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1 cauhinh_taikhoan

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
taikhoan_id	int(11)		No			-> taikhoan.id ON UPDATE RESTRICT ON DELETE RESTRICT		
xac_thuc_hai_yeu_to	tinyint(1)		Yes	0				
so_dien_thoai_xac_thuc	varchar(20)		Yes	NULL				
email_xac_thuc	varchar(100)		Yes	NULL				
khoa_tai_khoan_sau_dang_nhap_that_bai	int(11)		Yes	5				

2 dangkyhocphan

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
hoc_ky	varchar(20)		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				
ngay_dang_ky	datetime		Yes	current_tim estamp()				
trang_thai	enum('Đăng ký', 'Đã duyet', 'Hủy')		Yes	Đăng ký				

3 dethi

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
loai_de	enum('Giữa kỳ', 'Cuối kỳ', 'Bảo vệ')		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				
hoc_ky	varchar(20)		Yes	NULL				
thoi_gian_lam	int(11)		Yes	NULL				
mo_ta	text		Yes	NULL				

4 diemdanh

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
ngay_diem_danh	date		Yes	NULL				
trang_thai	enum('Có mặt', 'Vắng mặt', 'Đi muộn')		Yes	NULL				
ghi_chu	text		Yes	NULL				

5 giangvien

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ma_gv	varchar(10)		No					
ho_ten	varchar(100)		No					
ngay_sinh	date		Yes	NULL				
gioi_tinh	enum('Nam', 'Nữ', 'Khác')		Yes	NULL				
dia_chi	text		Yes	NULL				
email	varchar(100)		Yes	NULL				
so_dien_thoai	varchar(20)		Yes	NULL				
chuyen_mon	varchar(100)		Yes	NULL				
hoc_vi	varchar(50)		Yes	NULL				
trang_thai	enum('Đang dạy', 'Nghỉ phép', 'Đã nghỉ việc')		Yes	Đang dạy				

6 ketquahoctap

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
hoc_ky	varchar(20)		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				
diem_trung_bin h	float		Yes	NULL				
tong_tin_chi_da t	int(11)		Yes	NULL				
trang_thai	enum('Đạt', 'Không đạt')		Yes	NULL				

7 khoaluandoan

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
giang_vien_huong_dan_id	int(11)		Yes	NULL		-> giangvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
ten_de_tai	varchar(200)		No					
mo_ta	text		Yes	NULL				
thoi_gian_bat_dau	date		Yes	NULL				
thoi_gian_ket_thuc	date		Yes	NULL				
diem_so	float		Yes	NULL				
trang_thai	enum('Đang thực hiện', 'Đã bảo vệ', 'Chưa hoàn thành')		Yes	NULL				

8 lichgiangday

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
phan_cong_id	int(11)		Yes	NULL		-> phanconggiangday.id ON UPDATE RESTRICT ON DELETE RESTRICT		
phong_hoc	varchar(20)		Yes	NULL				
thu	enum('Thứ 2', 'Thứ 3', 'Thứ 4', 'Thứ 5', 'Thứ 6', 'Thứ 7', 'Chủ nhật')		Yes	NULL				
tiet_bat_dau	int(11)		Yes	NULL				
so_tiet	int(11)		Yes	NULL				

9 lichhoc

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
phong_hoc	varchar(20)		Yes	NULL				
thu	enum('Thứ 2', 'Thứ 3', 'Thứ 4', 'Thứ 5', 'Thứ 6', 'Thứ 7', 'Chủ nhật')		Yes	NULL				
tiet_bat_dau	int(11)		Yes	NULL				
so_tiet	int(11)		Yes	NULL				
hoc_ky	varchar(20)		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				

10 lichsudangnhap

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
taikhoan_id	int(11)		No			-> taikhoan.id ON UPDATE RESTRICT ON DELETE RESTRICT		
thoi_gian	datetime		Yes	current_timestamp()				
ip_address	varchar(50)		Yes	NULL				
user_agent	text		Yes	NULL				
trang_thai	enum('Thành công', 'Thất bại')		Yes	NULL				

11 lop

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ma_lop	varchar(10)		No					
ten_lop	varchar(50)		No					
nganh_id	int(11)		Yes	NULL		-> nganh.id ON UPDATE RESTRICT ON DELETE RESTRICT		
nam_nhap_hoc	int(11)		Yes	NULL				

12 monhoc

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ma_mon	varchar(10)		No					
ten_mon	varchar(100)		No					
so_tin_chi	int(11)		No					
mo_ta	text		Yes	NULL				

13 ngành

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ma_nganh	varchar(10)		No					
ten_nganh	varchar(100)		No					
mo_ta	text		Yes	NULL				

14 nghiencuukhoahoc

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ten_de_tai	varchar(200)		No					
mo_ta	text		Yes	NULL				
thoi_gian_bat_dau	date		Yes	NULL				
thoi_gian_ket_thuc	date		Yes	NULL				
trang_thai	enum('Đang thực hiện', 'Đã hoàn thành', 'Đã hủy')		Yes	NULL				
kinh_phi	decimal(10, 2)		Yes	NULL				
ket_qua	text		Yes	NULL				

15 phanconggiangday

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
giang_vien_id	int(11)		Yes	NULL		-> giangvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
hoc_ky	varchar(20)		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				
ngay_phan_cong	datetime		Yes	current_timestamp()				

16 phien_lam_viec

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
taikhoan_id	int(11)		No			-> taikhoan.id ON UPDATE RESTRICT ON DELETE RESTRICT		
session_token	varchar(100)		No					
thoi_gian_bat_dau	datetime		Yes	current_timestamp()				
thoi_gian_het_han	datetime		Yes	NULL				
ip_address	varchar(50)		Yes	NULL				
trang_thai	enum('Hoạt động', 'Đã kết thúc', 'Hết hạn')		Yes	NULL				

17 quanlydiem

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
diem_chuyen_c an	float		Yes	NULL				
diem_giua_ky	float		Yes	NULL				
diem_cuoi_ky	float		Yes	NULL				
diem_tong_ket	float		Yes	NULL				
hoc_ky	varchar(20)		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				

18 quyenhan

Creation: Mar 12, 2025 at 07:53 AM
Last update: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ten_quyen	varchar(50)		No					
mo_ta	text		Yes	NULL				

19 sinhvien

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ma_sv	varchar(10)		No					
ho_ten	varchar(100)		No					
ngay_sinh	date		Yes	NULL				
gioi_tinh	enum('Nam', 'Nữ', 'Khác')		Yes	NULL				
dia_chi	text		Yes	NULL				
email	varchar(100)		Yes	NULL				
so_dien_thoai	varchar(20)		Yes	NULL				
lop_id	int(11)		Yes	NULL		-> lop.id ON UPDATE RESTRICT ON DELETE RESTRICT		
trang_thai	enum('Đang học', 'Đã tốt nghiệp', 'Nghỉ học', 'Đình chỉ')		Yes	Đang học				

20 taikhoan

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ten_dang_nhap	varchar(50)		No					
mat_khau_hash	varchar(256)		No					
email	varchar(100)		No					
quyen_han_id	int(11)		No			-> quyenhan.id ON UPDATE RESTRICT ON DELETE RESTRICT		
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
giang_vien_id	int(11)		Yes	NULL		-> giangvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
ngay_tao	datetime		Yes	current_timestamp()				
lan_dang_nhap_cuoi	datetime		Yes	NULL				
trang_thai	enum('Hoạt động', 'Khóa', 'Chờ xác nhận')		Yes	Hoạt động				
token_reset_password	varchar(100)		Yes	NULL				
token_expiry	datetime		Yes	NULL				

21 tailieugiangday

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
mon_hoc_id	int(11)		Yes	NULL		-> monhoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
ten_tai_lieu	varchar(200)		No					
mo_ta	text		Yes	NULL				
duong_dan	varchar(255)		Yes	NULL				
loai_tai_lieu	varchar(50)		Yes	NULL				
ngay_tao	datetime		Yes	current_timestamp()				
ngay_cap_nhat	datetime		Yes	current_timestamp()	on update current_timestamp()			

22 thanhtoanhocphi

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
hoc_ky	varchar(20)		Yes	NULL				
nam_hoc	varchar(20)		Yes	NULL				
so_tien	decimal(10, 2)		Yes	NULL				
ngay_thanh_toan	datetime		Yes	NULL				
phuong_thuc_thanh_toan	varchar(50)		Yes	NULL				
trang_thai	enum('Đã thanh toán', 'Chưa thanh toán', 'Thanh toán một phần')		Yes	NULL				
ghi_chu	text		Yes	NULL				

23 thanhviennghienccuu

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
ngghien_ccuu_id	int(11)		Yes	NULL		-> nghienccuukhoahoc.id ON UPDATE RESTRICT ON DELETE RESTRICT		
sinh_vien_id	int(11)		Yes	NULL		-> sinhvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
giang_vien_id	int(11)		Yes	NULL		-> giangvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
vai_tro	varchar(50)		Yes	NULL				
ngay_tham_gia	date		Yes	NULL				

24 thongbao

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
tieu_de	varchar(200)		No					
noi_dung	text		Yes	NULL				
ngay_tao	datetime		Yes	current_timestamp()				
nguai_tao	varchar(100)		Yes	NULL				
doi_tuong	enum('Tất cả', 'Sinh viên', 'Giảng viên')		Yes	NULL				
trang_thai	enum('Đã đăng', 'Nháp', 'Đã gỡ')		Yes	NULL				

25 thongbaogiangvien

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
giang_vien_id	int(11)		Yes	NULL		-> giangvien.id ON UPDATE RESTRICT ON DELETE RESTRICT		
tieu_de	varchar(200)		No					
noi_dung	text		Yes	NULL				
ngay_tao	datetime		Yes	current_timestamp()				
doi_tuong	varchar(100)		Yes	NULL				
trang_thai	enum('Đã đăng', 'Nháp', 'Đã gỡ')		Yes	NULL				

26 thongbao_taikhoan

Creation: Mar 12, 2025 at 07:53 AM

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
id	int(11)		No		auto_increment			
taikhoan_id	int(11)		No			-> taikhoan.id ON UPDATE RESTRICT ON DELETE RESTRICT		
tieu_de	varchar(200)		No					
noi_dung	text		Yes	NULL				
ngay_tao	datetime		Yes	current_timestamp()				
da_doc	tinyint(1)		Yes	0				
loai_thong_bao	enum('Hệ thống', 'Bảo mật', 'Thông tin')		Yes	NULL				

27 view_taikhoan_giangvien

Table comments: VIEW

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
taikhoan_id	int(11)		No	0				
ten_dang_nhap	varchar(50)		No					
email	varchar(100)		No					
giang_vien_id	int(11)		No	0				
ma_gv	varchar(10)		No					
ho_ten	varchar(100)		No					
chuyen_mon	varchar(100)		Yes	NULL				
hoc_vi	varchar(50)		Yes	NULL				
trang_thai	enum('Hoạt động', 'Khóa', 'Chờ xác nhận')		Yes	Hoạt động				

28 view_taikhoan_sinhvien

Table comments: VIEW

Column	Type	Attributes	Null	Default	Extra	Links to	Comments	MIME
taikhoan_id	int(11)		No	0				
ten_dang_nhap	varchar(50)		No					
email	varchar(100)		No					
sinh_vien_id	int(11)		No	0				
ma_sv	varchar(10)		No					
ho_ten	varchar(100)		No					
ma_lop	varchar(10)		No					
ten_lop	varchar(50)		No					
trang_thai	enum('Hoạt động', 'Khóa', 'Chờ xác nhận')		Yes	Hoạt động				

