

CLASSROOM

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
classroom_id	Classroom	Surrogate key for a homeroom/class section	INT	-	-	No	AUTO	Low	PK
year	Classroom	Academic year the section runs	YEAR	4	-	No	-	Low	
grade_id	Classroom	Grade level assigned to the section	INT	-	-	No	-	Low	FK → grade.grade_id
section	Classroom	Alphabetic section code	CHAR	2	'A'..'Z'	Yes	-	Low	
status	Classroom	1=active, 0=archived	BOOLEAN	-	0/1	No	1	Low	
remarks	Classroom	Administrative notes	VARCHAR	45	-	Yes	-	Low	
teacher_id	Classroom	Lead teacher for the section	INT	-	-	Yes	-	Low	

GRADE

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
grade_id	Grade	Unique grade-level identifier	INT	-	-	No	AUTO	Low	PK
name	Grade	Display label (e.g., "Grade 10")	VARCHAR	45	-	No	-	Low	
desc	Grade	Optional description text	VARCHAR	45	-	Yes	-	Low	

COURSE

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
course_id	Course	Surrogate key for a subject	INT	-	-	No	AUTO	Low	PK
name	Course	Course title	VARCHAR	45	-	No	-	Low	
description	Course	Short catalog blurb	VARCHAR	45	-	Yes	-	Low	
grade_id	Course	Suggested grade level	INT	-	-	Yes	-	Low	FK→grade.grade_id

STUDENT

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
student_id	Student	Learner identifier	INT	-	-	No	AUTO	Med	PK
email	Student	Unique login email	VARCHAR	45	-	No	-	Med	
password	Student	Hashed password	VARCHAR	45	-	No	-	High	Store salted hash
f_name	Student	First name	VARCHAR	45	-	No	-	Med	
l_name	Student	Last name	VARCHAR	45	-	No	-	Med	
dob	Student	Date of birth	DATE	-	-	Yes	-	High	
phone	Student	Land-line contact	VARCHAR	15	-	Yes	-	Med	
mobile	Student	Mobile contact	VARCHAR	15	-	Yes	-	Med	
parent_id	Student	Linked guardian	INT	-	-	Yes	-	Med	FK → parent.parent_id
date_of_join	Student	Enrollment Date	DATE	-	-	Yes	CURDATE	Low	
status	Student	1 = active enrollee	BOOLEAN	-	0/1	No	1	Low	
last_login_date	Student	Last login timestamp	DATE	-	-	Yes	-	Med	
last_login_ip	Student	IP of last login	VARCHAR	45	-	Yes	-	Med	

PARENT

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
parent_id	Parent	Guardian identifier	INT	-	-	No	AUTO	Med	PK
email	Parent	Login email	VARCHAR	45	-	No	-	Med	
password	Parent	Hashed password	VARCHAR	45	-	No	-	High	
f_name	Parent	First name	VARCHAR	45	-	No	-	Med	
l_name	Parent	Last name	VARCHAR	45	-	No	-	Med	
dob	Parent	Date of birth	DATE	-	-	Yes	-	High	
phone	Parent	Land-line	VARCHAR	15	-	Yes	-	Med	
mobile	Parent	Mobile	VARCHAR	15	-	Yes	-	Med	
status	Parent	Active flag	BOOLEAN	-	0/1	No	1	Low	
last_login_date	Parent	Last login	DATE	-	-	Yes	-	Med	
last_login_ip	Parent	IP address	VARCHAR	45	-	Yes	-	Med	

TEACHER

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
teacher_id	Teacher	Instructor identifier	VARCHAR	45	-	Yes	-	Med	
email	Teacher	Login email	VARCHAR	45	-	No	-	Med	
password	Teacher	Hashed password	VARCHAR	45	-	No	-	High	
f_name	Teacher	First name	VARCHAR	45	-	No	-	Med	
l_name	Teacher	First name	VARCHAR	45	-	No	-	Med	
dob	Teacher	Date of birth	DATE	-	-	Yes	-	Med	
phone	Teacher	Land-line	VARCHAR	15	-	Yes	-	Med	
mobile	Teacher	Mobile	VARCHAR	15	-	Yes	-	Med	
status	Teacher	Active flag	BOOLEAN	-	0/1	No	1	Low	
last_login_date	Teacher	Last login	DATE	-	-	Yes	-	Med	
last_login_ip	Teacher	IP address	VARCHAR	45	-	Yes	-	Med	

ATTENDANCE

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
date	Attendance	Calendar date of roll-call	DATE	-	-	No	-	Low	PK (composite)
student_id	Attendance	Student whose presence is recorded	INT	-	-	No	-	Low	PK & FK → student.student_id
status	Attendance	1 = present, 0 = absent	BOOLEAN	-	0/1	No	1	Low	
remark	Attendance	Reason/notes	TEXT	-	-	Yes	-	Low	

CLASSROOM_STUDENT (junction)

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
classroom_id	Classroom_Student	Section enrolled	INT	-	-	No	-	Low	PK & FK → classroom.classroom_id
student_id	Classroom_Student	Student in that section	INT	-	-	No	-	Low	PK & FK → student.student_id

EXAM_TYPE

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
exam_type_id	Exam_Type	Category identifier	INT	-	-	No	AUTO	Low	PK
name	Exam_Type	Assessment type name	VARCHAR	45	-	No	-	Low	
desc	Exam_Type	Description of type	VARCHAR	45	-	Yes	-	Low	

EXAM

<u>Element Name</u>	<u>Entity</u>	<u>Description</u>	<u>Data Type</u>	<u>Length</u>	<u>Allowed Values</u>	<u>Nullable</u>	<u>Default</u>	<u>Security</u>	<u>Notes</u>
exam_id	Exam	Specific scheduled assessment	INT	-	-	No	AUTO	Low	PK
exam_type_id	Exam	Category reference	INT	-	-	No	-	Low	
name	Exam	Title visible to students	VARCHAR	45	-	No	-	Low	
start_date	Exam	Date/time exam opens	DATE	-	-	No	-	Low	

EXAM_RESULT

<u><i>Element Name</i></u>	<u><i>Entity</i></u>	<u><i>Description</i></u>	<u><i>Data Type</i></u>	<u><i>Length</i></u>	<u><i>Allowed Values</i></u>	<u><i>Nullable</i></u>	<u><i>Default</i></u>	<u><i>Security</i></u>	<u><i>Notes</i></u>
exam_id	Exam_Result	Exam taken	INT	-	-	No	-	High	
student_id	Exam_Result	Student who took exam	INT	-	-	No	-	High	
course_id	Exam_Result	Course context	INT	-	-	No	-	High	
marks	Exam_Result	Score or grade awarded	VARCHAR	45	-	Yes	-	High	