Database Design

project

Jeswin Sam James
Roll no: 29

INMCA

1. <u>User Table:</u>

Field Name	Data Type	Key Constraints	Description
user_id	INTEGER	PRIMARY KEY	Unique identifier for users
username	VARCHAR(50)	NOT NULL	Username
email	VARCHAR(100)	NOT NULL	Email
password	VARCHAR(100)	NOT NULL	password
role	VARCHAR(20)	NOT NULL	Role
...	...	...	Other user-specific fields

2. <u>Learner Table:</u>

Field Name	Data Type	Key Constraints	Description
learner_id	INTEGER	PRIMARY KEY	Unique identifier for learners
user_id	INTEGER	FOREIGN KEY	user_id
progress_status	VARCHAR(50)	-	status
...	...	...	Other learner-specific fields

3. <u>Tutor Table:</u>

Field Name	Data Type	Key Constraints	Description
tutor_id	INTEGER	PRIMARY KEY	Unique identifier for tutors
user_id	INTEGER	FOREIGN KEY	user_id
salary	DECIMAL(10,2)	-	salary
...	...	...	Other tutor-specific fields

4. <u>Admin Table:</u>

Field Name	Data Type	Key Constraints	Description
admin_id	INTEGER	PRIMARY KEY	Unique identifier for administrators
username	VARCHAR(50)	NOT NULL, UNIQUE	Username
password	VARCHAR(100)	NOT NULL	Password
email	VARCHAR(100)	NOT NULL	Email
...	...	...	Other admin-specific fields

5. Course Table:

Field Name	Data Type	Key Constraints	Description
course_id	INTEGER	PRIMARY KEY	Unique identifier for courses
course_name	VARCHAR(100)	NOT NULL	Name of the course
course_category	VARCHAR(50)	NOT NULL	Category of the course (daily, weekend, summer)
...	...	...	Other course-specific fields

6. Enrolment Table:

Field Name	Data Type	Key Constraints	Description
enrollment_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
course_id	INTEGER	FOREIGN KEY	course_id
enrollment_date	DATE	NOT NULL	Date
...	...	...	Other enrollment-specific fields

7. Progress Table:

Field Name	Data Type	Key Constraints	Description
progress_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
class_id	INTEGER	FOREIGN KEY	class_id
assignment_status	VARCHAR(50)	NOT NULL	Status of the assignment
video_completion	BOOLEAN	-	Indicates if the video lecture
...	...	...	Other progress-specific fields

8. Payment Table:

Field Name	Data Type	Key Constraints	Description
payment_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
payment_date	DATE	NOT NULL	Date
amount	DECIMAL(10,2)	NOT NULL	Payment amount
payment_status	VARCHAR(50)	NOT NULL	Status of the payment (paid, pending, etc.)

Field Name	Data Type	Key Constraints	Description
...	...	...	Other payment-specific fields

9. Address Table:

Field Name	Data Type	Key Constraints	Description
address_id	INTEGER	PRIMARY KEY	Unique identifier
user_id	INTEGER	FOREIGN KEY	user_id
street_line_address	VARCHAR(200)	NOT NULL	street address
city	VARCHAR(100)	NOT NULL	City of the address
state	VARCHAR(100)	NOT NULL	State
postal_code	VARCHAR(20)	NOT NULL	Postal code
country	VARCHAR(100)	NOT NULL	Country of the address
...	...	...	Other address-specific fields

10. Resource Table:

Field Name	Data Type	Key Constraints	Description
resource_id	INTEGER	PRIMARY KEY	Unique identifier
course_id	INTEGER	FOREIGN KEY	course_id
resource_name	VARCHAR(100)	NOT NULL	Name of the resource
resource_type	VARCHAR(50)	NOT NULL	Type of the resource (PDF, audio, video, etc.)
resource_url	VARCHAR(200)	NOT NULL	URL or path to access the resource
...	...	...	Other resource-specific fields

11. Certificate Table:

Field Name	Data Type	Key Constraints	Description
certificate_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
course_id	INTEGER	FOREIGN KEY	course_id
issue_date	DATE	NOT NULL	Date of certificate issuance
...	...	...	Other certificate-specific fields

12. <u>Discussion Table:</u>

Field Name	Data Type	Key Constraints	Description
discussion_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
class_id	INTEGER	FOREIGN KEY	class_id from
message	TEXT	NOT NULL	Discussion message
post_date	DATETIME	NOT NULL	Date and time of message posting
...	...	...	Other discussion-specific fields

13. <u>Discussion Reply Table:</u>

Field Name	Data Type	Key Constraints	Description
reply_id	INTEGER	PRIMARY KEY	Unique identifier
discussion_id	INTEGER	FOREIGN KEY	discussion_id
user_id	INTEGER	FOREIGN KEY	user_id from
reply_text	TEXT	NOT NULL	Text
reply_date	DATETIME	NOT NULL	Date
...	...	...	Other discussion reply-specific fields

14. <u>Playlist Table:</u>

Field Name	Data Type	Key Constraints	Description
playlist_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
playlist_name	VARCHAR(100)	NOT NULL	Name of the playlist
creation_date	DATE	NOT NULL	Date of playlist creation
...	...	...	Other playlist-specific fields

15. <u>Attendance Table:</u>

Field Name	Data Type	Key Constraints	Description
attendance_id	INTEGER	PRIMARY KEY	Unique identifier
class_id	INTEGER	FOREIGN KEY	class_id
user_id	INTEGER	FOREIGN KEY	user_id
attendance_date	DATE	NOT NULL	Date of attendance record
status	VARCHAR(20)	NOT NULL	Attendance status (present, absent, etc.)

Field Name	Data Type	Key Constraints	Description
...	...	...	Other attendance-specific fields

16. <u>Feedback Table:</u>

Field Name	Data Type	Key Constraints	Description
feedback_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
class_id	INTEGER	FOREIGN KEY	class_id
feedback_text	TEXT	NOT NULL	Feedback text
feedback_date	DATE	NOT NULL	Date of feedback
...	...	...	Other feedback-specific fields

17. <u>Material Table:</u>

Field Name	Data Type	Key Constraints	Description
material_id	INTEGER	PRIMARY KEY	Unique identifier
class_id	INTEGER	FOREIGN KEY	class_id
material_name	VARCHAR(100)	NOT NULL	Name of the learning material
material_type	VARCHAR(50)	NOT NULL	Type of the material (video, document, etc.)
material_url	VARCHAR(200)	NOT NULL	URL or path to access the learning material
...	...	...	Other material-specific fields

18. <u>Payment History Table:</u>

Field Name	Data Type	Key Constraints	Description
payment_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
payment_date	DATE	NOT NULL	Date of the payment
amount	DECIMAL(10,2)	NOT NULL	Payment amount
...	...	...	Other payment history-specific fields

19. Assignment Table:

Field Name	Data Type	Key Constraints	Description
assignment_id	INTEGER	PRIMARY KEY	Unique identifier
class_id	INTEGER	FOREIGN KEY	class_id
assignment_name	VARCHAR(100)	NOT NULL	Name of the assignment
due_date	DATE	NOT NULL	Due date for the assignment
description	TEXT	-	Description or instructions for the assignment
...	...	...	Other assignment-specific fields

20. Progress Assessment Table:

Field Name	Data Type	Key Constraints	Description
assessment_id	INTEGER	PRIMARY KEY	Unique identifier
learner_id	INTEGER	FOREIGN KEY	learner_id
class_id	INTEGER	FOREIGN KEY	class_id
assessment_date	DATE	NOT NULL	Date of the assessment
score	DECIMAL(5,2)	-	Score achieved by the learner
remarks	TEXT	-	Remarks or feedback on the assessment
...	...	...	Other assessment-specific fields