

Phase 3_ Schema Definitions and Query Implementations

Table Creation:

Write all SQL statements used to **create** your tables.

```
DROP TABLE Message CASCADE CONSTRAINTS;
DROP TABLE ConversationThread CASCADE CONSTRAINTS;
DROP TABLE Certificate CASCADE CONSTRAINTS;
DROP TABLE Feedback CASCADE CONSTRAINTS;
DROP TABLE Announcement CASCADE CONSTRAINTS;
DROP TABLE Post CASCADE CONSTRAINTS;
DROP TABLE StudyGroupMembership CASCADE CONSTRAINTS;
DROP TABLE StudyGroup CASCADE CONSTRAINTS;
DROP TABLE QuizAttempt CASCADE CONSTRAINTS;
DROP TABLE Submission CASCADE CONSTRAINTS;
DROP TABLE Quiz CASCADE CONSTRAINTS;
DROP TABLE Assignment CASCADE CONSTRAINTS;
DROP TABLE Lecture CASCADE CONSTRAINTS;
DROP TABLE S_Module CASCADE CONSTRAINTS;
DROP TABLE Enrollment CASCADE CONSTRAINTS;
DROP TABLE Course CASCADE CONSTRAINTS;
DROP TABLE Instructor CASCADE CONSTRAINTS;
DROP TABLE EducationalBackground CASCADE CONSTRAINTS;
DROP TABLE S_User CASCADE CONSTRAINTS;
```

-- Create User Table

```
CREATE TABLE S_User (
    UserID VARCHAR2(50) PRIMARY KEY,
    Password VARCHAR2(50) NOT NULL,
    EmailAddress VARCHAR2(100) NOT NULL,
    ProfilePicture VARCHAR2(1000)
);
```

-- Create EducationalBackground Table

```
CREATE TABLE EducationalBackground (  
    UserID VARCHAR2(50),  
    Degree VARCHAR2(100),  
    Institution VARCHAR2(100),  
    GraduationYear NUMBER(4),  
    PRIMARY KEY (UserID, Degree),  
    FOREIGN KEY (UserID) REFERENCES S_User(UserID)  
);
```

-- Create Instructor Table

```
CREATE TABLE Instructor (  
    InstructorID VARCHAR2(50) PRIMARY KEY,  
    Biography VARCHAR2(2000)  
);
```

-- Create Course Table

```
CREATE TABLE Course (  
    CourseID VARCHAR2(50) PRIMARY KEY,  
    Description VARCHAR2(2000) NOT NULL,  
    TopicsCovered VARCHAR2(2000),  
    InstructorID VARCHAR2(50),  
    StartDate DATE NOT NULL,  
    EndDate DATE NOT NULL,  
    FOREIGN KEY (InstructorID) REFERENCES Instructor(InstructorID)  
);
```

-- Create Enrollment Table

```
CREATE TABLE Enrollment (  
    EnrollmentID VARCHAR2(50) PRIMARY KEY,  
    UserID VARCHAR2(50),  
    CourseID VARCHAR2(50),  
    EnrollmentDate DATE NOT NULL,  
    FOREIGN KEY (UserID) REFERENCES S_User(UserID),  
    FOREIGN KEY (CourseID) REFERENCES Course(CourseID)  
);
```

-- Create Module Table

```
CREATE TABLE S_Module (  
    ModuleID VARCHAR2(50) PRIMARY KEY,  
    CourseID VARCHAR2(50),  
    FOREIGN KEY (CourseID) REFERENCES Course(CourseID)  
);
```

-- Create Lecture Table

```
CREATE TABLE Lecture (  
    LectureID VARCHAR2(50) PRIMARY KEY,  
    ModuleID VARCHAR2(50),  
    VideoContent VARCHAR2(1000),  
    TextSummary VARCHAR2(1000),  
    Duration NUMBER,  
    FOREIGN KEY (ModuleID) REFERENCES S_Module(ModuleID)  
);
```

-- Create Assignment Table

```
CREATE TABLE Assignment (  
    AssignmentID VARCHAR2(50) PRIMARY KEY,  
    ModuleID VARCHAR2(50),  
    SubmissionDeadline DATE,  
    MaxMarks NUMBER,  
    FOREIGN KEY (ModuleID) REFERENCES S_Module(ModuleID)  
);
```

-- Create Quiz Table

```
CREATE TABLE Quiz (  
    QuizID VARCHAR2(50) PRIMARY KEY,  
    ModuleID VARCHAR2(50),  
    SubmissionDeadline DATE,  
    MaxMarks NUMBER,  
    FOREIGN KEY (ModuleID) REFERENCES S_Module(ModuleID)  
);
```

-- Create Submission Table

```
CREATE TABLE Submission (  
    SubmissionID VARCHAR2(50) PRIMARY KEY,  
    UserID VARCHAR2(50),  
    AssignmentID VARCHAR2(50),  
    MTimestamp DATE NOT NULL,  
    FOREIGN KEY (UserID) REFERENCES S_User(UserID),  
    FOREIGN KEY (AssignmentID) REFERENCES Assignment(AssignmentID)  
);
```

-- Create QuizAttempt Table

```
CREATE TABLE QuizAttempt (  
    QuizAttemptID VARCHAR2(50) PRIMARY KEY,  
    UserID VARCHAR2(50),  
    QuizID VARCHAR2(50),  
    Score NUMBER,  
    FOREIGN KEY (UserID) REFERENCES S_User(UserID),  
    FOREIGN KEY (QuizID) REFERENCES Quiz(QuizID)  
);
```

-- Create StudyGroup Table

```
CREATE TABLE StudyGroup (  
    GroupID VARCHAR2(50) PRIMARY KEY  
);
```

-- Create StudyGroupMembership Table

```
CREATE TABLE StudyGroupMembership (  
    GroupID VARCHAR2(50),  
    UserID VARCHAR2(50),  
    PRIMARY KEY (GroupID, UserID),  
    FOREIGN KEY (GroupID) REFERENCES StudyGroup(GroupID),  
    FOREIGN KEY (UserID) REFERENCES S_User(UserID)  
);
```

-- Create Post Table

```
CREATE TABLE Post (  
    PostID VARCHAR2(50) PRIMARY KEY,
```

```
GroupID VARCHAR2(50),
UserID VARCHAR2(50),
MTimestamp DATE NOT NULL,
FOREIGN KEY (GroupID) REFERENCES StudyGroup(GroupID),
FOREIGN KEY (UserID) REFERENCES S_User(UserID)
);
```

-- Create Announcement Table

```
CREATE TABLE Announcement (
  AnnouncementID VARCHAR2(50) PRIMARY KEY,
  CourseID VARCHAR2(50),
  MTimestamp DATE NOT NULL,
  FOREIGN KEY (CourseID) REFERENCES Course(CourseID)
);
```

-- Create Feedback Table

```
CREATE TABLE Feedback (
  FeedbackID VARCHAR2(50) PRIMARY KEY,
  UserID VARCHAR2(50),
  CourseID VARCHAR2(50),
  Ratings NUMBER,
  TextComments VARCHAR2(4000),
  FOREIGN KEY (UserID) REFERENCES S_User(UserID),
  FOREIGN KEY (CourseID) REFERENCES Course(CourseID)
);
```

-- Create Certificate Table

```
CREATE TABLE Certificate (
  CertificateID VARCHAR2(50) PRIMARY KEY,
  UserID VARCHAR2(50),
  CourseID VARCHAR2(50),
  DateOfIssuance DATE NOT NULL,
  FOREIGN KEY (UserID) REFERENCES S_User(UserID),
  FOREIGN KEY (CourseID) REFERENCES Course(CourseID)
);
```

-- Create ConversationThread Table

```
CREATE TABLE ConversationThread (  
    ThreadID VARCHAR2(50) PRIMARY KEY,  
    CourseID VARCHAR2(50),  
    FOREIGN KEY (CourseID) REFERENCES Course(CourseID)  
);
```

-- Create Message Table

```
CREATE TABLE Message (  
    MessageID VARCHAR2(50) PRIMARY KEY,  
    SenderID VARCHAR2(50),  
    ReceiverID VARCHAR2(50),  
    MTimestamp DATE NOT NULL,  
    ThreadID VARCHAR2(50),  
    FOREIGN KEY (SenderID) REFERENCES S_User(UserID),  
    FOREIGN KEY (ReceiverID) REFERENCES S_User(UserID),  
    FOREIGN KEY (ThreadID) REFERENCES ConversationThread(ThreadID)  
);
```

Database State:

Write all SQL statements used to **insert** values into the database

```
-- Insert rows into S_User table
INSERT INTO S_User (UserID, Password, EmailAddress, ProfilePicture) VALUES ('user1', 'pass1',
'user1@example.com', 'profile1.jpg');
INSERT INTO S_User (UserID, Password, EmailAddress, ProfilePicture) VALUES ('user2', 'pass2',
'user2@example.com', 'profile2.jpg');
INSERT INTO S_User (UserID, Password, EmailAddress, ProfilePicture) VALUES ('user3', 'pass3',
'user3@example.com', 'profile3.jpg');
INSERT INTO S_User (UserID, Password, EmailAddress, ProfilePicture) VALUES ('user4', 'pass4',
'user4@example.com', 'profile4.jpg');
INSERT INTO S_User (UserID, Password, EmailAddress, ProfilePicture) VALUES ('user5', 'pass5',
'user5@example.com', 'profile5.jpg');
INSERT INTO S_User (UserID, Password, EmailAddress, ProfilePicture) VALUES ('user6', 'pass6',
'user6@example.com', 'profile6.jpg');

-- Insert rows into EducationalBackground table
INSERT INTO EducationalBackground (UserID, Degree, Institution, GraduationYear) VALUES
('user1', 'BSc Computer Science', 'University A', 2020);
INSERT INTO EducationalBackground (UserID, Degree, Institution, GraduationYear) VALUES
('user2', 'BSc Information Technology', 'University B', 2019);
INSERT INTO EducationalBackground (UserID, Degree, Institution, GraduationYear) VALUES
('user3', 'BSc Software Engineering', 'University C', 2021);
INSERT INTO EducationalBackground (UserID, Degree, Institution, GraduationYear) VALUES
('user4', 'MSc Computer Science', 'University A', 2022);
INSERT INTO EducationalBackground (UserID, Degree, Institution, GraduationYear) VALUES
('user5', 'MSc Information Technology', 'University B', 2023);
INSERT INTO EducationalBackground (UserID, Degree, Institution, GraduationYear) VALUES
('user6', 'PhD Computer Science', 'University C', 2024);

-- Insert rows into Instructor table
INSERT INTO Instructor (InstructorID, Biography) VALUES ('inst1', 'Expert in AI and Machine
Learning');
INSERT INTO Instructor (InstructorID, Biography) VALUES ('inst2', 'Specialist in Data Science');
INSERT INTO Instructor (InstructorID, Biography) VALUES ('inst3', 'Software Engineering
Veteran');
INSERT INTO Instructor (InstructorID, Biography) VALUES ('inst4', 'Cybersecurity Guru');
INSERT INTO Instructor (InstructorID, Biography) VALUES ('inst5', 'Database Systems Expert');
INSERT INTO Instructor (InstructorID, Biography) VALUES ('inst6', 'Web Development Enthusiast');

-- Insert rows into Course table
INSERT INTO Course (CourseID, Description, TopicsCovered, InstructorID, StartDate, EndDate)
VALUES ('course1', 'Introduction to AI', 'AI, ML, Neural Networks', 'inst1', TO_DATE('2023-01-01',
'YYYY-MM-DD'), TO_DATE('2023-06-01', 'YYYY-MM-DD'));
INSERT INTO Course (CourseID, Description, TopicsCovered, InstructorID, StartDate, EndDate)
VALUES ('course2', 'Data Science Basics', 'Data Analysis, Visualization', 'inst2', TO_DATE('2023-02-
01', 'YYYY-MM-DD'), TO_DATE('2023-07-01', 'YYYY-MM-DD'));
INSERT INTO Course (CourseID, Description, TopicsCovered, InstructorID, StartDate, EndDate)
VALUES ('course3', 'Advanced Software Engineering', 'Design Patterns, Architecture', 'inst3',
TO_DATE('2023-03-01', 'YYYY-MM-DD'), TO_DATE('2023-08-01', 'YYYY-MM-DD'));
```

```
INSERT INTO Course (CourseID, Description, TopicsCovered, InstructorID, StartDate, EndDate)
VALUES ('course4', 'Cybersecurity Fundamentals', 'Network Security, Encryption', 'inst4',
TO_DATE('2023-04-01', 'YYYY-MM-DD'), TO_DATE('2023-09-01', 'YYYY-MM-DD'));
INSERT INTO Course (CourseID, Description, TopicsCovered, InstructorID, StartDate, EndDate)
VALUES ('course5', 'Database Systems', 'SQL, NoSQL, Transactions', 'inst5', TO_DATE('2023-05-
01', 'YYYY-MM-DD'), TO_DATE('2023-10-01', 'YYYY-MM-DD'));
INSERT INTO Course (CourseID, Description, TopicsCovered, InstructorID, StartDate, EndDate)
VALUES ('course6', 'Web Development', 'HTML, CSS, JavaScript', 'inst6', TO_DATE('2023-06-01',
'YYYY-MM-DD'), TO_DATE('2023-11-01', 'YYYY-MM-DD'));
```

-- Insert rows into Enrollment table

```
INSERT INTO Enrollment (EnrollmentID, UserID, CourseID, EnrollmentDate) VALUES ('enroll1',
'user1', 'course1', TO_DATE('2023-01-05', 'YYYY-MM-DD'));
INSERT INTO Enrollment (EnrollmentID, UserID, CourseID, EnrollmentDate) VALUES ('enroll2',
'user2', 'course2', TO_DATE('2023-02-05', 'YYYY-MM-DD'));
INSERT INTO Enrollment (EnrollmentID, UserID, CourseID, EnrollmentDate) VALUES ('enroll3',
'user3', 'course3', TO_DATE('2023-03-05', 'YYYY-MM-DD'));
INSERT INTO Enrollment (EnrollmentID, UserID, CourseID, EnrollmentDate) VALUES ('enroll4',
'user4', 'course4', TO_DATE('2023-04-05', 'YYYY-MM-DD'));
INSERT INTO Enrollment (EnrollmentID, UserID, CourseID, EnrollmentDate) VALUES ('enroll5',
'user5', 'course5', TO_DATE('2023-05-05', 'YYYY-MM-DD'));
INSERT INTO Enrollment (EnrollmentID, UserID, CourseID, EnrollmentDate) VALUES ('enroll6',
'user6', 'course6', TO_DATE('2023-06-05', 'YYYY-MM-DD'));
```

-- Insert rows into S_Module table

```
INSERT INTO S_Module (ModuleID, CourseID) VALUES ('module1', 'course1');
INSERT INTO S_Module (ModuleID, CourseID) VALUES ('module2', 'course2');
INSERT INTO S_Module (ModuleID, CourseID) VALUES ('module3', 'course3');
INSERT INTO S_Module (ModuleID, CourseID) VALUES ('module4', 'course4');
INSERT INTO S_Module (ModuleID, CourseID) VALUES ('module5', 'course5');
INSERT INTO S_Module (ModuleID, CourseID) VALUES ('module6', 'course6');
```

-- Insert rows into Lecture table

```
INSERT INTO Lecture (LectureID, ModuleID, VideoContent, TextSummary, Duration) VALUES
('lecture1', 'module1', 'video1.mp4', 'Summary of lecture 1', 60);
INSERT INTO Lecture (LectureID, ModuleID, VideoContent, TextSummary, Duration) VALUES
('lecture2', 'module2', 'video2.mp4', 'Summary of lecture 2', 45);
INSERT INTO Lecture (LectureID, ModuleID, VideoContent, TextSummary, Duration) VALUES
('lecture3', 'module3', 'video3.mp4', 'Summary of lecture 3', 90);
INSERT INTO Lecture (LectureID, ModuleID, VideoContent, TextSummary, Duration) VALUES
('lecture4', 'module4', 'video4.mp4', 'Summary of lecture 4', 50);
INSERT INTO Lecture (LectureID, ModuleID, VideoContent, TextSummary, Duration) VALUES
('lecture5', 'module5', 'video5.mp4', 'Summary of lecture 5', 30);
INSERT INTO Lecture (LectureID, ModuleID, VideoContent, TextSummary, Duration) VALUES
('lecture6', 'module6', 'video6.mp4', 'Summary of lecture 6', 40);
```

-- Insert rows into Assignment table

```
INSERT INTO Assignment (AssignmentID, ModuleID, SubmissionDeadline, MaxMarks) VALUES
('assignment1', 'module1', TO_DATE('2023-02-01', 'YYYY-MM-DD'), 100);
INSERT INTO Assignment (AssignmentID, ModuleID, SubmissionDeadline, MaxMarks) VALUES
('assignment2', 'module2', TO_DATE('2023-03-01', 'YYYY-MM-DD'), 100);
INSERT INTO Assignment (AssignmentID, ModuleID, SubmissionDeadline, MaxMarks) VALUES
('assignment3', 'module3', TO_DATE('2023-04-01', 'YYYY-MM-DD'), 100);
```



```
INSERT INTO Assignment (AssignmentID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('assignment4', 'module4', TO_DATE('2023-05-01', 'YYYY-MM-DD'), 100);
INSERT INTO Assignment (AssignmentID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('assignment5', 'module5', TO_DATE('2023-06-01', 'YYYY-MM-DD'), 100);
INSERT INTO Assignment (AssignmentID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('assignment6', 'module6', TO_DATE('2023-07-01', 'YYYY-MM-DD'), 100);
```

-- Insert rows into Quiz table

```
INSERT INTO Quiz (QuizID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('quiz1', 'module1', TO_DATE('2023-02-15', 'YYYY-MM-DD'), 50);
INSERT INTO Quiz (QuizID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('quiz2', 'module2', TO_DATE('2023-03-15', 'YYYY-MM-DD'), 50);
INSERT INTO Quiz (QuizID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('quiz3', 'module3', TO_DATE('2023-04-15', 'YYYY-MM-DD'), 50);
INSERT INTO Quiz (QuizID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('quiz4', 'module4', TO_DATE('2023-05-15', 'YYYY-MM-DD'), 50);
INSERT INTO Quiz (QuizID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('quiz5', 'module5', TO_DATE('2023-06-15', 'YYYY-MM-DD'), 50);
INSERT INTO Quiz (QuizID, ModuleID, SubmissionDeadline, MaxMarks) VALUES ('quiz6', 'module6', TO_DATE('2023-07-15', 'YYYY-MM-DD'), 50);
```

-- Insert rows into Submission table

```
INSERT INTO Submission (SubmissionID, UserID, AssignmentID, MTimestamp) VALUES ('submission1', 'user1', 'assignment1', TO_DATE('2023-02-01', 'YYYY-MM-DD'));
INSERT INTO Submission (SubmissionID, UserID, AssignmentID, MTimestamp) VALUES ('submission2', 'user2', 'assignment2', TO_DATE('2023-03-01', 'YYYY-MM-DD'));
INSERT INTO Submission (SubmissionID, UserID, AssignmentID, MTimestamp) VALUES ('submission3', 'user3', 'assignment3', TO_DATE('2023-04-01', 'YYYY-MM-DD'));
INSERT INTO Submission (SubmissionID, UserID, AssignmentID, MTimestamp) VALUES ('submission4', 'user4', 'assignment4', TO_DATE('2023-05-01', 'YYYY-MM-DD'));
INSERT INTO Submission (SubmissionID, UserID, AssignmentID, MTimestamp) VALUES ('submission5', 'user5', 'assignment5', TO_DATE('2023-06-01', 'YYYY-MM-DD'));
INSERT INTO Submission (SubmissionID, UserID, AssignmentID, MTimestamp) VALUES ('submission6', 'user6', 'assignment6', TO_DATE('2023-07-01', 'YYYY-MM-DD'));
```

-- Insert rows into QuizAttempt table

```
INSERT INTO QuizAttempt (QuizAttemptID, UserID, QuizID, Score) VALUES ('attempt1', 'user1', 'quiz1', 45);
INSERT INTO QuizAttempt (QuizAttemptID, UserID, QuizID, Score) VALUES ('attempt2', 'user2', 'quiz2', 40);
INSERT INTO QuizAttempt (QuizAttemptID, UserID, QuizID, Score) VALUES ('attempt3', 'user3', 'quiz3', 42);
INSERT INTO QuizAttempt (QuizAttemptID, UserID, QuizID, Score) VALUES ('attempt4', 'user4', 'quiz4', 44);
INSERT INTO QuizAttempt (QuizAttemptID, UserID, QuizID, Score) VALUES ('attempt5', 'user5', 'quiz5', 43);
INSERT INTO QuizAttempt (QuizAttemptID, UserID, QuizID, Score) VALUES ('attempt6', 'user6', 'quiz6', 41);
```

-- Insert rows into StudyGroup table

```
INSERT INTO StudyGroup (GroupID) VALUES ('group1');
INSERT INTO StudyGroup (GroupID) VALUES ('group2');
INSERT INTO StudyGroup (GroupID) VALUES ('group3');
```

```
INSERT INTO StudyGroup (GroupID) VALUES ('group4');
INSERT INTO StudyGroup (GroupID) VALUES ('group5');
INSERT INTO StudyGroup (GroupID) VALUES ('group6');

-- Insert rows into StudyGroupMembership table
INSERT INTO StudyGroupMembership (GroupID, UserID) VALUES ('group1', 'user1');
INSERT INTO StudyGroupMembership (GroupID, UserID) VALUES ('group2', 'user2');
INSERT INTO StudyGroupMembership (GroupID, UserID) VALUES ('group3', 'user3');
INSERT INTO StudyGroupMembership (GroupID, UserID) VALUES ('group4', 'user4');
INSERT INTO StudyGroupMembership (GroupID, UserID) VALUES ('group5', 'user5');
INSERT INTO StudyGroupMembership (GroupID, UserID) VALUES ('group6', 'user6');

-- Insert rows into Post table
INSERT INTO Post (PostID, GroupID, UserID, MTimestamp) VALUES ('post1', 'group1', 'user1',
TO_DATE('2023-01-01', 'YYYY-MM-DD'));
INSERT INTO Post (PostID, GroupID, UserID, MTimestamp) VALUES ('post2', 'group2', 'user2',
TO_DATE('2023-02-01', 'YYYY-MM-DD'));
INSERT INTO Post (PostID, GroupID, UserID, MTimestamp) VALUES ('post3', 'group3', 'user3',
TO_DATE('2023-03-01', 'YYYY-MM-DD'));
INSERT INTO Post (PostID, GroupID, UserID, MTimestamp) VALUES ('post4', 'group4', 'user4',
TO_DATE('2023-04-01', 'YYYY-MM-DD'));
INSERT INTO Post (PostID, GroupID, UserID, MTimestamp) VALUES ('post5', 'group5', 'user5',
TO_DATE('2023-05-01', 'YYYY-MM-DD'));
INSERT INTO Post (PostID, GroupID, UserID, MTimestamp) VALUES ('post6', 'group6', 'user6',
TO_DATE('2023-06-01', 'YYYY-MM-DD'));

-- Insert rows into Announcement table
INSERT INTO Announcement (AnnouncementID, CourseID, MTimestamp) VALUES ('ann1',
'course1', TO_DATE('2023-01-01', 'YYYY-MM-DD'));
INSERT INTO Announcement (AnnouncementID, CourseID, MTimestamp) VALUES ('ann2',
'course2', TO_DATE('2023-02-01', 'YYYY-MM-DD'));
INSERT INTO Announcement (AnnouncementID, CourseID, MTimestamp) VALUES ('ann3',
'course3', TO_DATE('2023-03-01', 'YYYY-MM-DD'));
INSERT INTO Announcement (AnnouncementID, CourseID, MTimestamp) VALUES ('ann4',
'course4', TO_DATE('2023-04-01', 'YYYY-MM-DD'));
INSERT INTO Announcement (AnnouncementID, CourseID, MTimestamp) VALUES ('ann5',
'course5', TO_DATE('2023-05-01', 'YYYY-MM-DD'));
INSERT INTO Announcement (AnnouncementID, CourseID, MTimestamp) VALUES ('ann6',
'course6', TO_DATE('2023-06-01', 'YYYY-MM-DD'));

-- Insert rows into Feedback table
INSERT INTO Feedback (FeedbackID, UserID, CourseID, Ratings, TextComments) VALUES ('fb1',
'user1', 'course1', 5, 'Great course!');
INSERT INTO Feedback (FeedbackID, UserID, CourseID, Ratings, TextComments) VALUES ('fb2',
'user2', 'course2', 4, 'Very informative');
INSERT INTO Feedback (FeedbackID, UserID, CourseID, Ratings, TextComments) VALUES ('fb3',
'user3', 'course3', 5, 'Loved it');
INSERT INTO Feedback (FeedbackID, UserID, CourseID, Ratings, TextComments) VALUES ('fb4',
'user4', 'course4', 3, 'Good, but could be better');
INSERT INTO Feedback (FeedbackID, UserID, CourseID, Ratings, TextComments) VALUES ('fb5',
'user5', 'course5', 4, 'Well explained');
INSERT INTO Feedback (FeedbackID, UserID, CourseID, Ratings, TextComments) VALUES ('fb6',
'user6', 'course6', 5, 'Excellent content');
```

-- Insert rows into Certificate table

```
INSERT INTO Certificate (CertificateID, UserID, CourseID, DateOfIssuance) VALUES ('cert1',
'user1', 'course1', TO_DATE('2023-06-01', 'YYYY-MM-DD'));
INSERT INTO Certificate (CertificateID, UserID, CourseID, DateOfIssuance) VALUES ('cert2',
'user2', 'course2', TO_DATE('2023-07-01', 'YYYY-MM-DD'));
INSERT INTO Certificate (CertificateID, UserID, CourseID, DateOfIssuance) VALUES ('cert3',
'user3', 'course3', TO_DATE('2023-08-01', 'YYYY-MM-DD'));
INSERT INTO Certificate (CertificateID, UserID, CourseID, DateOfIssuance) VALUES ('cert4',
'user4', 'course4', TO_DATE('2023-09-01', 'YYYY-MM-DD'));
INSERT INTO Certificate (CertificateID, UserID, CourseID, DateOfIssuance) VALUES ('cert5',
'user5', 'course5', TO_DATE('2023-10-01', 'YYYY-MM-DD'));
INSERT INTO Certificate (CertificateID, UserID, CourseID, DateOfIssuance) VALUES ('cert6',
'user6', 'course6', TO_DATE('2023-11-01', 'YYYY-MM-DD'));
```

-- Insert rows into ConversationThread table

```
INSERT INTO ConversationThread (ThreadID, CourseID) VALUES ('thread1', 'course1');
INSERT INTO ConversationThread (ThreadID, CourseID) VALUES ('thread2', 'course2');
INSERT INTO ConversationThread (ThreadID, CourseID) VALUES ('thread3', 'course3');
INSERT INTO ConversationThread (ThreadID, CourseID) VALUES ('thread4', 'course4');
INSERT INTO ConversationThread (ThreadID, CourseID) VALUES ('thread5', 'course5');
INSERT INTO ConversationThread (ThreadID, CourseID) VALUES ('thread6', 'course6');
```

-- Insert rows into Message table

```
INSERT INTO Message (MessageID, SenderID, ReceiverID, MTimestamp, ThreadID) VALUES
('msg1', 'user1', 'user2', TO_DATE('2023-01-01', 'YYYY-MM-DD'), 'thread1');
INSERT INTO Message (MessageID, SenderID, ReceiverID, MTimestamp, ThreadID) VALUES
('msg2', 'user2', 'user3', TO_DATE('2023-02-01', 'YYYY-MM-DD'), 'thread2');
INSERT INTO Message (MessageID, SenderID, ReceiverID, MTimestamp, ThreadID) VALUES
('msg3', 'user3', 'user4', TO_DATE('2023-03-01', 'YYYY-MM-DD'), 'thread3');
INSERT INTO Message (MessageID, SenderID, ReceiverID, MTimestamp, ThreadID) VALUES
('msg4', 'user4', 'user5', TO_DATE('2023-04-01', 'YYYY-MM-DD'), 'thread4');
INSERT INTO Message (MessageID, SenderID, ReceiverID, MTimestamp, ThreadID) VALUES
('msg5', 'user5', 'user6', TO_DATE('2023-05-01', 'YYYY-MM-DD'), 'thread5');
INSERT INTO Message (MessageID, SenderID, ReceiverID, MTimestamp, ThreadID) VALUES
('msg6', 'user6', 'user1', TO_DATE('2023-06-01', 'YYYY-MM-DD'), 'thread6');
```

Table Screenshot:

List all your table **instance/data**, after the insertion process take screenshot from each table.

```

Select Run SQL Command Line
USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
user1
user1@example.com
profile1.jpg
pass1

user2
user2@example.com
profile2.jpg
pass2

USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
user3
user3@example.com
profile3.jpg
pass3

user4
user4@example.com
pass4

USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
profile4.jpg
pass5

user5
user5@example.com
profile5.jpg
pass6

user6
pass6

USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
user6@example.com
profile6.jpg

6 rows selected.
  
```

```

Select Run SQL Command Line
USERID      DEGREE
-----
INSTITUTION
-----
GRADUATIONYEAR
-----
user4
University A
MSc Computer Science
2022

user5
University B
MSc Information Technology
2023

user6
University C
PhD Computer Science
2024

6 rows selected.

SQL> select * from S_User;

USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
user1
user1@example.com
profile1.jpg
pass1

user2
user2@example.com
profile2.jpg
pass2

USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
user3
user3@example.com
profile3.jpg
pass3

user4
user4@example.com
pass4

USERID      PASSWORD
-----
EMAILADDRESS
-----
PROFILEPICTURE
-----
profile4.jpg
pass5

user5
pass5
  
```

```
Select Run SQL Command Line
SQL> select * from Instructor;

INSTRUCTORID
-----
BIOGRAPHY
-----
inst1
Expert in AI and Machine Learning
inst2
Specialist in Data Science
inst3
Software Engineering Veteran

INSTRUCTORID
-----
BIOGRAPHY
-----
inst4
Cybersecurity Guru
inst5
Database Systems Expert
inst6
Web Development Enthusiast

6 rows selected.

SQL> select * from EducationalBackground;

USERID          DEGREE
-----
INSTITUTION          GRADUATIONYEAR
-----
user1
University A          BSc Computer Science          2020
user2
University B          BSc Information Technology     2019
user3
University C          BSc Software Engineering      2021

USERID          DEGREE
-----
INSTITUTION          GRADUATIONYEAR
-----
user4
University A          MSc Computer Science          2022
```

```
Select Run SQL Command Line
COURSEID
-----
DESCRIPTION
-----
TOPICS COVERED
-----
INSTRUCTORID          STARTDATE  ENDDATE
-----
course3
Advanced Software Engineering
Design Patterns, Architecture
inst3
01-MAR-23 01-AUG-23

COURSEID
-----
DESCRIPTION
-----
TOPICS COVERED
-----
INSTRUCTORID          STARTDATE  ENDDATE
-----
course4
Cybersecurity Fundamentals
Network Security, Encryption
inst4
01-APR-23 01-SEP-23

COURSEID
-----
DESCRIPTION
-----
TOPICS COVERED
-----
INSTRUCTORID          STARTDATE  ENDDATE
-----
course5
Database Systems
SQL, NoSQL, Transactions
inst5
01-MAY-23 01-OCT-23

COURSEID
-----
DESCRIPTION
-----
TOPICS COVERED
-----
INSTRUCTORID          STARTDATE  ENDDATE
-----
course6
Web Development
HTML, CSS, JavaScript
inst6
01-JUN-23 01-NOV-23
```

```
Select Run SQL Command Line

COURSEID
-----
DESCRIPTION
-----
TOPICSCOVERED
-----
INSTRUCTORID      STARTDATE  ENDDATE
-----
course2
Data Science Basics
Data Analysis, Visualization
Inst2              01-FEB-23  01-JUL-23

COURSEID
-----
DESCRIPTION
-----
TOPICSCOVERED
-----
INSTRUCTORID      STARTDATE  ENDDATE
-----
course3
Advanced Software Engineering
Design Patterns, Architecture
Inst3              01-MAR-23  01-AUG-23

COURSEID
-----
DESCRIPTION
-----
TOPICSCOVERED
-----
INSTRUCTORID      STARTDATE  ENDDATE
-----
course4
Cybersecurity Fundamentals
Network Security, Encryption
Inst4              01-APR-23  01-SEP-23

COURSEID
-----
DESCRIPTION
-----
TOPICSCOVERED
-----
INSTRUCTORID      STARTDATE  ENDDATE
-----
course5
Database Systems
SQL, NoSQL, Transactions
Inst5              01-MAY-23  01-OCT-23
```

```
Select Run SQL Command Line

6 rows selected.

SQL> select* from S_Module;

MODULEID      COURSEID
-----
module1       course1
module2       course2
module3       course3
module4       course4
module5       course5
module6       course6

6 rows selected.

SQL> select* from Enrollment;

ENROLLMENTID  USERID      COURSEID      ENROLLMEN
-----
enroll11      user1        course1        05-JAN-23
enroll12      user2        course2        05-FEB-23
enroll13      user3        course3        05-MAR-23
enroll14      user4        course4        05-APR-23
enroll15      user5        course5        05-MAY-23
enroll16      user6        course6        05-JUN-23

6 rows selected.

SQL> select* from Course;

COURSEID
-----
DESCRIPTION
-----
TOPICSCOVERED
-----
INSTRUCTORID      STARTDATE  ENDDATE
-----
course1
Introduction to AI
AI, ML, Neural Networks
Inst1              01-JAN-23  01-JUN-23

COURSEID
-----
DESCRIPTION
-----
TOPICSCOVERED
-----
INSTRUCTORID      STARTDATE  ENDDATE
-----
course2
Data Science Basics
```

```
Select Run SQL Command Line
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture3
video3.mp4
Summary of lecture 3
90
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture4
video4.mp4
Summary of lecture 4
50
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture5
video5.mp4
Summary of lecture 5
30
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture6
video6.mp4
Summary of lecture 6
40
-----
LECTUREID          MODULEID
-----
```

```
Select Run SQL Command Line
6 rows selected.
SQL> select* from Lecture;
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture1
video1.mp4
Summary of lecture 1
60
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture2
video2.mp4
Summary of lecture 2
45
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture3
video3.mp4
Summary of lecture 3
90
-----
LECTUREID          MODULEID
-----
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
Lecture4
video4.mp4
Summary of lecture 4
50
-----
LECTUREID          MODULEID
-----
```

```
Select Run SQL Command Line

6 rows selected.

SQL> select* from Quiz
2 ;

QUIZID                                MODULEID                                SUBMISSIO    MAXMARKS
-----                                -
quiz1                                 module1                                15-FEB-23    50
quiz2                                 module2                                15-MAR-23    50
quiz3                                 module3                                15-APR-23    50
quiz4                                 module4                                15-MAY-23    50
quiz5                                 module5                                15-JUN-23    50
quiz6                                 module6                                15-JUL-23    50

6 rows selected.

SQL> select* from Assignment;

ASSIGNMENTID                            MODULEID                            SUBMISSIO    MAXMARKS
-----                                -
assignment1                             module1                             01-FEB-23    100
assignment2                             module2                             01-MAR-23    100
assignment3                             module3                             01-APR-23    100
assignment4                             module4                             01-MAY-23    100
assignment5                             module5                             01-JUN-23    100
assignment6                             module6                             01-JUL-23    100

6 rows selected.

SQL> select* from Lecture;

LECTUREID                                MODULEID
-----                                -
VIDEOCONTENT
-----
TEXTSUMMARY
-----
DURATION
-----
lecture1                                 module1
video1.mp4
Summary of lecture 1
60

LECTUREID                                MODULEID
-----                                -
VIDEOCONTENT
-----
TEXTSUMMARY
-----
```

```
Select Run SQL Command Line

SQL> select * from StudyGroup;

GROUPID
-----
group1
group2
group3
group4
group5
group6

6 rows selected.

SQL> select* from QuizAttempt;

QUIZATTEMPTID                            USERID                            QUIZID                            SCORE
-----                                -
attempt1                                 user1                             quiz1                             45
attempt2                                 user2                             quiz2                             40
attempt3                                 user3                             quiz3                             42
attempt4                                 user4                             quiz4                             44
attempt5                                 user5                             quiz5                             43
attempt6                                 user6                             quiz6                             41

6 rows selected.

SQL> select* from Submission;

SUBMISSIONID                            USERID                            ASSIGNMENTID                            MTIMESTAM
-----                                -
submission1                             user1                             assignment1                            01-FEB-23
submission2                             user2                             assignment2                            01-MAR-23
submission3                             user3                             assignment3                            01-APR-23
submission4                             user4                             assignment4                            01-MAY-23
submission5                             user5                             assignment5                            01-JUN-23
submission6                             user6                             assignment6                            01-JUL-23

6 rows selected.

SQL> select* from Quiz
2 ;

QUIZID                                MODULEID                                SUBMISSIO    MAXMARKS
-----                                -
quiz1                                 module1                                15-FEB-23    50
quiz2                                 module2                                15-MAR-23    50
quiz3                                 module3                                15-APR-23    50
quiz4                                 module4                                15-MAY-23    50
quiz5                                 module5                                15-JUN-23    50
quiz6                                 module6                                15-JUL-23    50

6 rows selected.
```



```
Select Run SQL Command Line

6 rows selected.

SQL> select* from Announcement;

ANNOUNCEMENTID      COURSEID      MTIMESTAM
-----
ann1                 course1       01-JAN-23
ann2                 course2       01-FEB-23
ann3                 course3       01-MAR-23
ann4                 course4       01-APR-23
ann5                 course5       01-MAY-23
ann6                 course6       01-JUN-23

6 rows selected.

SQL> select* from Post;

POSTID      GROUPID      USERID      MTIMESTAM
-----
post1       group1       user1       01-JAN-23
post2       group2       user2       01-FEB-23
post3       group3       user3       01-MAR-23
post4       group4       user4       01-APR-23
post5       group5       user5       01-MAY-23
post6       group6       user6       01-JUN-23

6 rows selected.

SQL> select* from StudyGroupMembership;

GROUPID      USERID
-----
group1       user1
group2       user2
group3       user3
group4       user4
group5       user5
group6       user6

6 rows selected.

SQL> select * from StudyGroup;

GROUPID
-----
group1
group2
group3
group4
group5
group6
```

```
Select Run SQL Command Line

SQL> select * from ConversationThread;

THREADID      COURSEID
-----
thread1       course1
thread2       course2
thread3       course3
thread4       course4
thread5       course5
thread6       course6

6 rows selected.

SQL> select * from Certificate;

CERTIFICATEID      USERID      COURSEID      DATEOFISS
-----
cert1              user1       course1       01-JUN-23
cert2              user2       course2       01-JUL-23
cert3              user3       course3       01-AUG-23
cert4              user4       course4       01-SEP-23
cert5              user5       course5       01-OCT-23
cert6              user6       course6       01-NOV-23

6 rows selected.

SQL> select* from Feedback;

FEEDBACKID      USERID      COURSEID      RATINGS
-----
fb1              user1       course1       5
Great course!

fb2              user2       course2       4
Very informative

fb3              user3       course3       5
Loved it

FEEDBACKID      USERID      COURSEID      RATINGS
-----
fb4              user4       course4       3
Good, but could be better

fb5              user5       course5       4
Well explained

fb6              user6       course6       5
Excellent content

6 rows selected.

SQL> select* from Announcement;

ANNOUNCEMENTID      COURSEID      MTIMESTAM
-----
ann1                 course1       01-JAN-23
ann2                 course2       01-FEB-23
```

```

Select Run SQL Command Line
thread6

6 rows selected.
SQL> set linesize 200 ;
SQL> select* from Message;

MESSAGEID          SENDERID          RECEIVERID          MTIMESTAM
-----
THREADID
-----
msg1
thread1            user1              user2              01-JAN-23
msg2
thread2            user2              user3              01-FEB-23
msg3
thread3            user3              user4              01-MAR-23
MESSAGEID          SENDERID          RECEIVERID          MTIMESTAM
-----
THREADID
-----
msg4
thread4            user4              user5              01-APR-23
msg5
thread5            user5              user6              01-MAY-23
msg6
thread6            user6              user1              01-JUN-23

6 rows selected.

SQL> select* from ConversationThread;
2 select* from ConversationThread;
select* from ConversationThread
*
ERROR at line 2:
ORA-00933: SQL command not properly ended

SQL> select * from ConversationThread;

THREADID          COURSEID
-----
thread1            course1
thread2            course2

```

Query Implementation:

Views list:

```

1.
2. -- 1-View for User Enrollment Details: This view combines
   information f
3. --rom the S_User, Enrollment, and Course tables to show which users
   are enrolled in which courses.
4.
5. CREATE VIEW UserEnrollmentDetails AS
6. SELECT
7.     u.UserID,
8.     u.EmailAddress,
9.     c.CourseID,
10.    c.Description,
11.    e.EnrollmentDate
12. FROM
13.     S_User u
14. JOIN
15.     Enrollment e ON u.UserID = e.UserID

```

```
16. JOIN
17.     Course c ON e.CourseID = c.CourseID;
18.
19.
20. select * from UserEnrollmentDetails;
21.
22.--2- View for Course Instructors: This view combines information
    from the Course and Instructor tables
23.--to show which instructor is teaching which course.
24.
25.CREATE VIEW CourseInstructors AS
26.SELECT
27.     c.CourseID,
28.     c.Description AS CourseDescription,
29.     i.InstructorID,
30.     i.Biography AS InstructorBiography
31.FROM
32.     Course c
33.JOIN
34.     Instructor i ON c.InstructorID = i.InstructorID;
35.
36.select * from CourseInstructors;
37.-
38.-
```

Queries list:

```
1.
2. --1-Query to find all courses a specific user is enrolled in:
3. SELECT
4.     c.CourseID,
5.     c.Description
6. FROM
7.     UserEnrollmentDetails ued
8. JOIN
9.     Course c ON ued.CourseID = c.CourseID
10.WHERE
11.     ued.UserID = 'user1';
12.
13.--2-Query to find all users enrolled in a specific course:
14.
```

```
15. SELECT
16.     u.UserID,
17.     u.EmailAddress
18. FROM
19.     UserEnrollmentDetails ued
20. JOIN
21.     S_User u ON ued.UserID = u.UserID
22. WHERE
23.     ued.CourseID = 'course1';
24.
25. --3-Query to find the instructor of a specific course:
26. SELECT
27.     ci.InstructorID,
28.     ci.InstructorBiography
29. FROM
30.     CourseInstructors ci
31. WHERE
32.     ci.CourseID = 'course1';
33.
34. --4-Query to list all courses along with their instructors:
35.
36. SELECT
37.     ci.CourseID,
38.     ci.CourseDescription,
39.     ci.InstructorID,
40.     ci.InstructorBiography
41. FROM
42.     CourseInstructors ci;
43.
44. --5-Query to find the details of a user's educational background:
45. SELECT
46.     eb.UserID,
47.     eb.Degree,
48.     eb.Institution,
49.     eb.GraduationYear
50. FROM
51.     EducationalBackground eb
52. WHERE
53.     eb.UserID = 'user1';
54. --6-Query to find all users who have submitted assignments for a
    specific module:
55. SELECT
56.     s.UserID,
57.     s.SubmissionID,
```

```
58.     s.MTimestamp
59. FROM
60.     Submission s
61. JOIN
62.     Assignment a ON s.AssignmentID = a.AssignmentID
63. WHERE
64.     a.ModuleID = 'module1';
65.
66. --7-Query to get the highest score in a specific quiz:
67.
68. SELECT
69.     MAX(qa.Score) AS HighestScore
70. FROM
71.     QuizAttempt qa
72. WHERE
73.     qa.QuizID = 'quiz1';
74.
75. --8-Query to list all announcements made for a specific course:
76. SELECT
77.     a.AnnouncementID,
78.     a.MTimestamp
79. FROM
80.     Announcement a
81. WHERE
82.     a.CourseID = 'course1';
83.
84. -
85. -
```

Createsh the result of **two views** and **eight queries** from the above lists.

The image shows two screenshots of a 'Run SQL Command Line' window. The first screenshot shows the creation of a view named 'UserEnrollmentDetails' and a query that returns a table with columns: USERID, EMAILADDRESS, COURSEID, DESCRIPTION, and ENROLLMEN. The second screenshot shows the same window with a query that returns a table with columns: USERID, EMAILADDRESS, COURSEID, DESCRIPTION, and ENROLLMEN. The results show three rows of data for three different users.

```
SQL> CREATE VIEW UserEnrollmentDetails AS
2 SELECT
3   u.UserID,
4   u.EmailAddress,
5   c.CourseID,
6   c.Description,
7   e.EnrollmentDate
8 FROM
9   S_User u
10 JOIN
11   Enrollment e ON u.UserID = e.UserID
12 JOIN
13   Course c ON e.CourseID = c.CourseID;
View created.
SQL>
SQL>
SQL> select * from UserEnrollmentDetails;
USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
user1
user1@example.com
course1
USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
Introduction to AI
05-JAN-23
USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
user2
user2@example.com
course2
USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
Data Science Basics
05-FEB-23
USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
user3
user3@example.com
course3
USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
```

```
Select Run SQL Command Line
-----
DESCRIPTION
-----
ENROLLMEN
-----
Advanced Software Engineering
05-MAR-23

USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
user4
user4@example.com
course4

USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
Cybersecurity Fundamentals
05-APR-23

USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
user5
user5@example.com
course5

USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
Database Systems
05-MAY-23

USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
user6
user6@example.com
course6

USERID
-----
EMAILADDRESS
-----
COURSEID
-----
DESCRIPTION
-----
ENROLLMEN
-----
Web Development
05-JUN-23
```

```
Select Run SQL Command Line
SQL> CREATE VIEW CourseInstructors AS
2 SELECT
3   c.CourseID,
4   c.Description AS CourseDescription,
5   i.InstructorID,
6   i.Biography AS InstructorBiography
7 FROM
8   Course c
9 JOIN
10  Instructor i ON c.InstructorID = i.InstructorID;
View created.
SQL>
SQL>
SQL> select * from CourseInstructors;

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course1
Introduction to AI
inst1
Expert in AI and Machine Learning

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course2
Data Science Basics
inst2
Specialist in Data Science

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course3
Advanced Software Engineering
inst3
Software Engineering Veteran

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course4
Cybersecurity Fundamentals
inst4
Cybersecurity Guru

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course5
Database Systems
inst5
Database Systems Expert

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
```



```
Select Run SQL Command Line
-----
course3
Advanced Software Engineering
inst3
Software Engineering Veteran

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course4
Cybersecurity Fundamentals
inst4
Cybersecurity Guru

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course5
Database Systems
inst5
Database Systems Expert

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course6
Web Development
inst6
Web Development Enthusiast

0 rows selected.

Select Run SQL Command Line
SQL>
SQL> --1-Query to find all courses a specific user is enrolled in:
SQL> SELECT
2   c.CourseID,
3   c.Description
4 FROM
5   UserEnrollmentDetails ued
6 JOIN
7   Course c ON ued.CourseID = c.CourseID
8 WHERE
9   ued.UserID = 'user1';

COURSEID
-----
DESCRIPTION
-----
course1
Introduction to AI

SQL>
SQL>
SQL> --2-Query to find all users enrolled in a specific course:
SQL> SELECT
2   u.UserID,
3   u.EmailAddress
4 FROM
5   UserEnrollmentDetails ued
6 JOIN
7   S_User u ON ued.UserID = u.UserID
8 WHERE
9   ued.CourseID = 'course1';

USERID
-----
EMAILADDRESS
-----
user1
user1@example.com

SQL>
SQL> --3-Query to find the instructor of a specific course:
SQL> SELECT
2   ci.InstructorID,
3   ci.InstructorBiography
4 FROM
5   CourseInstructors ci
6 WHERE
```

```

Select Run SQL Command Line
SQL> --3-Query to find the instructor of a specific course:
SQL> SELECT
  2   ci.InstructorID,
  3   ci.InstructorBiography
  4 FROM
  5   CourseInstructors ci
  6 WHERE
  7   ci.CourseID = 'course1';

INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
inst1
Expert in AI and Machine Learning

SQL>
SQL>
SQL> --4-Query to list all courses along with their instructors:
SQL>
SQL> SELECT
  2   ci.CourseID,
  3   ci.CourseDescription,
  4   ci.InstructorID,
  5   ci.InstructorBiography
  6 FROM
  7   CourseInstructors ci;

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course1
Introduction to AI
inst1
Expert in AI and Machine Learning

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course2
Data Science Basics
inst2
Specialist in Data Science

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course3
Advanced Software Engineering
inst3
Software Engineering Veteran

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----
course4
Cybersecurity Fundamentals
inst4
Cybersecurity Guru

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUCTORID
-----
INSTRUCTORBIOGRAPHY
-----

```

```
Select Run SQL Command Line
-----
COURSEDESCRIPTION
-----
INSTRUKTORID
-----
INSTRUKTORBIOGRAPHY
-----
course5
Database Systems
inst5
Database Systems Expert

COURSEID
-----
COURSEDESCRIPTION
-----
INSTRUKTORID
-----
INSTRUKTORBIOGRAPHY
-----
course6
Web Development
inst6
Web Development Enthusiast

6 rows selected.

SQL>
SQL> --5-Query to find the details of a user's educational background:
SQL> SELECT
2     eb.UserID,
3     eb.Degree,
4     eb.Institution,
5     eb.GraduationYear
6 FROM
7     EducationalBackground eb
8 WHERE
9     eb.UserID = 'user1';

USERID
-----
DEGREE
-----
INSTITUTION
-----
GRADUATIONYEAR
-----
user1
BSc Computer Science
University A
2020

SQL> --6-Query to find all users who have submitted assignments for a specific module:
SQL> SELECT
2     s.UserID,
3     s.SubmissionID,
4     s.Timestamp
5 FROM
6     Submission s
7 JOIN
8     Assignment a ON s.AssignmentID = a.AssignmentID
9 WHERE
10    a.ModuleID = 'module1';

USERID
-----
SUBMISSIONID
-----
TIMESTAMP
-----
user1
submission1
01-FEB-23

SQL>
SQL> --7-Query to get the highest score in a specific quiz:
SQL> SELECT
```

```

Select Run SQL Command Line
4 s.PTtimestamp
5 FROM
6 Submission s
7 JOIN
8 Assignment a ON s.AssignmentID = a.AssignmentID
9 WHERE
10 a.ModuleID = 'module1';

USERID
-----
SUBMISSIONID
-----
TIMESTAM
-----
user1
submission1 01-FEB-23

SQL>
SQL> --7-Query to get the highest score in a specific quiz:
SQL>
SQL> SELECT
2 MAX(qa.Score) AS HighestScore
3 FROM
4 QuizAttempt qa
5 WHERE
6 qa.QuizID = 'quiz1';

HIGHESTSCORE
-----
45

SQL>
SQL> --8-Query to list all announcements made for a specific course:
SQL> SELECT
2 a.AnnouncementID,
3 a.PTtimestamp
4 FROM
5 Announcement a
6 WHERE
7 a.CourseID = 'course1';

ANNOUNCEMENTID
-----
TIMESTAM
-----
ann1 01-JAN-23

SQL>
SQL>
SQL>
SQL>

```