

Modelo Entidade Relacionamento Lógico (DER) - SIGEPOLI

Este modelo lógico representa a estrutura do banco de dados SIGEPOLI, detalhando as tabelas, colunas, tipos de dados, chaves primárias (PKs), chaves estrangeiras (FKs) e relacionamentos, conforme implementado nos scripts SQL fornecidos.

Convenções:

PK: Chave Primária

FK: Chave Estrangeira

UQ: Chave Única

NN: Não Nulo

DEFAULT: Valor Padrão

Tabelas e Seus Atributos:

1. users

id (INT, PK, AUTO_INCREMENT)
first_name (VARCHAR(50), NN)
last_name (VARCHAR(50), NN)
email (VARCHAR(100), NN, UQ)
password (VARCHAR(255), NN)
phone (VARCHAR(20))
address (TEXT)
date_of_birth (DATE)
status (ENUM, NN, DEFAULT 'active')
gender (ENUM, DEFAULT NULL)
profile_picture (TEXT)
is_verified (BOOLEAN, DEFAULT FALSE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

2. user_roles

id (INT, PK, AUTO_INCREMENT)
code (VARCHAR(20), NN, UQ)
name (VARCHAR(50), NN)
description (TEXT)
permissions (JSON)
hierarchy_level (INT, DEFAULT 0)
is_active (BOOLEAN, DEFAULT TRUE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

3. user_role_assignments

id (INT, PK, AUTO_INCREMENT)
user_id (INT, NN, FK to users.id)
role_id (INT, NN, FK to user_roles.id)
assigned_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
assigned_by (INT, FK to users.id)
is_active (BOOLEAN, DEFAULT TRUE)
expires_at (TIMESTAMP)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)

4. user_identification

user_id (INT, PK, FK to users.id)
document_type (ENUM, NN)
document_number (VARCHAR(20), NN, UQ)
issue_date (DATE)
expiration_date (DATE)
nationality (VARCHAR(50))
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

5. user_health

user_id (INT, PK, FK to users.id)
conditions (TEXT)
medications (TEXT)
allergies (TEXT)
need_assessability (BOOLEAN, DEFAULT FALSE)
emergency_contact_name (VARCHAR(100))
emergency_contact_relationship (ENUM, NN)
emergency_contact_phone (VARCHAR(20))
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

6. departments

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(100), NN, UQ)
acronym (VARCHAR(10), NN, UQ)
description (TEXT)
head_staff_id (INT, FK to staff.user_id)
status (ENUM, NN, DEFAULT 'active')
classification (ENUM, NN, DEFAULT 'academic')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

7. department_budgets

id (INT, PK, AUTO_INCREMENT)
department_id (INT, NN, FK to departments.id)
fiscal_year (INT, NN)
budget_amount (DECIMAL(15, 2), NN)
spent_amount (DECIMAL(15, 2), DEFAULT 0.00)
remaining_amount (DECIMAL(15, 2), DEFAULT 0.00)
on_account (BOOLEAN, DEFAULT FALSE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

8. staff

user_id (INT, PK, FK to users.id)
staff_number (VARCHAR(50), NN, UQ)
hire_date (DATE, NN, DEFAULT CURRENT_DATE())
employment_type (ENUM, DEFAULT 'full_time')
employment_status (ENUM, DEFAULT 'active')

department_id (INT, FK to departments.id)
staff_category (ENUM, NN)
office_location (VARCHAR(100))
status (ENUM, NN, DEFAULT 'active')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

9. academic_qualifications

id (INT, PK, AUTO_INCREMENT)
user_id (INT, NN, FK to users.id)
title (VARCHAR(100), NN)
field_of_study (VARCHAR(100))
qualification_type (ENUM, NN, DEFAULT 'other')
institution (VARCHAR(100), NN)
completion_date (DATE)
document_url (TEXT)
is_verified (BOOLEAN, DEFAULT FALSE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

10. positions

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(100), NN, UQ)
description (TEXT)
amount (DECIMAL(10, 2), NN, DEFAULT 0.00)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

11. staff_positions

id (INT, PK, AUTO_INCREMENT)
user_id (INT, NN, FK to staff.user_id)
position_id (INT, NN, FK to positions.id)
description (TEXT)
start_date (DATE, NN, DEFAULT CURRENT_DATE())
end_date (DATE)
status (ENUM, NN, DEFAULT 'active')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

12. staff_leaves

id (INT, PK, AUTO_INCREMENT)
staff_id (INT, NN, FK to staff.user_id)
leave_type (ENUM, NN)
reason (TEXT)
required_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
start_date (DATE, NN)
end_date (DATE, NN)
status (ENUM, NN, DEFAULT 'pending')
replacement_staff_id (INT, FK to staff.user_id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)

updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

13. evaluation

id (INT, PK, AUTO_INCREMENT)
initiator_staff_id (INT, NN, FK to staff.user_id)
title (VARCHAR(100), NN)
description (TEXT)
type_of_evaluated (ENUM, NN)
type_of_evaluator (ENUM, NN)
evaluation_type (ENUM, NN)
criteria (JSON)
evaluation_date_start (DATE, NN)
evaluation_date_end (DATE, NN)
status_evaluation (ENUM, DEFAULT 'started')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

14. staff_evaluation

id (INT, PK, AUTO_INCREMENT)
evaluation_id (INT, NN, FK to evaluation.id)
staff_id (INT, NN, FK to staff.user_id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

15. course_evaluation

id (INT, PK, AUTO_INCREMENT)
evaluation_id (INT, NN, FK to evaluation.id)
course_id (INT, NN, FK to courses.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

16. performance

id (INT, PK, AUTO_INCREMENT)
evaluation_id (INT, NN, FK to evaluation.id)
evaluator_id (INT, NN, FK to users.id)
evaluation_date (DATE, NN)
criteria_scores (JSON)
feedback (TEXT)
status (ENUM, DEFAULT 'draft')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

17. course_access

id (INT, PK, AUTO_INCREMENT)
user_id (INT, NN, FK to users.id)
course_availability_id (INT, NN, FK to course_availability.id)
exam_score (DECIMAL(5, 2))
status (ENUM, NN, DEFAULT 'pending')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)

updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

18. services

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(100), NN, UQ)
description (TEXT)
service_types_id (INT, NN, FK to service_types.id)
value (DECIMAL(10, 2), NN)
department_id (INT, NN, FK to departments.id)
status (ENUM, NN, DEFAULT 'active')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

19. service_types

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(50), NN, UQ)
description (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

20. service_evaluation

id (INT, PK, AUTO_INCREMENT)
evaluation_id (INT, NN, FK to evaluation.id)
service_id (INT, NN, FK to services.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

21. payments

id (INT, PK, AUTO_INCREMENT)
amount (DECIMAL(10, 2), NN)
payment_date (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
payment_method_id (INT, NN, FK to payment_types.id)
reference_number (VARCHAR(50), UQ)
status (ENUM, NN, DEFAULT 'pending')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

22. student_payments

id (INT, PK, AUTO_INCREMENT)
payment_id (INT, NN, FK to payments.id)
service_id (INT, NN, FK to services.id)
student_id (INT, NN, FK to students.user_id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

23. company_payments

id (INT, PK, AUTO_INCREMENT)
payment_id (INT, NN, FK to payments.id)
company_id (INT, NN, FK to companies.id)
department_budgets_id (INT, NN, FK to department_budgets.id)
approved_by_staff (INT, NN, FK to users.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

24. staff_payments

id (INT, PK, AUTO_INCREMENT)
type_of_payment (ENUM, NN)
payment_id (INT, NN, FK to payments.id)
staff_id (INT, NN, FK to users.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

25. payment_types

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(50), NN, UQ)
description (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

26. fines

id (INT, PK, AUTO_INCREMENT)
payment_id (INT, NN, FK to payments.id)
fined (ENUM, NN)
amount (DECIMAL(10, 2), NN)
reason (VARCHAR(255), NN)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

27. companies

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(255), NN)
nif (VARCHAR(20), NN, UQ)
address (VARCHAR(255), NN)
phone (VARCHAR(20))
email (VARCHAR(100))
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

28. companies_departments

id (INT, PK, AUTO_INCREMENT)
company_id (INT, NN, FK to companies.id)
department_id (INT, NN, FK to departments.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

CURRENT_TIMESTAMP)

29. companies_contracts

id (INT, PK, AUTO_INCREMENT)
company_id (INT, NN, FK to companies.id)
contract_details (TEXT, NN)
started_at (DATE, NN)
ended_at (DATE)
status (ENUM, NN, DEFAULT 'active')
signed_by_staff (INT, NN, FK to users.id)
signed_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

30. companies_sla

id (INT, PK, AUTO_INCREMENT)
company_id (INT, NN, FK to companies.id)
sla_name (VARCHAR(100), NN)
description (TEXT)
sla_type (ENUM, NN)
target_percentage (DECIMAL(5, 2), NN, DEFAULT 90.00)
penalty_percentage (DECIMAL(5, 2), DEFAULT 10.00)
sla_details (TEXT, NN)
is_active (BOOLEAN, DEFAULT TRUE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

31. companies_sla_evaluation

id (INT, PK, AUTO_INCREMENT)
company_id (INT, NN, FK to companies.id)
sla_id (INT, NN, FK to companies_sla.id)
evaluation_period (DATE, NN)
achieved_percentage (DECIMAL(5, 2), NN)
penalty_applied (BOOLEAN, DEFAULT FALSE)
penalty_amount (DECIMAL(10, 2), DEFAULT 0.00)
evaluator_id (INT, NN, FK to users.id)
feedback (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

32. audit_logs

id (INT, PK, AUTO_INCREMENT)
user_id (INT, NN, FK to users.id)
table_name (VARCHAR(50), NN)
operation_type (ENUM, NN)
record_id (INT)
old_values (JSON)
new_values (JSON)
ip_address (VARCHAR(45))
user_agent (TEXT)
session_id (VARCHAR(128))

description (TEXT)
severity (ENUM, NN, DEFAULT 'LOW')
status (ENUM, NN, DEFAULT 'SUCCESS')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP) execution_time_ms (INT, DEFAULT 0)

33. library_items

id (INT, PK, AUTO_INCREMENT)
title (VARCHAR(255), NN)
isbn (VARCHAR(20))
barcode (VARCHAR(50), UQ)
item_type (ENUM, NN)
format (ENUM, NN, DEFAULT 'physical')
language (VARCHAR(10), DEFAULT 'pt')
author (VARCHAR(255))
publisher (VARCHAR(255))
publication_year (YEAR)
subject_area (VARCHAR(100))
location (VARCHAR(100))
acquisition_date (DATE)
acquisition_cost (DECIMAL(10, 2))
condition_status (ENUM, DEFAULT 'excellent')
availability_status (ENUM, DEFAULT 'available')
max_loan_days (INT, DEFAULT 15)
renewal_limit (INT, DEFAULT 2)
description (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

34. library_loans

id (INT, PK, AUTO_INCREMENT)
library_item_id (INT, NN, FK to library_items.id)
borrower_id (INT, NN, FK to users.id)
loan_date (TIMESTAMP, NN, DEFAULT CURRENT_TIMESTAMP)
due_date (TIMESTAMP, NN)
return_date (TIMESTAMP)
renewal_count (INT, DEFAULT 0)
status (ENUM, NN, DEFAULT 'active')
late_fee_amount (DECIMAL(8, 2), DEFAULT 0.00)
damage_fee_amount (DECIMAL(8, 2), DEFAULT 0.00)
notes (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

35. notifications

id (INT, PK, AUTO_INCREMENT)
user_id (INT, NN, FK to users.id)
title (VARCHAR(255), NN)
message (TEXT, NN)
notification_type (ENUM, NN, DEFAULT 'general')
status (ENUM, NN, DEFAULT 'unread')

created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

36. courses

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(100), NN, UQ)
description (TEXT)
duration_semesters (INT, NN)
department_id (INT, NN, FK to departments.id)
coordinator_staff_id (INT, NN, FK to staff.user_id)
level (ENUM, NN, DEFAULT 'graduate')
status (ENUM, NN, DEFAULT 'active')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

37. subjects

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(100), NN)
code (VARCHAR(20), NN, UQ)
description (TEXT)
workload_hours (INT, NN)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

38. course_subjects

id (INT, PK, AUTO_INCREMENT)
subject_id (INT, NN, FK to subjects.id)
course_id (INT, NN, FK to courses.id)
semester (INT, NN)
prerequisites (JSON)
syllabus (TEXT)
is_mandatory (BOOLEAN, NN, DEFAULT TRUE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

39. course_availability

id (INT, PK, AUTO_INCREMENT)
course_id (INT, NN, FK to courses.id)
academic_year (INT, NN)
student_limit (INT, NN)
prerequisites (JSON)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

40. classes

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(20), NN)
code (VARCHAR(10), NN, UQ)
course_id (INT, NN, FK to courses.id)
academic_year (INT, NN)
semester (INT, NN)

created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

41. time_slots

id (INT, PK, AUTO_INCREMENT)
day_of_week (ENUM, NN)
shift (ENUM, NN)
start_time (TIME, NN)
end_time (TIME, NN)
hours (INT, NN)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

42. class_schedules

id (INT, PK, AUTO_INCREMENT)
class_id (INT, NN, FK to classes.id)
subject_id (INT, NN, FK to subjects.id)
teacher_id (INT, NN, FK to teachers.user_id)
time_slot_ids (JSON, NN)
room_id (INT, FK to rooms.id)
status (ENUM, NN, DEFAULT 'draft')
approved_by (INT, FK to staff.user_id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

43. rooms

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(50), NN, UQ)
description (TEXT)
localization (TEXT, UQ)
capacity (INT, NN)
type_of_room (ENUM, NN, DEFAULT 'classroom')
accessibility (BOOLEAN, DEFAULT FALSE)
is_available (BOOLEAN, DEFAULT FALSE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

44. resources

id (INT, PK, AUTO_INCREMENT)
name (VARCHAR(50), NN, UQ)
description (TEXT)
responsible_department_id (INT, NN, FK to departments.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

45. room_resources

id (INT, PK, AUTO_INCREMENT)
room_id (INT, NN, FK to rooms.id)
resource_id (INT, NN, FK to resources.id)
status_resources (ENUM, NN, DEFAULT 'available')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

46. room_bookings

id (INT, PK, AUTO_INCREMENT)
room_id (INT, NN, FK to rooms.id)
department_id (INT, NN, FK to departments.id)
reason (TEXT, NN)
date (DATE, NN)
start_time (TIME, NN)
end_time (TIME, NN)
purpose (TEXT)
status (ENUM, NN, DEFAULT 'pending')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

47. students

user_id (INT, PK, FK to users.id)
student_number (VARCHAR(50), NN, UQ)
studying (BOOLEAN, DEFAULT TRUE)
searching (BOOLEAN, DEFAULT TRUE)
recommendation (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

48. student_enrollments

id (INT, PK, AUTO_INCREMENT)
student_id (INT, NN, FK to students.user_id)
course_id (INT, NN, FK to courses.id)
enrollment_date (DATE, NN, DEFAULT CURRENT_DATE())
status (ENUM, NN, DEFAULT 'active')
conclusion_date (DATE, NN, DEFAULT CURRENT_DATE())
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

49. class_enrollments

id (INT, PK, AUTO_INCREMENT)
student_id (INT, NN, FK to students.user_id)
class_schedules_id (INT, NN, FK to class_schedules.id)
enrollment_date (DATE, NN, DEFAULT CURRENT_DATE())
type_of_enrollment (ENUM, NN, DEFAULT 'regular')
status (ENUM, NN, DEFAULT 'active')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

50. teachers

staff_id (INT, PK, FK to staff.user_id)
academic_rank (ENUM, DEFAULT 'instructor')
tenure_status (ENUM, DEFAULT 'adjunct')
is_thesis_advisor (BOOLEAN, DEFAULT FALSE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

51. teacher_specializations

id (INT, PK, AUTO_INCREMENT)
teacher_id (INT, NN, FK to teachers.user_id)
qualification_id (INT, FK to academic_qualifications.id)
subject_area (VARCHAR(100), NN)
subject_id (INT, NN, FK to subjects.id)
proficiency_level (ENUM, DEFAULT 'intermediate')
is_approved (BOOLEAN, DEFAULT FALSE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

52. teacher_availability

id (INT, PK, AUTO_INCREMENT)
teacher_id (INT, NN, FK to teachers.user_id)
time_slot_ids (JSON, NN)
total_hours (INT, NN)
approved (BOOLEAN, DEFAULT FALSE)
approved_by (INT, FK to staff.user_id)
year_of_approval (INT)
semester_of_approval (INT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

53. grades

id (INT, PK, AUTO_INCREMENT)
student_id (INT, NN, FK to students.user_id)
class_schedules_id (INT, NN, FK to class_schedules.id)
assessment_type_id (INT, NN, FK to assessment_types.id)
score (DECIMAL(5, 2), NN)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

54. assessment_types

id (INT, PK, AUTO_INCREMENT)
code (VARCHAR(20), NN, UQ)
name (VARCHAR(50), NN)
description (TEXT)
weight (DECIMAL(5, 2))
is_active (BOOLEAN, DEFAULT TRUE)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

55. attendance

id (INT, PK, AUTO_INCREMENT)
student_id (INT, NN, FK to students.user_id)
classes_attended_id (INT, NN, FK to classes_attended.id)
status (ENUM, NN, DEFAULT 'present')
justification (TEXT)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

56. classes_attended

id (INT, PK, AUTO_INCREMENT)
class_id (INT, NN, FK to classes.id)
class_date (DATE, NN)
time_slot_id (INT, NN, FK to time_slots.id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

57. course_fees

id (INT, PK, AUTO_INCREMENT)
course_id (INT, NN, FK to courses.id)
type_payment (ENUM, NN, DEFAULT 'monthly_installment')
day_limit_fines (INT)
start_at (TIMESTAMP)
end_at (TIMESTAMP)
amount (DECIMAL(10, 2), NN)
grace_period_days (INT, DEFAULT 10)
fine_percentual (DECIMAL(8, 2), DEFAULT 0.00)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

58. student_fees

id (INT, PK, AUTO_INCREMENT)
student_id (INT, NN, FK to students.user_id)
course_fee_id (INT, FK to course_fees.id)
payment_id (INT, NN, FK to payments.id)
reference_month (INT, NN)
status (ENUM, NN, DEFAULT 'pending')
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

59. student_payments

id (INT, PK, AUTO_INCREMENT)
payment_id (INT, NN, FK to payments.id)
service_id (INT, NN, FK to services.id)
student_id (INT, NN, FK to students.user_id)
created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)
updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP)

60. company_payments

id (INT, PK, AUTO_INCREMENT)

payment_id (INT, NN, FK to payments.id)

company_id (INT, NN, FK to companies.id)

department_budgets_id (INT, NN, FK to department_budgets.id)

approved_by_staff (INT, NN, FK to users.id)

created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)

updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)

61. staff_payments

id (INT, PK, AUTO_INCREMENT)

type_of_payment (ENUM, NN)

payment_id (INT, NN, FK to payments.id)

staff_id (INT, NN, FK to users.id)

created_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP)

updated_at (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP)