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Relational Schema

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Contents

1 Entites

1.1 School

School(<u>id</u>, name, vision, mission, main_language, type, fees, address, email, general_info)

SchoolPhoneNumber(<u>school_id</u> , <u>telephone_number</u>)

SchoolPhoneNumber.school_id references School

1.1.1 ElementarySchool

ElementarySchool(<u>school_id</u> , supplies, <u>level_id</u>)

ElementarySchool.level_id references Level
ElementarySchool.school_id references School

1.1.2 MiddleSchool

MiddleSchool(<u>school_id</u> , <u>level_id</u>)

MiddleSchool.level_id references Level
MiddleSchool.school_id references School

1.1.3 HighSchool

HighSchool(<u>school_id</u> , <u>level_id</u>)

HighSchool.level_id references Level
HighSchool.school_id references School

1.2 Level

Level(<u>id</u>)

1.3 Club

Club(<u>name</u>, <u>high_school_id</u> ,purpose)

Club.high_school_id references HighSchool

1.4 Employee

Employee(<u>username</u>, password, first_name, middle_name,last_name, birthdate, address, email, salary,gender, <u>school_id</u>)

Employee.school_id references School

1.4.1 Teacher

Teacher(employee_username , years_of_experience)

Teacher.employee_username references Employee

1.4.2 Administrator

Administrator(employee_username)

Administrator.employee_username references Employee

1.5 Activities

Activities(id, date, adminstrator_username, teacher_username , location, equipment, type, description)

Activities.adminstrator_username references Administrator
Activities.teacher_username references Teacher

1.6 Parent

Parent(username,password,first_name,last_name,email,home_number,address)

ParentPhoneNumber(parent_username , telephone_number)

ParentPhoneNumber.parent_username references Parent

1.7 Child

Child(ssn, name,birth_date, age, gender)

Where Child.age = CURRENT_YEAR - YEAR(birth_date)

1.7.1 Student

Student(child_ssn , school_id , username, password, grade)

Student.child_ssn references Child
Student.school_id references School

1.8 Question

Question(id, teacher_username , title, content, answer)

Question.teacher_username references Teacher

1.9 StudentReport

StudentReport(<u>date</u>, <u>student_ssn, teacher_username</u> , teacher_comment, parent_reply)

StudentReport.student_ssn references Student
StudentReport.teacher_username references Teacher

1.10 Course

Course(<u>code</u>, name, description)

1.11 Assignment

Assignment(<u>id</u>, content, posting_date, due_date, <u>course_code, teacher_username</u>)

Assignment.course_code references Course
Assignment.teacher_username references Teacher

1.12 Solution

Solution(<u>student_ssn, assignment_id, teacher_username</u> , content,grade)

Solution.teacher_username references Teacher
Solution.student_ssn references Student
Solution.assignment_id references Assignment

1.13 Announcement

Announcement(<u>id</u>, date, type, description,title, <u>adminstrator_username</u>)

Announcement.adminstrator_username references Administrator

2 Binary Relations

2.1 StudentJoinedClub

StudentJoinedClub(<u>student_ssn, club_name, high_school_id</u>)

StudentJoinedClub.student_ssn references Student
StudentJoinedClub.high_school_id references Club.high_school_id
StudentJoinedClub.club_name references Club.name

2.2 StudentParticipatesInActivitiy

StudentParticipatesInActivitiy(activity_id, student_ssn)

StudentParticipatesInActivitiy.activity_id references Activities
StudentParticipatesInActivitiy.student_ssn references Student

2.3 ChildHasParent

ChildHasParent(child_ssn, parent_username)

ChildHasParent.child_ssn references Child
ChildHasParent.parent_username references Parent

2.4 CoursePrerequisiteIsCourse

CoursePrerequisiteIsCourse(course1_id,course2_id)
CoursePrerequisiteIsCourse.course1_id references Course
CoursePrerequisiteIsCourse.course1_id references Course

2.5 TeacherSupervisesTeacher

TeacherSupervisesTeacher(teacher1_username,teacher2_username)

TeacherSupervisesTeacher.teacher1_username references Teacher
TeacherSupervisesTeacher.teacher2_username references Teacher

2.6 ParentRatesTeacher

ParentRatesTeacher(teacher_username, parent_username , rating)

ParentRatesTeacher.teacher_username references Teacher
ParentRatesTeacher.parent_username references Parent

2.7 ParentReviewsSchool

ParentReviewsSchool(parent_username, school_id , review)

ParentReviewsSchool.parent_username references Parent
ParentReviewsSchool.school_id references School

2.8 LevelOffersCourses

LevelOffersCourses(course_code , level_id ,grade)

LevelOffersCourses.course_code references Course
LevelOffersCourses.level_id references Level

2.9 StudentTakesCourse

StudentTakesCourse(course_code,student_ssn)

StudentTakesCourse.course_code references Course
StudentTakesCourse.student_ssn references Student

3 Ternary Relations

3.1 ParentAppliesForChildInSchool

ParentAppliesForChildInSchool(parent_username,school_id,child_ssn ,status)

ParentAppliesForChildInSchool.parent_username references Parent
ParentAppliesForChildInSchool.school_id references School
ParentAppliesForChildInSchool.child_ssn references Child

3.2 StudentPostsQuestionAboutCourse

StudentPostsQuestionAboutCourse(student_ssn, question_id, course_code)

StudentPostsQuestionAboutCourse.student_ssn references Student
StudentPostsQuestionAboutCourse.question_id references Question
StudentPostsQuestionAboutCourse.course_code references Cour

3.3 TeacherTeachesCourseInSchool

TeacherTeachesCourseInSchool(school_id,course_code , teacher_username)

TeacherTeachesCourseInSchool.school_id references School
TeacherTeachesCourseInSchool.course_code references Course
TeacherTeachesCourseInSchool.teacher_username references Teacher