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# S.I.G.T.

## Base de Datos II

### Katsu enterprise (勝つ企業)

| Rol             | Apellido | Nombre   | C.I         | Email                        | Tel/Cel.    |
|-----------------|----------|----------|-------------|------------------------------|-------------|
| Coordinador     | Macedo   | Fiorella | 5.503.612-7 | fiomacedoo@gmail.com         | 093 646 109 |
| Sub-Coordinador | Dávila   | Oriana   | 5.074.874-1 | orianadavila99@gmail.com     | 093 308 483 |
| Integrante 1    | Pérez    | Lautaro  | 5.468.712-7 | pabloramirez199221@gmail.com | 097 967 986 |

**Docente: Romero, Carlos.**

**Fecha de culminación**

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**SEGUNDA ENTREGA**

**I.S.B.O.**

**3BF**

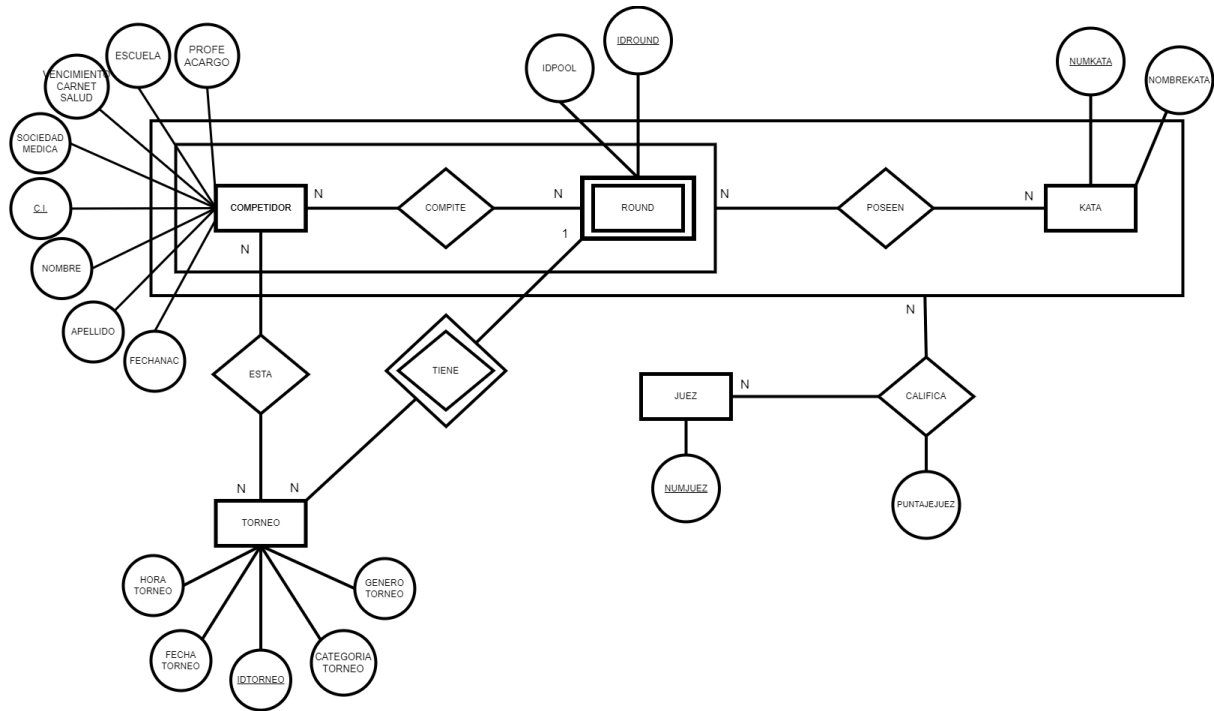


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## Modelo conceptual (DER) con las correcciones. Versión completa



En caso de querer visualizar mejor la imagen, ingrese al siguiente link:

<https://drive.google.com/file/d/1nRTlom2kkqS5VXO8uiVT4pD9XWYtLz8C/view?usp=sharing>



## Esquema Relacional normalizado (3ra. Forma Normal)

Esquema relacional normalizado:

ENTIDADES:

Competidor(CI, nombre, apellido, fechanac, sociedad medica, vencimientocarnetsalud, escuela, profeacargo)

Torneo(IDTorneo, generotorneo, categoriatorneo, fechatorneo, horatorneo)

IDTorneo -> IDRound

Round(Round, IDtorneo, IDpool)

Kata(NUMkata, Nombrekata)

Juez(NUMJuez)



## RELACIONES:

Compite(CI, Round, IDTorneo)

CI -> Competidor.CI

IDTorneo -> Round.IDTorneo

Round -> Round.IDRound

Esta(CI, IDTorneo)

CI -> Competidor.CI

IDTorneo -> Torneo.IDTorneo

Califica(CI, NumKata, IDTorneo, NumJuez, Round, PuntuajeJuez)

CI -> Poseen.CI

IDTorneo -> Poseen.IDTorneo

NumKata -> Poseen.NumKata

NumJuez -> Juez.NumJuez

Round -> Poseen.IDRound

Poseen(CI, NumKata, IDTorneo, Round)

CI -> Compite.CI

NumKata -> Kata.NumKata

IDTorneo -> Compite.IDTorneo

Round -> Compite.IDRound

**RNE**

( $\forall x \in \text{competidor}$ ) ( $x \in \text{compite}$  si  $x \in \text{esta}$ )



## Sentencias DDL para la creación de tablas y estructuras necesarias

/\*Entidades\*/

```
create table Competidor(ciComp int not null,  
  
nombreComp varchar (20) not null,  
  
apellidoComp varchar(20) not null,  
  
nacimientoComp date not null,  
  
sociedadCompvarchar(30) not null,  
  
vecimientoCarnetSalud date not null,  
  
constraint cp_Competidor primary key (ciComp));
```

```
create table Round(round int not null,  
  
codigoTorneo int not null,  
  
IDPool int not null,  
  
constraint cp_Round primary key (round, codigoTorneo),  
  
constraint cp_Round_Torneo  
  
foreign key (codigoTorneo)  
  
referencesTorneo(codigoTorneo));
```



```
create table Torneo(  
  
codigoTorneo int not null,  
  
roundtorneo int not null,  
  
categoria varchar(5) not null,  
  
genero varchar(10) not null,  
  
fecha date not null,  
  
hora int not null,  
  
lugar varchar(25) not null,  
  
constraint cp_Torneo primary key (codigoTorneo ),  
  
CONSTRAINT restriccion_sexo CHECK (GeneroTorneo in ('Femenino','Maculino'))  
  
CONSTRAINT restriccion_edad CHECK (categoria in ('12-13','14-15', '16-17',  
'18')));  
  
create table Kata (NumKata int not null,  
  
NombreKata varchar(30) not null,  
  
constraint cp_Kata primary key (NumKata));  
  
create table Juez (NumJuez int not null,  
  
constraint cp_Juez primary key (NumJuez));  
  
/*Relaciones*/
```



```
create table Poseen(ciComp int not null,  
  
Round int not null,  
  
NumKata int not null,  
  
codigoTorneo int not null,  
  
constraint cp_Poseen primary key (ciComp, NumKata, codigoTorneo, Round),  
  
constraint ce_Poseen_Kata foreign key (NumKata)  
  
references kata(NumKata),  
  
constraint ce_Poseen_Competidor foreign key (ciComp)  
  
references Compite(ciComp),  
  
constraint ce_Poseen_Torneo foreign key (codigoTorneo)  
  
references Compite(codigoTorneo));  
  
constraint ce_Poseen_Round foreign key (Round)  
  
references Compite(round),  
  
  
  
create table Compite (ciComp int not null,  
  
codigoTorneo int not null,  
  
round int not null,  
  
constraint cp_Compite primary key (ciComp, codigoTorneo, round),  
  
constraint ce_Compite_Competidor foreign key (ciComp)  
  
references Competidor(ciComp),
```





```
constraint ce_Compite_Torneo foreign key (codigoTorneo)
references Round(codigoTorneo),

constraint ce_Compite_Round foreign key (round)
references Round(round));

create table Esta(ciComp int not null,

codigoTorneo int not null,

constraint cp_Esta primary key (ciComp, codigoTorneo),

constraint ce_Esta_Competidor foreign key (ciComp)
references Competidor(ciComp),

constraint ce_Esta_Torneo foreign key (codigoTorneo)
references Torneo(codigoTorneo));

create table Califica(ciComp int not null,

codigoTorneo int not null,

NumKata int not null,

NumJuez int not null,

Puntaje int not null,

constraint cp_Califica primary key (ciComp, codigoTorneo, NumKata, NumJuez),

constraint ce_Califica_Competidor
foreign key (ciComp)
references Poseen(ciComp),
```



constraint ce\_Califica\_Torneo foreign key (codigoTorneo)

references Poseen(codigoTorneo),

constraint ce\_Califica\_Kata foreign key (NumKata)

references Poseen(NumKata),

constraint ce\_Califica\_Juez foreign key (NumJuez)

references Juez(NumJuez));

### Gestión de usuarios y permisos

Estudio de los permisos sobre BD, tablas y columnas, considerando los diferentes roles

| Competidor |  |  |  |  |
|------------|--|--|--|--|
|------------|--|--|--|--|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               | ✓                    |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

| Torneo |  |  |  |  |
|--------|--|--|--|--|
|--------|--|--|--|--|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |



|              |
|--------------|
| <b>Round</b> |
|--------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

|             |
|-------------|
| <b>Kata</b> |
|-------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

|             |
|-------------|
| <b>Juez</b> |
|-------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

|                 |
|-----------------|
| <b>Califica</b> |
|-----------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               | ✓                    |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |



|               |
|---------------|
| <b>Poseen</b> |
|---------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

|                |
|----------------|
| <b>Compite</b> |
|----------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

|             |
|-------------|
| <b>Esta</b> |
|-------------|

| Rol           | Select<br>(ver) | Insert<br>(Ingresar) | Modificar<br>(Update) | Eliminar<br>(Delete) |
|---------------|-----------------|----------------------|-----------------------|----------------------|
| Juez          | ✓               |                      |                       |                      |
| Administrador | ✓               | ✓                    | ✓                     | ✓                    |

## Sentencias DCL de permisos a la Base de Datos

create user 'juez'@'%' identified by 'contraseñajuez';

create user 'administrador'@'%' identified by 'adminpassword';

grant select, insert, update, delete on bdKatsuEnterprise.Competidor TO  
'administrador'@'%';



grant select, insert, update, delete on bdKatsuEnterprise.Torneo TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Round TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Kata TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Juez TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Poseen TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Califica TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Compite TO  
'administrador'@'%';

grant select, insert, update, delete on bdKatsuEnterprise.Estan TO  
'administrador'@'%';

grant select on basededatos.Kata TO 'juez'@'%';

grant select (genero) on basededatos.Torneo TO 'juez'@'%';

grant select (categoria) on basededatos.Torneo TO 'juez'@'%';

grant insert (Puntaje) on basededatos.Califica TO 'juez'@'%';