# **Tables**

### **User Table:**

```
Create Sequence UsID;
CREATE TABLE Users (
  UserID INT PRIMARY KEY,
  Username VARCHAR(255) NOT NULL,
  Email VARCHAR(255) UNIQUE NOT NULL,
  Password VARCHAR(255) NOT NULL,
    IsActive char(1) DEFAULT 'y'
);
INSERT INTO Users (userid, Username, Email, Password)
VALUES (1, 'john doe', 'john@gmail.com', 'password123');
INSERT INTO Users (userid, Username, Email, Password)
VALUES (2,'emily', 'emily@gmail.com', 'securepassword');
INSERT INTO Users (userid, Username, Email, Password)
VALUES (3,'Ali', 'ali23@hotmail.com', 'wonderland123');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (4, 'sarah williams', 'sarah@yahoo.com', 'williams123');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (5, 'ryan miller', 'ryan@gmail.com', 'miller456');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (6, 'lisa brown', 'lisa@gmail.com', 'brown789');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (7, 'kevin_jackson', 'kevin@gmail.com', 'jackson123');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (8, 'natalie_taylor', 'natalie@gmail.com', 'taylor456');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (9, 'chris_evans', 'chris@gmail.com', 'evans789');
INSERT INTO Users (UserID, Username, Email, Password)
VALUES (10, 'amanda white', 'amanda@gmail.com', 'white123');
```

```
SET isactive = 'n'
WHERE userid in(1,5,7,4);
ALTER TABLE Users
ADD UserType char(1) DEFAULT 's';
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (11, 'admin1', 'admin1@gmail.com', 'admin1','a');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (12, 'admin2', 'admin2@gmail.com', 'admin2', 'a');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (13, 'Andrew Ng', 'Andrew_Ng@gmail.com', 'i1_Andrew','i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (14, 'Charles Severance', 'Charles_Severance@gmail.com', 'i2_Charles','i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (15, 'Laurie Santos', 'Laurie Santos@gmail.com', 'i3 Santos', 'i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (16, 'Jeff Leek', 'Jeff Leek@gmail.com', 'i4 Jeff Leek','i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (17, 'Robert Shiller', 'Robert_Shiller@gmail.com', 'i5_Robert_Shiller','i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (18, 'Barbara Oakley', 'Barbara.Oakley@gmail.com', 'i6 Barbara Oakley', 'i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (19, 'Roger D.Peng', 'Roger@gmail.com', 'i7_Roger','i');
INSERT INTO Users (UserID, Username, Email, Password, usertype)
VALUES (20, 'Prashan Karunaratne', 'Prashan Karunaratne@gmail.com',
'i8 Prashan Karunaratne','i');
```

**UPDATE** users

#### Course Table:

```
CREATE TABLE Course (
CourseID int PRIMARY KEY,
Title VARCHAR(255) NOT NULL,
Description varchar(400),
Subject VARCHAR(100),
University VARCHAR(100),
Instructor VARCHAR(255)
);
```

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (1,'Machine Learning', 'Learn about the most effective machine learning techniques, and gain practice implementing them and getting them to work for yourself.', 'Computer Science', 'Stanford University', 'Andrew Ng');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (2,'Neural Networks and Deep Learning', 'If you want to break into cutting-edge AI, this course will help you do so. Deep learning engineers are highly sought after, and mastering deep learning will give you numerous new career opportunities.', 'Computer Science', 'deeplearning.ai', 'Andrew Ng');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (3,'Python for Everybody', 'This course aims to teach everyone the basics of programming computers using Python. We cover the basics of how one constructs a program from a series of simple instructions in Python.', 'Computer Science', 'University of Michigan', 'Dr. Charles Severance');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (4,'The Science of Well-Being', 'In this course you will engage in a series of challenges designed to increase your own happiness and build more productive habits. As preparation for these tasks, Professor Laurie Santos reveals misconceptions about happiness, annoying features of the mind that lead us to think the way we do, and the research that can help us change.', 'Psychology', 'Yale University', 'Dr. Laurie Santos');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (5,'Data Science Specialization', 'Launch Your Career in Data Science. A ten-course introduction to data science, developed and taught by leading professors.', 'Data Science', 'Johns Hopkins University', 'Dr. Jeff Leek');

INSERT INTO Course (CourseID, Title, Description, Subject, University, Instructor)

VALUES (6,'Financial Markets', 'An overview of the ideas, methods, and institutions that permit human society to manage risks and foster enterprise.', 'Economics & Finance', 'Yale University', 'Dr. Robert Shiller');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (7,'Learning How to Learn', 'This course gives you easy access to the invaluable learning techniques used by experts in art, music, literature, math, science, sports, and many other disciplines.', 'Learning & Study Skills', 'McMaster University', 'Dr. Barbara Oakley');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (8,'R Programming', 'In this course, you will learn how to program in R and how to use R for effective data analysis.', 'Computer Science', 'Johns Hopkins University', 'Dr. Roger D. Peng');

INSERT INTO Course (CourseID, Title, Description, Subject, University, Instructor) VALUES (9,'Excel Skills for Business', 'This specialization will introduce you to the world of analytics, where you will learn to stand out in business by mastering analysis techniques using Excel.', 'Business', 'Macquarie University', 'Dr. Prashan Karunaratne');

INSERT INTO Course (CourseID ,Title, Description, Subject, University, Instructor) VALUES (10,'The Data Scientist's Toolbox', 'In this course, you will get an introduction to the main tools and ideas in the data scientist's toolbox. The course gives an overview of the data, questions, and tools that data analysts and data scientists work with.', 'Data Science', 'Johns Hopkins University', 'Dr. Roger D. Peng');

ALTER TABLE Course
ADD Status varchar(10) DEFAULT 'pending';

UPDATE course SET status = 'approved' WHERE courseid in( 1,3,5,7,4,8,10);

### CourseEnrollment Table:

CREATE TABLE CourseEnrollment (

EnrollmentID int PRIMARY KEY,

UserID int,

FOREIGN KEY (UserID) REFERENCES Users (UserID),

```
CourseID int,
      FOREIGN KEY (CourseID) REFERENCES Course (CourseID),
      EnrollmentDate date
);
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
VALUES (1, 10, 5, TO DATE('2024-04-10', 'YYYY-MM-DD'));
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
VALUES (2, 3, 5, TO DATE('2022-05-11', 'YYYY-MM-DD'));
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
VALUES (3, 1, 1, TO_DATE('2023-05-11', 'YYYY-MM-DD'));
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
VALUES (4, 1, 7, TO DATE('2024-01-10', 'YYYY-MM-DD'));
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
VALUES (5, 4, 10, TO_DATE('2024-03-30', 'YYYY-MM-DD'));
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
VALUES (6, 8, 8, TO_DATE('2024-05-01', 'YYYY-MM-DD'));
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
```

VALUES (7, 8, 3, TO\_DATE('2023-10-10', 'YYYY-MM-DD'));

```
INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
      VALUES(8, 3, 4, TO DATE('2023-12-11', 'YYYY-MM-DD'));
      INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
      VALUES (9, 4, 9, TO DATE('2021-05-11', 'YYYY-MM-DD'));
      INSERT INTO CourseEnrollment (EnrollmentID, UserID, CourseID, EnrollmentDate)
      VALUES (10, 4, 2, TO_DATE('2024-02-01', 'YYYY-MM-DD'));
<u>CourseProgress Table:</u>
      CREATE TABLE CourseProgress (
            ProgressID VARCHAR(255) PRIMARY KEY,
            UserID INT,
            FOREIGN KEY (UserID) REFERENCES Users (UserID),
            CourseID INT.
            FOREIGN KEY (CourseID) REFERENCES Course (CourseID),
            CompletedAssignments VARCHAR(255),
            UpcomingAssignments VARCHAR(255),
            ViewedLectures VARCHAR(255)
      INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments,
      UpcomingAssignments, ViewedLectures)
      VALUES ('10 5', 10, 5, 'Assignment 1, Assignment 2', 'Assignment 3', 'Lecture 1, Lecture
      2,Lecture 3');
      INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments,
      UpcomingAssignments, ViewedLectures)
      VALUES ('3 5', 3, 5, 'Assignment 1, Assignment 2, Assignment 3', 'Assignment 4',
      'Lecture 1,Lecture 2,Lecture 3,Lecture 4');
      INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments,
      UpcomingAssignments, ViewedLectures)
      VALUES ('1_1', 1, 1, 'Assignment 1, Assignment 2', 'Assignment 3', 'Lecture 1, Lecture
      2,Lecture 3');
      INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments,
      UpcomingAssignments, ViewedLectures)
      VALUES ('1 7', 1, 7, 'Assignment 1', 'Assignment2 , Assignment 3', 'Lecture 1, Lecture
      2,Lecture 3');
```

```
INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments, UpcomingAssignments, ViewedLectures)
```

VALUES ('4\_10', 4, 10, 'Assignment 1, Assignment 2, Assignment 3, Assignment 4', 'Assignment 5', 'Lecture 1, Lecture 2, Lecture 3, Lecture 4, Lecture 5');

INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments, UpcomingAssignments, ViewedLectures)

VALUES ('8\_8', 8, 8, 'Assignment 1, Assignment 2', 'Assignment 2', 'Lecture 1, Lecture 2');

INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments, UpcomingAssignments, ViewedLectures)

VALUES ('8\_3', 8, 3, 'Assignment 1, Assignment 2, Assignment 3, Assignment 4', 'Assignment 5', 'Lecture 1, Lecture 2, Lecture 3, Lecture 4, Lecture 5');

INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments, UpcomingAssignments, ViewedLectures)

VALUES ('3\_4', 3, 4, 'Assignment 1,Assignment 2,Assignment 3,Assignment 4,Assignment 5,Assignment 6', 'Assignment 7', 'Lecture 1,Lecture 2,Lecture 3,Lecture 4,Lecture 5,Lecture 6,Lecture 7');

INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments, UpcomingAssignments, ViewedLectures)

VALUES ('4\_9', 4, 9, 'Assignment 1, Assignment 2, Assignment 3', 'Assignment 4', 'Lecture 1, Lecture 2, Lecture 3, Lecture 4');

INSERT INTO CourseProgress (ProgressID, UserID, CourseID, CompletedAssignments, UpcomingAssignments, ViewedLectures)

VALUES ('4\_2', 4, 2, 'Assignment 1', 'Assignment 2', 'Lecture 1,Lecture 2');

## **Certification Table:**

```
CREATE TABLE Certification(
    CertificationID INT,
    UserID INT,
    CourseID INT,
    CertificationDate DATE,
    FOREIGN KEY (UserID) REFERENCES Users(UserID),
    FOREIGN KEY (CourseID) REFERENCES Course(CourseID)
);
```

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate)

VALUES (1, 1, 1, TO\_DATE('2023-05-10', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(2, 2, 2, TO\_DATE('2023-06-15', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(3, 1, 3, TO DATE('2023-07-20', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(4, 3, 4, TO\_DATE('2023-08-25', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(5, 19, 5, TO DATE('2023-09-30', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(6, 9, 6, TO\_DATE('2023-10-05', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(7, 2, 7, TO DATE('2023-11-10', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(8, 1, 8, TO\_DATE('2023-12-15', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(9, 3, 9, TO\_DATE('2024-01-20', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(10, 17, 10, TO\_DATE('2024-02-25', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(1, 18, 1, TO\_DATE('2024-02-25', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(2, 7, 2, TO DATE('2024-03-30', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(3, 6, 3, TO\_DATE('2024-04-05', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(4, 2, 4, TO\_DATE('2024-05-10', 'YYYY-MM-DD'));

INSERT INTO Certification (CertificationID, UserID, CourseID, CertificationDate) VALUES(5, 4, 5,TO\_DATE('2024-06-15', 'YYYY-MM-DD'));

#### Feedback Table:

```
CREATE TABLE Feedback (
  FeedbackID INT PRIMARY KEY,
  UserID INT,
  CourseID INT,
  InstructorID INT,
  Rating INT,
  Cmmnt varchar(255),
  CmmntDate Date,
  FOREIGN KEY (UserID) REFERENCES Users(UserID),
  FOREIGN KEY (CourseID) REFERENCES Course(CourseID),
  FOREIGN KEY (InstructorID) REFERENCES Users (UserID)
);
INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt,
CmmntDate)
VALUES (1, 1, 1, 1, 5, 'Great course!', TO DATE('2023-05-12', 'YYYY-MM-DD'));
INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt,
CmmntDate)
VALUES (2, 2, 2, 4, 'Enjoyed the course, but some topics were a bit confusing.',
TO DATE('2023-06-22', 'YYYY-MM-DD'));
INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt,
CmmntDate)
VALUES (3, 1, 1, 1, 4, 'I learned a lot, but the pace was a bit fast for me.',
TO DATE('2023-05-15', 'YYYY-MM-DD'));
INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt,
CmmntDate)
VALUES (4, 2, 2, 2, 5, 'The instructor was very knowledgeable and explained everything
clearly.', TO DATE('2023-06-25', 'YYYY-MM-DD'));
INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt,
CmmntDate)
VALUES (5, 1, 1, 1, 4, 'Good course material, but could use more practical
examples.',TO DATE('2023-05-18', 'YYYY-MM-DD'));
INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt,
CmmntDate)
```

VALUES (6, 2, 2, 3, 'The course was okay, but the instructor could have been more engaging.',TO\_DATE('2023-06-28', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (7, 2, 2, 4, 'Enjoyed the course, but some topics were a bit confusing.', TO DATE('2024-06-22', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (8, 2, 2, 4, 'I enjoyed the course, but the assignments were a bit challenging.', TO\_DATE('2024-07-01', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (9, 1, 1, 1, 4, 'The course was informative, but the video quality could be improved.', TO DATE('2023-05-22', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (10, 2, 2, 2, 5, 'Great instructor and course material.', TO\_DATE('2023-07-05', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (11, 1, 1, 1, 3, 'The course was too basic for me.', TO\_DATE('2023-05-25', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (12, 2, 2, 4, 'The course was well-organized and easy to follow.', TO\_DATE('2020-07-08', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (13, 1, 1, 1, 5, 'I learned a lot from this course and it exceeded my expectations.', TO\_DATE('2021-05-28', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (14, 2, 2, 2, 4, 'The course content was good, but the quizzes were too difficult.', TO\_DATE('2019-07-11', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (15, 1, 1, 1, 4, 'The instructor was very knowledgeable, but the course was a bit short.', TO\_DATE('2023-05-30', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (16, 2, 2, 2, 5, 'The course was excellent and I learned a lot.', TO\_DATE('2023-07-14', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (17, 1, 1, 1, 4, 'The course was good overall, but some topics were not explained clearly.', TO\_DATE('2023-06-02', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (18, 2, 2, 2, 3, 'The course was too long and repetitive.',TO\_DATE('2023-07-17', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (19, 1, 1, 1, 5, 'I really enjoyed this course and found it very useful.', TO DATE('2023-06-05', 'YYYY-MM-DD'));

INSERT INTO Feedback (FeedbackID, UserID, CourseID, InstructorID, Rating, cmmnt, CmmntDate)

VALUES (20, 2, 2, 4, 'The course content was excellent, but the pace was too slow for me.', TO\_DATE('2023-07-20', 'YYYY-MM-DD'));

# **Procedures**

## **Get Progress Procedure:**

```
create or replace
PROCEDURE GetCourseProgress(
    p_user_id IN NUMBER,
    p_result OUT SYS_REFCURSOR
) AS
BEGIN
    OPEN p_result FOR
    SELECT ProgressID, CompletedAssignments , UpcomingAssignments, ViewedLectures
    FROM CourseProgress
    WHERE UserId = p_user_id;
END GetCourseProgress;
```

## Get User Info Procedure:

```
CREATE OR REPLACE PROCEDURE GET_USER_INFO (
 P_EMAIL IN VARCHAR2,
 P PASSWORD IN VARCHAR2,
 P_USERID OUT NUMBER,
 P_USERNAME OUT VARCHAR2,
 P_USERTYPE OUT VARCHAR2,
 P_ISACTIVE OUT VARCHAR2
)
AS
BEGIN
 SELECT UserId, Username, UserType, IsActive
 INTO P USERID, P USERNAME, P USERTYPE, P ISACTIVE
 FROM Users
 WHERE Email = P EMAIL
 AND Password = P_PASSWORD;
EXCEPTION
 WHEN NO_DATA_FOUND THEN
   P_USERID := 0;
END:
```