

accesslog

Column	Type	Null	Default	Comments
log_id (Primary)	int	No		
user_id	int	Yes	NULL	
action	varchar(100)	No		
session_id	varchar(255)	Yes	NULL	
ip_address	varchar(45)	Yes	NULL	
user_agent	text	Yes	NULL	
resource_type	enum('material', 'research', 'reference')	Yes	NULL	
timestamp	datetime	Yes	CURRENT_TIMESTAMP	

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	log_id	0	A	No	
idx_user_timestamp	BTREE	No	No	user_id	0	A	Yes	
				timestamp	0	A	Yes	
idx_action	BTREE	No	No	action	0	A	No	

approval\_requests

Column	Type	Null	Default	Comments
request_id (Primary)	int	No		
request_type	enum('material', 'research', 'reference', 'user_registration')	No		
resource_id	int	No		
submitted_by	int	No		
status	enum('pending', 'approved', 'rejected', 'under_review')	Yes	pending	
reviewed_by	int	Yes	NULL	
review_comments	text	Yes	NULL	
submitted_at	datetime	Yes	CURRENT_TIMESTAMP	
reviewed_at	datetime	Yes	NULL	
priority	enum('low', 'medium', 'high')	Yes	medium	

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	request_id	0	A	No	
submitted_by	BTREE	No	No	submitted_by	0	A	No	
reviewed_by	BTREE	No	No	reviewed_by	0	A	Yes	
idx_status	BTREE	No	No	status	0	A	Yes	
idx_type	BTREE	No	No	request_type	0	A	No	
idx_submitted_at	BTREE	No	No	submitted_at	0	A	Yes	

## approved\_materials\_view

Table comments: *VIEW*

Column	Type	Null	Default	Comments
material_id	int	No	0	
title	varchar(255)	No		
description	text	Yes	<i>NULL</i>	
file_path	varchar(255)	No		
uploaded_by	int	No		
course_id	int	Yes	<i>NULL</i>	
file_size	bigint	Yes	<i>NULL</i>	
status	enum('pending', 'approved', 'rejected')	Yes	pending	
approved_by	int	Yes	<i>NULL</i>	
approved_at	datetime	Yes	<i>NULL</i>	
rejection_reason	text	Yes	<i>NULL</i>	
download_count	int	Yes	0	
is_featured	tinyint(1)	Yes	0	
is_active	tinyint(1)	Yes	1	
upload_date	datetime	Yes	CURRENT_TIMESTAMP	
uploaded_by_name	varchar(100)	Yes	<i>NULL</i>	
course_name	varchar(255)	Yes	<i>NULL</i>	
program_name	varchar(100)	Yes	<i>NULL</i>	
department_name	varchar(100)	Yes	<i>NULL</i>	

No index defined!

## approved\_references\_view

Table comments: *VIEW*

Column	Type	Null	Default	Comments
reference_id	int	No	0	
title	varchar(255)	No		
authors	text	Yes	<i>NULL</i>	
publisher	varchar(255)	Yes	<i>NULL</i>	
publication_year	int	Yes	<i>NULL</i>	
isbn_isbn	varchar(50)	Yes	<i>NULL</i>	
file_path	varchar(255)	No		
file_size	bigint	Yes	<i>NULL</i>	
reference_type	enum('Book', 'Journal', 'Article', 'Manual', 'Guide')	No		
uploaded_by	int	No		
status	enum('pending', 'approved', 'rejected')	Yes	pending	
approved_by	int	Yes	<i>NULL</i>	
approved_at	datetime	Yes	<i>NULL</i>	

Column	Type	Null	Default	Comments
rejection_reason	text	Yes	NULL	
upload_date	datetime	Yes	CURRENT_TIMESTAMP	
download_count	int	Yes	0	
is_featured	tinyint(1)	Yes	0	
is_active	tinyint(1)	Yes	1	
uploaded_by_name	varchar(100)	Yes	NULL	

No index defined!

## approved\_research\_view

Table comments: *VIEW*

Column	Type	Null	Default	Comments
research_id	int	No	0	
title	varchar(255)	No		
abstract	text	Yes	NULL	
authors	text	No		
file_path	varchar(255)	No		
file_size	bigint	Yes	NULL	
submitted_by	int	No		
program_id	int	Yes	NULL	
research_type	enum('Thesis', 'Dissertation', 'Capstone', 'Research Paper')	No		
keywords	text	Yes	NULL	
year_published	int	Yes	NULL	
status	enum('pending', 'approved', 'rejected', 'under_review')	Yes	pending	
approved_by	int	Yes	NULL	
approved_at	datetime	Yes	NULL	
rejection_reason	text	Yes	NULL	
submission_date	datetime	Yes	CURRENT_TIMESTAMP	
download_count	int	Yes	0	
is_featured	tinyint(1)	Yes	0	
is_active	tinyint(1)	Yes	1	
submitted_by_name	varchar(100)	Yes	NULL	
program_name	varchar(100)	Yes	NULL	
department_name	varchar(100)	Yes	NULL	

No index defined!

## categories

Column	Type	Null	Default	Comments
category_id ( <i>Primary</i> )	int	No		
name	varchar(100)	No		
parent_id	int	Yes	NULL	

Column	Type	Null	Default	Comments
description	text	Yes	<i>NULL</i>	
created_by	int	Yes	<i>NULL</i>	
created_at	datetime	Yes	CURRENT_TIMESTAMP	
is_active	tinyint(1)	Yes	1	

## Indexes

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

## courses

Column	Type	Null	Default	Comments
course_id ( <i>Primary</i> )	int	No		
course_code	varchar(20)	No		
course_name	varchar(255)	No		
description	text	Yes	<i>NULL</i>	
program_id	int	Yes	<i>NULL</i>	
year_level	int	Yes	<i>NULL</i>	
semester	int	Yes	<i>NULL</i>	
units	int	Yes	3	
created_by	int	Yes	<i>NULL</i>	
created_at	datetime	Yes	CURRENT_TIMESTAMP	
is_active	tinyint(1)	Yes	1	

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	course_id	0	A	No	
course_code	BTREE	Yes	No	course_code	0	A	No	
program_id	BTREE	No	No	program_id	0	A	Yes	
created_by	BTREE	No	No	created_by	0	A	Yes	

## departments

Column	Type	Null	Default	Comments
department_id ( <i>Primary</i> )	int	No		
department_name	varchar(100)	No		
department_code	varchar(10)	No		
description	text	Yes	<i>NULL</i>	
created_by	int	Yes	<i>NULL</i>	
created_at	datetime	Yes	CURRENT_TIMESTAMP	
is_active	tinyint(1)	Yes	1	

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	department_id	0	A	No	
department_code	BTREE	Yes	No	department_code	0	A	No	
created_by	BTREE	No	No	created_by	0	A	Yes	

downloads

Column	Type	Null	Default	Comments
download_id (Primary)	int	No		
user_id	int	No		
resource_type	enum('material', 'research', 'reference')	No		
resource_id	int	No		
download_date	datetime	Yes	CURRENT_TIMESTAMP	
ip_address	varchar(45)	Yes	NULL	

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	download_id	0	A	No	
idx_user_downloads	BTREE	No	No	user_id	0	A	No	
				download_date	0	A	Yes	
idx_resource	BTREE	No	No	resource_type	0	A	No	
				resource_id	0	A	No	

favorites

Column	Type	Null	Default	Comments
favorite_id (Primary)	int	No		
user_id	int	No		
resource_type	enum('material', 'research', 'reference')	No		
resource_id	int	No		
added_date	datetime	Yes	CURRENT_TIMESTAMP	

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	favorite_id	0	A	No	
unique_favorite	BTREE	Yes	No	user_id	0	A	No	
				resource_type	0	A	No	
				resource_id	0	A	No	
idx_user_favorites	BTREE	No	No	user_id	0	A	No	
				resource_type	0	A	No	

featured\_content

Column	Type	Null	Default	Comments
featured_id ( <i>Primary</i> )	int	No		
resource_type	enum('material', 'research', 'reference')	No		
resource_id	int	No		
featured_by	int	No		
featured_at	datetime	Yes	CURRENT_TIMESTAMP	
display_order	int	Yes	0	
is_active	tinyint(1)	Yes	1	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	featured_id	0	A	No	
featured_by	BTREE	No	No	featured_by	0	A	No	
idx_display_order	BTREE	No	No	display_order	0	A	Yes	
				is_active	0	A	Yes	

## materials

Column	Type	Null	Default	Comments
material_id ( <i>Primary</i> )	int	No		
title	varchar(255)	No		
description	text	Yes	NULL	
file_path	varchar(255)	No		
uploaded_by	int	No		
course_id	int	Yes	NULL	
file_size	bigint	Yes	NULL	
status	enum('pending', 'approved', 'rejected')	Yes	pending	
approved_by	int	Yes	NULL	
approved_at	datetime	Yes	NULL	
rejection_reason	text	Yes	NULL	
download_count	int	Yes	0	
is_featured	tinyint(1)	Yes	0	
is_active	tinyint(1)	Yes	1	
upload_date	datetime	Yes	CURRENT_TIMESTAMP	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	material_id	0	A	No	
uploaded_by	BTREE	No	No	uploaded_by	0	A	No	
course_id	BTREE	No	No	course_id	0	A	Yes	
approved_by	BTREE	No	No	approved_by	0	A	Yes	
idx_materials_status	BTREE	No	No	status	0	A	Yes	
				is_active	0	A	Yes	
idx_materials_featured	BTREE	No	No	is_featured	0	A	Yes	
				status	0	A	Yes	

## material\_categories

Column	Type	Null	Default	Comments
material_id ( <i>Primary</i> )	int	No		
category_id ( <i>Primary</i> )	int	No		

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	material_id	0	A	No	
				category_id	0	A	No	
category_id	BTREE	No	No	category_id	0	A	No	

## material\_tags

Column	Type	Null	Default	Comments
material_id ( <i>Primary</i> )	int	No		
tag_id ( <i>Primary</i> )	int	No		

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	material_id	0	A	No	
				tag_id	0	A	No	
tag_id	BTREE	No	No	tag_id	0	A	No	

## notifications

Column	Type	Null	Default	Comments
notification_id ( <i>Primary</i> )	int	No		
user_id	int	No		
title	varchar(255)	No		
message	text	No		
type	enum('approval', 'rejection', 'info', 'warning', 'system')	No		
is_read	tinyint(1)	Yes	0	
created_at	datetime	Yes	CURRENT_TIMESTAMP	
expires_at	datetime	Yes	NULL	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	notification_id	0	A	No	
idx_user_unread	BTREE	No	No	user_id	0	A	No	
				is_read	0	A	Yes	
idx_created_at	BTREE	No	No	created_at	0	A	Yes	

## pending\_approvals\_view

Table comments: *VIEW*

Column	Type	Null	Default	Comments
type	varchar(9)	No		
id	int	No	0	
title	varchar(255)	No		
submitted_date	datetime	Yes	<i>NULL</i>	
submitted_by	int	No	0	
submitted_by_name	varchar(100)	No		

No index defined!

## programs

Column	Type	Null	Default	Comments
program_id ( <i>Primary</i> )	int	No		
program_name	varchar(100)	No		
program_code	varchar(10)	No		
department_id	int	Yes	<i>NULL</i>	
degree_type	enum('Bachelor', 'Master', 'Doctorate', 'Certificate')	No		
created_by	int	Yes	<i>NULL</i>	
created_at	datetime	Yes	CURRENT_TIMESTAMP	
is_active	tinyint(1)	Yes	1	

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	program_id	0	A	No	
program_code	BTREE	Yes	No	program_code	0	A	No	
department_id	BTREE	No	No	department_id	0	A	Yes	
created_by	BTREE	No	No	created_by	0	A	Yes	

## references

Column	Type	Null	Default	Comments
reference_id ( <i>Primary</i> )	int	No		
title	varchar(255)	No		
authors	text	Yes	<i>NULL</i>	
publisher	varchar(255)	Yes	<i>NULL</i>	
publication_year	int	Yes	<i>NULL</i>	
isbn_issn	varchar(50)	Yes	<i>NULL</i>	
file_path	varchar(255)	No		
file_size	bigint	Yes	<i>NULL</i>	
reference_type	enum('Book', 'Journal', 'Article', 'Manual', 'Guide')	No		



Column	Type	Null	Default	Comments
uploaded_by	int	No		
status	enum('pending', 'approved', 'rejected')	Yes	pending	
approved_by	int	Yes	NULL	
approved_at	datetime	Yes	NULL	
rejection_reason	text	Yes	NULL	
upload_date	datetime	Yes	CURRENT_TIMESTAMP	
download_count	int	Yes	0	
is_featured	tinyint(1)	Yes	0	
is_active	tinyint(1)	Yes	1	

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	reference_id	0	A	No	
uploaded_by	BTREE	No	No	uploaded_by	0	A	No	
approved_by	BTREE	No	No	approved_by	0	A	Yes	
idx_references_status	BTREE	No	No	status	0	A	Yes	
				is_active	0	A	Yes	

## reference\_categories

Column	Type	Null	Default	Comments
reference_id ( <i>Primary</i> )	int	No		
category_id ( <i>Primary</i> )	int	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	reference_id	0	A	No	
				category_id	0	A	No	
category_id	BTREE	No	No	category_id	0	A	No	

## research\_categories

Column	Type	Null	Default	Comments
research_id ( <i>Primary</i> )	int	No		
category_id ( <i>Primary</i> )	int	No		

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	research_id	0	A	No	
				category_id	0	A	No	
category_id	BTREE	No	No	category_id	0	A	No	

## research\_papers

Column	Type	Null	Default	Comments
research_id (Primary)	int	No		
title	varchar(255)	No		
abstract	text	Yes	NULL	
authors	text	No		
file_path	varchar(255)	No		
file_size	bigint	Yes	NULL	
submitted_by	int	No		
program_id	int	Yes	NULL	
research_type	enum('Thesis', 'Dissertation', 'Capstone', 'Research Paper')	No		
keywords	text	Yes	NULL	
year_published	int	Yes	NULL	
status	enum('pending', 'approved', 'rejected', 'under_review')	Yes	pending	
approved_by	int	Yes	NULL	
approved_at	datetime	Yes	NULL	
rejection_reason	text	Yes	NULL	
submission_date	datetime	Yes	CURRENT_TIMESTAMP	
download_count	int	Yes	0	
is_featured	tinyint(1)	Yes	0	
is_active	tinyint(1)	Yes	1	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	research_id	0	A	No	
submitted_by	BTREE	No	No	submitted_by	0	A	No	
program_id	BTREE	No	No	program_id	0	A	Yes	
approved_by	BTREE	No	No	approved_by	0	A	Yes	
idx_research_status	BTREE	No	No	status	0	A	Yes	
				is_active	0	A	Yes	
idx_research_featured	BTREE	No	No	is_featured	0	A	Yes	
				status	0	A	Yes	

## system\_settings

Column	Type	Null	Default	Comments
setting_id (Primary)	int	No		
setting_key	varchar(100)	No		
setting_value	text	Yes	NULL	
description	text	Yes	NULL	
updated_at	datetime	Yes	CURRENT_TIMESTAMP	
updated_by	int	Yes	NULL	

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	setting_id	10	A	No	

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
setting_key	BTREE	Yes	No	setting_key	10	A	No	
updated_by	BTREE	No	No	updated_by	1	A	Yes	

## tags

Column	Type	Null	Default	Comments
tag_id ( <i>Primary</i> )	int	No		
name	varchar(50)	No		
created_at	datetime	Yes	CURRENT_TIMESTAMP	

## Indexes

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

## users

Column	Type	Null	Default	Comments
user_id ( <i>Primary</i> )	int	No		
name	varchar(100)	No		
email	varchar(100)	No		
password	varchar(255)	No		
role	enum('Student', 'Instructor', 'Dean')	No		
department	varchar(100)	Yes	NULL	
program_id	int	Yes	NULL	
year_level	int	Yes	NULL	
student_id_number	varchar(20)	Yes	NULL	
email_verified	tinyint(1)	Yes	0	
is_approved	tinyint(1)	Yes	0	
approved_by	int	Yes	NULL	
approved_at	datetime	Yes	NULL	
is_active	tinyint(1)	Yes	1	
created_at	datetime	Yes	CURRENT_TIMESTAMP	
updated_at	datetime	Yes	CURRENT_TIMESTAMP	

## Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	user_id	0	A	No	
email	BTREE	Yes	No	email	0	A	No	
idx_users_role_active	BTREE	No	No	role	0	A	No	
				is_active	0	A	Yes	
				is_approved	0	A	Yes	
fk_users_program	BTREE	No	No	program_id	0	A	Yes	
fk_users_approved_by	BTREE	No	No	approved_by	0	A	Yes	