

## doc\_db

## auth\_group

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	int	No		
name	varchar(150)	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	0	A	No	
name	BTREE	Yes	No	name	0	A	No	

## auth\_group\_permissions

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	bigint	No		
group_id	int	No		
permission_id	int	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	0	A	No	
auth_group_permissions_group_id_permission_id_0cd325b0_uniq	BTREE	Yes	No	group_id	0	A	No	
				permission_id	0	A	No	
auth_group_permission_id_84c5c92e_fk_auth_perm	BTREE	No	No	permission_id	0	A	No	

## auth\_permission

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	int	No		
name	varchar(255)	No		
content_type_id	int	No		
codename	varchar(100)	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	30	A	No	
auth_permission_content_type_id_codename_01ab375a_uniq	BTREE	Yes	No	content_type_id	8	A	No	
				codename	30	A	No	

## backend\_customuser

Column	Type	Null	Default	Comments
user_id <i>(Primary)</i>	bigint	No		
password	varchar(128)	No		
last_login	datetime(6)	Yes	NULL	
is_superuser	tinyint(1)	No		
is_active	tinyint	No		
username	varchar(150)	No		
first_name	varchar(150)	No		
last_name	varchar(150)	No		
is_staff	tinyint(1)	No		
date_joined	datetime(6)	No		
email	varchar(254)	No		
full_name	varchar(150)	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	user_id	3	A	No	
username	BTREE	Yes	No	username	3	A	No	
email	BTREE	Yes	No	email	3	A	No	

## backend\_customuser\_groups

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	bigint	No		
customuser_id	bigint	No		
group_id	int	No		

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	0	A	No	
backend_customuser_groups_customuser_id_group_id_a4f8c55e_uniq	BTREE	Yes	No	customuser_id	0	A	No	
				group_id	0	A	No	
backend_customuser_groups_group_id_5fab7100_fk_auth_group_id	BTREE	No	No	group_id	0	A	No	

## backend\_customuser\_user\_permissions

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	bigint	No		
customuser_id	bigint	No		
permission_id	int	No		

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	0	A	No	
backend_customuser_user_customuser_id_permission_ca2b53b6_uniq	BTREE	Yes	No	customuser_id	0	A	No	
				permission_id	0	A	No	
backend_customuser_u_permission_id_9e1b6f57_fk_auth_perm	BTREE	No	No	permission_id	0	A	No	

## chapter5

Column	Type	Null	Default	Comments
doc_id <i>(Primary)</i>	bigint	No		
user_id	bigint	No		
intro_th	longtext	Yes	NULL	
sections_json	json	No		
created_at	timestamp	Yes	CURRENT_TIMESTAMP	
updated_at	timestamp	Yes	CURRENT_TIMESTAMP	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	doc_id	0	A	No	
fk_user_ct5	BTREE	No	No	user_id	0	A	No	

## django\_admin\_log

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	int	No		
action_time	datetime(6)	No		
object_id	longtext	Yes	NULL	
object_repr	varchar(200)	No		
action_flag	smallint	No		
change_message	longtext	No		
content_type_id	int	Yes	NULL	

Column	Type	Null	Default	Comments
user_id	bigint	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	0	A	No	
django_admin_log_content_type_id_c4bce8eb_fk_django_co	BTREE	No	No	content_type_id	0	A	Yes	
django_admin_log_user_id_c564eba6_fk_backend_customuser_id	BTREE	No	No	user_id	0	A	No	

## django\_content\_type

Column	Type	Null	Default	Comments
id ( <i>Primary</i> )	int	No		
app_label	varchar(100)	No		
model	varchar(100)	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	8	A	No	
django_content_type_app_label_model_76bd3d3b_uniq	BTREE	Yes	No	app_label	5	A	No	
				model	8	A	No	

## django\_migrations

Column	Type	Null	Default	Comments
id ( <i>Primary</i> )	bigint	No		
app	varchar(255)	No		
name	varchar(255)	No		
applied	datetime(6)	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	19	A	No	

## django\_session

Column	Type	Null	Default	Comments
session_key ( <i>Primary</i> )	varchar(40)	No		
session_data	longtext	No		
expire_date	datetime(6)	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	session_key	9	A	No	
django_session_expire_date_a5c62663	BTREE	No	No	expire_date	9	A	No	

## doc\_abstract

Column	Type	Null	Default	Comments
doc_id ( <i>Primary</i> )	int	No		
user_id	bigint	No		
total_pages	int	No		
keyword_th	varchar(200)	No		
keyword_en	varchar(200)	No		
abstract_th_json	json	No		
abstract_en_json	json	Yes	NULL	
acknow_json	json	Yes	NULL	กิตติกรรมประกาศ

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	doc_id	1	A	No	
uq_abs_doc	BTREE	Yes	No	doc_id	1	A	No	
fk_abs_user	BTREE	No	No	user_id	1	A	No	

doc\_chapter\_1

Table comments: ข้อมูลบทที่ 1 ในรูปแบบ JSON (ใช้โครงสร้างเดียวกับบทที่ 5)

Column	Type	Null	Default	Comments
doc_id (Primary)	int	No		PK: รหัสรายการ (อัตโนมัติ)
user_id	bigint	No		
intro_body	longtext	Yes	NULL	บทนำ (ข้อความอิสระ)
sections_json	json	Yes	NULL	ข้อมูลหัวข้อทั้งหมดในรูปแบบ JSON array [{title, body, points:[{main, subs:[]}]}]
created_at	datetime	Yes	CURRENT_TIMESTAMP	เวลาสร้างข้อมูล
updated_at	datetime	Yes	CURRENT_TIMESTAMP	เวลาอัปเดตข้อมูลล่าสุด

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	doc_id	1	A	No	
use_chap1	BTREE	No	No	user_id	1	A	No	

doc\_chapter\_2

Table comments: ข้อมูลบทที่ 1 ในรูปแบบ JSON (ใช้โครงสร้างเดียวกับบทที่ 5)

Column	Type	Null	Default	Comments
doc_id (Primary)	int	No		PK: รหัสรายการ (อัตโนมัติ)
user_id	bigint	No		
intro_body	longtext	Yes	NULL	บทนำ (ข้อความอิสระ)
sections_json	json	Yes	NULL	ข้อมูลหัวข้อทั้งหมดในรูปแบบ JSON array [{title, body, points:[{main, subs:[]}]}]
pic_id	int	Yes	NULL	
chap_id	int	Yes	NULL	
created_at	datetime	Yes	CURRENT_TIMESTAMP	เวลาสร้างข้อมูล
updated_at	datetime	Yes	CURRENT_TIMESTAMP	เวลาอัปเดตข้อมูลล่าสุด

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	doc_id	0	A	No	
user_id_fk	BTREE	No	No	user_id	0	A	No	
pic_id_fk	BTREE	No	No	pic_id	0	A	Yes	
chapid_fk	BTREE	No	No	chap_id	0	A	Yes	

doc\_introduction

Column	Type	Null	Default	Comments
doc_id (Primary)	int	No		
name_pro_th	varchar(255)	No		
name_pro_en	varchar(255)	No		
student_name	json	Yes	NULL	
school_y_BE	int	Yes	NULL	พ.ศ
school_y_AD	int	Yes	NULL	ค.ศ
comm_dean	varchar(255)	Yes	NULL	
comm_prathan	varchar(255)	Yes	NULL	
comm_first	varchar(255)	Yes	NULL	
comm_sec	varchar(255)	Yes	NULL	
advisor_th	varchar(200)	Yes	NULL	
advisor_en	varchar(200)	Yes	NULL	

Column	Type	Null	Default	Comments
coadvisor_th	json	Yes	NULL	
coadvisor_en	json	Yes	NULL	
dep_th	varchar(255)	Yes	NULL	
dep_en	varchar(255)	Yes	NULL	
user_id	bigint	No		
created_at	timestamp	No	CURRENT_TIMESTAMP	
updated_at	timestamp	No	CURRENT_TIMESTAMP	

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	doc_id	1	A	No	
uq_intro_user	BTREE	Yes	No	user_id	1	A	No	

## doc\_ref\_book

Column	Type	Null	Default	Comments
ref_book_id ( <i>Primary</i> )	int	No		รหัสหนังสือ
book_authors_en	json	Yes	NULL	
book_authors_th	json	No		
book_title_en	varchar(255)	Yes	NULL	
book_title_th	varchar(255)	No		
book_print_count_en	int	Yes	NULL	
book_print_count_th	int	No		
book_city_print_en	varchar(255)	Yes	NULL	
book_city_print_th	varchar(255)	No		
book_publisher_en	varchar(255)	Yes	NULL	
book_publisher_th	varchar(255)	No		
book_y_print_en	int	Yes	NULL	
book_y_print_th	int	No		
user_id	bigint	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	ref_book_id	0	A	No	
userid_refbook	BTREE	No	No	user_id	0	A	No	

## doc\_ref\_web

Column	Type	Null	Default	Comments
ref_web_id ( <i>Primary</i> )	int	No		
ref_no	varchar(10)	No		
ref_web_authors_th	json	No		
ref_web_authors_en	json	No		
ref_web_title_th	varchar(255)	No		
ref_web_title_en	varchar(255)	No		
ref_url	varchar(255)	No		
ref_date_access	date	No		
user_id	bigint	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	ref_web_id	1	A	No	
user_id_ref_web	BTREE	No	No	user_id	1	A	No	

## sp\_project

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	int	No		
name_pro_th	varchar(255)	Yes	NULL	
name_pro_en	varchar(255)	Yes	NULL	
case_stu	varchar(100)	Yes	NULL	
term	varchar(50)	Yes	NULL	
school_y	varchar(10)	Yes	NULL	
adviser	varchar(255)	Yes	NULL	
co_advisor	varchar(255)	Yes	NULL	
strategic	longtext	Yes	NULL	
plan	longtext	Yes	NULL	
key_result	longtext	Yes	NULL	
bg_and_sig_para1	longtext	No		
bg_and_sig_para2	longtext	No		
bg_and_sig_para3	longtext	No		
purpose_1	varchar(255)	No		
purpose_2	varchar(255)	No		
purpose_3	varchar(255)	No		
scope_json	json	No		
user_id	bigint	Yes	NULL	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	2	A	No	
user_id	BTREE	No	No	user_id	2	A	Yes	

## sp\_project\_author

Column	Type	Null	Default	Comments
id <i>(Primary)</i>	bigint	No		
name	varchar(100)	No		
userid	bigint	No		
sp_id	int	No		

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	4	A	No	
userid	BTREE	No	No	userid	2	A	No	
sp_id	BTREE	No	No	sp_id	2	A	No	

## tb\_chap

Column	Type	Null	Default	Comments
chap_id <i>(Primary)</i>	int	No		
chap_name	varchar(100)	No		
chap_no	int	No		เลขบท

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	chap_id	5	A	No	

## tb\_picture

Column	Type	Null	Default	Comments
pic_id <i>(Primary)</i>	int	No		
pic_data_json	json	No		เก็บข้อมูล pic_name pic_path pic_no
user_id	bigint	No		
chap_id	int	No		id เลขบทที่

**Indexes**

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	pic_id	0	A	No	
chap_id_fk	BTREE	No	No	chap_id	0	A	No	
userid_fk	BTREE	No	No	user_id	0	A	No	