');
INSERT into COUNTRY values(7,'India');
INSERT into COUNTRY values(8,'Finland');
INSERT into COUNTRY values(9,'Kenya');
INSERT into COUNTRY values(10,'Germany');
INSERT into COUNTRY values(11,'Great Britain');
INSERT into COUNTRY values(12,'Egypt');
INSERT into COUNTRY values(13,'Russia');

INSERT into PARTICIPANT values(1,1, 'Edgar Lindenau Aabye', 'M', 34, 90); --Basketball, 1996
INSERT into PARTICIPANT values(2,2, 'Christine Jacoba Aaftink', 'F', 27, 81); --Freestyle, 2004
INSERT into PARTICIPANT values(3,1, 'Sonia Blanco Bernal', 'F', 31, 68); --basketball, 1992
INSERT into PARTICIPANT values(4,3, 'Adam Tony Forsyth', 'M', 23, 88); --boxing, 1996
INSERT into PARTICIPANT values(5,4, 'Jaume Fort Mauri', 'M', 22, 83); --Freestyle, 1992
INSERT into PARTICIPANT values(6,5,'Renato Rene Fortaleza','M',17,51); --boxing, 1988
INSERT into PARTICIPANT values(7,6,'Joseph Cephis Joe Fortenberry','M',27,94); --basketball,1996
INSERT into PARTICIPANT values(8,7,'Saina Nehwal','F',24,67); --single's badminton, double's badminton,2012, 2016
INSERT into PARTICIPANT values(9,7,'PV Sindhu','F',21,70); --badminton
INSERT into PARTICIPANT values(10,8,'Einar Ferdinand Aalto','M',26); --breastroke, Finland, 1996
INSERT into PARTICIPANT values(11,8,'Arvo Ossian Aaltonen','M',22,68); --breastroke, Finland, 2000
INSERT into PARTICIPANT values(12,2,'Stefan Remco Aartsen','M',21); --breastroke, Netherlands, 2000
INSERT into PARTICIPANT values(13,9,'Paul Kipngetich Tanui','M',28, 90); --100M sprint and 4X100M relay, Kenya, 2016 (ma
p it in the table competes -> same player in two sports)), 2004
```

```
C:\Program Files\PostgreSQL\14\bin>psql -U postgres -f "C:\Users\navvu\Documents\5th_Semester\DBMS\Project Deliverables\olympics_insert.sql"
Password for user postgres:
You are now connected to database "olympics" as user "postgres".
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
```

Entire DDL and insert commands can be found on the following link –

https://www.notion.so/SQL-DDL-and-Insert-2696add4ffce479f81a6cc2300bff7fb

Checking if the CHECK constraint works:

```
psql:C:/Users/navvu/Documents/5th_Semester/DBMS/Project Deliverables/olympics_insert.sql:169: ERROR:  new row for relation "participant" violates check constraint "particip
ant_age_check"
DETAIL:  Failing row contains (19, 12, Sahar Helal, F, 15, 43).
```

Checking if foreign key constraint works:

```
psql:C:/Users/navvu/Documents/5th_Semester/DBMS/Project Deliverables/olympics_insert.sql:213: ERROR:  insert or update on table "competes" violates foreign key constraint "
competes_event_id_fkey"
DETAIL:  Key (event_id)=(10) is not present in table "event".
psql:C:/Users/navvu/Documents/5th_Semester/DBMS/Project Deliverables/olympics_insert.sql:214: ERROR:  insert or update on table "competes" violates foreign key constraint "
competes_player_id_fkey"
DETAIL:  Key (player_id)=(19) is not present in table "participant".
```