users

PK	id SERIAL
	username VARCHAR(50) UNIQUE NOT NULL
	password VARCHAR(255) NOT NULL
	first_name VARCHAR(50) NOT NULL
	last_name VARCHAR(50) NOT NULL
	email VARCHAR(100) UNIQUE NOT NULL
	phone VARCHAR(20)
	address TEXT
	last_login TIMESTAMP
	is_active BOOLEAN DEFAULT true
	fingerprint VARCHAR(255)
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

students

PK	student_id SERIAL
	user_id INTEGER REFERENCES users(id) ON DELE
	grade VARCHAR(10) NOT NULL
	section VARCHAR(5) NOT NULL
	enrollment_date DATE NOT NULL
	parent_name VARCHAR(100) NOT NULL
	parent_contact VARCHAR(20) NOT NULL
	gpa DECIMAL(3,2)
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

teachers

PK	teacher_id SERIAL
	user_id INTEGER REFERENCES users(id) ON DEL
	department VARCHAR(50) NOT NULL
	subjects TEXT[], -- Array of subjects
	joining_date DATE NOT NULL
	qualification TEXT NOT NULL
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

principals

PK	school_id SERIAL
	user_id INTEGER REFERENCES users(id) ON DELE
	appointment_date DATE NOT NULL
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

admins

PK	admin_id SERIAL
	user_id INTEGER REFERENCES users(id) ON DELE
	access_level VARCHAR(20) NOT NULL
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

assessments

PK	id SERIAL
	title VARCHAR(100) NOT NULL
	description TEXT
	due_date TIMESTAMP NOT NULL
	total_marks INTEGER NOT NULL
	subject VARCHAR(50) NOT NULL
	assigned_to INTEGER REFERENCES students(stud
	created_by INTEGER REFERENCES teachers(teach
	created_at TIMESTAMP DEFAULT CURRENT_TIME

section_heads

PK	teacher_id INTEGER REFERENCES teachers(teac
PK	section_id SERIAL

department VARCHAR(50) NOT NULL
created_at TIMESTAMP DEFAULT CURRENT_TIME
updated_at TIMESTAMP DEFAULT CURRENT_TIME

created_at TIMESTAMP DEFAULT CURRENT_TIME
updated_at TIMESTAMP DEFAULT CURRENT_TIME

exam_results

PK	student_id INTEGER REFERENCES students(stud
PK	id SERIAL
	exam_id INTEGER REFERENCES exams(id) ON DE
	marks DECIMAL(5,2) NOT NULL
	grade VARCHAR(2)
	remarks TEXT
	date DATE NOT NULL
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

timetables

PK	id SERIAL
	grade VARCHAR(10) NOT NULL
	section VARCHAR(5) NOT NULL
	schedule JSONB NOT NULL, -- Storing schedule as
	valid_from DATE NOT NULL
	valid_to DATE NOT NULL
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

sessions

PK	teacher_id INTEGER REFERENCES teachers(teac
PK	id SERIAL
	subject VARCHAR(50) NOT NULL
	start_time TIME NOT NULL
	end_time TIME NOT NULL
	day VARCHAR(10) NOT NULL
	timetable_id INTEGER REFERENCES timetables(id)
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

exams

PK	id SERIAL
	name VARCHAR(100) NOT NULL
	subject VARCHAR(50) NOT NULL
	date DATE NOT NULL
	duration INTEGER NOT NULL, -- Duration in minutes
	total_marks INTEGER NOT NULL
	created_by INTEGER REFERENCES teachers(teach
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

student_records

PK	student_id INTEGER REFERENCES students(stud
	current_grade VARCHAR(10) NOT NULL
	academic_year VARCHAR(9) NOT NULL
	subjects JSONB NOT NULL, -- Storing subjects and
	attendance JSONB NOT NULL, -- Storing attendance
	achievements TEXT[]
	created_at TIMESTAMP DEFAULT CURRENT_TIME
	updated_at TIMESTAMP DEFAULT CURRENT_TIME

logs

PK	id SERIAL
	action VARCHAR(50) NOT NULL
	timestamp TIMESTAMP DEFAULT CURRENT_TIME
	user_id INTEGER REFERENCES users(id)
	details JSONB NOT NULL

reports

PK	id SERIAL
	type VARCHAR(50) NOT NULL

date DATE NOT NULL

generated_by INTEGER REFERENCES users(id)

content TEXT NOT NULL

created_at TIMESTAMP DEFAULT CURRENT_TIME

updated_at TIMESTAMP DEFAULT CURRENT_TIME