|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  | **Invoice**  Date : | | |
| **lenguyenthai**  19, Blue Bird Street 44000 Nantes France  Phone :  Mail : | |  | Phone :  Mail :  VAT:  SIREN : | | |
|  |  | | |  |

| **Description** | **Qty** | **Unit Price** | **VAT** | **Total excl VAT** |
| --- | --- | --- | --- | --- |
|  | | | | |

# **CƠ SỞ DỮ LIỆU**

## **Schema: MYSQL**

|  |  |
| --- | --- |
| ***Tên bảng*** | ***Mô tả*** |
| COLUMNS\_PRIV |  |
| COMPONENT |  |
| DB |  |
| DEFAULT\_ROLES |  |
| ENGINE\_COST |  |
| FUNC |  |
| GENERAL\_LOG |  |
| GLOBAL\_GRANTS |  |
| GTID\_EXECUTED |  |
| HELP\_CATEGORY |  |
| HELP\_KEYWORD |  |
| HELP\_RELATION |  |
| HELP\_TOPIC |  |
| INNODB\_INDEX\_STATS |  |
| INNODB\_TABLE\_STATS |  |
| NDB\_BINLOG\_INDEX |  |
| PASSWORD\_HISTORY |  |
| PLUGIN |  |
| PROCS\_PRIV |  |
| PROXIES\_PRIV |  |
| REPLICATION\_ASYNCHRONOUS\_CONNECTION\_FAILOVER |  |
| REPLICATION\_ASYNCHRONOUS\_CONNECTION\_FAILOVER\_MANAGED |  |
| REPLICATION\_GROUP\_CONFIGURATION\_VERSION |  |
| REPLICATION\_GROUP\_MEMBER\_ACTIONS |  |
| ROLE\_EDGES |  |
| SERVER\_COST |  |
| SERVERS |  |
| SLAVE\_MASTER\_INFO |  |
| SLAVE\_RELAY\_LOG\_INFO |  |
| SLAVE\_WORKER\_INFO |  |
| SLOW\_LOG |  |
| TABLES\_PRIV |  |
| TIME\_ZONE |  |
| TIME\_ZONE\_LEAP\_SECOND |  |
| TIME\_ZONE\_NAME |  |
| TIME\_ZONE\_TRANSITION |  |
| TIME\_ZONE\_TRANSITION\_TYPE |  |
| USER |  |

### **COLUMNS\_PRIV**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| Db | CHAR (64) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Table\_name | CHAR (64) |  |  | PK |  |  |
| Column\_name | CHAR (64) |  |  | PK |  |  |
| Timestamp | TIMESTAMP (19) |  |  |  |  |  |
| Column\_priv | SET (31) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Db | PRIMARY KEY |  |  |
| PRIMARY | Table\_name | PRIMARY KEY |  |  |
| PRIMARY | Column\_name | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |
| PRIMARY | Db | UNIQUE |  |  |
| PRIMARY | Table\_name | UNIQUE |  |  |
| PRIMARY | Column\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User, Db, Table\_name, Column\_name |

#### **Trigger**

N/A

### **COMPONENT**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| component\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| component\_group\_id | INT UNSIGNED (10) |  |  |  |  |  |
| component\_urn1 | TEXT (65535) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | component\_id | PRIMARY KEY |  |  |
| PRIMARY | component\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | component\_id |

#### **Trigger**

N/A

### **DB**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| Db | CHAR (64) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Select\_priv | ENUM (1) |  |  |  |  |  |
| Insert\_priv | ENUM (1) |  |  |  |  |  |
| Update\_priv | ENUM (1) |  |  |  |  |  |
| Delete\_priv | ENUM (1) |  |  |  |  |  |
| Create\_priv | ENUM (1) |  |  |  |  |  |
| Drop\_priv | ENUM (1) |  |  |  |  |  |
| Grant\_priv | ENUM (1) |  |  |  |  |  |
| References\_priv | ENUM (1) |  |  |  |  |  |
| Index\_priv | ENUM (1) |  |  |  |  |  |
| Alter\_priv | ENUM (1) |  |  |  |  |  |
| Create\_tmp\_table\_priv | ENUM (1) |  |  |  |  |  |
| Create\_view\_priv | ENUM (1) |  |  |  |  |  |
| Show\_view\_priv | ENUM (1) |  |  |  |  |  |
| Create\_routine\_priv | ENUM (1) |  |  |  |  |  |
| Alter\_routine\_priv | ENUM (1) |  |  |  |  |  |
| Execute\_priv | ENUM (1) |  |  |  |  |  |
| Event\_priv | ENUM (1) |  |  |  |  |  |
| Trigger\_priv | ENUM (1) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Db | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |
| PRIMARY | Db | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User, Db |
| User | User |

#### **Trigger**

N/A

### **DEFAULT\_ROLES**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| HOST | CHAR (255) |  |  | PK |  |  |
| USER | CHAR (32) |  |  | PK |  |  |
| DEFAULT\_ROLE\_HOST | CHAR (255) |  |  | PK |  |  |
| DEFAULT\_ROLE\_USER | CHAR (32) |  |  | PK |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | HOST | PRIMARY KEY |  |  |
| PRIMARY | USER | PRIMARY KEY |  |  |
| PRIMARY | DEFAULT\_ROLE\_HOST | PRIMARY KEY |  |  |
| PRIMARY | DEFAULT\_ROLE\_USER | PRIMARY KEY |  |  |
| PRIMARY | HOST | UNIQUE |  |  |
| PRIMARY | USER | UNIQUE |  |  |
| PRIMARY | DEFAULT\_ROLE\_HOST | UNIQUE |  |  |
| PRIMARY | DEFAULT\_ROLE\_USER | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | HOST, USER, DEFAULT\_ROLE\_HOST, DEFAULT\_ROLE\_USER |

#### **Trigger**

N/A

### **ENGINE\_COST**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| engine\_name | VARCHAR (64) |  |  | PK |  |  |
| device\_type | INT (10) |  |  | PK |  |  |
| cost\_name | VARCHAR (64) |  |  | PK |  |  |
| cost\_value | FLOAT (12) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |
| comment | VARCHAR (1024) |  |  |  |  |  |
| default\_value | FLOAT (12) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | cost\_name | PRIMARY KEY |  |  |
| PRIMARY | engine\_name | PRIMARY KEY |  |  |
| PRIMARY | device\_type | PRIMARY KEY |  |  |
| PRIMARY | cost\_name | UNIQUE |  |  |
| PRIMARY | engine\_name | UNIQUE |  |  |
| PRIMARY | device\_type | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | cost\_name, engine\_name, device\_type |

#### **Trigger**

N/A

### **FUNC**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| name | CHAR (64) |  |  | PK |  |  |
| ret | TINYINT (3) |  |  |  |  |  |
| dl | CHAR (128) |  |  |  |  |  |
| type | ENUM (9) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | name | PRIMARY KEY |  |  |
| PRIMARY | name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | name |

#### **Trigger**

N/A

### **GENERAL\_LOG**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| event\_time | TIMESTAMP (26) |  |  |  |  |  |
| user\_host | MEDIUMTEXT (16777215) |  |  |  |  |  |
| thread\_id | BIGINT UNSIGNED (20) |  |  |  |  |  |
| server\_id | INT UNSIGNED (10) |  |  |  |  |  |
| command\_type | VARCHAR (64) |  |  |  |  |  |
| argument | MEDIUMBLOB (16777215) |  |  |  |  |  |

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **GLOBAL\_GRANTS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| USER | CHAR (32) |  |  | PK |  |  |
| HOST | CHAR (255) |  |  | PK |  |  |
| PRIV | CHAR (32) |  |  | PK |  |  |
| WITH\_GRANT\_OPTION | ENUM (1) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | USER | PRIMARY KEY |  |  |
| PRIMARY | HOST | PRIMARY KEY |  |  |
| PRIMARY | PRIV | PRIMARY KEY |  |  |
| PRIMARY | USER | UNIQUE |  |  |
| PRIMARY | HOST | UNIQUE |  |  |
| PRIMARY | PRIV | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | USER, HOST, PRIV |

#### **Trigger**

N/A

### **GTID\_EXECUTED**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| source\_uuid | CHAR (36) |  |  | PK |  |  |
| interval\_start | BIGINT (19) |  |  | PK |  |  |
| interval\_end | BIGINT (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | source\_uuid | PRIMARY KEY |  |  |
| PRIMARY | interval\_start | PRIMARY KEY |  |  |
| PRIMARY | source\_uuid | UNIQUE |  |  |
| PRIMARY | interval\_start | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | source\_uuid, interval\_start |

#### **Trigger**

N/A

### **HELP\_CATEGORY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| help\_category\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| name | CHAR (64) |  |  |  |  |  |
| parent\_category\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| url | TEXT (65535) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | help\_category\_id | PRIMARY KEY |  |  |
| name | name | UNIQUE |  |  |
| PRIMARY | help\_category\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| name | name |
| PRIMARY | help\_category\_id |

#### **Trigger**

N/A

### **HELP\_KEYWORD**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| help\_keyword\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| name | CHAR (64) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | help\_keyword\_id | PRIMARY KEY |  |  |
| name | name | UNIQUE |  |  |
| PRIMARY | help\_keyword\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| name | name |
| PRIMARY | help\_keyword\_id |

#### **Trigger**

N/A

### **HELP\_RELATION**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| help\_topic\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| help\_keyword\_id | INT UNSIGNED (10) |  |  | PK |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | help\_keyword\_id | PRIMARY KEY |  |  |
| PRIMARY | help\_topic\_id | PRIMARY KEY |  |  |
| PRIMARY | help\_keyword\_id | UNIQUE |  |  |
| PRIMARY | help\_topic\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | help\_keyword\_id, help\_topic\_id |

#### **Trigger**

N/A

### **HELP\_TOPIC**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| help\_topic\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| name | CHAR (64) |  |  |  |  |  |
| help\_category\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| description | TEXT (65535) |  |  |  |  |  |
| example | TEXT (65535) |  |  |  |  |  |
| url | TEXT (65535) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | help\_topic\_id | PRIMARY KEY |  |  |
| name | name | UNIQUE |  |  |
| PRIMARY | help\_topic\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| name | name |
| PRIMARY | help\_topic\_id |

#### **Trigger**

N/A

### **INNODB\_INDEX\_STATS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| database\_name | VARCHAR (64) |  |  | PK |  |  |
| table\_name | VARCHAR (199) |  |  | PK |  |  |
| index\_name | VARCHAR (64) |  |  | PK |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |
| stat\_name | VARCHAR (64) |  |  | PK |  |  |
| stat\_value | BIGINT UNSIGNED (20) |  |  |  |  |  |
| sample\_size | BIGINT UNSIGNED (20) |  |  |  |  |  |
| stat\_description | VARCHAR (1024) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | database\_name | PRIMARY KEY |  |  |
| PRIMARY | table\_name | PRIMARY KEY |  |  |
| PRIMARY | index\_name | PRIMARY KEY |  |  |
| PRIMARY | stat\_name | PRIMARY KEY |  |  |
| PRIMARY | database\_name | UNIQUE |  |  |
| PRIMARY | table\_name | UNIQUE |  |  |
| PRIMARY | index\_name | UNIQUE |  |  |
| PRIMARY | stat\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | database\_name, table\_name, index\_name, stat\_name |

#### **Trigger**

N/A

### **INNODB\_TABLE\_STATS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| database\_name | VARCHAR (64) |  |  | PK |  |  |
| table\_name | VARCHAR (199) |  |  | PK |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |
| n\_rows | BIGINT UNSIGNED (20) |  |  |  |  |  |
| clustered\_index\_size | BIGINT UNSIGNED (20) |  |  |  |  |  |
| sum\_of\_other\_index\_sizes | BIGINT UNSIGNED (20) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | database\_name | PRIMARY KEY |  |  |
| PRIMARY | table\_name | PRIMARY KEY |  |  |
| PRIMARY | database\_name | UNIQUE |  |  |
| PRIMARY | table\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | database\_name, table\_name |

#### **Trigger**

N/A

### **NDB\_BINLOG\_INDEX**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Position | BIGINT UNSIGNED (20) |  |  |  |  |  |
| File | VARCHAR (255) |  |  |  |  |  |
| epoch | BIGINT UNSIGNED (20) |  |  | PK |  |  |
| inserts | INT UNSIGNED (10) |  |  |  |  |  |
| updates | INT UNSIGNED (10) |  |  |  |  |  |
| deletes | INT UNSIGNED (10) |  |  |  |  |  |
| schemaops | INT UNSIGNED (10) |  |  |  |  |  |
| orig\_server\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| orig\_epoch | BIGINT UNSIGNED (20) |  |  | PK |  |  |
| gci | INT UNSIGNED (10) |  |  |  |  |  |
| next\_position | BIGINT UNSIGNED (20) |  |  |  |  |  |
| next\_file | VARCHAR (255) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | epoch | PRIMARY KEY |  |  |
| PRIMARY | orig\_server\_id | PRIMARY KEY |  |  |
| PRIMARY | orig\_epoch | PRIMARY KEY |  |  |
| PRIMARY | epoch | UNIQUE |  |  |
| PRIMARY | orig\_server\_id | UNIQUE |  |  |
| PRIMARY | orig\_epoch | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | epoch, orig\_server\_id, orig\_epoch |

#### **Trigger**

N/A

### **PASSWORD\_HISTORY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Password\_timestamp | TIMESTAMP (26) |  |  | PK |  |  |
| Password | TEXT (65535) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Password\_timestamp | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |
| PRIMARY | Password\_timestamp | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User, Password\_timestamp |

#### **Trigger**

N/A

### **PLUGIN**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| name | VARCHAR (64) |  |  | PK |  |  |
| dl | VARCHAR (128) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | name | PRIMARY KEY |  |  |
| PRIMARY | name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | name |

#### **Trigger**

N/A

### **PROCS\_PRIV**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| Db | CHAR (64) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Routine\_name | CHAR (64) |  |  | PK |  |  |
| Routine\_type | ENUM (9) |  |  | PK |  |  |
| Grantor | VARCHAR (288) |  |  |  |  |  |
| Proc\_priv | SET (27) |  |  |  |  |  |
| Timestamp | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Db | PRIMARY KEY |  |  |
| PRIMARY | Routine\_name | PRIMARY KEY |  |  |
| PRIMARY | Routine\_type | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |
| PRIMARY | Db | UNIQUE |  |  |
| PRIMARY | Routine\_name | UNIQUE |  |  |
| PRIMARY | Routine\_type | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User, Db, Routine\_name, Routine\_type |
| Grantor | Grantor |

#### **Trigger**

N/A

### **PROXIES\_PRIV**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Proxied\_host | CHAR (255) |  |  | PK |  |  |
| Proxied\_user | CHAR (32) |  |  | PK |  |  |
| With\_grant | BIT (1) |  |  |  |  |  |
| Grantor | VARCHAR (288) |  |  |  |  |  |
| Timestamp | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Proxied\_host | PRIMARY KEY |  |  |
| PRIMARY | Proxied\_user | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |
| PRIMARY | Proxied\_host | UNIQUE |  |  |
| PRIMARY | Proxied\_user | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User, Proxied\_host, Proxied\_user |
| Grantor | Grantor |

#### **Trigger**

N/A

### **REPLICATION\_ASYNCHRONOUS\_CONNECTION\_FAILOVER**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Channel\_name | CHAR (64) |  |  | PK |  |  |
| Host | CHAR (255) |  |  | PK |  |  |
| Port | INT UNSIGNED (10) |  |  | PK |  |  |
| Network\_namespace | CHAR (64) |  |  | PK |  |  |
| Weight | TINYINT UNSIGNED (3) |  |  |  |  |  |
| Managed\_name | CHAR (64) |  |  | PK |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name | PRIMARY KEY |  |  |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | Port | PRIMARY KEY |  |  |
| PRIMARY | Network\_namespace | PRIMARY KEY |  |  |
| PRIMARY | Managed\_name | PRIMARY KEY |  |  |
| PRIMARY | Channel\_name | UNIQUE |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | Port | UNIQUE |  |  |
| PRIMARY | Network\_namespace | UNIQUE |  |  |
| PRIMARY | Managed\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name, Host, Port, Network\_namespace, Managed\_name |
| Channel\_name | Channel\_name, Managed\_name |

#### **Trigger**

N/A

### **REPLICATION\_ASYNCHRONOUS\_CONNECTION\_FAILOVER\_MANAGED**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Channel\_name | CHAR (64) |  |  | PK |  |  |
| Managed\_name | CHAR (64) |  |  | PK |  |  |
| Managed\_type | CHAR (64) |  |  |  |  |  |
| Configuration | JSON (1073741824) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name | PRIMARY KEY |  |  |
| PRIMARY | Managed\_name | PRIMARY KEY |  |  |
| PRIMARY | Channel\_name | UNIQUE |  |  |
| PRIMARY | Managed\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name, Managed\_name |

#### **Trigger**

N/A

### **REPLICATION\_GROUP\_CONFIGURATION\_VERSION**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| name | CHAR (255) |  |  | PK |  |  |
| version | BIGINT UNSIGNED (20) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | name | PRIMARY KEY |  |  |
| PRIMARY | name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | name |

#### **Trigger**

N/A

### **REPLICATION\_GROUP\_MEMBER\_ACTIONS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| name | CHAR (255) |  |  | PK |  |  |
| event | CHAR (64) |  |  | PK |  |  |
| enabled | BIT (1) |  |  |  |  |  |
| type | CHAR (64) |  |  |  |  |  |
| priority | TINYINT UNSIGNED (3) |  |  |  |  |  |
| error\_handling | CHAR (64) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | name | PRIMARY KEY |  |  |
| PRIMARY | event | PRIMARY KEY |  |  |
| PRIMARY | name | UNIQUE |  |  |
| PRIMARY | event | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | name, event |
| event | event |

#### **Trigger**

N/A

### **ROLE\_EDGES**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| FROM\_HOST | CHAR (255) |  |  | PK |  |  |
| FROM\_USER | CHAR (32) |  |  | PK |  |  |
| TO\_HOST | CHAR (255) |  |  | PK |  |  |
| TO\_USER | CHAR (32) |  |  | PK |  |  |
| WITH\_ADMIN\_OPTION | ENUM (1) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | FROM\_HOST | PRIMARY KEY |  |  |
| PRIMARY | FROM\_USER | PRIMARY KEY |  |  |
| PRIMARY | TO\_HOST | PRIMARY KEY |  |  |
| PRIMARY | TO\_USER | PRIMARY KEY |  |  |
| PRIMARY | FROM\_HOST | UNIQUE |  |  |
| PRIMARY | FROM\_USER | UNIQUE |  |  |
| PRIMARY | TO\_HOST | UNIQUE |  |  |
| PRIMARY | TO\_USER | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | FROM\_HOST, FROM\_USER, TO\_HOST, TO\_USER |

#### **Trigger**

N/A

### **SERVER\_COST**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| cost\_name | VARCHAR (64) |  |  | PK |  |  |
| cost\_value | FLOAT (12) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |
| comment | VARCHAR (1024) |  |  |  |  |  |
| default\_value | FLOAT (12) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | cost\_name | PRIMARY KEY |  |  |
| PRIMARY | cost\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | cost\_name |

#### **Trigger**

N/A

### **SERVERS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Server\_name | CHAR (64) |  |  | PK |  |  |
| Host | CHAR (255) |  |  |  |  |  |
| Db | CHAR (64) |  |  |  |  |  |
| Username | CHAR (64) |  |  |  |  |  |
| Password | CHAR (64) |  |  |  |  |  |
| Port | INT (10) |  |  |  |  |  |
| Socket | CHAR (64) |  |  |  |  |  |
| Wrapper | CHAR (64) |  |  |  |  |  |
| Owner | CHAR (64) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Server\_name | PRIMARY KEY |  |  |
| PRIMARY | Server\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Server\_name |

#### **Trigger**

N/A

### **SLAVE\_MASTER\_INFO**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Number\_of\_lines | INT UNSIGNED (10) |  |  |  |  |  |
| Master\_log\_name | TEXT (65535) |  |  |  |  |  |
| Master\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Host | VARCHAR (255) |  |  |  |  |  |
| User\_name | TEXT (65535) |  |  |  |  |  |
| User\_password | TEXT (65535) |  |  |  |  |  |
| Port | INT UNSIGNED (10) |  |  |  |  |  |
| Connect\_retry | INT UNSIGNED (10) |  |  |  |  |  |
| Enabled\_ssl | BIT (1) |  |  |  |  |  |
| Ssl\_ca | TEXT (65535) |  |  |  |  |  |
| Ssl\_capath | TEXT (65535) |  |  |  |  |  |
| Ssl\_cert | TEXT (65535) |  |  |  |  |  |
| Ssl\_cipher | TEXT (65535) |  |  |  |  |  |
| Ssl\_key | TEXT (65535) |  |  |  |  |  |
| Ssl\_verify\_server\_cert | BIT (1) |  |  |  |  |  |
| Heartbeat | FLOAT (12) |  |  |  |  |  |
| Bind | TEXT (65535) |  |  |  |  |  |
| Ignored\_server\_ids | TEXT (65535) |  |  |  |  |  |
| Uuid | TEXT (65535) |  |  |  |  |  |
| Retry\_count | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Ssl\_crl | TEXT (65535) |  |  |  |  |  |
| Ssl\_crlpath | TEXT (65535) |  |  |  |  |  |
| Enabled\_auto\_position | BIT (1) |  |  |  |  |  |
| Channel\_name | VARCHAR (64) |  |  | PK |  |  |
| Tls\_version | TEXT (65535) |  |  |  |  |  |
| Public\_key\_path | TEXT (65535) |  |  |  |  |  |
| Get\_public\_key | BIT (1) |  |  |  |  |  |
| Network\_namespace | TEXT (65535) |  |  |  |  |  |
| Master\_compression\_algorithm | VARCHAR (64) |  |  |  |  |  |
| Master\_zstd\_compression\_level | INT UNSIGNED (10) |  |  |  |  |  |
| Tls\_ciphersuites | TEXT (65535) |  |  |  |  |  |
| Source\_connection\_auto\_failover | BIT (1) |  |  |  |  |  |
| Gtid\_only | BIT (1) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name | PRIMARY KEY |  |  |
| PRIMARY | Channel\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name |

#### **Trigger**

N/A

### **SLAVE\_RELAY\_LOG\_INFO**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Number\_of\_lines | INT UNSIGNED (10) |  |  |  |  |  |
| Relay\_log\_name | TEXT (65535) |  |  |  |  |  |
| Relay\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Master\_log\_name | TEXT (65535) |  |  |  |  |  |
| Master\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Sql\_delay | INT (10) |  |  |  |  |  |
| Number\_of\_workers | INT UNSIGNED (10) |  |  |  |  |  |
| Id | INT UNSIGNED (10) |  |  |  |  |  |
| Channel\_name | VARCHAR (64) |  |  | PK |  |  |
| Privilege\_checks\_username | VARCHAR (32) |  |  |  |  |  |
| Privilege\_checks\_hostname | VARCHAR (255) |  |  |  |  |  |
| Require\_row\_format | BIT (1) |  |  |  |  |  |
| Require\_table\_primary\_key\_check | ENUM (8) |  |  |  |  |  |
| Assign\_gtids\_to\_anonymous\_transactions\_type | ENUM (5) |  |  |  |  |  |
| Assign\_gtids\_to\_anonymous\_transactions\_value | TEXT (65535) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name | PRIMARY KEY |  |  |
| PRIMARY | Channel\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name |

#### **Trigger**

N/A

### **SLAVE\_WORKER\_INFO**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Id | INT UNSIGNED (10) |  |  | PK |  |  |
| Relay\_log\_name | TEXT (65535) |  |  |  |  |  |
| Relay\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Master\_log\_name | TEXT (65535) |  |  |  |  |  |
| Master\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Checkpoint\_relay\_log\_name | TEXT (65535) |  |  |  |  |  |
| Checkpoint\_relay\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Checkpoint\_master\_log\_name | TEXT (65535) |  |  |  |  |  |
| Checkpoint\_master\_log\_pos | BIGINT UNSIGNED (20) |  |  |  |  |  |
| Checkpoint\_seqno | INT UNSIGNED (10) |  |  |  |  |  |
| Checkpoint\_group\_size | INT UNSIGNED (10) |  |  |  |  |  |
| Checkpoint\_group\_bitmap | BLOB (65535) |  |  |  |  |  |
| Channel\_name | VARCHAR (64) |  |  | PK |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name | PRIMARY KEY |  |  |
| PRIMARY | Id | PRIMARY KEY |  |  |
| PRIMARY | Channel\_name | UNIQUE |  |  |
| PRIMARY | Id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Channel\_name, Id |

#### **Trigger**

N/A

### **SLOW\_LOG**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| start\_time | TIMESTAMP (26) |  |  |  |  |  |
| user\_host | MEDIUMTEXT (16777215) |  |  |  |  |  |
| query\_time | TIME (15) |  |  |  |  |  |
| lock\_time | TIME (15) |  |  |  |  |  |
| rows\_sent | INT (10) |  |  |  |  |  |
| rows\_examined | INT (10) |  |  |  |  |  |
| db | VARCHAR (512) |  |  |  |  |  |
| last\_insert\_id | INT (10) |  |  |  |  |  |
| insert\_id | INT (10) |  |  |  |  |  |
| server\_id | INT UNSIGNED (10) |  |  |  |  |  |
| sql\_text | MEDIUMBLOB (16777215) |  |  |  |  |  |
| thread\_id | BIGINT UNSIGNED (20) |  |  |  |  |  |

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **TABLES\_PRIV**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| Db | CHAR (64) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Table\_name | CHAR (64) |  |  | PK |  |  |
| Grantor | VARCHAR (288) |  |  |  |  |  |
| Timestamp | TIMESTAMP (19) |  |  |  |  |  |
| Table\_priv | SET (98) |  |  |  |  |  |
| Column\_priv | SET (31) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Db | PRIMARY KEY |  |  |
| PRIMARY | Table\_name | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |
| PRIMARY | Db | UNIQUE |  |  |
| PRIMARY | Table\_name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User, Db, Table\_name |
| Grantor | Grantor |

#### **Trigger**

N/A

### **TIME\_ZONE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Time\_zone\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| Use\_leap\_seconds | ENUM (1) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Time\_zone\_id | PRIMARY KEY |  |  |
| PRIMARY | Time\_zone\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Time\_zone\_id |

#### **Trigger**

N/A

### **TIME\_ZONE\_LEAP\_SECOND**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Transition\_time | BIGINT (19) |  |  | PK |  |  |
| Correction | INT (10) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Transition\_time | PRIMARY KEY |  |  |
| PRIMARY | Transition\_time | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Transition\_time |

#### **Trigger**

N/A

### **TIME\_ZONE\_NAME**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Name | CHAR (64) |  |  | PK |  |  |
| Time\_zone\_id | INT UNSIGNED (10) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Name | PRIMARY KEY |  |  |
| PRIMARY | Name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Name |

#### **Trigger**

N/A

### **TIME\_ZONE\_TRANSITION**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Time\_zone\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| Transition\_time | BIGINT (19) |  |  | PK |  |  |
| Transition\_type\_id | INT UNSIGNED (10) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Time\_zone\_id | PRIMARY KEY |  |  |
| PRIMARY | Transition\_time | PRIMARY KEY |  |  |
| PRIMARY | Time\_zone\_id | UNIQUE |  |  |
| PRIMARY | Transition\_time | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Time\_zone\_id, Transition\_time |

#### **Trigger**

N/A

### **TIME\_ZONE\_TRANSITION\_TYPE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Time\_zone\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| Transition\_type\_id | INT UNSIGNED (10) |  |  | PK |  |  |
| Offset | INT (10) |  |  |  |  |  |
| Is\_DST | TINYINT UNSIGNED (3) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Time\_zone\_id | PRIMARY KEY |  |  |
| PRIMARY | Transition\_type\_id | PRIMARY KEY |  |  |
| PRIMARY | Time\_zone\_id | UNIQUE |  |  |
| PRIMARY | Transition\_type\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Time\_zone\_id, Transition\_type\_id |

#### **Trigger**

N/A

### **USER**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Host | CHAR (255) |  |  | PK |  |  |
| User | CHAR (32) |  |  | PK |  |  |
| Select\_priv | ENUM (1) |  |  |  |  |  |
| Insert\_priv | ENUM (1) |  |  |  |  |  |
| Update\_priv | ENUM (1) |  |  |  |  |  |
| Delete\_priv | ENUM (1) |  |  |  |  |  |
| Create\_priv | ENUM (1) |  |  |  |  |  |
| Drop\_priv | ENUM (1) |  |  |  |  |  |
| Reload\_priv | ENUM (1) |  |  |  |  |  |
| Shutdown\_priv | ENUM (1) |  |  |  |  |  |
| Process\_priv | ENUM (1) |  |  |  |  |  |
| File\_priv | ENUM (1) |  |  |  |  |  |
| Grant\_priv | ENUM (1) |  |  |  |  |  |
| References\_priv | ENUM (1) |  |  |  |  |  |
| Index\_priv | ENUM (1) |  |  |  |  |  |
| Alter\_priv | ENUM (1) |  |  |  |  |  |
| Show\_db\_priv | ENUM (1) |  |  |  |  |  |
| Super\_priv | ENUM (1) |  |  |  |  |  |
| Create\_tmp\_table\_priv | ENUM (1) |  |  |  |  |  |
| Lock\_tables\_priv | ENUM (1) |  |  |  |  |  |
| Execute\_priv | ENUM (1) |  |  |  |  |  |
| Repl\_slave\_priv | ENUM (1) |  |  |  |  |  |
| Repl\_client\_priv | ENUM (1) |  |  |  |  |  |
| Create\_view\_priv | ENUM (1) |  |  |  |  |  |
| Show\_view\_priv | ENUM (1) |  |  |  |  |  |
| Create\_routine\_priv | ENUM (1) |  |  |  |  |  |
| Alter\_routine\_priv | ENUM (1) |  |  |  |  |  |
| Create\_user\_priv | ENUM (1) |  |  |  |  |  |
| Event\_priv | ENUM (1) |  |  |  |  |  |
| Trigger\_priv | ENUM (1) |  |  |  |  |  |
| Create\_tablespace\_priv | ENUM (1) |  |  |  |  |  |
| ssl\_type | ENUM (9) |  |  |  |  |  |
| ssl\_cipher | BLOB (65535) |  |  |  |  |  |
| x509\_issuer | BLOB (65535) |  |  |  |  |  |
| x509\_subject | BLOB (65535) |  |  |  |  |  |
| max\_questions | INT UNSIGNED (10) |  |  |  |  |  |
| max\_updates | INT UNSIGNED (10) |  |  |  |  |  |
| max\_connections | INT UNSIGNED (10) |  |  |  |  |  |
| max\_user\_connections | INT UNSIGNED (10) |  |  |  |  |  |
| plugin | CHAR (64) |  |  |  |  |  |
| authentication\_string | TEXT (65535) |  |  |  |  |  |
| password\_expired | ENUM (1) |  |  |  |  |  |
| password\_last\_changed | TIMESTAMP (19) |  |  |  |  |  |
| password\_lifetime | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| account\_locked | ENUM (1) |  |  |  |  |  |
| Create\_role\_priv | ENUM (1) |  |  |  |  |  |
| Drop\_role\_priv | ENUM (1) |  |  |  |  |  |
| Password\_reuse\_history | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| Password\_reuse\_time | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| Password\_require\_current | ENUM (1) |  |  |  |  |  |
| User\_attributes | JSON (1073741824) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Host | PRIMARY KEY |  |  |
| PRIMARY | User | PRIMARY KEY |  |  |
| PRIMARY | Host | UNIQUE |  |  |
| PRIMARY | User | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Host, User |

#### **Trigger**

N/A

## **Schema: SAKILA**

|  |  |
| --- | --- |
| ***Tên bảng*** | ***Mô tả*** |
| ACTOR |  |
| ACTOR\_INFO |  |
| ADDRESS |  |
| CATEGORY |  |
| CITY |  |
| COUNTRY |  |
| CUSTOMER |  |
| CUSTOMER\_LIST |  |
| FILM |  |
| FILM\_ACTOR |  |
| FILM\_CATEGORY |  |
| FILM\_LIST |  |
| FILM\_TEXT |  |
| INVENTORY |  |
| LANGUAGE |  |
| NICER\_BUT\_SLOWER\_FILM\_LIST |  |
| PAYMENT |  |
| RENTAL |  |
| SALES\_BY\_FILM\_CATEGORY |  |
| SALES\_BY\_STORE |  |
| STAFF |  |
| STAFF\_LIST |  |
| STORE |  |

### **ACTOR**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| actor\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | actor\_id | PRIMARY KEY |  |  |
| PRIMARY | actor\_id | UNIQUE |  |  |
| unique\_actor | actor\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | actor\_id |
| unique\_actor | actor\_id |

#### **Trigger**

N/A

### **ACTOR\_INFO**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **ADDRESS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| address\_id\_demo | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| address | VARCHAR (50) |  |  |  |  |  |
| district | VARCHAR (20) |  |  |  |  |  |
| city\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| postal\_code | VARCHAR (10) |  |  |  |  |  |
| location | GEOMETRY (65535) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | address\_id\_demo | PRIMARY KEY |  |  |
| fk\_address\_city | city\_id | FOREIGN KEY | city | city\_id |
| PRIMARY | address\_id\_demo | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | address\_id\_demo |
| idx\_fk\_city\_id | city\_id |
| idx\_location | location |

#### **Trigger**

N/A

### **CATEGORY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| category\_id | TINYINT UNSIGNED (3) |  |  | PK |  |  |
| name | VARCHAR (25) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | category\_id | PRIMARY KEY |  |  |
| PRIMARY | category\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | category\_id |

#### **Trigger**

N/A

### **CITY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| city\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| city | VARCHAR (50) |  |  |  |  |  |
| country\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | city\_id | PRIMARY KEY |  |  |
| fk\_city\_country | country\_id | FOREIGN KEY | country | country\_id |
| PRIMARY | city\_id | UNIQUE |  |  |
| unique\_key | city\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | city\_id |
| unique\_key | city\_id |
| idx\_fk\_country\_id | country\_id |

#### **Trigger**

N/A

### **COUNTRY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| country\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| country | VARCHAR (50) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | country\_id | PRIMARY KEY |  |  |
| PRIMARY | country\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | country\_id |

#### **Trigger**

N/A

### **CUSTOMER**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| customer\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| store\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| first\_name | VARCHAR (45) |  |  |  |  |  |
| last\_name | VARCHAR (45) |  |  |  |  |  |
| address\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| create\_date | DATETIME (19) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | customer\_id | PRIMARY KEY |  |  |
| fk\_customer\_address | address\_id | FOREIGN KEY | address | address\_id\_demo |
| fk\_customer\_store | store\_id | FOREIGN KEY | store | store\_id |
| PRIMARY | customer\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | customer\_id |
| idx\_fk\_address\_id | address\_id |
| idx\_fk\_store\_id | store\_id |
| idx\_last\_name | last\_name |

#### **Trigger**

N/A

### **CUSTOMER\_LIST**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **FILM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| film\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| title | VARCHAR (128) |  |  |  |  |  |
| description | TEXT (65535) |  |  |  |  |  |
| release\_year | YEAR (4) |  |  |  |  |  |
| language\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| original\_language\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| rental\_duration | TINYINT UNSIGNED (3) |  |  |  |  |  |
| rental\_rate | DECIMAL (4) |  |  |  |  |  |
| length | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| replacement\_cost | DECIMAL (5) |  |  |  |  |  |
| rating | ENUM (5) |  |  |  |  |  |
| special\_features | SET (54) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | film\_id | PRIMARY KEY |  |  |
| fk\_film\_language | language\_id | FOREIGN KEY | language | language\_id |
| fk\_film\_language\_original | original\_language\_id | FOREIGN KEY | language | language\_id |
| PRIMARY | film\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | film\_id |
| idx\_fk\_language\_id | language\_id |
| idx\_fk\_original\_language\_id | original\_language\_id |
| idx\_title | title |

#### **Trigger**

N/A

### **FILM\_ACTOR**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| actor\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| film\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | actor\_id | PRIMARY KEY |  |  |
| PRIMARY | film\_id | PRIMARY KEY |  |  |
| fk\_film\_actor\_actor | actor\_id | FOREIGN KEY | actor | actor\_id |
| fk\_film\_actor\_film | film\_id | FOREIGN KEY | film | film\_id |
| PRIMARY | actor\_id | UNIQUE |  |  |
| PRIMARY | film\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | actor\_id, film\_id |
| idx\_fk\_film\_id | film\_id |

#### **Trigger**

N/A

### **FILM\_CATEGORY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| film\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| category\_id | TINYINT UNSIGNED (3) |  |  | PK |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | film\_id | PRIMARY KEY |  |  |
| PRIMARY | category\_id | PRIMARY KEY |  |  |
| fk\_film\_category\_category | category\_id | FOREIGN KEY | category | category\_id |
| fk\_film\_category\_film | film\_id | FOREIGN KEY | film | film\_id |
| PRIMARY | film\_id | UNIQUE |  |  |
| PRIMARY | category\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | film\_id, category\_id |
| fk\_film\_category\_category | category\_id |

#### **Trigger**

N/A

### **FILM\_LIST**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **FILM\_TEXT**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| film\_id | SMALLINT (5) |  |  | PK |  |  |
| title | VARCHAR (255) |  |  |  |  |  |
| description | TEXT (65535) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | film\_id | PRIMARY KEY |  |  |
| PRIMARY | film\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | film\_id |
| idx\_title\_description | title, description |

#### **Trigger**

N/A

### **INVENTORY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| inventory\_id | MEDIUMINT UNSIGNED (8) |  |  | PK |  |  |
| film\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| store\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | inventory\_id | PRIMARY KEY |  |  |
| fk\_inventory\_film | film\_id | FOREIGN KEY | film | film\_id |
| fk\_inventory\_store | store\_id | FOREIGN KEY | store | store\_id |
| PRIMARY | inventory\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | inventory\_id |
| idx\_fk\_film\_id | film\_id |
| idx\_store\_id\_film\_id | store\_id, film\_id |

#### **Trigger**

N/A

### **LANGUAGE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| language\_id | TINYINT UNSIGNED (3) |  |  | PK |  |  |
| name | CHAR (20) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | language\_id | PRIMARY KEY |  |  |
| PRIMARY | language\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | language\_id |

#### **Trigger**

N/A

### **NICER\_BUT\_SLOWER\_FILM\_LIST**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **PAYMENT**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| payment\_id | SMALLINT UNSIGNED (5) |  |  | PK |  |  |
| customer\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| staff\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| rental\_id | INT (10) |  |  |  |  |  |
| payment\_date | DATETIME (19) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | payment\_id | PRIMARY KEY |  |  |
| fk\_payment\_customer | customer\_id | FOREIGN KEY | customer | customer\_id |
| fk\_payment\_rental | rental\_id | FOREIGN KEY | rental | rental\_id |
| fk\_payment\_staff | staff\_id | FOREIGN KEY | staff | staff\_id |
| PRIMARY | payment\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | payment\_id |
| fk\_payment\_rental | rental\_id |
| idx\_fk\_customer\_id | customer\_id |
| idx\_fk\_staff\_id | staff\_id |

#### **Trigger**

N/A

### **RENTAL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| rental\_id | INT (10) |  |  | PK |  |  |
| rental\_date | DATETIME (19) |  |  |  |  |  |
| inventory\_id | MEDIUMINT UNSIGNED (8) |  |  |  |  |  |
| customer\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| return\_date | DATETIME (19) |  |  |  |  |  |
| staff\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | rental\_id | PRIMARY KEY |  |  |
| fk\_rental\_customer | customer\_id | FOREIGN KEY | customer | customer\_id |
| fk\_rental\_inventory | inventory\_id | FOREIGN KEY | inventory | inventory\_id |
| fk\_rental\_staff | staff\_id | FOREIGN KEY | staff | staff\_id |
| PRIMARY | rental\_id | UNIQUE |  |  |
| rental\_date | rental\_date | UNIQUE |  |  |
| rental\_date | inventory\_id | UNIQUE |  |  |
| rental\_date | customer\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | rental\_id |
| rental\_date | rental\_date, inventory\_id, customer\_id |
| idx\_fk\_customer\_id | customer\_id |
| idx\_fk\_inventory\_id | inventory\_id |
| idx\_fk\_staff\_id | staff\_id |

#### **Trigger**

N/A

### **SALES\_BY\_FILM\_CATEGORY**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **SALES\_BY\_STORE**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **STAFF**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| staff\_id | TINYINT UNSIGNED (3) |  |  | PK |  |  |
| first\_name | VARCHAR (45) |  |  |  |  |  |
| last\_name | VARCHAR (45) |  |  |  |  |  |
| address\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| picture | BLOB (65535) |  |  |  |  |  |
| store\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| active | BIT (1) |  |  |  |  |  |
| username | VARCHAR (16) |  |  |  |  |  |
| password | VARCHAR (40) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | staff\_id | PRIMARY KEY |  |  |
| fk\_staff\_address | address\_id | FOREIGN KEY | address | address\_id\_demo |
| fk\_staff\_store | store\_id | FOREIGN KEY | store | store\_id |
| PRIMARY | staff\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | staff\_id |
| idx\_fk\_address\_id | address\_id |
| idx\_fk\_store\_id | store\_id |

#### **Trigger**

N/A

### **STAFF\_LIST**

N/A

#### **Constraint**

N/A

#### **Index**

N/A

#### **Trigger**

N/A

### **STORE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| store\_id | TINYINT UNSIGNED (3) |  |  | PK |  |  |
| manager\_staff\_id | TINYINT UNSIGNED (3) |  |  |  |  |  |
| address\_id | SMALLINT UNSIGNED (5) |  |  |  |  |  |
| last\_update | TIMESTAMP (19) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | store\_id | PRIMARY KEY |  |  |
| fk\_store\_address | address\_id | FOREIGN KEY | address | address\_id\_demo |
| fk\_store\_staff | manager\_staff\_id | FOREIGN KEY | staff | staff\_id |
| idx\_unique\_manager | manager\_staff\_id | UNIQUE |  |  |
| PRIMARY | store\_id | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| idx\_unique\_manager | manager\_staff\_id |
| PRIMARY | store\_id |
| idx\_fk\_address\_id | address\_id |

#### **Trigger**

N/A

## **Schema: WORLD**

|  |  |
| --- | --- |
| ***Tên bảng*** | ***Mô tả*** |
| CITY |  |
| COUNTRY |  |
| COUNTRYLANGUAGE |  |
| TEMPLATE\_USER |  |
| USER |  |

### **CITY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| ID | INT (10) |  |  | PK |  |  |
| Name | CHAR (35) |  |  |  |  |  |
| CountryCode | CHAR (3) |  |  |  |  |  |
| District | CHAR (20) |  |  |  |  |  |
| Population | INT (10) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | ID | PRIMARY KEY |  |  |
| city\_ibfk\_1 | CountryCode | FOREIGN KEY | country | Code |
| PRIMARY | ID | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | ID |
| CountryCode | CountryCode |

#### **Trigger**

N/A

### **COUNTRY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| Code | CHAR (3) |  |  | PK |  |  |
| Name | CHAR (52) |  |  |  |  |  |
| Continent | ENUM (13) |  |  |  |  |  |
| Region | CHAR (26) |  |  |  |  |  |
| SurfaceArea | DECIMAL (10) |  |  |  |  |  |
| IndepYear | SMALLINT (5) |  |  |  |  |  |
| Population | INT (10) |  |  |  |  |  |
| LifeExpectancy | DECIMAL (3) |  |  |  |  |  |
| GNP | DECIMAL (10) |  |  |  |  |  |
| GNPOld | DECIMAL (10) |  |  |  |  |  |
| LocalName | CHAR (45) |  |  |  |  |  |
| GovernmentForm | CHAR (45) |  |  |  |  |  |
| HeadOfState | CHAR (60) |  |  |  |  |  |
| Capital | INT (10) |  |  |  |  |  |
| Code2 | CHAR (2) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | Code | PRIMARY KEY |  |  |
| PRIMARY | Code | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | Code |

#### **Trigger**

N/A

### **COUNTRYLANGUAGE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| CountryCode | CHAR (3) |  |  | PK |  |  |
| Language | CHAR (30) |  |  | PK |  |  |
| IsOfficial | ENUM (1) |  |  |  |  |  |
| Percentage | DECIMAL (4) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | CountryCode | PRIMARY KEY |  |  |
| PRIMARY | Language | PRIMARY KEY |  |  |
| countryLanguage\_ibfk\_1 | CountryCode | FOREIGN KEY | country | Code |
| PRIMARY | CountryCode | UNIQUE |  |  |
| PRIMARY | Language | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | CountryCode, Language |
| CountryCode | CountryCode |

#### **Trigger**

N/A

### **TEMPLATE\_USER**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| id\_user | BIGINT (19) |  |  | PK |  |  |
| name | VARCHAR (255) |  |  | PK |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | id\_user | PRIMARY KEY |  |  |
| PRIMARY | name | PRIMARY KEY |  |  |
| template\_user\_ibfk\_1 | id\_user | FOREIGN KEY | user | id |
| PRIMARY | id\_user | UNIQUE |  |  |
| PRIMARY | name | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | id\_user, name |

#### **Trigger**

N/A

### **USER**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Tên trường*** | ***Kiểu dữ liệu và độ dài*** | ***Nullable*** | ***Auto Increment*** | ***P/K Key*** | ***Mặc định*** | ***Mô tả*** |
| id | BIGINT (19) |  |  | PK |  |  |
| username | VARCHAR (255) |  |  |  |  |  |
| password | VARCHAR (255) |  |  |  |  |  |

#### **Constraint**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Tên khóa*** | ***Tên trường*** | ***Kiểu*** | ***Bảng tham chiếu*** | ***Cột tham chiếu*** |
| PRIMARY | id | PRIMARY KEY |  |  |
| PRIMARY | id | UNIQUE |  |  |
| username | username | UNIQUE |  |  |

#### **Index**

|  |  |
| --- | --- |
| ***Tên Index*** | ***Cột tham chiếu*** |
| PRIMARY | id |
| username | username |

#### **Trigger**

N/A