ASSIGNMENT-1

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Course code : CSA0593

Course Name : Database Management system for transaction Management

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1. E-learning Platform with Course Recomendations

, create a database for an e-learning Platforms to manage Users, courses, quizes

Requirements:

Design tables for users, Courses, modules, quizzes and completions

tracking between courses and quizes

Write relation between courses and quizes

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 category to further normalise data

Logical E-R-D Model:

well-defined artibutes for each entity

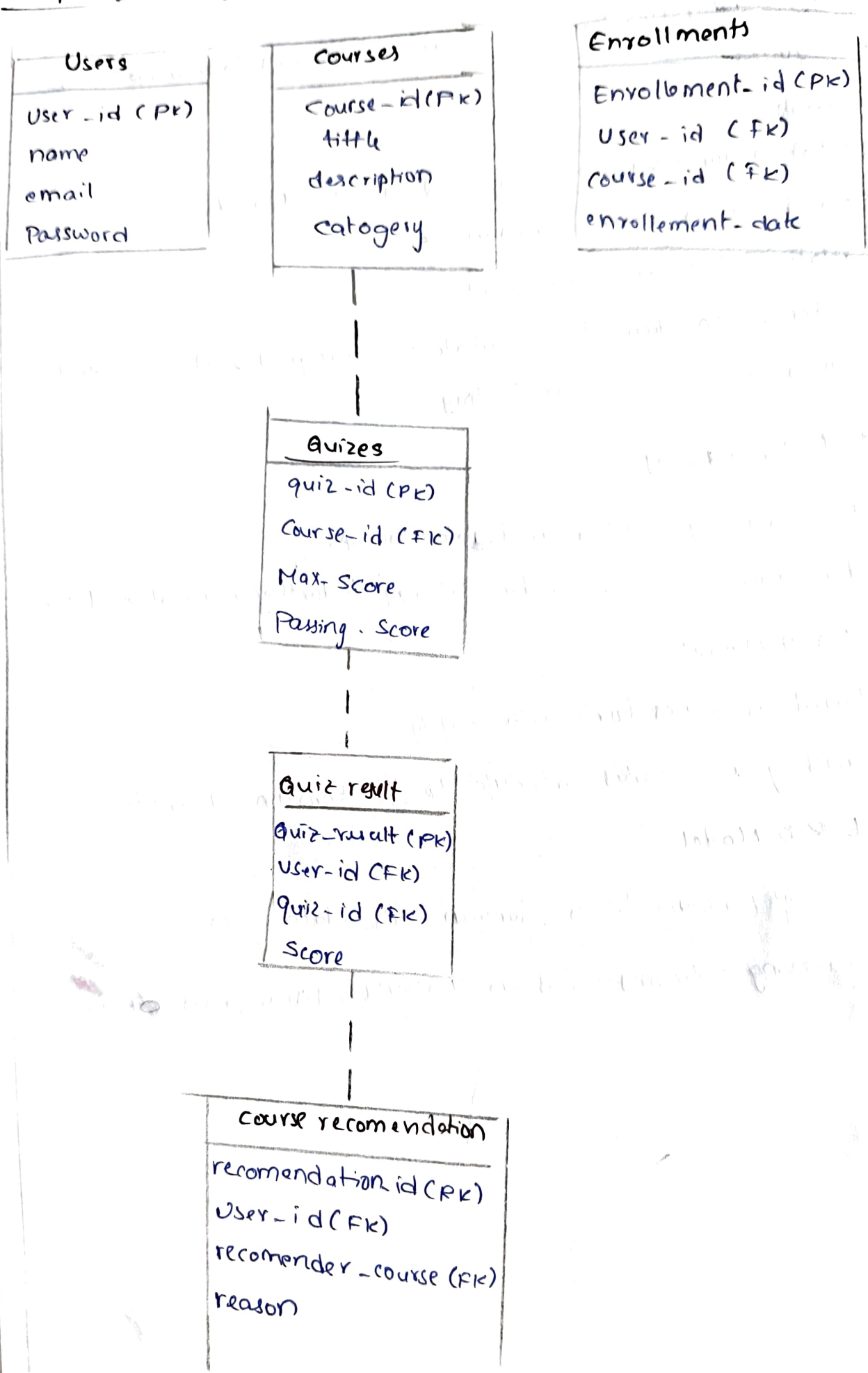
Consider adding a "status" artibute to the enrollment entity

Physical E-R-D Model:

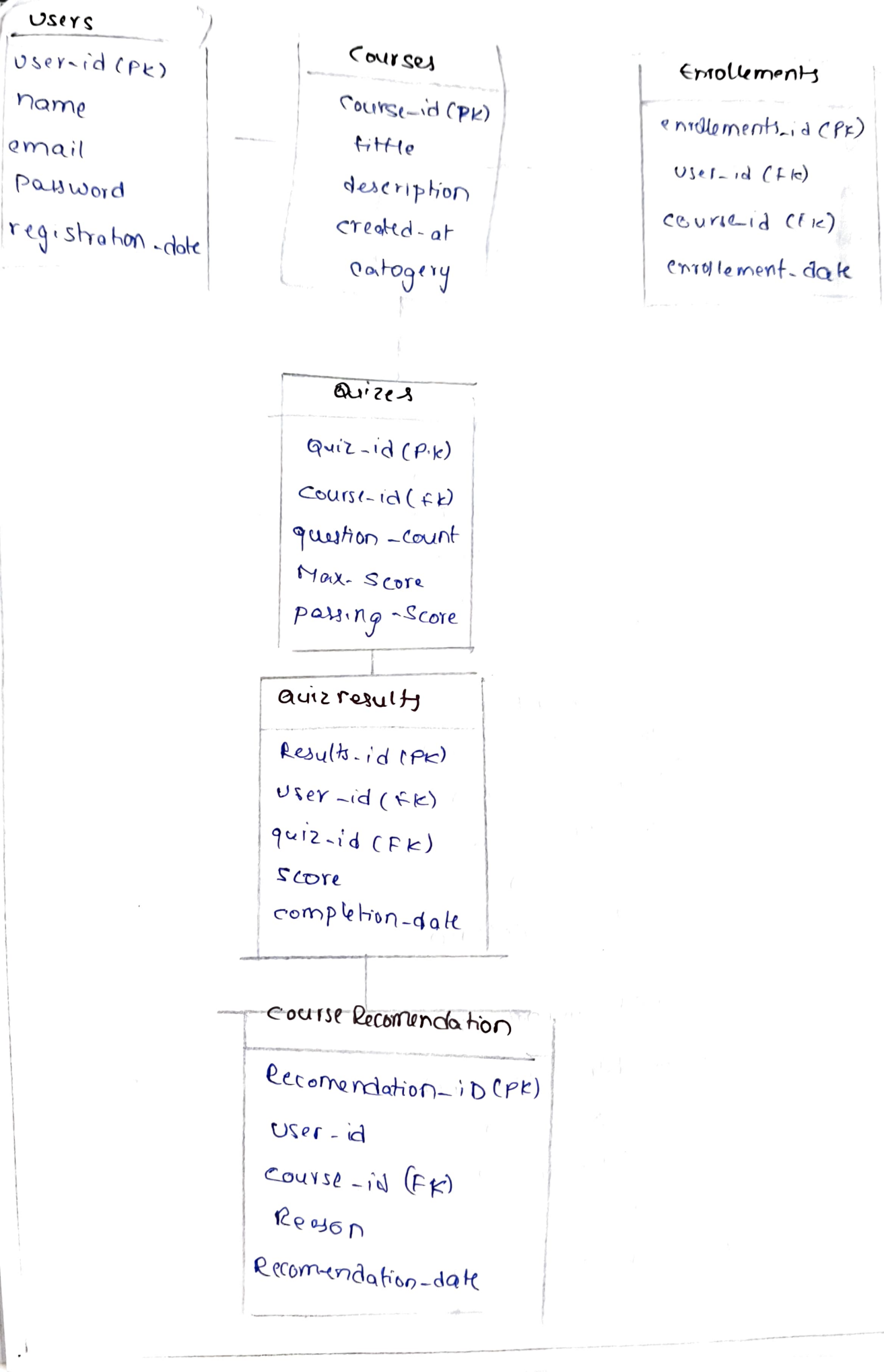
-) Proper use of primary keys, foreign keys, data types

-) Consider indexing columns used in WHERE, JOIN and ORDER BY

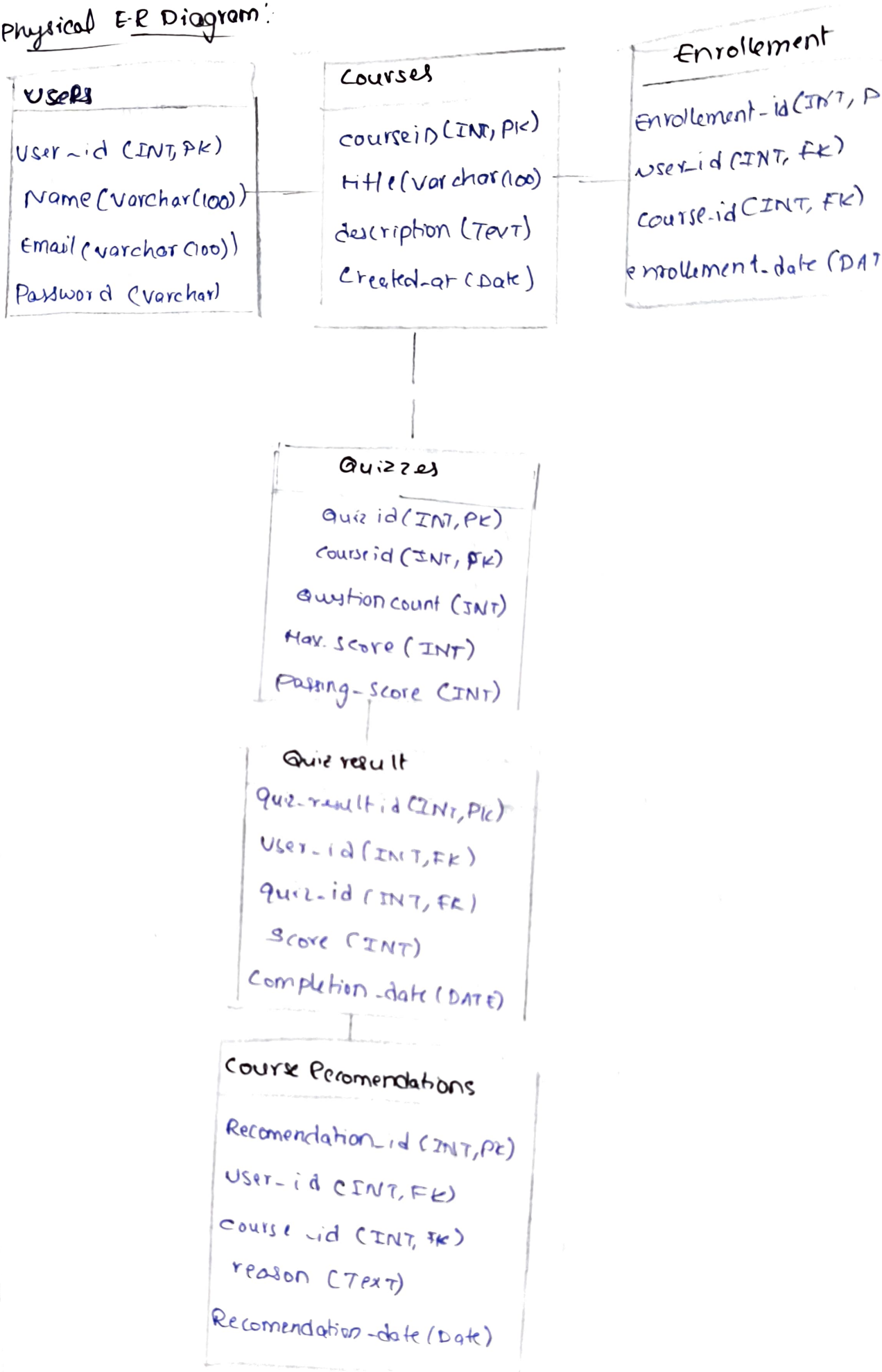
conceptual E·R Diagram:



cal ER Diagram:



Physical E-R Diagram:



SQL Statements:

Create Table Statements:

```
CREATE TABLE Users (
    USER_ID INT PRIMARY KEY,
    User Name VARCHAR(50),
    Email VARCHAR(100)
    Interests TEXT
);

Create TaBle Modules (
    Module-ID INT PRIMARY KEY,
    Course-ID INT
    Title VARCHAR(100),
    CONTENT TEXT,
    Category VARCHAR(50)
);

CREate Table ENRollements (
    ENRollement-ID INT PRIMARY KEY,
    USER-ID INT, COURSE-ID INT
    FOREIGN KEY (USER-ID)
    References Users(User-ID)
    FOREIGN Key (Course-ID)
    REFERENCES courses (course-ID)
```

```
Creak table Course {
    course-ID(INT, Primay key)
    Title VARCHAR(100)
    Content TEXT,
    Foreign key (course-ID
    );
```

```
Create Table Quizes (
    Quiz-ID (INT PRIMARY key),
    Course-ID INT,
    Module-ID INT,
    Qustions TEXT
    FOREIGN key (Course-ID)
    REFERENCES Courses (Course-ID)
    );
```

```
Create Table completion (
    completion ID INT PRIMARY
    USER-ID INT, Course-ID INT
    Module-ID INT, Quiz-ID INT
    Completion-Date DATETIME,
    FOREIGN KEY (USER-ID),
    FOREIGN KEY (course-ID)
    FOREIGN KEY (Module-ID)
    FOREIGN KEY (Quiz-ID)
```

Conclusion:

∴ These SQL statements Create the database for Data Analytics System for E-Commerce recommandations. By this, Can improve the personalized shopping experience of every Customer and also increases Sales and Conversion rates for merchants