E-learning Platform with course Recommendations

7 Create a database for an e-learning Platforms to manage Users, Courses, quizes

Requirements!

Design tables for users, coursess, modules, quizzed and completions tracking between courses and quized write relation between courses and quized write stored procedure to calculate user progress and recomend new courses on completion history.

A) Conceptual E.R.D Model:

- -) Correctly identify entities and relationships
- -) Consider adding an entity for cateogry to turther normalise closta

Logical E.R.D Model:

well-defined artibutes for each entity

Consider adding a "status" artibute to the Envolument entity

Physical ERD Model:

- -) Proper use of primary Keys, foreign keys, data types
- -) Consider indiving column used in WHERE, JOIN and ORDER BY

conceptual F.R Diagram: Users Courses User_id (PK) Course-id(PK) tittle name description email catogery Password *Quizes* quiz -id (PK) Course-id (FIC) Max-Score Passing. Score Quit reult Quiz_rualt (pk) User-id (FK) quiz-id (FK) Score course recomendation recomendation id (PK) User-id(FK) recombuder - consile (kk) reason

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Envolument id (PK)

User - id (FK)

Course - id (FK)

enrollement - dak

logical Ex Diagram!

Users
User-id (PK)
Name
email
Password
registration-dote

Courses

Course-id (PK)

fittle

description

created-at

catogery

enrollements d (PK)

user id (FR)

course id (FR)

enrollement. dak

Quizes

Quiz-id (P.K)

Coursi-id (fK)

Question - Count

Max- Score

Passing - Score

Results-id (PK)

VSEY-id (FK)

quiz-id (FK)

Score

completion-date

Course Recommendation

Reason
Reason

Recommendation-date

Physical E.P. Diagram Courses Enrollement USERS coursein (INT, PK) User ~ id CINT, PK) Envollement - W(INT, PIE) HHI(Varchornoo) NSEYLID CINT, FK) Name (Varchar (100)) COUTSE-ID CINT, FK) description (TevT) Email (warchor (100)) kmollement-date (DATE) Creekd-at (Dak) Password (Varchar) Qui27es Quiz id (IM, PK) Courseid (INT, FK) awstion count (INT) Max. Score (INT) Passing-Score CINT) Quiz result Quiz-resultid CINT, PIC) USEY_IA (INT, FK) quizzid (INT, FR) Score (INT) Completion -date (DATE) Course Peromendations Recomendation_id (INT, Pr) User-id CINT, FK) Course aid (INT, FR) reason (Text) Recomendation-date (Date)

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Sql statements: Create Table Statements: CREATE TABLE USEVS (USER-ID INT PRIMARY KEY, User Name VARCHAR (50), Email VARCHAR (100) Intrests TEXT 2, Create ToBle Modules (Module-ID INT PRIMARY KIY, LKT GI- DIND Title VARCHAR (100); CONTENT TEXT, Category VARCHARITO)) /' create table envoluments (ENROllement-ID INT PRIMARY KEY, LOSE K-ID INT, CONLIG-ID INT . LOBE I CH KGA (OLES-ID) References Users (User-ID) FOREIGN Ker (Course_ID) BEEELENCES CONZES (CONTRE-ID)

Creak table Course (
Course In (INT, Primay kg)
Tittle VARCHAR (100)
Content TEXT,
Foreign key/course ID
);

Course-ID INT,

Module-ID INT,

Questions TEXT

FOREIGNKEY (Course-ID)

References Courses (Course-ID)

S;

Create Table completion (

Creak Table Quizes (

QUIZ-JO (INT PRIMARY KEY),

Completion ID INT PRIMARY

USER-ID INT, COURSI_ID INT,

Module-ID INT, QUIZ:ID INT

Completion - DAR DATETIME,

FOREIGN KEY (USER-ID),

FOREIGN KEY (COUTTE-ID)
FOREIGN KEY (Module-ID)
FOREIGN KEY (Quiz-ID)