

ERD Diagram (Mermaid Format)

```
erDiagram
    USERS {
        uuid id PK
        string name
        string email
        string password
        string role
        timestamp created_at
    }
    CATEGORIES {
        uuid id PK
        string name
        string slug
    }
    COURSES {
        uuid id PK
        string title
        string slug
        text description
        string thumbnail_url
        uuid category_id FK
        string level
        string language
        decimal price
        boolean is_published
        uuid created_by FK
        timestamp created_at
        timestamp updated_at
    }
    COURSE_MODULES {
        uuid id PK
        uuid course_id FK
        string title
        text description
        int order
        timestamp created_at
    }
    LESSONS {
        uuid id PK
        uuid module_id FK
        string title
        string video_url
        string pdf_url
        text content
        int order
        int duration_minutes
        boolean is_preview
        timestamp created_at
    }
    QUIZZES {
        uuid id PK
```

```
uuid module_id FK
string title
int passing_score
timestamp created_at
}
QUIZ_QUESTIONS {
uuid id PK
uuid quiz_id FK
text question_text
string type
timestamp created_at
}
QUIZ_OPTIONS {
uuid id PK
uuid question_id FK
string option_text
boolean is_correct
}
ENROLLMENTS {
uuid id PK
uuid user_id FK
uuid course_id FK
string status
timestamp enrolled_at
}
LESSON_PROGRESS {
uuid id PK
uuid lesson_id FK
uuid user_id FK
boolean is_completed
timestamp completed_at
}
QUIZ_ATTEMPTS {
uuid id PK
uuid quiz_id FK
uuid user_id FK
int score
int attempt_number
timestamp started_at
timestamp completed_at
}
CERTIFICATES {
uuid id PK
uuid user_id FK
uuid course_id FK
string certificate_url
timestamp issued_at
}
COURSE_REVIEWS {
uuid id PK
uuid user_id FK
uuid course_id FK
```

```
int rating
text comment
timestamp created_at
}
```