



## MySQL Physical Model

Schema for:

Model name: SIGEU\_2\_Hackolade\_andres\_nov

Author:

Version:

File name: SIGEU\_2\_Hackolade\_andres\_nov.hck.json

File path: D:\SIGEU\SIGEU\_2\_MONGO\docs\SIGEU\_2\_Hackolade\_andres\_nov.hck.json

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Created with: [Hackolade](#) - Polyglot data modeling for SQL and NoSQL databases, APIs, and storage formats in RDBMS

### 1. Model

### 2. Databases

2.1 sigeu\_2

#### 2.1.2. Tables

- 2.1.2.1 contrasena
- 2.1.2.2 evaluacion\_evento
- 2.1.2.3 evento
- 2.1.2.4 facultad
- 2.1.2.5 facultad\_usuario
- 2.1.2.6 lugar
- 2.1.2.7 lugar\_evento
- 2.1.2.8 organizacion\_externa
- 2.1.2.9 participa
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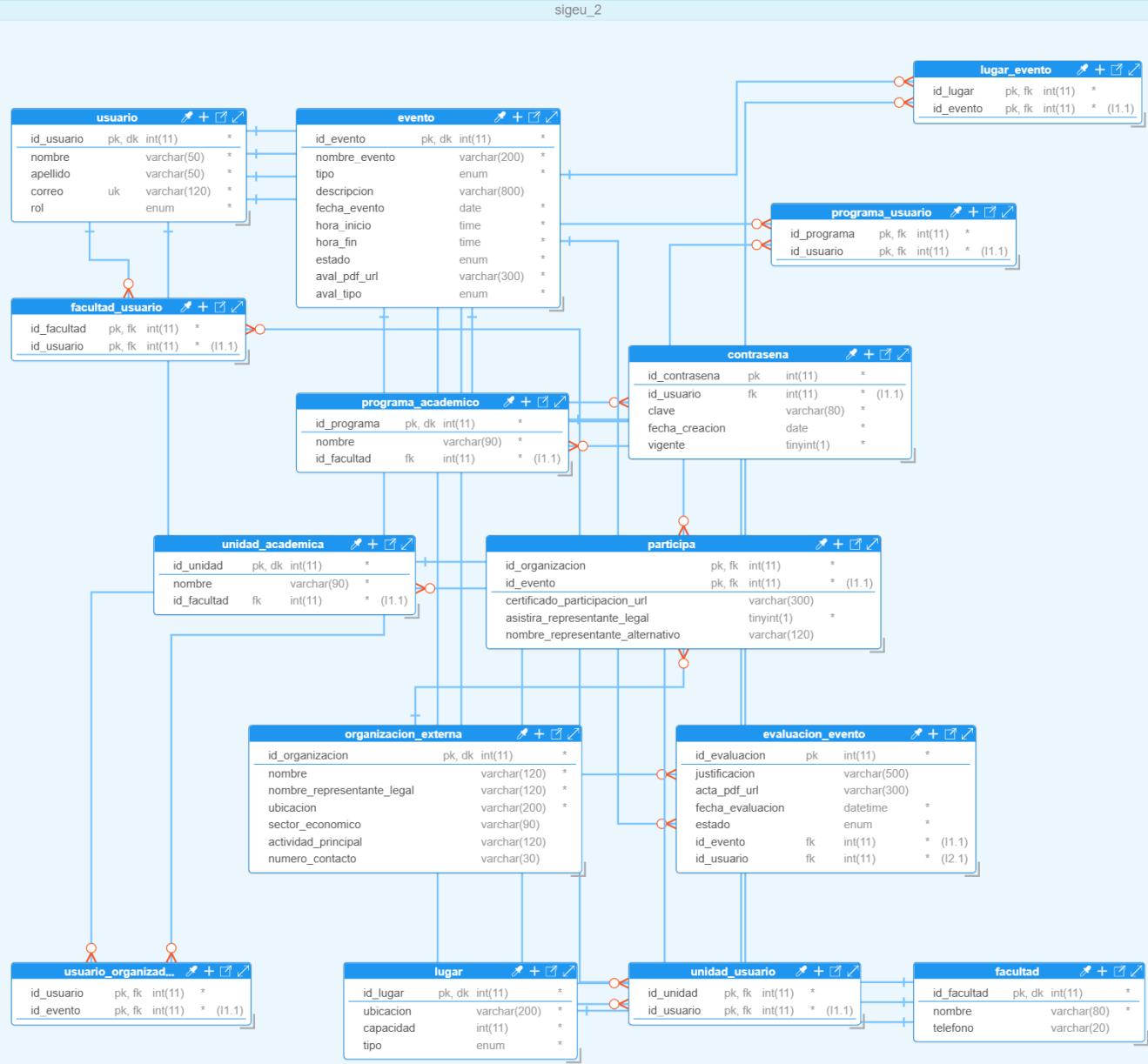
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- 3.2 fk\_ev\_evento
- 3.3 fk\_ev\_usuario
- 3.4 fk\_fu\_facultad
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- 3.11 fk\_pu\_programa
- 3.12 fk\_pu\_usuario
- 3.13 fk\_unidad\_facultad
- 3.14 fk\_uu\_unidad
- 3.15 fk\_uu\_usuario
- 3.16 fk\_uo\_evento
- 3.17 fk\_uo\_usuario

## 1. MODEL

### 1.1 Model SIGEU\_2\_Hackolade\_andres\_nov

#### 1.1.1 SIGEU\_2\_Hackolade\_andres\_nov Entity Relationship Diagram



## 1.1.2 SIGEU\_2\_Hackolade\_andres\_nov Properties

### 1.1.2.1 Details tab

PROPERTY	VALUE
Model name	SIGEU_2_Hackolade_andres_nov
DB vendor	MySQL
DB version	v9.x
Lineage capture	

### 1.1.2.2 Tablespaces tab

PROPERTY	VALUE
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### 1.1.2.3 Options tab

PROPERTY	VALUE
----------	-------

## 1.1.3 SIGEU\_2\_Hackolade\_andres\_nov User-Defined Types

## 2. DATABASES

### 2.1 Database sigeu\_2

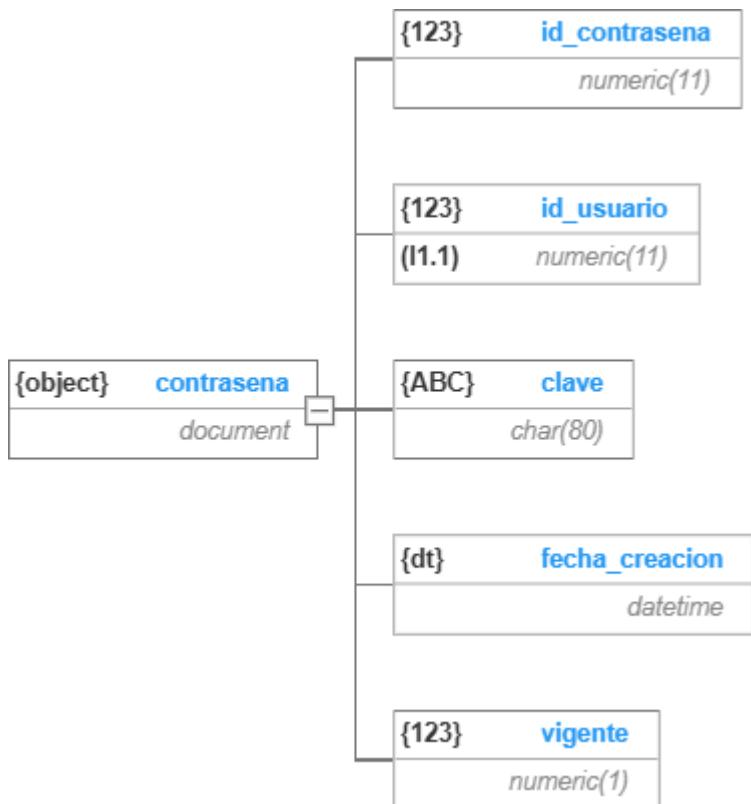
#### 2.1.1 sigeu\_2 Properties

PROPERTY	VALUE
Database name	sigeu_2
Activated	true
If not exist	true
Encrypted	No

#### 2.1.2 sigeu\_2 Tables

##### 2.1.2.1 Table contrasena

###### 2.1.2.1.1 contrasena Tree Diagram



#### 2.1.2.1.2 **contrasena** Properties

PROPERTY	VALUE
Table	contrasena
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Historial de contraseñas del usuario; una marcada como vigente
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Historial de contraseñas del usuario; una marcada como vigente

### 2.1.2.1.3 contrasena Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_contrasena	int(11)	true	pk		
id_usuario	int(11)	true	fk		
clave	varchar(80)	true		Hash/clave almacenable del usuario	
fecha_creacion	date	true			
vigente	tinyint(1)	true			

#### 2.1.2.1.3.1 Column id\_contrasena

### 2.1.2.1.3.1.1 **id\_contrasena** properties

PROPERTY	VALUE
Business Name	id_contrasena
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.1.3.2 Column **id\_usuario**

#### 2.1.2.1.3.2.1 **id\_usuario** properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	false
Unique	false
Foreign table	usuario
Foreign field	id_usuario
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.1.3.3 Column **clave**

#### 2.1.2.1.3.3.1 **clave** properties

PROPERTY	VALUE
Business Name	clave
Activated	true
Type	char
Subtype	varchar
Length	80
Not null	true
Comments	Hash/clave almacenable del usuario
Primary key	false
Unique	false

### 2.1.2.1.3.4 Column **fecha\_creacion**

### 2.1.2.1.3.4.1 fecha\_creacion properties

PROPERTY	VALUE
Business Name	fecha_creacion
Activated	true
Type	datetime
Subtype	date
Not null	true
Primary key	false
Unique	false

### 2.1.2.1.3.5 Column vigente

#### 2.1.2.1.3.5.1 vigente properties

PROPERTY	VALUE
Business Name	vigente
Activated	true
Type	numeric
Subtype	tinyint
Precision	1
Not null	true
Signed	true
Primary key	false
Unique	false
Excl min	false
Excl max	false

### 2.1.2.1.4 contrasena Composite keys

PROPERTY	VALUE
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### 2.1.2.1.5 contrasena Indexes

#### 2.1.2.1.5.1 Index

PROPERTY	
Name	fk_contrasena_usuario
Activated	true
Type	
Category	
<b>Keys</b>	
	id_usuario
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.1.6 contrasena Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

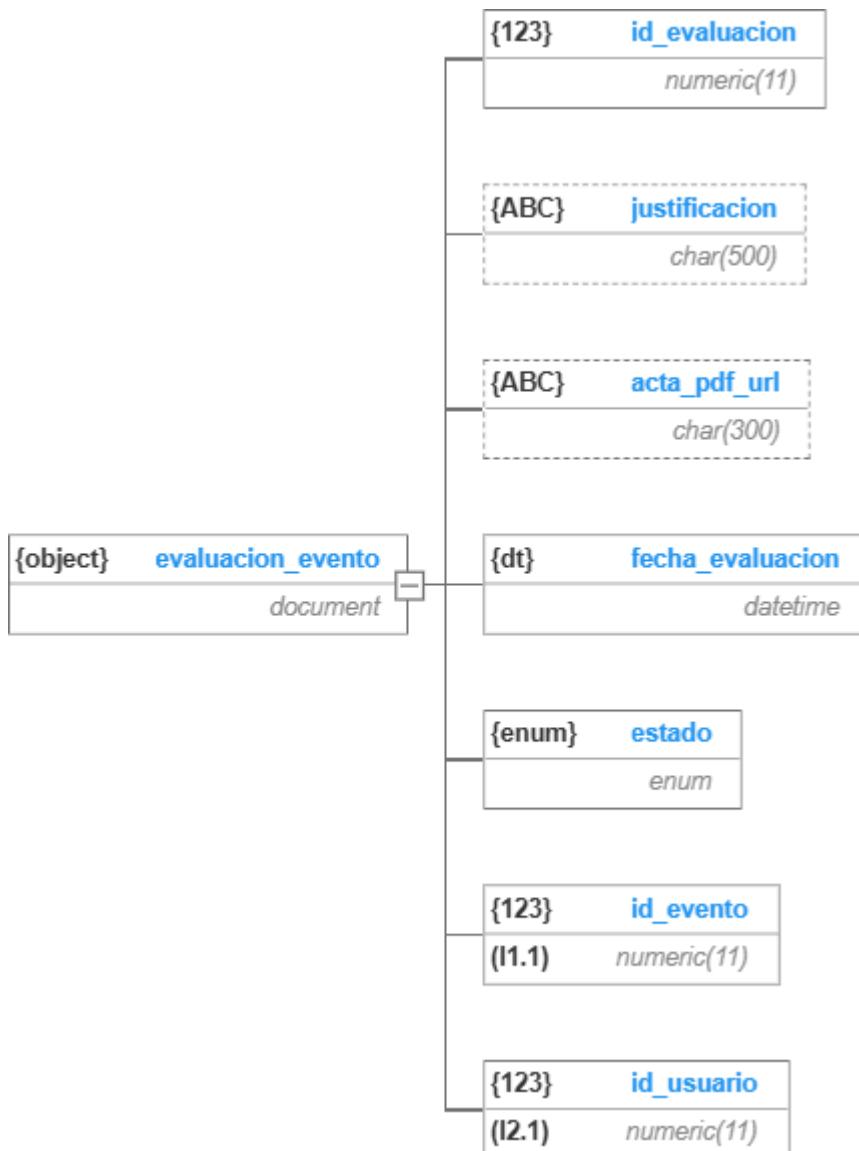
CREATE TABLE `sigeu_2`.`contrasena` (
  `id_contrasena` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `id_usuario` INT(11) NOT NULL,
  `clave` VARCHAR(80) NOT NULL COMMENT 'Hash/clave almacenable del usuario',
  `fecha_creacion` DATE NOT NULL,
  `vigente` TINYINT(1) NOT NULL,
  CONSTRAINT `fk_contrasena_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Historial de contraseñas del usuario; una marcada como vigente',
ENCRYPTION = 'N';

CREATE INDEX `fk_contrasena_usuario`
ON `sigeu_2`.`contrasena` ( `id_usuario` );

```

## 2.1.2.2 Table **evaluacion\_evento**

### 2.1.2.2.1 evaluacion\_evento Tree Diagram



### 2.1.2.2.2 evaluacion\_evento Properties

PROPERTY	VALUE
Table	evaluacion_evento
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Evaluaciones de eventos por secretaría académica
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Evaluaciones de eventos por secretaría académica

### 2.1.2.2.3 evaluacion\_evento Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_evaluacion	int(11)	true	pk		
justificacion	varchar(500)	false			
acta_pdf_url	varchar(300)	false			
fecha_evaluacion	datetime	true			
estado	enum	true			
id_evento	int(11)	true	fk		
id_usuario	int(11)	true	fk	Secretario académico que evalúa proceso	

#### 2.1.2.2.3.1 Column id\_evaluacion

### 2.1.2.2.3.1.1 **id\_evaluacion** properties

PROPERTY	VALUE
Business Name	id_evaluacion
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.2.3.2 Column **justificacion**

#### 2.1.2.2.3.2.1 **justificacion** properties

PROPERTY	VALUE
Business Name	justificacion
Activated	true
Type	char
Subtype	varchar
Length	500
Not null	false
Primary key	false
Unique	false

### 2.1.2.2.3.3 Column **acta\_pdf\_url**

#### 2.1.2.2.3.3.1 **acta\_pdf\_url** properties

PROPERTY	VALUE
Business Name	acta_pdf_url
Activated	true
Type	char
Subtype	varchar
Length	300
Not null	false
Primary key	false
Unique	false

### 2.1.2.2.3.4 Column **fecha\_evaluacion**

### 2.1.2.2.3.4.1 fecha\_evaluacion properties

PROPERTY	VALUE
Business Name	fecha_evaluacion
Activated	true
Type	datetime
Subtype	datetime
Not null	true
Primary key	false
Unique	false

### 2.1.2.2.3.5 Column estado

#### 2.1.2.2.3.5.1 estado properties

PROPERTY	VALUE
Business Name	estado
Activated	true
Type	enum
Not null	true
Enum	aprobado,rechazado

### 2.1.2.2.3.6 Column id\_evento

#### 2.1.2.2.3.6.1 id\_evento properties

PROPERTY	VALUE
Business Name	id_evento
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	false
Unique	false
Foreign table	evento
Foreign field	id_evento
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.2.3.7 Column id\_usuario

### 2.1.2.2.3.7.1 id\_usuario properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Comments	Secretario académico que evalúa proceso
Primary key	false
Unique	false
Foreign table	usuario
Foreign field	id_usuario
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.2.4 evaluacion\_evento Composite keys

PROPERTY	VALUE
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### 2.1.2.2.5 evaluacion\_evento Indexes

#### 2.1.2.2.5.1 Index

PROPERTY	
Name	fk_ev_evento
Activated	true
Type	
Category	
<b>Keys</b>	
	id_evento
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

#### 2.1.2.2.5.2 Index

PROPERTY	
Name	fk_ev_usuario
Activated	true
Type	
Category	
<b>Keys</b>	
	id_usuario
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

#### 2.1.2.2.6 evaluacion\_evento Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

CREATE TABLE `sigeu_2`.`evaluacion_evento` (
  `id_evaluacion` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `justificacion` VARCHAR(500),
  `acta_pdf_url` VARCHAR(300),
  `fecha_evaluacion` DATETIME NOT NULL,
  `estado` ENUM('aprobado', 'rechazado') NOT NULL,
  `id_evento` INT(11) NOT NULL,
  `id_usuario` INT(11) NOT NULL COMMENT 'Secretario académico que evalúa proceso',
  CONSTRAINT `fk_ev_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
  CONSTRAINT `fk_ev_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Evaluaciones de eventos por secretaría académica',
  ENCRYPTION = 'N';

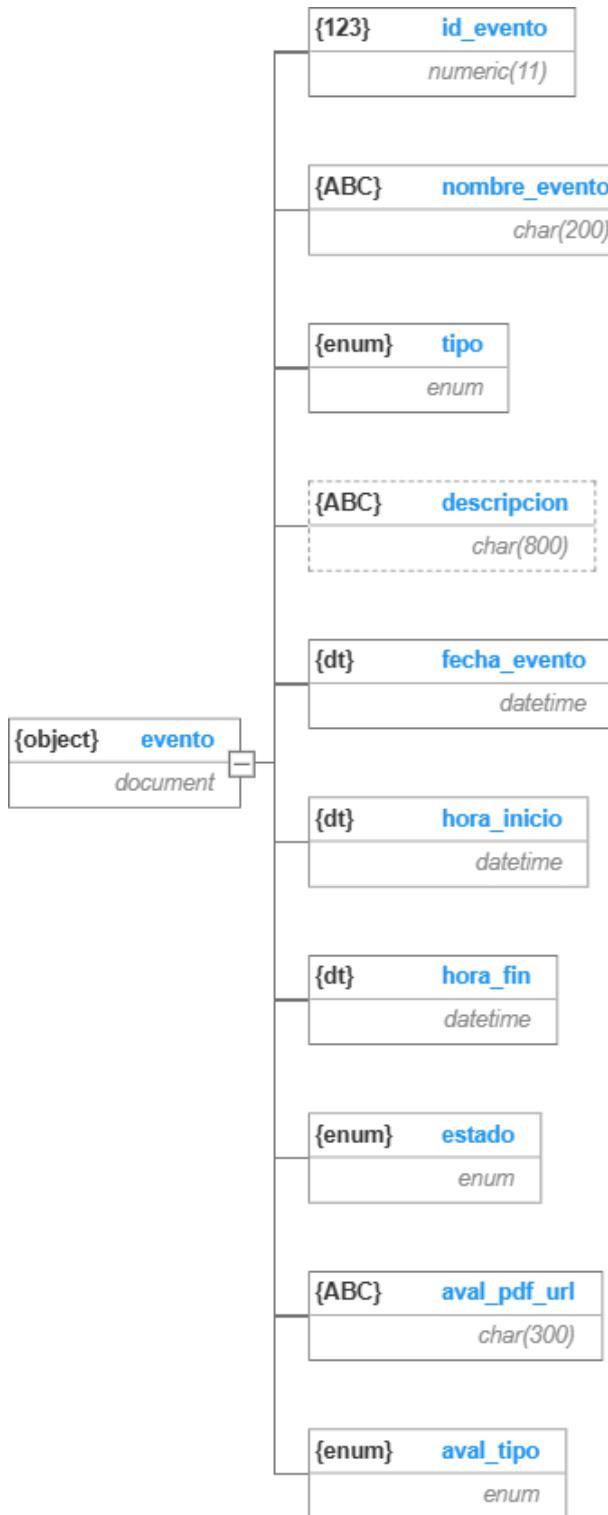
CREATE INDEX `fk_ev_evento`
  ON `sigeu_2`.`evaluacion_evento` ( `id_evento` );

CREATE INDEX `fk_ev_usuario`
  ON `sigeu_2`.`evaluacion_evento` ( `id_usuario` );

```

#### 2.1.2.3 Table evento

##### 2.1.2.3.1 evento Tree Diagram



#### 2.1.2.3.2 `evento` Properties

PROPERTY	VALUE
Table	evento
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Eventos organizados por docentes/estudiantes; con aval y control de estado
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Eventos organizados por docentes/estudiantes; con aval y control de estado

### 2.1.2.3.3 evento Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_evento	int(11)	true	pk, dk		
nombre_evento	varchar(200)	true			
tipo	enum	true			
descripcion	varchar(800)	false			
fecha_evento	date	true			
hora_inicio	time	true			
hora_fin	time	true			
estado	enum	true			
aval_pdf_url	varchar(300)	true			
aval_tipo	enum	true			

#### 2.1.2.3.3.1 Column id\_evento

### 2.1.2.3.3.1.1 **id\_evento** properties

PROPERTY	VALUE
Business Name	id_evento
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.3.3.2 Column **nombre\_evento**

#### 2.1.2.3.3.2.1 **nombre\_evento** properties

PROPERTY	VALUE
Business Name	nombre_evento
Activated	true
Type	char
Subtype	varchar
Length	200
Not null	true
Primary key	false
Unique	false

### 2.1.2.3.3 Column **tipo**

#### 2.1.2.3.3.3.1 **tipo** properties

PROPERTY	VALUE
Business Name	tipo
Activated	true
Type	enum
Not null	true
Enum	ludico,academic

### 2.1.2.3.3.4 Column **descripcion**

#### 2.1.2.3.3.4.1 **descripcion** properties

PROPERTY	VALUE
Business Name	descripcion
Activated	true
Type	char
Subtype	varchar
Length	800
Not null	false
Primary key	false
Unique	false

### 2.1.2.3.3.5 Column **fecha\_evento**

#### 2.1.2.3.3.5.1 **fecha\_evento** properties

PROPERTY	VALUE
Business Name	fecha_evento
Activated	true
Type	datetime
Subtype	date
Not null	true
Primary key	false
Unique	false

### 2.1.2.3.3.6 Column **hora\_inicio**

#### 2.1.2.3.3.6.1 **hora\_inicio** properties

PROPERTY	VALUE
Business Name	hora_inicio
Activated	true
Type	datetime
Subtype	time
Not null	true
Primary key	false
Unique	false

### 2.1.2.3.3.7 Column **hora\_fin**

#### 2.1.2.3.3.7.1 **hora\_fin** properties

PROPERTY	VALUE
Business Name	hora_fin
Activated	true
Type	datetime
Subtype	time
Not null	true
Primary key	false
Unique	false

### 2.1.2.3.3.8 Column **estado**

#### 2.1.2.3.3.8.1 **estado** properties

PROPERTY	VALUE
Business Name	estado
Activated	true
Type	enum
Not null	true
Enum	registrado,en_revision,aprobado,rechazado

### 2.1.2.3.3.9 Column **aval\_pdf\_url**

### 2.1.2.3.3.9.1 aval\_pdf\_url properties

PROPERTY	VALUE
Business Name	aval_pdf_url
Activated	true
Type	char
Subtype	varchar
Length	300
Not null	true
Primary key	false
Unique	false

### 2.1.2.3.3.10 Column aval\_tipo

#### 2.1.2.3.3.10.1 aval\_tipo properties

PROPERTY	VALUE
Business Name	aval_tipo
Activated	true
Type	enum
Not null	true
Enum	director_programa,director_docencia

### 2.1.2.3.4 evento Composite keys

PROPERTY	VALUE
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### 2.1.2.3.5 evento Check Constraints

#### 2.1.2.3.5.1 Check Constraint

PROPERTY	
Name	`CONSTRAINT_1`
Description	
Expression	`hora_fin` > `hora_inicio`
Enforcement	
Comments	

### 2.1.2.3.6 evento Target Script

```

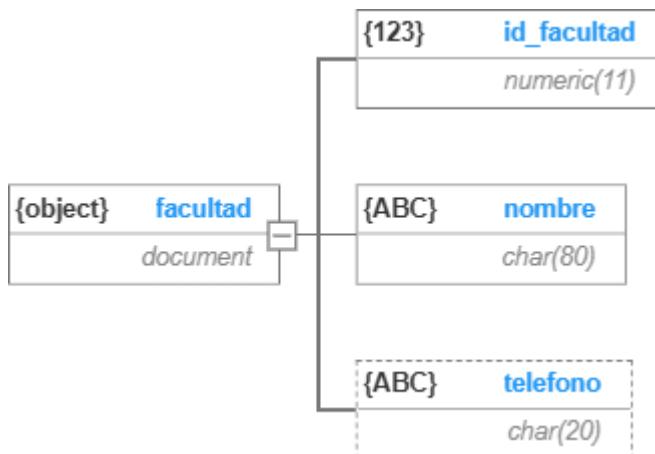
CREATE DATABASE IF NOT EXISTS `sigeu_2`;

CREATE TABLE `sigeu_2`.`evento` (
  `id_evento` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre_evento` VARCHAR(200) NOT NULL,
  `tipo` ENUM('ludico', 'academico') NOT NULL,
  `descripcion` VARCHAR(800),
  `fecha_evento` DATE NOT NULL,
  `hora_inicio` TIME NOT NULL,
  `hora_fin` TIME NOT NULL,
  `estado` ENUM('registrado', 'en_revision', 'aprobado', 'rechazado') NOT NULL,
  `aval_pdf_url` VARCHAR(300) NOT NULL,
  `aval_tipo` ENUM('director_programa', 'director_docencia') NOT NULL,
  CONSTRAINT `CONSTRAINT_1` CHECK (`hora_fin` > `hora_inicio`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Eventos organizados por docentes/estudiantes; con aval y control de estado',
  ENCRYPTION = 'N';

```

## 2.1.2.4 Table facultad

### 2.1.2.4.1 facultad Tree Diagram



### 2.1.2.4.2 facultad Properties

PROPERTY	VALUE
Table	facultad
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Facultades con las que cuenta la universidad
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Facultades con las que cuenta la universidad

#### 2.1.2.4.3 facultad Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_facultad	int(11)	true	pk, dk		
nombre	varchar(80)	true			
telefono	varchar(20)	false			

##### 2.1.2.4.3.1 Column id\_facultad

### 2.1.2.4.3.1.1 **id\_facultad** properties

PROPERTY	VALUE
Business Name	id_facultad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.4.3.2 Column **nombre**

#### 2.1.2.4.3.2.1 **nombre** properties

PROPERTY	VALUE
Business Name	nombre
Activated	true
Type	char
Subtype	varchar
Length	80
Not null	true
Primary key	false
Unique	false

### 2.1.2.4.3.3 Column **telefono**

#### 2.1.2.4.3.3.1 **telefono** properties

PROPERTY	VALUE
Business Name	telefono
Activated	true
Type	char
Subtype	varchar
Length	20
Not null	false
Primary key	false
Unique	false

### 2.1.2.4.4 **facultad** Composite keys

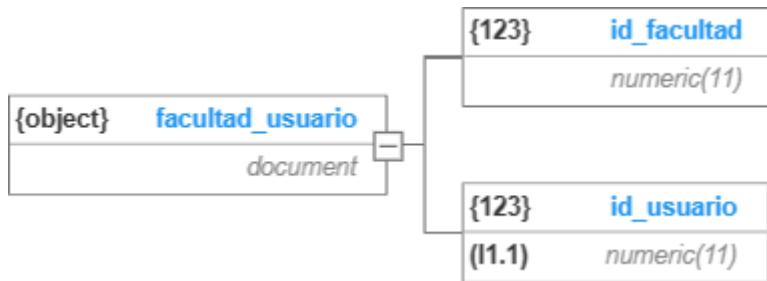
PROPERTY	VALUE

### 2.1.2.4.5 **facultad** Target Script

```
CREATE DATABASE IF NOT EXISTS `sigeu_2`;  
  
CREATE TABLE `sigeu_2`.`facultad` (  
    `id_facultad` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,  
    `nombre` VARCHAR(80) NOT NULL,  
    `telefono` VARCHAR(20)  
) CHARSET=utf8mb4,  
    COLLATE=utf8mb4_unicode_ci,  
    ENGINE = InnoDB,  
    COMMENT = 'Facultades con las que cuenta la universidad',  
    ENCRYPTION = 'N';
```

## 2.1.2.5 Table facultad\_usuario

### 2.1.2.5.1 facultad\_usuario Tree Diagram



### 2.1.2.5.2 facultad\_usuario Properties

PROPERTY	VALUE
Table	facultad_usuario
Activated	true
Database	<a href="#">sigeu_2</a>
Additional properties	false
Comments	Secretari@s académicos responsables de cada facultad (esto es validado por trigger)
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Secretari@s académicos responsables de cada facultad (esto es validado por trigger)

### 2.1.2.5.3 facultad\_usuario Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_facultad	int(11)	true	pk, fk		
id_usuario	int(11)	true	pk, fk		

#### 2.1.2.5.3.1 Column id\_facultad

### 2.1.2.5.3.1.1 id\_facultad properties

PROPERTY	VALUE
Business Name	id_facultad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	facultad
Foreign field	id_facultad
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.5.3.2 Column id\_usuario

#### 2.1.2.5.3.2.1 id\_usuario properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	usuario
Foreign field	id_usuario
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.5.4 facultad\_usuario Composite keys

PROPERTY	VALUE
<b>Primary key</b>	
[1] Constraint name	
<b>Key</b>	
	id_facultad
	id_usuario
Category	
Key block size	
Ignore index	
Comment	

### 2.1.2.5.5 facultad\_usuario Indexes

### 2.1.2.5.5.1 Index

PROPERTY	
Name	fk_fu_usuario
Activated	true
Type	
Category	
<b>Keys</b>	
	id_usuario
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.5.6 facultad\_usuario Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

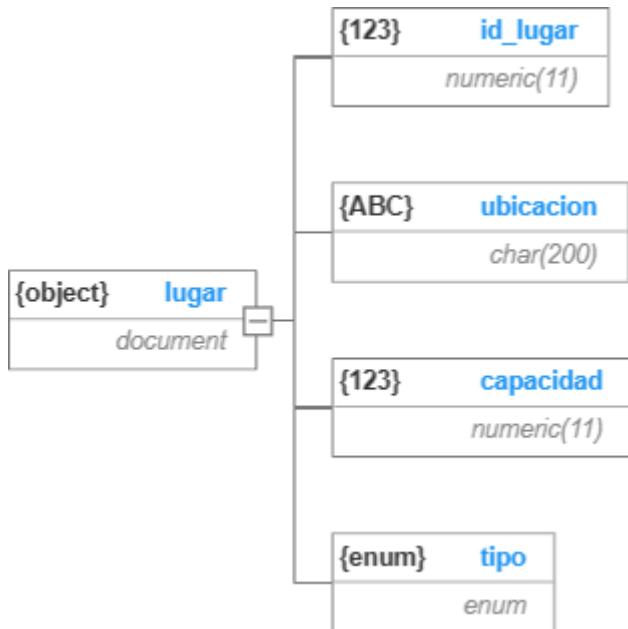
CREATE TABLE `sigeu_2`.`facultad_usuario` (
  `id_facultad` INT(11) NOT NULL,
  `id_usuario` INT(11) NOT NULL,
  PRIMARY KEY (`id_facultad` ASC, `id_usuario` ASC),
  CONSTRAINT `fk_fu_facultad` FOREIGN KEY (`id_facultad`) REFERENCES `sigeu_2`.`facultad`(`id_facultad`),
  CONSTRAINT `fk_fu_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Secretari@s académicos responsables de cada facultad (esto es validado por trigger)',
  ENCRYPTION = 'N';

CREATE INDEX `fk_fu_usuario`
ON `sigeu_2`.`facultad_usuario` ( `id_usuario` );

```

### 2.1.2.6 Table lugar

#### 2.1.2.6.1 lugar Tree Diagram



### 2.1.2.6.2 lugar Properties

PROPERTY	VALUE
Table	lugar
Activated	true
Database	<a href="#">sigeu_2</a>
Additional properties	false
Comments	Espacios físicos con los que cuenta la universidad
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Espacios físicos con los que cuenta la universidad

### 2.1.2.6.3 lugar Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_lugar	int(11)	true	pk, dk		
ubicacion	varchar(200)	true			
capacidad	int(11)	true			
tipo	enum	true			

### 2.1.2.6.3.1 Column **id\_lugar**

#### 2.1.2.6.3.1.1 **id\_lugar** properties

PROPERTY	VALUE
Business Name	id_lugar
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.6.3.2 Column **ubicacion**

#### 2.1.2.6.3.2.1 **ubicacion** properties

PROPERTY	VALUE
Business Name	ubicacion
Activated	true
Type	char
Subtype	varchar
Length	200
Not null	true
Primary key	false
Unique	false

### 2.1.2.6.3.3 Column **capacidad**

#### 2.1.2.6.3.3.1 **capacidad** properties

PROPERTY	VALUE
Business Name	capacidad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	false
Unique	false
Excl min	false
Excl max	false

### 2.1.2.6.3.4 Column tipo

#### 2.1.2.6.3.4.1 tipo properties

PROPERTY	VALUE
Business Name	tipo
Activated	true
Type	enum
Not null	true
Enum	salon,auditorio,laboratorio,cancha,otro

### 2.1.2.6.4 lugar Composite keys

PROPERTY	VALUE
----------	-------

### 2.1.2.6.5 lugar Check Constraints

#### 2.1.2.6.5.1 Check Constraint

PROPERTY	
Name	
Description	
Expression	`capacidad` >= 0
Enforcement	
Comments	

### 2.1.2.6.6 lugar Target Script

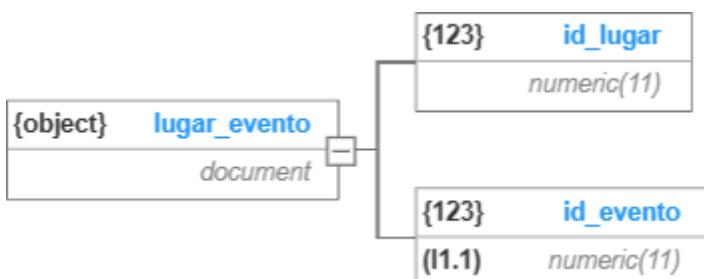
```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

CREATE TABLE `sigeu_2`.`lugar` (
  `id_lugar` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `ubicacion` VARCHAR(200) NOT NULL,
  `capacidad` INT(11) NOT NULL,
  `tipo` ENUM('salon', 'auditorio', 'laboratorio', 'cancha', 'otro') NOT NULL,
  CONSTRAINT CHECK (`capacidad` >= 0)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Especios físicos con los que cuenta la universidad',
  ENCRYPTION = 'N';
  
```

### 2.1.2.7 Table lugar\_evento

#### 2.1.2.7.1 lugar\_evento Tree Diagram



#### 2.1.2.7.2 lugar\_evento Properties

PROPERTY	VALUE
Table	lugar_evento
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Asignación de lugares/espacio a eventos
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Asignación de lugares/espacio a eventos

### 2.1.2.7.3 **lugar\_evento** Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_lugar	int(11)	true	pk, fk		
id_evento	int(11)	true	pk, fk		

#### 2.1.2.7.3.1 Column **id\_lugar**

### 2.1.2.7.3.1.1 id\_lugar properties

PROPERTY	VALUE
Business Name	id_lugar
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	lugar
Foreign field	id_lugar
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.7.3.2 Column id\_evento

#### 2.1.2.7.3.2.1 id\_evento properties

PROPERTY	VALUE
Business Name	id_evento
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	evento
Foreign field	id_evento
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.7.4 lugar\_evento Composite keys

PROPERTY	VALUE
<b>Primary key</b>	
[1] Constraint name	
<b>Key</b>	
	id_lugar
	id_evento
Category	
Key block size	
Ignore index	
Comment	

### 2.1.2.7.5 lugar\_evento Indexes

### 2.1.2.7.5.1 Index

PROPERTY	
Name	fk_le_evento
Activated	true
Type	
Category	
<b>Keys</b>	
	id_evento
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.7.6 lugar\_evento Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

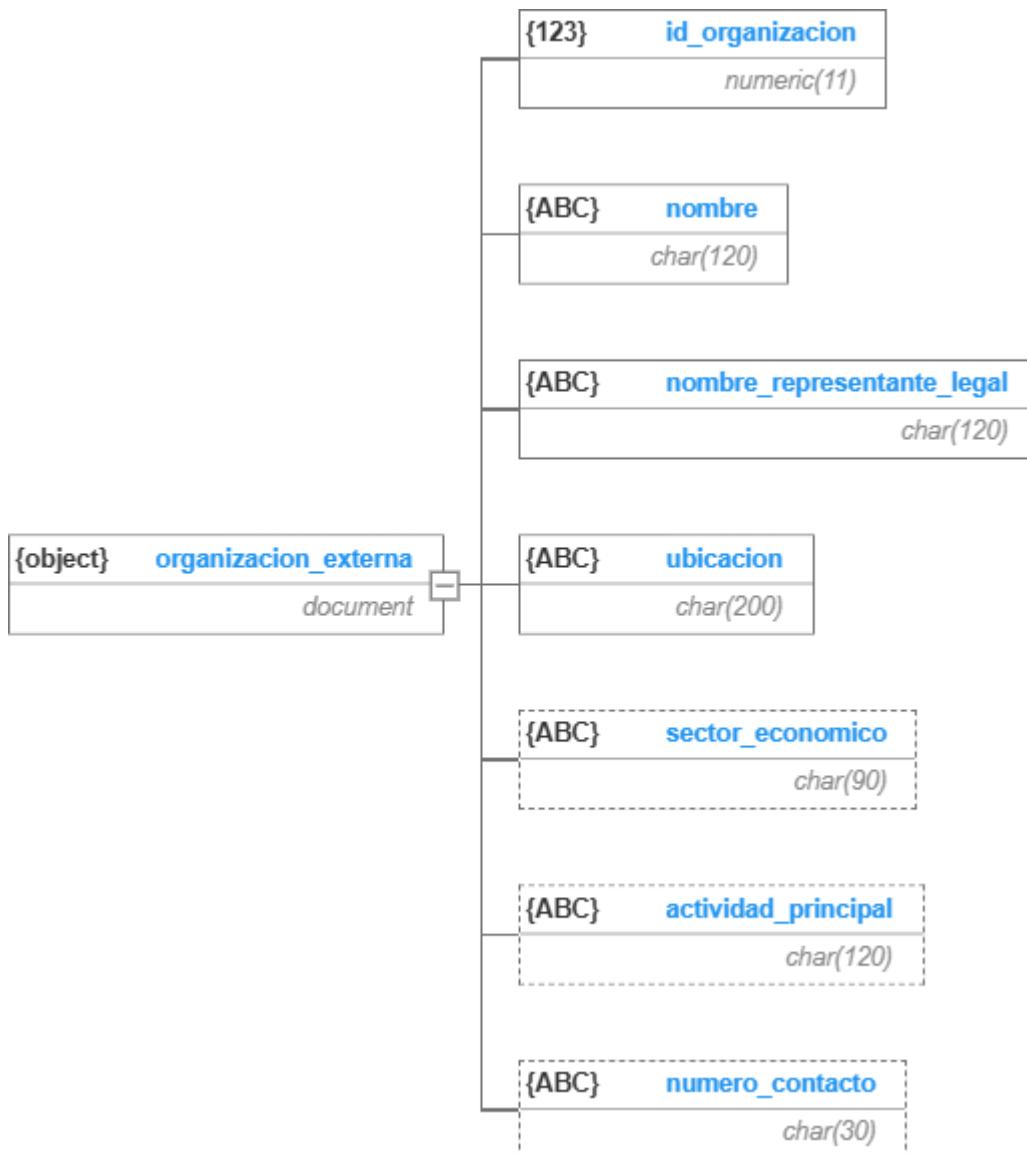
CREATE TABLE `sigeu_2`.`lugar_evento` (
  `id_lugar` INT(11) NOT NULL,
  `id_evento` INT(11) NOT NULL,
  PRIMARY KEY (`id_lugar` ASC, `id_evento` ASC),
  CONSTRAINT `fk_le_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
  CONSTRAINT `fk_le_lugar` FOREIGN KEY (`id_lugar`) REFERENCES `sigeu_2`.`lugar`(`id_lugar`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Asignación de lugares/espacio a eventos',
  ENCRYPTION = 'N';

CREATE INDEX `fk_le_evento`
ON `sigeu_2`.`lugar_evento` ( `id_evento` );

```

### 2.1.2.8 Table organizacion\_externa

#### 2.1.2.8.1 organizacion\_externa Tree Diagram



#### 2.1.2.8.2 `organizacion_externa` Properties

PROPERTY	VALUE
Table	organizacion_externa
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Organizaciones externas (para participación en eventos)
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Organizaciones externas (para participación en eventos)

### 2.1.2.8.3 organizacion\_externa Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_organizacion	int(11)	true	pk, dk		
nombre	varchar(120)	true			
nombreRepresentanteLegal	varchar(120)	true			
ubicacion	varchar(200)	true			
sectorEconomico	varchar(90)	false			
actividadPrincipal	varchar(120)	false			
numeroContacto	varchar(30)	false			

#### 2.1.2.8.3.1 Column id\_organizacion

### 2.1.2.8.3.1.1 **id\_organizacion** properties

PROPERTY	VALUE
Business Name	id_organizacion
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.8.3.2 Column **nombre**

#### 2.1.2.8.3.2.1 **nombre** properties

PROPERTY	VALUE
Business Name	nombre
Activated	true
Type	char
Subtype	varchar
Length	120
Not null	true
Primary key	false
Unique	false

### 2.1.2.8.3.3 Column **nombreRepresentanteLegal**

#### 2.1.2.8.3.3.1 **nombreRepresentanteLegal** properties

PROPERTY	VALUE
Business Name	nombreRepresentanteLegal
Activated	true
Type	char
Subtype	varchar
Length	120
Not null	true
Primary key	false
Unique	false

### 2.1.2.8.3.4 Column **ubicacion**

### 2.1.2.8.3.4.1 ubicacion properties

PROPERTY	VALUE
Business Name	ubicacion
Activated	true
Type	char
Subtype	varchar
Length	200
Not null	true
Primary key	false
Unique	false

### 2.1.2.8.3.5 Column sector\_economico

#### 2.1.2.8.3.5.1 sector\_economico properties

PROPERTY	VALUE
Business Name	sector_economico
Activated	true
Type	char
Subtype	varchar
Length	90
Not null	false
Primary key	false
Unique	false

### 2.1.2.8.3.6 Column actividad\_principal

#### 2.1.2.8.3.6.1 actividad\_principal properties

PROPERTY	VALUE
Business Name	actividad_principal
Activated	true
Type	char
Subtype	varchar
Length	120
Not null	false
Primary key	false
Unique	false

### 2.1.2.8.3.7 Column numero\_contacto

#### 2.1.2.8.3.7.1 numero\_contacto properties

PROPERTY	VALUE
Business Name	numero_contacto
Activated	true
Type	char
Subtype	varchar
Length	30
Not null	false
Primary key	false
Unique	false

### 2.1.2.8.4 organizacion\_externa Composite keys

PROPERTY	VALUE
----------	-------

### 2.1.2.8.5 organizacion\_externa Target Script

```

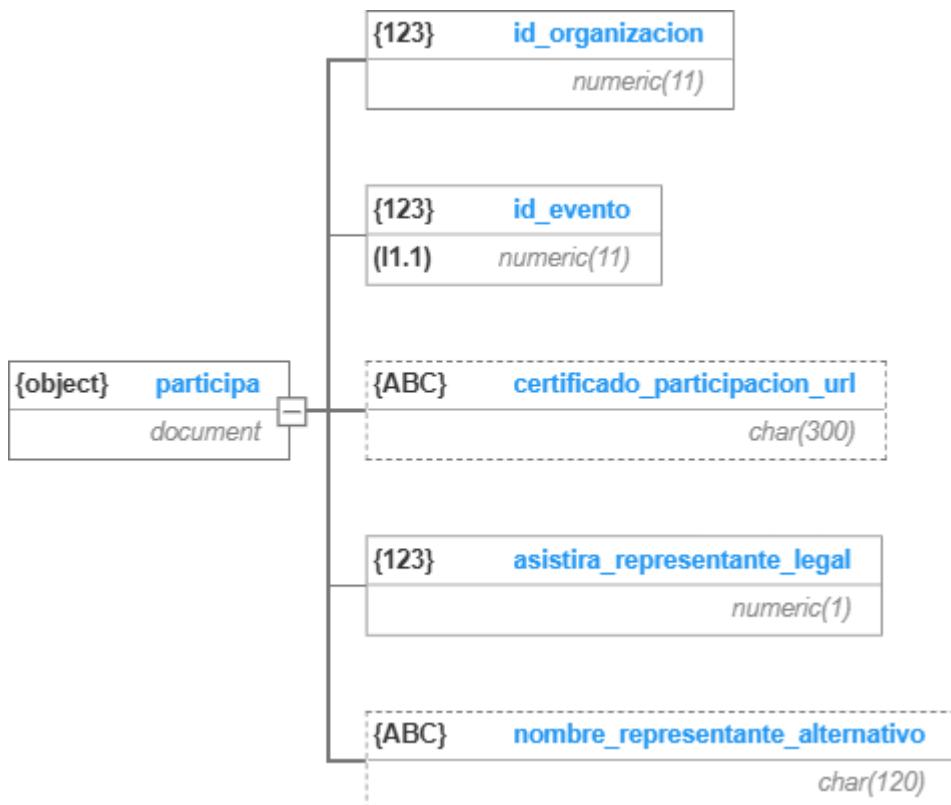
CREATE DATABASE IF NOT EXISTS `sigeu_2`;

CREATE TABLE `sigeu_2`.`organizacion_externa` (
  `id_organizacion` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre` VARCHAR(120) NOT NULL,
  `nombreRepresentanteLegal` VARCHAR(120) NOT NULL,
  `ubicacion` VARCHAR(200) NOT NULL,
  `sectorEconomico` VARCHAR(90),
  `actividadPrincipal` VARCHAR(120),
  `numeroContacto` VARCHAR(30)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Organizaciones externas (para participación en eventos)',
ENCRYPTION = 'N';

```

### 2.1.2.9 Table participa

#### 2.1.2.9.1 participa Tree Diagram



#### 2.1.2.9.2 participa Properties

PROPERTY	VALUE
Table	participa
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Participación de organizaciones externas por cada evento
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Participación de organizaciones externas por cada evento

### 2.1.2.9.3 participa Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_organizacion	int(11)	true	pk, fk		
id_evento	int(11)	true	pk, fk		
certificado_participacion_url	varchar(300)	false			
asistiraRepresentanteLegal	tinyint(1)	true			
nombreRepresentanteAlternativo	varchar(120)	false			

#### 2.1.2.9.3.1 Column id\_organizacion

### 2.1.2.9.3.1.1 id\_organizacion properties

PROPERTY	VALUE
Business Name	id_organizacion
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	organizacion_externa
Foreign field	id_organizacion
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.9.3.2 Column id\_evento

#### 2.1.2.9.3.2.1 id\_evento properties

PROPERTY	VALUE
Business Name	id_evento
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	evento
Foreign field	id_evento
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.9.3.3 Column certificado\_participacion\_url

#### 2.1.2.9.3.3.1 certificado\_participacion\_url properties

PROPERTY	VALUE
Business Name	certificado_participacion_url
Activated	true
Type	char
Subtype	varchar
Length	300
Not null	false
Primary key	false
Unique	false

### 2.1.2.9.3.4 Column asistira\_representante\_legal

### 2.1.2.9.3.4.1 asistira\_representante\_legal properties

PROPERTY	VALUE
Business Name	asistira_representante_legal
Activated	true
Type	numeric
Subtype	tinyint
Precision	1
Not null	true
Signed	true
Primary key	false
Unique	false
Excl min	false
Excl max	false

### 2.1.2.9.3.5 Column nombre\_representante\_alternativo

#### 2.1.2.9.3.5.1 nombre\_representante\_alternativo properties

PROPERTY	VALUE
Business Name	nombre_representante_alternativo
Activated	true
Type	char
Subtype	varchar
Length	120
Not null	false
Primary key	false
Unique	false

### 2.1.2.9.4 participa Composite keys

PROPERTY	VALUE
<b>Primary key</b>	
[1] Constraint name	
<b>Key</b>	
	id_organizacion
	id_evento
Category	
Key block size	
Ignore index	
Comment	

### 2.1.2.9.5 participa Indexes

#### 2.1.2.9.5.1 Index

PROPERTY	
Name	fk_pa_evento
Activated	true
Type	
Category	
Keys	
	id_evento
Expressions	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.9.6 participa Target Script

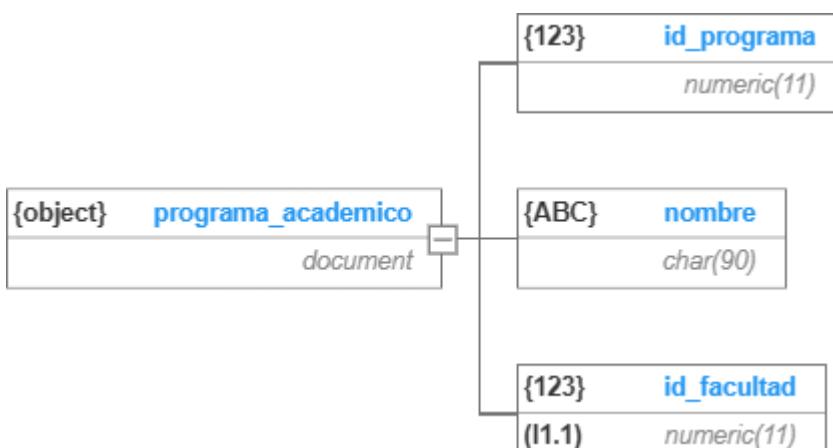
```
CREATE DATABASE IF NOT EXISTS `sigeu_2`;
```

```
CREATE TABLE `sigeu_2`.`participa` (
  `id_organizacion` INT(11) NOT NULL,
  `id_evento` INT(11) NOT NULL,
  `certificado_participacion_url` VARCHAR(300),
  `asistira_representante_legal` TINYINT(1) NOT NULL,
  `nombre_representante_alternativo` VARCHAR(120),
  PRIMARY KEY (`id_organizacion` ASC, `id_evento` ASC),
  CONSTRAINT `fk_pa_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
  CONSTRAINT `fk_pa_org` FOREIGN KEY (`id_organizacion`) REFERENCES
`sigeu_2`.`organizacion_externa`(`id_organizacion`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Participación de organizaciones externas por cada evento',
  ENCRYPTION = 'N';
```

```
CREATE INDEX `fk_pa_evento`
  ON `sigeu_2`.`participa` ( `id_evento` );
```

### 2.1.2.10 Table programa\_academico

#### 2.1.2.10.1 programa\_academico Tree Diagram



### 2.1.2.10.2 programa\_academico Properties

PROPERTY	VALUE
Table	programa_academico
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Programas académicos que estan adscritos a una facultad
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Programas académicos que estan adscritos a una facultad

### 2.1.2.10.3 programa\_academico Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_programa	int(11)	true	pk, dk		
nombre	varchar(90)	true			
id_facultad	int(11)	true	fk		

#### 2.1.2.10.3.1 Column id\_programa

### 2.1.2.10.3.1.1 id\_programa properties

PROPERTY	VALUE
Business Name	id_programa
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.10.3.2 Column nombre

#### 2.1.2.10.3.2.1 nombre properties

PROPERTY	VALUE
Business Name	nombre
Activated	true
Type	char
Subtype	varchar
Length	90
Not null	true
Primary key	false
Unique	false

### 2.1.2.10.3.3 Column id\_facultad

#### 2.1.2.10.3.3.1 id\_facultad properties

PROPERTY	VALUE
Business Name	id_facultad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	false
Unique	false
Foreign table	facultad
Foreign field	id_facultad
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.10.4 programa\_academico Composite keys

PROPERTY	VALUE
----------	-------

## 2.1.2.10.5 programa\_academico Indexes

### 2.1.2.10.5.1 Index

PROPERTY	
Name	fk_programa_facultad
Activated	true
Type	
Category	
<b>Keys</b>	
	id_facultad
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

## 2.1.2.10.6 programa\_academico Target Script

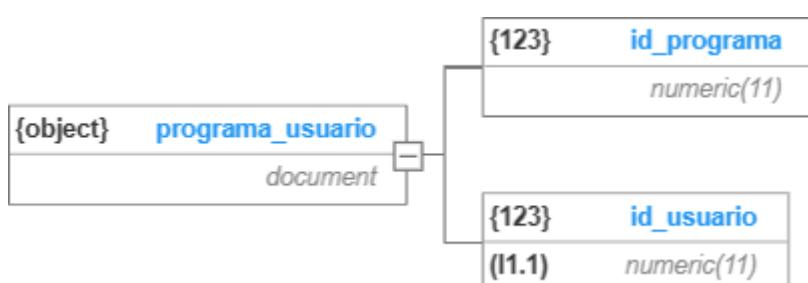
```
CREATE DATABASE IF NOT EXISTS `sigeu_2`;
```

```
CREATE TABLE `sigeu_2`.`programa_academico` (
  `id_programa` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre` VARCHAR(90) NOT NULL,
  `id_facultad` INT(11) NOT NULL,
  CONSTRAINT `fk_programa_facultad` FOREIGN KEY (`id_facultad`) REFERENCES `sigeu_2`.`facultad`(`id_facultad`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Programas académicos que están adscritos a una facultad',
ENCRIPTION = 'N';
```

```
CREATE INDEX `fk_programa_facultad`
ON `sigeu_2`.`programa_academico` ( `id_facultad` );
```

## 2.1.2.11 Table programa\_usuario

### 2.1.2.11.1 programa\_usuario Tree Diagram



### 2.1.2.11.2 programa\_usuario Properties

PROPERTY	VALUE
Table	programa_usuario
Activated	true
Database	<a href="#">sigeu_2</a>
Additional properties	false
Comments	Membresía de usuarios a programas (solo estudiantes; validado por trigger)
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Membresía de usuarios a programas (solo estudiantes; validado por trigger)

### 2.1.2.11.3 **programa\_usuario** Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_programa	int(11)	true	pk, fk		
id_usuario	int(11)	true	pk, fk		

#### 2.1.2.11.3.1 Column **id\_programa**

### 2.1.2.11.3.1.1 id\_programa properties

PROPERTY	VALUE
Business Name	id_programa
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	programa_academico
Foreign field	id_programa
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.11.3.2 Column id\_usuario

#### 2.1.2.11.3.2.1 id\_usuario properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	usuario
Foreign field	id_usuario
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.11.4 programa\_usuario Composite keys

PROPERTY	VALUE
<b>Primary key</b>	
[1] Constraint name	
<b>Key</b>	
	id_programa
	id_usuario
Category	
Key block size	
Ignore index	
Comment	

### 2.1.2.11.5 programa\_usuario Indexes

### 2.1.2.11.5.1 Index

PROPERTY	
Name	fk_pu_usuario
Activated	true
Type	
Category	
<b>Keys</b>	
	id_usuario
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.11.6 programa\_usuario Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

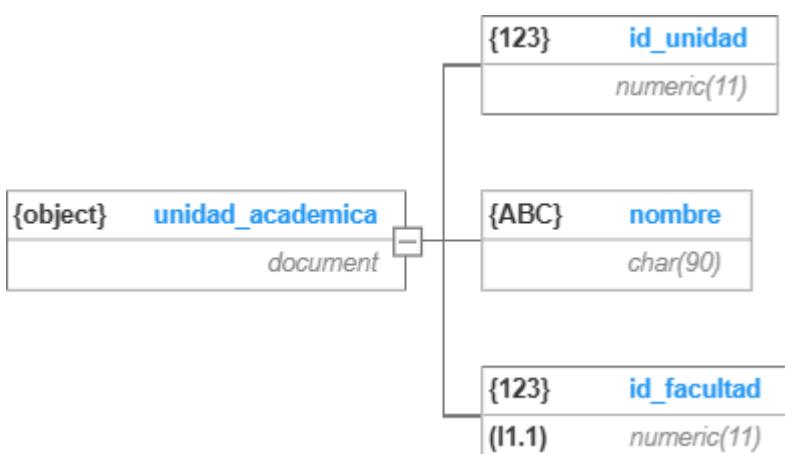
CREATE TABLE `sigeu_2`.`programa_usuario` (
  `id_programa` INT(11) NOT NULL,
  `id_usuario` INT(11) NOT NULL,
  PRIMARY KEY (`id_programa` ASC, `id_usuario` ASC),
  CONSTRAINT `fk_pu_programa` FOREIGN KEY (`id_programa`) REFERENCES
  `sigeu_2`.`programa_academico`(`id_programa`),
  CONSTRAINT `fk_pu_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Membresía de usuarios a programas (solo estudiantes; validado por trigger)',
  ENCRYPTION = 'N';

CREATE INDEX `fk_pu_usuario`
ON `sigeu_2`.`programa_usuario` ( `id_usuario` );

```

### 2.1.2.12 Table unidad\_academica

#### 2.1.2.12.1 unidad\_academica Tree Diagram



### 2.1.2.12.2 unidad\_academica Properties

PROPERTY	VALUE
Table	unidad_academica
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Unidades académicas adscritas a una facultad en la universidad
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Unidades académicas adscritas a una facultad en la universidad

### 2.1.2.12.3 unidad\_academica Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_unidad	int(11)	true	pk, dk		
nombre	varchar(90)	true			
id_facultad	int(11)	true	fk		

#### 2.1.2.12.3.1 Column id\_unidad

### 2.1.2.12.3.1.1 id\_unidad properties

PROPERTY	VALUE
Business Name	id_unidad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.12.3.2 Column nombre

#### 2.1.2.12.3.2.1 nombre properties

PROPERTY	VALUE
Business Name	nombre
Activated	true
Type	char
Subtype	varchar
Length	90
Not null	true
Primary key	false
Unique	false

### 2.1.2.12.3.3 Column id\_facultad

#### 2.1.2.12.3.3.1 id\_facultad properties

PROPERTY	VALUE
Business Name	id_facultad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	false
Unique	false
Foreign table	facultad
Foreign field	id_facultad
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.12.4 unidad\_academica Composite keys

PROPERTY	VALUE
----------	-------

## 2.1.2.12.5 unidad\_academica Indexes

### 2.1.2.12.5.1 Index

PROPERTY	
Name	fk_unidad_facultad
Activated	true
Type	
Category	
<b>Keys</b>	
	id_facultad
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

## 2.1.2.12.6 unidad\_academica Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

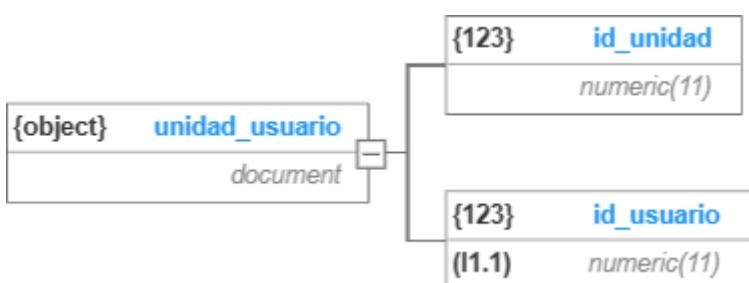
CREATE TABLE `sigeu_2`.`unidad_academica` (
  `id_unidad` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre` VARCHAR(90) NOT NULL,
  `id_facultad` INT(11) NOT NULL,
  CONSTRAINT `fk_unidad_facultad` FOREIGN KEY (`id_facultad`) REFERENCES `sigeu_2`.`facultad`(`id_facultad`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Unidades académicas adscritas a una facultad en la universidad',
  ENCRYPTION = 'N';

CREATE INDEX `fk_unidad_facultad`
ON `sigeu_2`.`unidad_academica` ( `id_facultad` );

```

## 2.1.2.13 Table unidad\_usuario

### 2.1.2.13.1 unidad\_usuario Tree Diagram



### 2.1.2.13.2 unidad\_usuario Properties

PROPERTY	VALUE
Table	unidad_usuario
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Adscripción de docentes a unidades académicas (este procesos se valida por trigger)
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Adscripción de docentes a unidades académicas (este procesos se valida por trigger)

### 2.1.2.13.3 unidad\_usuario Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_unidad	int(11)	true	pk, fk		
id_usuario	int(11)	true	pk, fk		

#### 2.1.2.13.3.1 Column id\_unidad

### 2.1.2.13.3.1.1 id\_unidad properties

PROPERTY	VALUE
Business Name	id_unidad
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	unidad_academica
Foreign field	id_unidad
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.13.3.2 Column id\_usuario

#### 2.1.2.13.3.2.1 id\_usuario properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	usuario
Foreign field	id_usuario
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.13.4 unidad\_usuario Composite keys

PROPERTY	VALUE
<b>Primary key</b>	
[1] Constraint name	
<b>Key</b>	
	id_unidad
	id_usuario
Category	
Key block size	
Ignore index	
Comment	

### 2.1.2.13.5 unidad\_usuario Indexes

### 2.1.2.13.5.1 Index

PROPERTY	
Name	fk_uu_usuario
Activated	true
Type	
Category	
<b>Keys</b>	
	id_usuario
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.13.6 unidad\_usuario Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

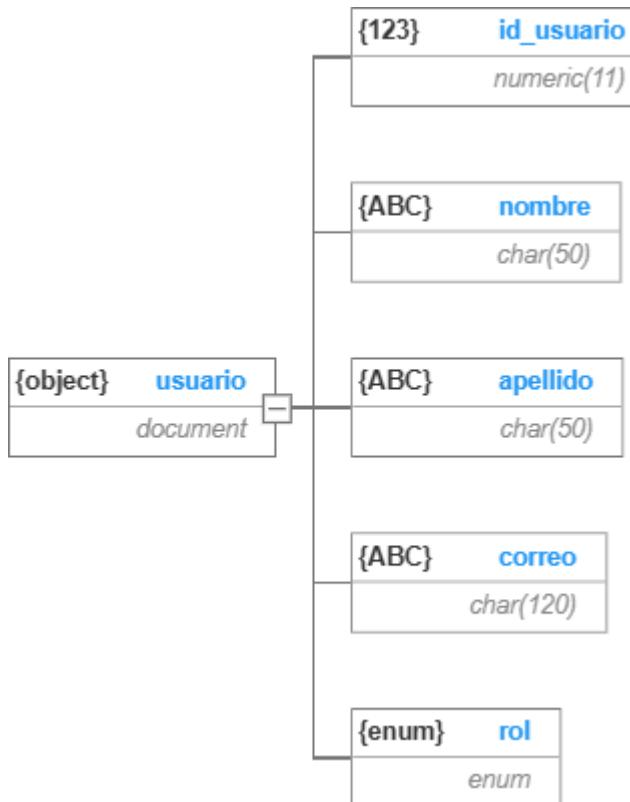
CREATE TABLE `sigeu_2`.`unidad_usuario` (
  `id_unidad` INT(11) NOT NULL,
  `id_usuario` INT(11) NOT NULL,
  PRIMARY KEY (`id_unidad` ASC, `id_usuario` ASC),
  CONSTRAINT `fk_uu_unidad` FOREIGN KEY (`id_unidad`) REFERENCES `sigeu_2`.`unidad_academica`(`id_unidad`),
  CONSTRAINT `fk_uu_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Adscripción de docentes a unidades académicas (este procesos se valida por trigger)',
  ENCRYPTION = 'N';

CREATE INDEX `fk_uu_usuario`
ON `sigeu_2`.`unidad_usuario` ( `id_usuario` );

```

### 2.1.2.14 Table usuario

#### 2.1.2.14.1 usuario Tree Diagram



#### 2.1.2.14.2 **usuario** Properties

PROPERTY	VALUE
Table	usuario
Activated	true
Database	<a href="#">sigeu_2</a>
Additional properties	false
Comments	Usuarios del sistema (docente, estudiante, secretario académico)
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Usuarios del sistema (docente, estudiante, secretario académico)

### 2.1.2.14.3 usuario Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_usuario	int(11)	true	pk, dk	Identificador unico del usuario	
nombre	varchar(50)	true		Nombre del usuario en el sistema	
apellido	varchar(50)	true		Apellido del usuario	
correo	varchar(120)	true	uk	Correo institucional del usuario	
rol	enum	true		Rol del usuario en el sistema	

#### 2.1.2.14.3.1 Column id\_usuario

### 2.1.2.14.3.1.1 id\_usuario properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Comments	Identificador unico del usuario
Primary key	true
<b>Primary key options</b>	
Auto-increment	true
Excl min	false
Excl max	false

### 2.1.2.14.3.2 Column nombre

#### 2.1.2.14.3.2.1 nombre properties

PROPERTY	VALUE
Business Name	nombre
Activated	true
Type	char
Subtype	varchar
Length	50
Not null	true
Comments	Nombre del usuario en el sistema
Primary key	false
Unique	false

### 2.1.2.14.3.3 Column apellido

#### 2.1.2.14.3.3.1 apellido properties

PROPERTY	VALUE
Business Name	apellido
Activated	true
Type	char
Subtype	varchar
Length	50
Not null	true
Comments	Apellido del usuario
Primary key	false
Unique	false

### 2.1.2.14.3.4 Column correo

### 2.1.2.14.3.4.1 correo properties

PROPERTY	VALUE
Business Name	correo
Activated	true
Type	char
Subtype	varchar
Length	120
Not null	true
Comments	Correo institucional del usuario
Primary key	false
Unique	true
Alternate Key	false
<b>Unique key options</b>	
[1] Constraint name	correo

### 2.1.2.14.3.5 Column rol

#### 2.1.2.14.3.5.1 rol properties

PROPERTY	VALUE
Business Name	rol
Activated	true
Type	enum
Comments	Rol del usuario en el sistema
Not null	true
Enum	docente,estudiante,secretario

### 2.1.2.14.4 usuario Composite keys

PROPERTY	VALUE
----------	-------

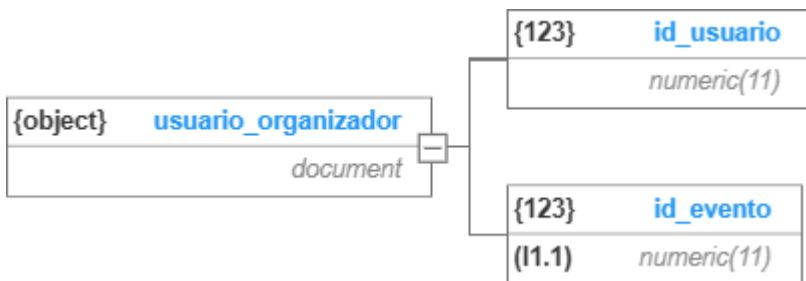
### 2.1.2.14.5 usuario Target Script

```
CREATE DATABASE IF NOT EXISTS `sigeu_2`;
```

```
CREATE TABLE `sigeu_2`.`usuario` (
  `id_usuario` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL COMMENT 'Identificador unico del usuario',
  `nombre` VARCHAR(50) NOT NULL COMMENT 'Nombre del usuario en el sistema',
  `apellido` VARCHAR(50) NOT NULL COMMENT 'Apellido del usuario',
  `correo` VARCHAR(120) NOT NULL COMMENT 'Correo institucional del usuario',
  `rol` ENUM('docente', 'estudiante', 'secretario') NOT NULL COMMENT 'Rol del usuario en el sistema',
  CONSTRAINT `correo` UNIQUE (`correo`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Usuarios del sistema (docente, estudiante, secretario académico)',
ENCRIPTION = 'N';
```

### 2.1.2.15 Table usuario\_organizador

#### 2.1.2.15.1 usuario\_organizador Tree Diagram



### 2.1.2.15.2 usuario\_organizador Properties

PROPERTY	VALUE
Table	usuario_organizador
Activated	true
Database	sigeu_2
Additional properties	false
Comments	Responsables de un evento (docentes o estudiantes; procesos validado por trigger)
If not exist	false
Temporary	false
<b>Table options</b>	
[1] Default storage engine	
Storage engine	InnoDB
Default character set	
Character set	utf8mb4
Collation	utf8mb4_unicode_ci
Compression	
Auto increment	
Data directory	
Index directory	
Encrypted	No
Key block size	
Row format	
Stats auto recalc	
Stats persistent	
Stats sample pages	
Tablespace	
Remarks	Responsables de un evento (docentes o estudiantes; procesos validado por trigger)

### 2.1.2.15.3 usuario\_organizador Column

COLUMN	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
id_usuario	int(11)	true	pk, fk		
id_evento	int(11)	true	pk, fk		

#### 2.1.2.15.3.1 Column id\_usuario

### 2.1.2.15.3.1.1 id\_usuario properties

PROPERTY	VALUE
Business Name	id_usuario
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	usuario
Foreign field	id_usuario
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.15.3.2 Column id\_evento

#### 2.1.2.15.3.2.1 id\_evento properties

PROPERTY	VALUE
Business Name	id_evento
Activated	true
Type	numeric
Subtype	int
Precision	11
Not null	true
Signed	true
Primary key	true
Unique	false
Foreign table	evento
Foreign field	id_evento
Relationship type	Foreign Key
Excl min	false
Excl max	false

### 2.1.2.15.4 usuario\_organizador Composite keys

PROPERTY	VALUE
<b>Primary key</b>	
[1] Constraint name	
<b>Key</b>	
	id_usuario
	id_evento
Category	
Key block size	
Ignore index	
Comment	

### 2.1.2.15.5 usuario\_organizador Indexes

### 2.1.2.15.5.1 Index

PROPERTY	
Name	fk_uo_evento
Activated	true
Type	
Category	
<b>Keys</b>	
	id_evento
<b>Expressions</b>	
[1] value	
Key block size	
Visibility	
Algorithm	
Lock	
Comment	

### 2.1.2.15.6 usuario\_organizador Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

CREATE TABLE `sigeu_2`.`usuario_organizador` (
  `id_usuario` INT(11) NOT NULL,
  `id_evento` INT(11) NOT NULL,
  PRIMARY KEY (`id_usuario` ASC, `id_evento` ASC),
  CONSTRAINT `fk_uo_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
  CONSTRAINT `fk_uo_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
  COLLATE=utf8mb4_unicode_ci,
  ENGINE = InnoDB,
  COMMENT = 'Responsables de un evento (docentes o estudiantes; procesos validado por trigger)',
  ENCRYPTION = 'N';

CREATE INDEX `fk_uo_evento`
  ON `sigeu_2`.`usuario_organizador` ( `id_evento` );

```

### 2.1.3 sigeu\_2 Target Script

```

CREATE DATABASE IF NOT EXISTS `sigeu_2`;

CREATE TABLE `sigeu_2`.`usuario` (
  `id_usuario` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL COMMENT 'Identificador unico del usuario',
  `nombre` VARCHAR(50) NOT NULL COMMENT 'Nombre del usuario en el sistema',
  `apellido` VARCHAR(50) NOT NULL COMMENT 'Apellido del usuario',
  `correo` VARCHAR(120) NOT NULL COMMENT 'Correo institucional del usuario',
  `rol` ENUM('docente', 'estudiante', 'secretario') NOT NULL COMMENT 'Rol del usuario en el sistema',
  CONSTRAINT `correo` UNIQUE (`correo`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Usuarios del sistema (docente, estudiante, secretario académico)',
ENCRYPTION = 'N';

CREATE TABLE `sigeu_2`.`contrasena` (
  `id_contrasena` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `id_usuario` INT(11) NOT NULL,
  `clave` VARCHAR(80) NOT NULL COMMENT 'Hash/clave almacenable del usuario',
  `fecha_creacion` DATE NOT NULL,
  `vigente` TINYINT(1) NOT NULL,
  CONSTRAINT `fk_contrasena_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Historial de contraseñas del usuario; una marcada como vigente',
ENCRYPTION = 'N';

CREATE INDEX `fk_contrasena_usuario`
ON `sigeu_2`.`contrasena` ( `id_usuario` );

CREATE TABLE `sigeu_2`.`evento` (
  `id_evento` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre_evento` VARCHAR(200) NOT NULL,
  `tipo` ENUM('ludico', 'academico') NOT NULL,
  `descripcion` VARCHAR(800),
  `fecha_evento` DATE NOT NULL,
  `hora_inicio` TIME NOT NULL,
  `hora_fin` TIME NOT NULL,
  `estado` ENUM('registrado', 'en_revision', 'aprobado', 'rechazado') NOT NULL,
  `aval_pdf_url` VARCHAR(300) NOT NULL,
  `aval_tipo` ENUM('director_programa', 'director_docencia') NOT NULL,
  CONSTRAINT `CONSTRAINT_1` CHECK (`hora_fin` > `hora_inicio`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Eventos organizados por docentes/estudiantes; con aval y control de estado',
ENCRYPTION = 'N';

CREATE TABLE `sigeu_2`.`evaluacion_evento` (
  `id_evaluacion` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `justificacion` VARCHAR(500),
  `acta_pdf_url` VARCHAR(300),
  `fecha_evaluacion` DATETIME NOT NULL,
  `estado` ENUM('aprobado', 'rechazado') NOT NULL,
  `id_evento` INT(11) NOT NULL,
  `id_usuario` INT(11) NOT NULL COMMENT 'Secretario académico que evalúa proceso',
  CONSTRAINT `fk_ev_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
  CONSTRAINT `fk_ev_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,

```

```
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Evaluaciones de eventos por secretaría académica',
ENCRYPTION = 'N';

CREATE INDEX `fk_ev_evento`
ON `sigeu_2`.`evaluacion_evento` ( `id_evento` );

CREATE INDEX `fk_ev_usuario`
ON `sigeu_2`.`evaluacion_evento` ( `id_usuario` );

CREATE TABLE `sigeu_2`.`facultad` (
`id_facultad` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
`nombre` VARCHAR(80) NOT NULL,
`telefono` VARCHAR(20)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Facultades con las que cuenta la universidad',
ENCRYPTION = 'N';

CREATE TABLE `sigeu_2`.`facultad_usuario` (
`id_facultad` INT(11) NOT NULL,
`id_usuario` INT(11) NOT NULL,
PRIMARY KEY (`id_facultad` ASC, `id_usuario` ASC),
CONSTRAINT `fk_fu_facultad` FOREIGN KEY (`id_facultad`) REFERENCES `sigeu_2`.`facultad`(`id_facultad`),
CONSTRAINT `fk_fu_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Secretari@s académicos responsables de cada facultad (esto es validado por trigger)',
ENCRYPTION = 'N';

CREATE INDEX `fk_fu_usuario`
ON `sigeu_2`.`facultad_usuario` ( `id_usuario` );

CREATE TABLE `sigeu_2`.`lugar` (
`id_lugar` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
`ubicacion` VARCHAR(200) NOT NULL,
`capacidad` INT(11) NOT NULL,
`tipo` ENUM('salon', 'auditorio', 'laboratorio', 'cancha', 'otro') NOT NULL,
CONSTRAINT CHECK (`capacidad` >= 0)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Espacios físicos con los que cuenta la universidad',
ENCRYPTION = 'N';

CREATE TABLE `sigeu_2`.`lugar_evento` (
`id_lugar` INT(11) NOT NULL,
`id_evento` INT(11) NOT NULL,
PRIMARY KEY (`id_lugar` ASC, `id_evento` ASC),
CONSTRAINT `fk_le_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
CONSTRAINT `fk_le_lugar` FOREIGN KEY (`id_lugar`) REFERENCES `sigeu_2`.`lugar`(`id_lugar`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Asignación de lugares/espacio a eventos',
ENCRYPTION = 'N';

CREATE INDEX `fk_le_evento`
```

```

ON `sigeu_2`.`lugar_evento` ( `id_evento` );

CREATE TABLE `sigeu_2`.`organizacion_externa` (
  `id_organizacion` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre` VARCHAR(120) NOT NULL,
  `nombre_representante_legal` VARCHAR(120) NOT NULL,
  `ubicacion` VARCHAR(200) NOT NULL,
  `sector_economico` VARCHAR(90),
  `actividad_principal` VARCHAR(120),
  `numero_contacto` VARCHAR(30)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Organizaciones externas (para participación en eventos)',
ENCRYPTION = 'N';

CREATE TABLE `sigeu_2`.`participa` (
  `id_organizacion` INT(11) NOT NULL,
  `id_evento` INT(11) NOT NULL,
  `certificado_participacion_url` VARCHAR(300),
  `asistira_representante_legal` TINYINT(1) NOT NULL,
  `nombre_representante_alternativo` VARCHAR(120),
  PRIMARY KEY (`id_organizacion` ASC, `id_evento` ASC),
  CONSTRAINT `fk_pa_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),
  CONSTRAINT `fk_pa_org` FOREIGN KEY (`id_organizacion`) REFERENCES
`sigeu_2`.`organizacion_externa`(`id_organizacion`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Participación de organizaciones externas por cada evento',
ENCRYPTION = 'N';

CREATE INDEX `fk_pa_evento`
ON `sigeu_2`.`participa` ( `id_evento` );

CREATE TABLE `sigeu_2`.`programa_academico` (
  `id_programa` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,
  `nombre` VARCHAR(90) NOT NULL,
  `id_facultad` INT(11) NOT NULL,
  CONSTRAINT `fk_programa_facultad` FOREIGN KEY (`id_facultad`) REFERENCES `sigeu_2`.`facultad`(`id_facultad`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Programas académicos que están adscritos a una facultad',
ENCRYPTION = 'N';

CREATE INDEX `fk_programa_facultad`
ON `sigeu_2`.`programa_academico` ( `id_facultad` );

CREATE TABLE `sigeu_2`.`programa_usuario` (
  `id_programa` INT(11) NOT NULL,
  `id_usuario` INT(11) NOT NULL,
  PRIMARY KEY (`id_programa` ASC, `id_usuario` ASC),
  CONSTRAINT `fk_pu_programa` FOREIGN KEY (`id_programa`) REFERENCES
`sigeu_2`.`programa_academico`(`id_programa`),
  CONSTRAINT `fk_pu_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)
) CHARSET=utf8mb4,
COLLATE=utf8mb4_unicode_ci,
ENGINE = InnoDB,
COMMENT = 'Membresía de usuarios a programas (solo estudiantes; validado por trigger)',
ENCRYPTION = 'N';

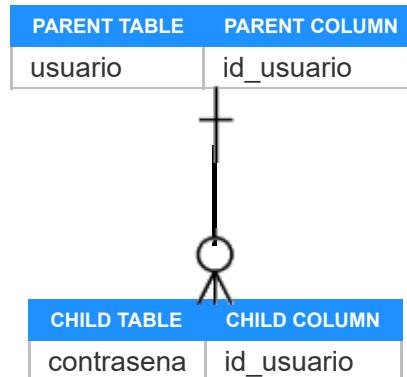
```

```
CREATE INDEX `fk_pu_usuario`  
    ON `sigeu_2`.`programa_usuario` ( `id_usuario` );  
  
CREATE TABLE `sigeu_2`.`unidad_academica` (  
    `id_unidad` INT(11) PRIMARY KEY AUTO_INCREMENT NOT NULL,  
    `nombre` VARCHAR(90) NOT NULL,  
    `id_facultad` INT(11) NOT NULL,  
    CONSTRAINT `fk_unidad_facultad` FOREIGN KEY (`id_facultad`) REFERENCES `sigeu_2`.`facultad`(`id_facultad`)  
) CHARSET=utf8mb4,  
    COLLATE=utf8mb4_unicode_ci,  
    ENGINE = InnoDB,  
    COMMENT = 'Unidades académicas adscritas a una facultad en la universidad',  
    ENCRYPTION = 'N';  
  
CREATE INDEX `fk_unidad_facultad`  
    ON `sigeu_2`.`unidad_academica` ( `id_facultad` );  
  
CREATE TABLE `sigeu_2`.`unidad_usuario` (  
    `id_unidad` INT(11) NOT NULL,  
    `id_usuario` INT(11) NOT NULL,  
    PRIMARY KEY (`id_unidad` ASC, `id_usuario` ASC),  
    CONSTRAINT `fk_uu_unidad` FOREIGN KEY (`id_unidad`) REFERENCES `sigeu_2`.`unidad_academica`(`id_unidad`),  
    CONSTRAINT `fk_uu_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)  
) CHARSET=utf8mb4,  
    COLLATE=utf8mb4_unicode_ci,  
    ENGINE = InnoDB,  
    COMMENT = 'Adscripción de docentes a unidades académicas (este procesos se valida por trigger)',  
    ENCRYPTION = 'N';  
  
CREATE INDEX `fk_uu_usuario`  
    ON `sigeu_2`.`unidad_usuario` ( `id_usuario` );  
  
CREATE TABLE `sigeu_2`.`usuario_organizador` (  
    `id_usuario` INT(11) NOT NULL,  
    `id_evento` INT(11) NOT NULL,  
    PRIMARY KEY (`id_usuario` ASC, `id_evento` ASC),  
    CONSTRAINT `fk_uo_evento` FOREIGN KEY (`id_evento`) REFERENCES `sigeu_2`.`evento`(`id_evento`),  
    CONSTRAINT `fk_uo_usuario` FOREIGN KEY (`id_usuario`) REFERENCES `sigeu_2`.`usuario`(`id_usuario`)  
) CHARSET=utf8mb4,  
    COLLATE=utf8mb4_unicode_ci,  
    ENGINE = InnoDB,  
    COMMENT = 'Responsables de un evento (docentes o estudiantes; procesos validado por trigger)',  
    ENCRYPTION = 'N';  
  
CREATE INDEX `fk_uo_evento`  
    ON `sigeu_2`.`usuario_organizador` ( `id_evento` );
```

### 3. RELATIONSHIPS

#### 3.1 Relationship **fk\_contrasena\_usuario**

### 3.1.1 fk\_contrasena\_usuario Diagram

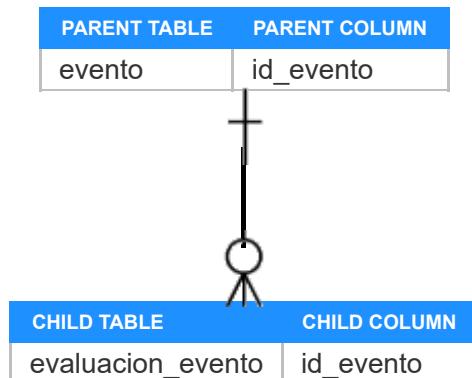


### 3.1.2 fk\_contrasena\_usuario Properties

PROPERTY	VALUE
Name	fk_contrasena_usuario
Description	
Parent Table	usuario
Parent Column	id_usuario
Parent Cardinality	1
Child Table	contrasena
Child Column	id_usuario
Child Cardinality	0..n
Comments	

## 3.2 Relationship fk\_ev\_evento

### 3.2.1 fk\_ev\_evento Diagram

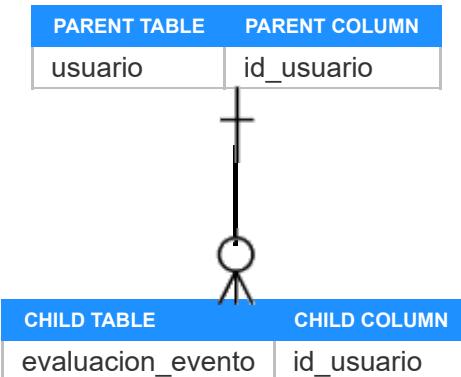


### 3.2.2 fk\_ev\_evento Properties

PROPERTY	VALUE
Name	fk_ev_evento
Description	
Parent Table	evento
Parent Column	id_evento
Parent Cardinality	1
Child Table	evaluacion_evento
Child Column	id_evento
Child Cardinality	0..n
Comments	

## 3.3 Relationship fk\_ev\_usuario

### 3.3.1 fk\_ev\_usuario Diagram

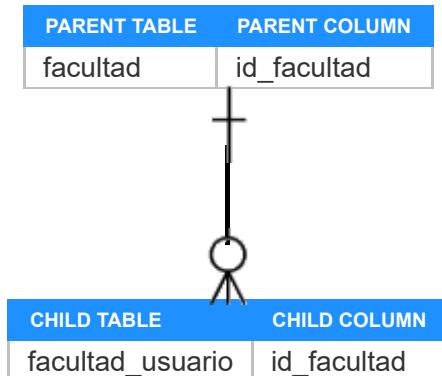


### 3.3.2 fk\_ev\_usuario Properties

PROPERTY	VALUE
Name	fk_ev_usuario
Description	
Parent Table	usuario
Parent Column	id_usuario
Parent Cardinality	1
Child Table	evaluacion_evento
Child Column	id_usuario
Child Cardinality	0..n
Comments	

## 3.4 Relationship fk\_fu\_facultad

### 3.4.1 fk\_fu\_facultad Diagram

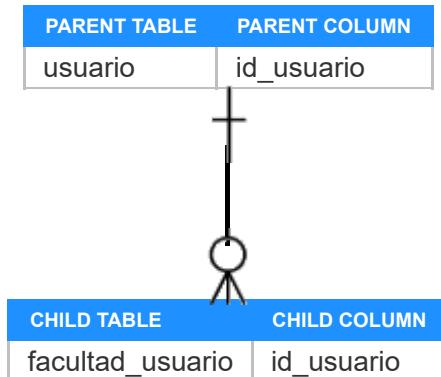


### 3.4.2 fk\_fu\_facultad Properties

PROPERTY	VALUE
Name	fk_fu_facultad
Description	
Parent Table	facultad
Parent Column	id_facultad
Parent Cardinality	1
Child Table	facultad_usuario
Child Column	id_facultad
Child Cardinality	0..n
Comments	

## 3.5 Relationship fk\_fu\_usuario

### 3.5.1 fk\_fu\_usuario Diagram

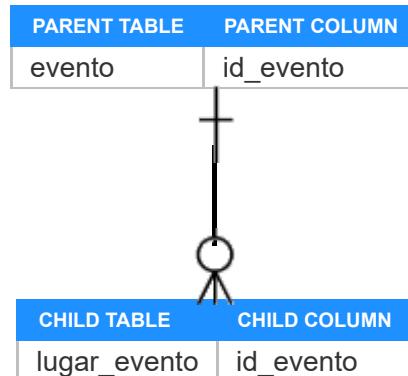


### 3.5.2 fk\_fu\_usuario Properties

PROPERTY	VALUE
Name	fk_fu_usuario
Description	
Parent Table	usuario
Parent Column	id_usuario
Parent Cardinality	1
Child Table	facultad_usuario
Child Column	id_usuario
Child Cardinality	0..n
Comments	

## 3.6 Relationship fk\_le\_evento

### 3.6.1 fk\_le\_evento Diagram

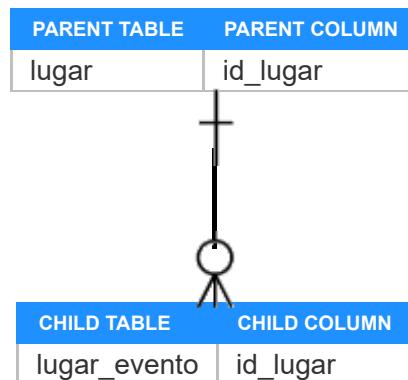


### 3.6.2 fk\_le\_evento Properties

PROPERTY	VALUE
Name	fk_le_evento
Description	
Parent Table	evento
Parent Column	id_evento
Parent Cardinality	1
Child Table	lugar_evento
Child Column	id_evento
Child Cardinality	0..n
Comments	

## 3.7 Relationship fk\_le\_lugar

### 3.7.1 fk\_le\_lugar Diagram

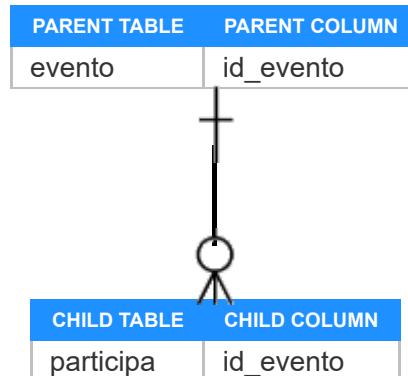


### 3.7.2 fk\_le\_lugar Properties

PROPERTY	VALUE
Name	fk_le_lugar
Description	
Parent Table	lugar
Parent Column	id_lugar
Parent Cardinality	1
Child Table	lugar_evento
Child Column	id_lugar
Child Cardinality	0..n
Comments	

## 3.8 Relationship fk\_pa\_evento

### 3.8.1 fk\_pa\_evento Diagram

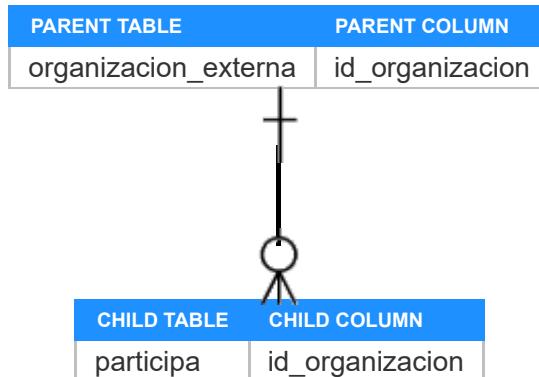


### 3.8.2 fk\_pa\_evento Properties

PROPERTY	VALUE
Name	fk_pa_evento
Description	
Parent Table	evento
Parent Column	id_evento
Parent Cardinality	1
Child Table	participa
Child Column	id_evento
Child Cardinality	0..n
Comments	

## 3.9 Relationship fk\_pa\_org

### 3.9.1 fk\_pa\_org Diagram

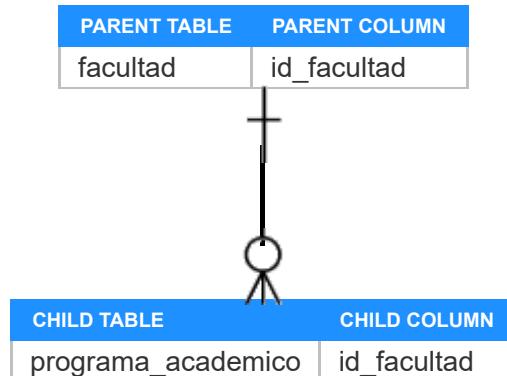


### 3.9.2 fk\_pa\_org Properties

PROPERTY	VALUE
Name	fk_pa_org
Description	
Parent Table	organizacion_externa
Parent Column	id_organizacion
Parent Cardinality	1
Child Table	participa
Child Column	id_organizacion
Child Cardinality	0..n
Comments	

## 3.10 Relationship fk\_programa\_facultad

### 3.10.1 fk\_programa\_facultad Diagram

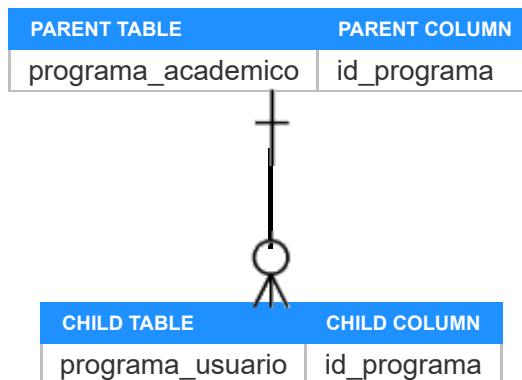


### 3.10.2 fk\_programa\_facultad Properties

PROPERTY	VALUE
Name	fk_programa_facultad
Description	
Parent Table	facultad
Parent Column	id_facultad
Parent Cardinality	1
Child Table	programa_academico
Child Column	id_facultad
Child Cardinality	0..n
Comments	

## 3.11 Relationship fk\_pu\_programa

### 3.11.1 fk\_pu\_programa Diagram

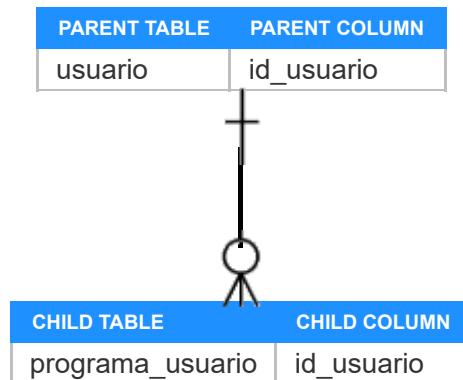


### 3.11.2 fk\_pu\_programa Properties

PROPERTY	VALUE
Name	fk_pu_programa
Description	
Parent Table	programa_academico
Parent Column	<b>id_programa</b>
Parent Cardinality	1
Child Table	programa_usuario
Child Column	<b>id_programa</b>
Child Cardinality	0..n
Comments	

## 3.12 Relationship fk\_pu\_usuario

### 3.12.1 fk\_pu\_usuario Diagram

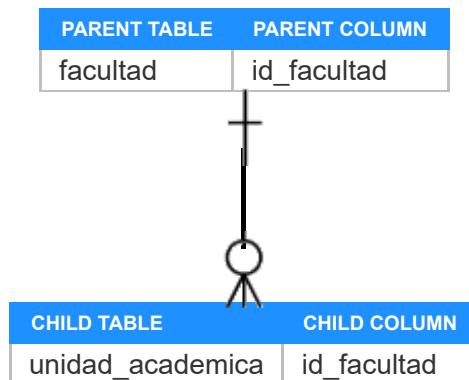


### 3.12.2 fk\_pu\_usuario Properties

PROPERTY	VALUE
Name	fk_pu_usuario
Description	
Parent Table	usuario
Parent Column	<b>id_usuario</b>
Parent Cardinality	1
Child Table	programa_usuario
Child Column	<b>id_usuario</b>
Child Cardinality	0..n
Comments	

## 3.13 Relationship fk\_unidad\_facultad

### 3.13.1 fk\_unidad\_facultad Diagram

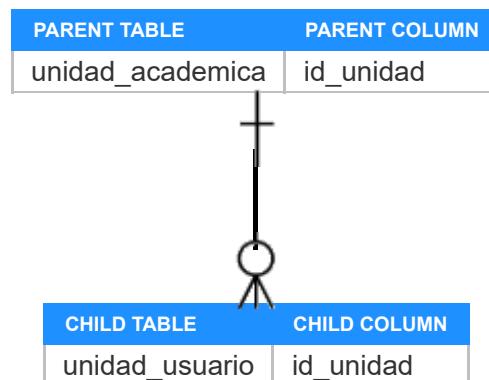


### 3.13.2 fk\_unidad\_facultad Properties

PROPERTY	VALUE
Name	fk_unidad_facultad
Description	
Parent Table	facultad
Parent Column	id_facultad
Parent Cardinality	1
Child Table	unidad_academica
Child Column	id_facultad
Child Cardinality	0..n
Comments	

## 3.14 Relationship fk\_uu\_unidad

### 3.14.1 fk\_uu\_unidad Diagram

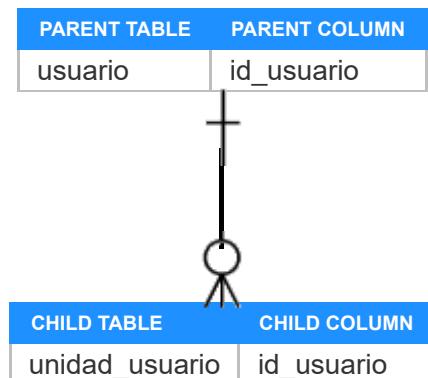


### 3.14.2 fk\_uu\_unidad Properties

PROPERTY	VALUE
Name	fk_uu_unidad
Description	
Parent Table	unidad_academica
Parent Column	id_unidad
Parent Cardinality	1
Child Table	unidad_usuario
Child Column	id_unidad
Child Cardinality	0..n
Comments	

## 3.15 Relationship fk\_uu\_usuario

### 3.15.1 fk\_uu\_usuario Diagram

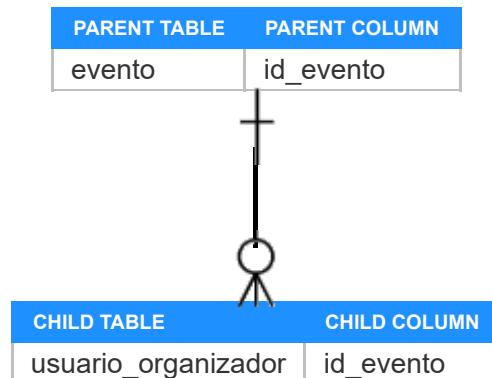


### 3.15.2 fk\_uu\_usuario Properties

PROPERTY	VALUE
Name	fk_uu_usuario
Description	
Parent Table	usuario
Parent Column	id_usuario
Parent Cardinality	1
Child Table	unidad_usuario
Child Column	id_usuario
Child Cardinality	0..n
Comments	

## 3.16 Relationship fk\_uo\_evento

### 3.16.1 fk\_uo\_evento Diagram

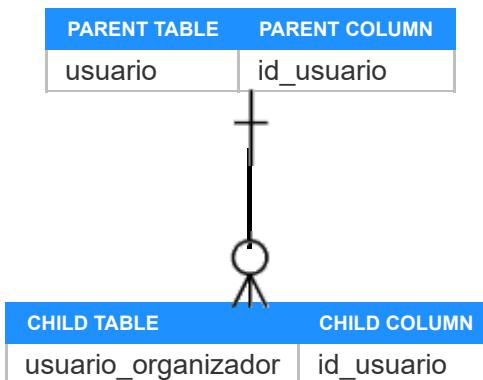


### 3.16.2 fk\_uo\_evento Properties

PROPERTY	VALUE
Name	fk_uo_evento
Description	
Parent Table	evento
Parent Column	id_evento
Parent Cardinality	1
Child Table	usuario_organizador
Child Column	id_evento
Child Cardinality	0..n
Comments	

## 3.17 Relationship fk\_uo\_usuario

### 3.17.1 fk\_uo\_usuario Diagram



### 3.17.2 fk\_uo\_usuario Properties

PROPERTY	VALUE
Name	fk_uo_usuario
Description	
Parent Table	usuario
Parent Column	id_usuario
Parent Cardinality	1
Child Table	usuario_organizador
Child Column	id_usuario
Child Cardinality	0..n
Comments	