

----- PHÂN TÍCH CƠ SỞ DỮ

LIỆU =====

```
- ROLE
  + id
  + name
  + description

- USER (1 user - 1 quyền)
  + id
  + email
  + fullname
  + password
  + avatar
  + phone
  + address
  + website
  + facebook
  + role_id

- CATEGORY
  + id
  + title
  + icon
  + order_index

- COURSE
  + id
  + title
  + image
  + lectures_count (số bài giảng)
  + hour_count (số giờ dạy)
  + last_update (ngày cập nhật)
  + view_count (số lượt xem)
  + price
  + discount (%)
  + promotion_price (Giá khuyến mãi)
  + description
  + content
  + category_id

- VIDEO
  + id
  + title
  + time_count
  + url
  + order_index
  + course_id

- TARGET
  + id
  + title
  + order_index
  + course_id

- USER_COURSE
  + user_id
  + course_id
  + role_id
```

----- TẠO CƠ SỞ DỮ LIỆU

=====

```
CREATE SCHEMA `elearning` DEFAULT
CHARACTER SET utf8;
USE elearning;

CREATE TABLE IF NOT EXISTS roles (
  id VARCHAR(100) NOT NULL,
  name VARCHAR(30) NOT NULL,
  description VARCHAR(255),
  CONSTRAINT pk_role PRIMARY KEY(id)
);

CREATE TABLE IF NOT EXISTS users (
  id VARCHAR(100) NOT NULL,
  email VARCHAR(100) NOT NULL,
  fullname VARCHAR(100) NOT NULL,
  password VARCHAR(100) NOT NULL,
  avatar VARCHAR(255),
  phone VARCHAR(20),
  address VARCHAR(255),
  website VARCHAR(255),
  facebook VARCHAR(255),
  role_id VARCHAR (100) NOT NULL,
  CONSTRAINT pk_user PRIMARY
KEY(id),
  CONSTRAINT fk_user_role FOREIGN
KEY (role_id)
  REFERENCES roles(id) ON DELETE
CASCADE
);

CREATE TABLE IF NOT EXISTS categories
(
  id INT(11) NOT NULL
AUTO_INCREMENT,
  title VARCHAR(255) NOT NULL,
  icon VARCHAR(20) NOT NULL,
  order_index INT(11) DEFAULT '1',
  CONSTRAINT pk_category PRIMARY
KEY(id)
);

CREATE TABLE IF NOT EXISTS courses (
  id INT(11) NOT NULL
AUTO_INCREMENT,
  title VARCHAR(255) NOT NULL,
  image VARCHAR(255) NOT NULL,
  lectures_count INT(11) NOT NULL,
  hour_count INT(11) NOT NULL,
  view_count INT(11) DEFAULT '0',
  price DECIMAL DEFAULT '0',
  discount INT(11) DEFAULT '0',
  promotion_price DECIMAL DEFAULT
'0',
  description VARCHAR (255) NOT
NULL,
  content TEXT,
  category_id INT(11) NOT NULL,
  last_update TIMESTAMP DEFAULT
CURRENT_TIMESTAMP,
  CONSTRAINT pk_course PRIMARY
KEY(id),
  CONSTRAINT fk_course_category
FOREIGN KEY (category_id)
  REFERENCES categories(id) ON
DELETE CASCADE
);

CREATE TABLE IF NOT EXISTS targets(
  id INT(11) NOT NULL
AUTO_INCREMENT,
  title VARCHAR(255) NOT NULL,
  order_index INT(11) DEFAULT '1',
  course_id INT(11) NOT NULL,
  CONSTRAINT pk_target PRIMARY
KEY(id),
  CONSTRAINT fk_target_course
FOREIGN KEY (course_id)
  REFERENCES courses(id) ON DELETE
CASCADE
);

CREATE TABLE IF NOT EXISTS videos (
  id INT(11) NOT NULL
AUTO_INCREMENT,
  title VARCHAR(255) NOT NULL,
  url VARCHAR(255) NOT NULL,
  time_count INT(11) NOT NULL,
  order_index INT(11) DEFAULT '1',
  course_id INT(11) NOT NULL,
  CONSTRAINT pk_video PRIMARY
KEY(id),
  CONSTRAINT fk_video_course FOREIGN
KEY (course_id)
  REFERENCES courses(id) ON DELETE
CASCADE
);

CREATE TABLE IF NOT EXISTS
user_courses(
  user_id VARCHAR(100) NOT NULL
UNIQUE,
  course_id INT(11) NOT NULL UNIQUE,
  role_id VARCHAR(100) NOT NULL,
  CONSTRAINT pk_account_course
PRIMARY KEY (user_id, course_id),
  CONSTRAINT fk_user_course_user
FOREIGN KEY (user_id) REFERENCES
users(id) ON DELETE CASCADE,
  CONSTRAINT fk_user_course_course
FOREIGN KEY (course_id) REFERENCES
courses(id) ON DELETE CASCADE
);
```