

Database Implementation - Graduation Project

1. Database Table Structures

Table: students

Column	Type	Description
StudentId	INT	Primary key, unique ID
Email	VARCHAR(255)	Unique email address
FirstName	TEXT	Student's first name
LastName	TEXT	Student's last name
Password	TEXT	Encrypted password
Token	TEXT	Authentication token
Role	TEXT	User role (student/admin)
Hours	INT	Registered credit hours
GPA	DOUBLE	Grade Point Average
Department_EN	TEXT	Department in English
Department_AR	TEXT	Department in Arabic
IsActive	TINYINT(1)	1 = active, 0 = inactive

Table: subjects

Column	Type	Description
SubjectId	INT	Primary key
SubjectCode	VARCHAR(50)	Unique subject code
SubjectName	TEXT	Name of the subject
CreditHours	INT	Number of credit hours
PrerequisiteSubjectId	INT	FK to prerequisite subject

Table: department_requirements

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Column	Type	Description
RequirementId	INT	Primary key
Department	TEXT	Department name
SubjectId	INT	FK to subjects
IsCompulsory	TINYINT(1)	1 = compulsory, 0 = elective

Table: studentsubjects

Column	Type	Description
StudentSubjectId	INT	Primary key
StudentId	INT	FK to students
SubjectId	INT	FK to subjects
Grade	DOUBLE	Student's grade
Semester	VARCHAR(20)	Semester enrolled

Table: chathistories

Column	Type	Description
ChatHistoryId	INT	Primary key
StudentId	INT	FK to students
Title	TEXT	Conversation title
CreatedAt	DATETIME	Date of conversation

Table: chatmessages

Column	Type	Description
ChatMessageId	INT	Primary key
ChatHistoryId	INT	FK to chathistories
Sender	TEXT	'Student' or 'Bot'
MessageText	TEXT	Message content

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SentAt	DATETIME	Time sent
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Table: files

Column	Type	Description
FileId	INT	Primary key
StudentId	INT	FK to students
FileName	TEXT	Name of uploaded file
UploadedAt	DATETIME	Date uploaded
FilePath	TEXT	Storage path

Table: chathistoriespdf

Column	Type	Description
PDFChatHistoryId	INT	Primary key
StudentId	INT	FK to students
FileId	INT	FK to files
CreatedAt	DATETIME	Date of conversation

Table: chatmessagepdfs

Column	Type	Description
PDFChatMessageId	INT	Primary key
PDFChatHistoryId	INT	FK to chathistoriespdf
Sender	TEXT	'Student' or 'Bot'
MessageText	TEXT	Message content
SentAt	DATETIME	Time sent