Table Design

User Table:

Column Name	Data Type	Constraints	Description
UserID	INT	Primary Key	Unique identifier for users.
Username	VARCHAR	Unique	User's username for login.
Password	VARCHAR		User's password (hashed and salted for security).
Email	VARCHAR		User's email address for communication.
Role	VARCHAR		User's role (Student, Teacher, Admin).

Student Table:

Column Name	Data Type	Constraints	Description
Student_id	INT	Primary Key	Unique identifier for student.
First_name	VARCHAR		Additional Information
Last_name	VARCHAR		
Email	VARCHAR		
Username	VARCHAR	Unique	student username for login
Password	VARCHAR		student password
Department	VARCHAR	Foreign Key	

Teacher Table:

Column Name	Data Type	Constraints	Description
Teacher_id	INT	Primary Key	Unique identifier for teacher.
First_name	VARCHAR		Additional Information
Last_name	VARCHAR		
Email	VARCHAR		
Username	VARCHAR	Unique	Teacher username for login
Password	VARCHAR		Teacher password
Department	VARCHAR	Foreign Key	

Course Table:

Column Name	Data Type	Constraints	Description
Course_id	INT	Primary Key	Unique identifier for course.
Course_name	VARCHAR		Name of Course

Question Table:

Column Name	Data Type	Constraints	Description
Question_id	INT	Primary Key	Unique identifier for Question
Course_id	INT	Foreign Key	Reference as the course
Question-text	TEXT		Text for the Question
options	TEXT		
Correct-answer	VARCHAR		

Course_Teacher Table:

Column Name	Data Type	Constraints	Description
ID	INT	Primary Key	Unique identifier for course-teacher associations.
CourseID	INT	Foreign Key	Reference to the course
TeacherID	INT	Foreign Key	Reference to the teacher.
AssignmentID	INT	Foreign Key	Reference to assigned assignments.
NoteID	INT	Foreign Key	Reference to assigned notes.

Assignment Table:

Column Name	Data Type	Constraints	Description
AssignmentID	INT	Primary Key	Unique identifier for assignments.
CourseID	INT	Foreign Key	Reference to the associated course.
TeacherID	INT	Foreign Key	Reference to the assigning teacher.
Title	VARCHAR		Title of the assignment
Description	TEXT		Description of the assignment.
Deadline	DATETIME		Deadline for assignment submission.

Note Table:

Column Name	Data Type	Constraints	Description
NoteID		Primary Key	Unique identifier for notes.
CourseID		Foreign Key	Reference to the associated course.
TeacherID	INT	Foreign Key	Reference to the creating teacher.
Title	VARCHAR		Title of the note.
Content	TEXT		Content of the note.
UploadDate	DATETIME		Date when the note was uploaded.

Exam Table:

Column Name	Data Type	Constraints	Description
ExamID	INT	Primary Key	Unique identifier for exams.
SetID	INT	Foreign Key	Reference to the question set for the exam.
CourseID	INT	Foreign Key	Reference to the associated course.
TeacherID	INT	Foreign Key	Reference to the creating teacher.
ExamTitle	VARCHAR		Title of the exam.
ExamDateTime	DATETIME		Date and time when the exam takes place.

Certificate Table:

Column Name	Data Type	Constraints	Description
CertificateID	INT	Primary Key	Unique identifier for certificates.
StudentID	INT	Foreign Key	Reference to the student receiving the certificate.
CourseID	INT	Foreign Key	Reference to the associated course.
DateIssued	DATETIME		Date when the certificate was issued.

TeacherApproval Table:

Column Name	Data Type	Constraints	Description
ApprovalID	INT	Primary Key	Unique identifier for teacher approvals.
TeacherID	INT	Foreign Key	Reference to the teacher seeking approval.
AdminID	INT	Foreign Key	Reference to the approving administrator.
ApprovalStatus	VARCHAR		Approval status (e.g., Approved, Declined).
SalarySet	DECIMAL		Salary set for the teacher upon approval.