

Relational Schema:

User(ID, email, password, first_name, last_name, gender , address)

UserTelNumbers(user_ID,mobile number)

UserTelNumber.user_ID references User.ID

Admin(user_ID)

Admin.user_ID references User.ID

Instructor(user_ID,avg_rate)

Instructor.user_ID references User.ID

Where avg_rate = AVG(student_rate)

Student(user_ID,GPA)

Student.user_ID references User.ID

Course(ID, course_content, course_descp, name, credit_hours, price)

Feedback(course_ID, ID, No_of_likes)

Feedback.course_ID references course.ID

Comments(feedback_ID, comment)

Coments.feedback_ID references Feedback

Certificate(certificate_number, issues_date)

Assignment(course_ID, number_type, content, deadline, weight, full_grade)

Assignment.course_ID references Course.ID

CreditCard(number , expiry_date , CVV , card_holder_name)

PromoCode(code , discount_amount , issue_date , expiry_date)

viewAndSearch(user_ID,course_ID)

viewAndSearch.user_ID references User

viewAndSearch.course_ID references Course

adminIssuesPromo(user_ID,promo_ID)

adminIssuesPromo.user_ID references User

adminIssuesPromo.promo_ID references PromoCode

adminReviewsCourses(user_ID,course_ID, Accept)

adminReviewsCourses.user_ID references User

adminReviewsCourses.course_ID references Course

instructorManageCourse(instructor_ID,course_ID)

instructorManageCourse.instructor_ID references Instructor
instructorManageCourse.course_ID references Course

instrucorAddInstructor(instructor_ID,instructor2_ID)

instrucorAddInstructor.instructor_ID references Instructor
instrucorAddInstructor.instructor2_ID references Instructor

studentRateInstructor(student_ID , Instructor_ID , student_rate)

studentRateInstructor.student_ID references Student
studentRateInstructor.instrictor_ID references Instructor
instructorDefineAssign(instructor_ID,assign_ID)

instructorDefineAssign.assign_ID references Assignment
instructorDefineAssign.instrictor_ID references Instructor

studentHasAssign(student_ID, assign_ID , weight_score, score)

studentHasAssign.student_ID references Student
studentHasAssign.assign_D references Assignment
Where weight_score = score * weight

studentApplyCourse(student_ID, course_ID , grade)

studentApplyCourse.student_ID references Student
studentApplyCourse.course_ID references Course
studentApplyCourse.promoCode_ID references promoCode
Where grade = SUM(studentHasAssign.weight_score),
studentHasCreditcard(student_ID, creditcard_number)

studentHasCreditcard.student_ID references Student
studentHasCreditcard.creditcard_number references CreditCard
studentAddFeedback(student_ID, feedback_ID)

studentAddFeedback.student_ID references Student
studentAddFeedback.feedback_ID references Feedback

studentTakeCertificate(student_id, course_ID, certificate_number)

studentTakeCertificate.student_ID references Student
studentTakeCertificate.course_ID references Course
studentTakeCertificate.certificate_number references Certificate

courselsAPreq(course_ID, course2_ID)

courselsAPreq.course_ID references Course
courselsAPreq.course2_ID references Course
courseHasAssign(course_ID, assign_ID)

courseHasAssign.course_ID references Course
courseHasAssign.assign_ID references Assignment
courseHasFeedback(course_ID, feedbackID)

courseHasFeedback.course_ID references Course
courseHasFeedback.feedbackID references Feedback.feedbackID

Transaction(student_ID, course_ID, promoCode_ID, discount, final_price)

Transaction.student_ID references student
Transaction.course_ID references course
Transaction.promocode_ID references promoCode
Transaction.discount references promoCode.discount_amount
Where final_price = course.price - discount