Project: Writing and Center - Athlete Tutor System

Team Composition:

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Scope - Creative Approach: Writing and Learning Center
Student Tutors of Student Athletes

The Cal Poly Writing and Learning Center contains a division under which student athletes can access student tutors for help in their classes. In their first year, Cal Poly student athletes must utilize student tutors for their undergrad classes. They are also required to use student tutoring if their cumulative GPA falls below 3.0. Student Athletes are classified as either undergraduate or graduate levels. Each student athlete has a coach that they must report to in order to make sure they are meeting the curriculum goals. Each student athlete must play one sport. Coaches can access student athlete performances via the management system under the Writing and Learning Center. All student tutors are employed by the management division of the Learning and Writing Center and are highly proficient in the classes they tutor. Tutors can either tutor graduate or undergraduate courses. Appointments are scheduled by students and tutors, which are processed by employees of the Writing and Learning Center.

The scope of this business function does not include the hiring, payroll, or scheduling process of the Student Tutor to Student Athlete relationship within the Writing and Learning Center.

The Tutor-Student Relationship Timeline Involves:

- Student Athletes are entered into Cal Poly's Writing and Learning Center database
- Student Athletes are paired with their respective coaches
- Student Tutors are admitted into to Writing and Learning Center database
- Respective Coaches are entered into Learning Center's Management Database
- Student Athletes are paired with tutors based on subject
- Student Athletes and tutors are scheduled for appointments at certain times and locations by employees
- Employees of the Writing and Learning Center report to the manager of Writing and Learning Center when athletes cancel or miss appointments
- Managers report missed or appointments to athlete's coach

Business Rules:
One athlete can be tutored by zero or many tutors.
One tutor can tutor one or more athletes.
Athletes are required to attend tutoring when their GPA drops below 3.0.
Athletes are required to attend tutoring in their first year as a student at Cal Poly.

One coach can coach one or many athletes.
One athlete can be coached by one and only one coach.

One coach is reported to by one and only one manager.
One manager reports to many coaches.

An employee reports to one and only one manager.
A manager manages one or many employees.

One employee can set zero or many appointments.
One appointment is set by one and only one employee.

One tutor can tutor one and only one subject.
For one subject, there can be one tutor.

For one appointment, one tutor can tutor one athlete in one and only one subject.
For one appointment, one tutor can tutor one subject to one and only one athlete.
For one appointment, one athlete can be tutored by one and only one tutor.
One tutor can tutor one subject to one athlete in one and only one appointment.
Athletes can either attend, cancel, or miss appointments.
Athletes who are required to attend tutoring must attend at least one tutoring session per week.
A particular tutoring session can happen in one and only one location.

Note: Appointments and tutoring sessions are referring to the same thing.

Definitions:

Athletic Tutoring

A. Athletes - An athlete is a student who is being tutored by a tutor for a subject/subjects within an appointment in a specific location
    a. athlete_id
    b. first_name
    c. last_name
    d. email

    e. gpa
    f. gender
    g. sport
    h. academic_year
    i. required
    j. coach_id

B. Coaches - A coach monitors athlete appointments through the manager
    a. coach_id
    b. first_name
    c. last_name
    d. email
    e. sport
    f. manager_id

C. Tutors - A tutor is a student who tutors athletes for a particular subject in a specific location within an appointment
    a. tutor_id
    b. first_name
    c. last_name
    d. email
    e. subject_name

D. Subjects - A subject is a course that an athlete/athletes are enrolled in and is taught by a tutor
    a. subject_id
    b. subject_name
    c. class_number

E. Employees - An employee sets tutoring appointments between athletes and tutors and reports back to the manager
    a. employee_id
    b. first_name
    c. last_name
    d. email
    e. manager_id

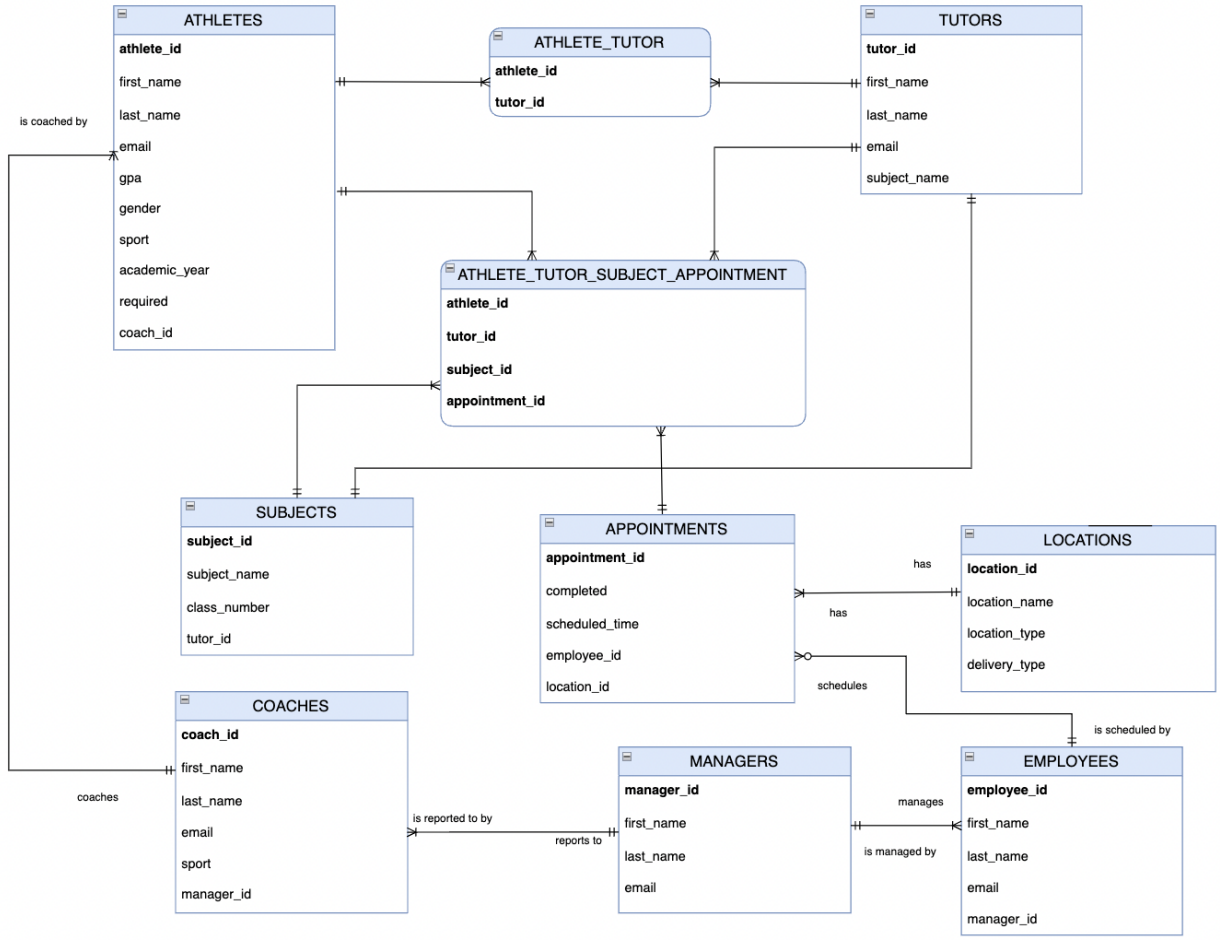
F. Managers - A manager receives appointment details from the employees and reports them to the coaches
    a. manager_id
    b. first_name
    c. last_name
    d. email

G. Appointments - An appointment is set between athletes and tutors through employees
    a. appointment_id

b. completed
c. scheduled_time
d. employee_id
e. location_id

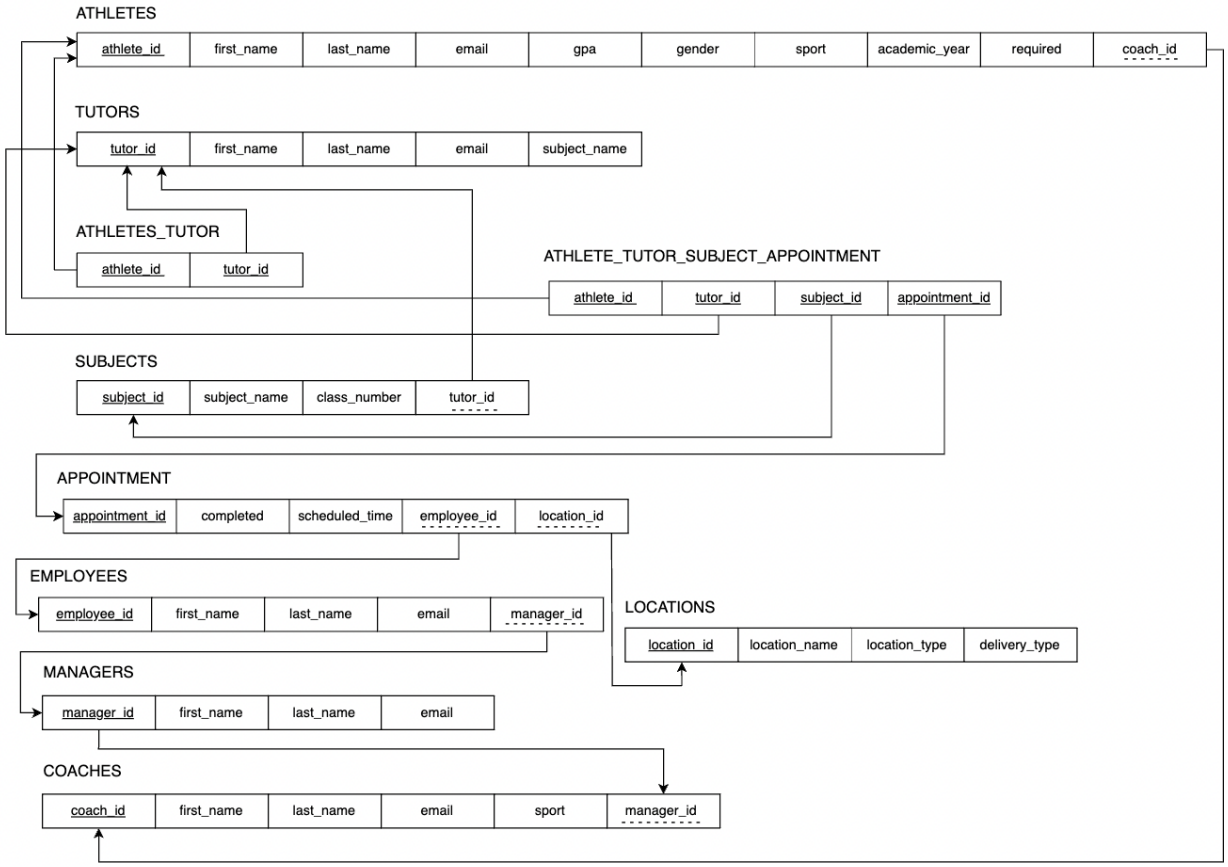
H. Location - A location is a site where the tutoring appointments are conducted
a. Location_id
b. location_name
c. location_type
d. delivery_type

E-R Diagram:



Note: The associative ATHLETE_TUTOR shows the many-to-many relationship between ATHLETES and TUTORS for long-term assigning a tutor to an athlete. Whereas the associative ATHLETE_TUTOR_SUBJECT_APPOINTMENT is for an instance, a one-time assignment. EG: Tutor A helped Athlete B on math yesterday.

Normalization - Logical Design:



Create Database:

CREATE TABLE locations (
location_id INT AUTO_INCREMENT,
location_name VARCHAR(100),
location_type VARCHAR(50),
delivery_type VARCHAR(50),
PRIMARY KEY (location_id)
);

CREATE TABLE managers(
manager_id INT AUTO_INCREMENT,
first_name VARCHAR(20),
last_name VARCHAR(20),
email VARCHAR(100),
PRIMARY KEY (manager_id)
);

```
CREATE TABLE coaches (
coach_id INT AUTO_INCREMENT,
first_name VARCHAR(20),
last_name VARCHAR(20),
email VARCHAR(100),
sport VARCHAR(100),
manager_id INT,
PRIMARY KEY (coach_id),
FOREIGN KEY (manager_id) REFERENCES managers (manager_id)
);

CREATE TABLE athletes (
athlete_id INT AUTO_INCREMENT,
first_name VARCHAR(20),
last_name VARCHAR(20),
email VARCHAR(100),
gpa FLOAT,
gender VARCHAR(20),
sport VARCHAR(100),
academic_year INT,
required BOOLEAN,
coach_id INT,
PRIMARY KEY (athlete_id),
FOREIGN KEY (coach_id) REFERENCES coaches (coach_id)
);

CREATE TABLE tutors (
tutor_id INT AUTO_INCREMENT,
first_name VARCHAR(20),
last_name VARCHAR(20),
email VARCHAR(100),
subject_name VARCHAR(50),
PRIMARY KEY (tutor_id)
);

CREATE TABLE subjects (
subject_id INT AUTO_INCREMENT,
subject_name VARCHAR(50),
class_number INT,
```

```
tutor_id INT,
PRIMARY KEY (subject_id),
FOREIGN KEY (tutor_id) REFERENCES tutors (tutor_id)
);

CREATE TABLE employees (
employee_id INT AUTO_INCREMENT,
first_name VARCHAR(20),
last_name VARCHAR(20),
email VARCHAR(100),
manager_id INT,
PRIMARY KEY (employee_id),
FOREIGN KEY (manager_id) REFERENCES managers (manager_id)
);

CREATE TABLE appointments (
appointment_id INT AUTO_INCREMENT,
scheduled_time TIME,
employee_id INT,
location_id INT,
completed VARCHAR(50),
PRIMARY KEY (appointment_id),
FOREIGN KEY (employee_id) REFERENCES employees (employee_id),
FOREIGN KEY (location_id) REFERENCES locations (location_id)
);

CREATE TABLE athlete_tutor (
athlete_id INT,
tutor_id INT,
PRIMARY KEY (athlete_id, tutor_id),
FOREIGN KEY (athlete_id) REFERENCES athletes (athlete_id),
FOREIGN KEY (tutor_id) REFERENCES tutors (tutor_id)
);

CREATE TABLE athlete_tutor_subject_appointments (
athlete_id INT,
tutor_id INT,
subject_id INT,
appointment_id INT,
PRIMARY KEY (athlete_id, tutor_id, subject_id, appointment_id),
```

FOREIGN KEY (athlete_id) REFERENCES athletes (athlete_id),
FOREIGN KEY (tutor_id) REFERENCES tutors (tutor_id),
FOREIGN KEY (subject_id) REFERENCES subjects (subject_id),
FOREIGN KEY (appointment_id) REFERENCES appointments (appointment_id)
);

Populate:

locations:

INSERT INTO locations VALUES(NULL, "Library","computer_lab","in_person");
INSERT INTO locations VALUES(NULL, "Yakitutu","classroom","inPerson");
INSERT INTO locations VALUES(NULL, "Cerro","classroom","in_person");
INSERT INTO locations VALUES(NULL, "PCV","computer_lab","in_person");
INSERT INTO locations VALUES(NULL, "online","online","online");
INSERT INTO locations VALUES(NULL, "Library","office","in_person");
INSERT INTO locations VALUES(NULL, "Cerro","computer_lab","in_person");
INSERT INTO locations VALUES(NULL, "PCV","classroom","in_person");
INSERT INTO locations VALUES(NULL, "Library","classroom","in_person");
INSERT INTO locations VALUES(NULL, "online","online","online");

location_id	location_name	location_type	delivery_ty...
1	Library	computer_lab	in_person
2	Yakitutu	classroom	inPerson
3	Cerro	classroom	in_person
4	PCV	computer_lab	in_person
5	online	online	online
6	Library	office	in_person
7	Cerro	computer_lab	in_person
8	PCV	classroom	in_person
9	Library	classroom	in_person
10	online	online	online

managers:

INSERT INTO managers VALUES(NULL, "Jeff","Schmidt","JScmidty5@hotmail.com");
INSERT INTO managers VALUES(NULL, "Berry","McCaulkner","BigBerry72@gmail.com");
INSERT INTO managers VALUES(NULL, "Anaita","Agoodgrade","faliure9078@gmail.com");

manager_id	first_name	last_name	email
1	Jeff	Schmidt	JScmidty5@hotmail.com
2	Berry	McCaulkner	BigBerry72@gmail.com
3	Anaita	Agoodgrade	faliure9078@gmail.com

coaches

INSERT INTO coaches VALUES(NULL,
"Jack","Dirkson","JDillaDirks43@yahoo.co.uk","football",1);
INSERT INTO coaches VALUES(NULL,
"Jeffrey","Dahmer","Justonephoto@gmail.com","track",1);
INSERT INTO coaches VALUES(NULL,
"Hunt","Forseer","Hunt4you@gmail.com","basketball",2);
INSERT INTO coaches VALUES(NULL,
"Dingus","McCrinkleberry","Crinkleberries@gmail.com","tennis",2);
INSERT INTO coaches VALUES(NULL,
"Danger","Ismymiddlename","dangy543@gmail.com","soccer",3);
INSERT INTO coaches VALUES(NULL,
"Whistle","Stevenson","whistleofficial@yahoo.com","tennis",3);
INSERT INTO coaches VALUES(NULL,
"Large","Tallon","bodybuildingislyf@bodybuilders.com","track",3);
INSERT INTO coaches VALUES(NULL,
"Boy","Tall","broomsarelife@hotmail.com","basketball",2);
INSERT INTO coaches VALUES(NULL,
"Bradley","Silversprings","BSilverSprings69@SilverspringsCorp.com","soccer",3);

coach_id	first_name	last_name	email	sport	manager_id
1	Jack	Dirkson	JDillaDirks43@yahoo.co.uk	football	1
2	Jeffrey	Dahmer	Justonephoto@gmail.com	track	1
3	Hunt	Forseer	Hunt4you@gmail.com	basketball	2
4	Dingus	McCrinkleberry	Crinkleberries@gmail.com	tennis	2
5	Danger	Ismymiddlename	dangy543@gmail.com	soccer	3
6	Whistle	Stevenson	whistleofficial@yahoo.com	tennis	3
7	Large	Tallon	bodybuildingislyf@bodybuilders.com	track	3
8	Boy	Tall	broomsarelife@hotmail.com	basketball	2
9	Bradley	Silversprings	BSilverSprings69@SilverspringsCorp.com	soccer	3

athletes:

```
INSERT INTO athletes VALUES(NULL,
"Joe","Smith","Jsmith@calpoly.edu",2.2,"M","football",2,TRUE,1);
INSERT INTO athletes VALUES(NULL,
"Hilbert","Freud","Hfreud@calpoly.edu",3.8,"M","football",1,TRUE,1);
INSERT INTO athletes VALUES(NULL,
"Susy","Que","SQue@calpoly.edu",3.9,"F","tennis",1,TRUE,3);
INSERT INTO athletes VALUES(NULL,
"Molly","Stevens","Mstevens@calpoly.edu",2.9,"F","soocer",3,TRUE,5);
INSERT INTO athletes VALUES(NULL,
"Sally","Aniston","Saniston@calpoly.edu",3.1,"F","tennis",1,TRUE,3);
INSERT INTO athletes VALUES(NULL,
"Rasa","Bokok","Rbokok@calpoly.edu",0.001,"M","football",6,TRUE,1);
INSERT INTO athletes VALUES(NULL,
"Jill","McFry","Jmcfry@calpoly.edu",3.9,"F","track",2,FALSE,2);
INSERT INTO athletes VALUES(NULL,
"Ryan","Hilda","Rhilda@calpoly.edu",3.2,"M","track",1,TRUE,7);
INSERT INTO athletes VALUES(NULL,
"Steph","Hamilton","Shamilton@calpoly.edu",3.7,"F","tennis",1,TRUE,3);
INSERT INTO athletes VALUES(NULL,
"Brian","Peterson","Bpeterson@calpoly.edu",3.1,"M","track",1,TRUE,7);
INSERT INTO athletes VALUES(NULL,
"Samantha","Sanderson","Ssanderson@calpoly.edu",3.4,"F","basketball",1,TRUE,3);
INSERT INTO athletes VALUES(NULL,
"John","John","Jjohn@calpoly.edu",3.1,"M","basketball",1,TRUE,8);
INSERT INTO athletes VALUES(NULL,
"Jill","Jamma","Jjamma@calpoly.edu",3.4,"F","soccer",1,TRUE,5);
INSERT INTO athletes VALUES(NULL,
"Mike","Siloque","Msiloque@calpoly.edu",2.8,"M","soccer",2,TRUE,9);
INSERT INTO athletes VALUES(NULL,
"Jill","Jamma","Jjamma@calpoly.edu",3.4,"F","soccer",1,TRUE,5);
INSERT INTO athletes VALUES(NULL,
"Nico","Benson","Nbenson@calpoly.edu",3.9,"M","soccer",1,TRUE,5);
INSERT INTO athletes VALUES(NULL,
"Jill","Jamma","Jjamma@calpoly.edu",3.4,"F","soccer",1,TRUE,5);
INSERT INTO athletes VALUES(NULL,
"Molly","Tintle","Mtintle@calpoly.edu",3.5,"F","basketball",3,FALSE,3);
INSERT INTO athletes VALUES(NULL,
"Bill","Withers","Bwithers@calpoly.edu",2.7,"M","football",4,TRUE,1);
```

INSERT INTO athletes VALUES(NULL,
"Chungus","Lee","Clee@calpoly.edu",3.2,"M","football",1,TRUE,1);

athlete_id	first_name	last_name	email	gpa	gender	sport	academic_year	required	coach_id
1	Joe	Smith	Jsmith@calpoly.edu	2.2	M	football	2	1	1
2	Hilbert	Freud	Hfreud@calpoly.edu	3.8	M	football	1	1	1
3	Susy	Que	SQue@calpoly.edu	3.9	F	tennis	1	1	4
4	Molly	Stevens	Mstevens@calpoly.edu	2.9	F	soocer	3	1	5
5	Sally	Aniston	Saniston@calpoly.edu	3.1	F	tennis	1	1	4
6	Rasa	Bokok	Rbokok@calpoly.edu	0.001	M	football	6	1	1
7	Jill	McFry	Jmcfry@calpoly.edu	3.9	F	track	2	0	2
8	Ryan	Hilda	Rhilda@calpoly.edu	3.2	M	track	1	1	7
9	Steph	Hamilton	Shamilton@calpoly.edu	3.7	F	tennis	1	1	4
10	Brian	Peterson	Bpeterson@calpoly.edu	3.1	M	track	1	1	7
11	Samantha	Sanderson	Ssanderson@calpoly....	3.4	F	baske...	1	1	3
12	John	John	Jjohn@calpoly.edu	3.1	M	baske...	1	1	8
13	Jill	Jamma	Jjamma@calpoly.edu	3.4	F	soccer	1	1	5
14	Mike	Siloque	Msiloque@calpoly.edu	2.8	M	soccer	2	1	9
15	Jill	Jamma	Jjamma@calpoly.edu	3.4	F	soccer	1	1	5
16	Nico	Benson	Nbenson@calpoly.edu	3.9	M	soccer	1	1	5
17	Jill	Jamma	Jjamma@calpoly.edu	3.4	F	soccer	1	1	5
18	Molly	Tintle	Mtintle@calpoly.edu	3.5	F	baske...	3	0	3
19	Bill	Withers	Bwithers@calpoly.edu	2.7	M	football	4	1	1
20	Chungus	Lee	Clee@calpoly.edu	3.2	M	football	1	1	1

<u>tutors:</u>

INSERT INTO tutors VALUES (NULL,"Bill","Boeson","Bboeson@calpoly.edu","math");
INSERT INTO tutors VALUES (NULL,"Ryan","Clarke","RClarke@calpoly.edu","history");
INSERT INTO tutors VALUES (NULL,"Ben","Brier","Bbrier@calpoly.edu","english");
INSERT INTO tutors VALUES (NULL,"Steve","Stevson","Sstevson@calpoly.edu","social sciences");
INSERT INTO tutors VALUES (NULL,"John","James","Jjames@calpoly.edu","polysci");
INSERT INTO tutors VALUES (NULL,"John","Doe","Jdoe@calpoly.edu","compsci");
INSERT INTO tutors VALUES (NULL,"Jill","Doe","Jdoe2@calpoly.edu","econometrics");
INSERT INTO tutors VALUES
(NULL,"Sally","Mcsallyson","Smcsallyson@calpoly.edu","business");
INSERT INTO tutors VALUES (NULL,"Brit","Briterstan","Bbriterstan@calpoly.edu","math");
INSERT INTO tutors VALUES (NULL,"Sean","McVay","Smcvay@calpoly.edu","business");

tutor_id	first_name	last_name	email	subject_name
1	Bill	Boeson	Bboeson@calpoly.edu	math
2	Ryan	Clarke	RClarke@calpoly.edu	history
3	Ben	Brier	Bbrier@calpoly.edu	english
4	Steve	Stevson	Sstevson@calpoly.edu	social sciences
5	John	James	Jjames@calpoly.edu	polysci
6	John	Doe	Jdoe@calpoly.edu	compsci
7	Jill	Doe	Jdoe2@calpoly.edu	econometrics
8	Sally	Mcsallyson	Smcsallyson@calpoly.edu	business
9	Brit	Briterstan	Bbriterstan@calpoly.edu	math
10	Sean	McVay	Smcvay@calpoly.edu	business

subjects:

INSERT INTO subjects VALUES (NULL, "econometrics", "300");
INSERT INTO subjects VALUES (NULL, "econometrics", "303");
INSERT INTO subjects VALUES (NULL, "math", "456");
INSERT INTO subjects VALUES (NULL, "polysci", "311");
INSERT INTO subjects VALUES (NULL, "business", "300");
INSERT INTO subjects VALUES (NULL, "history", "300");
INSERT INTO subjects VALUES (NULL, "compsci", "427");
INSERT INTO subjects VALUES (NULL, "english", "300");
INSERT INTO subjects VALUES (NULL, "history", "303");
INSERT INTO subjects VALUES (NULL, "social sciences", "300");

subject_id	subject_name	class_number	tutor_id
1	econometrics	300	7
2	business	303	10
3	math	456	1
4	polysci	311	5
5	business	300	8
6	history	300	2
7	compsci	427	6
8	english	300	3
9	math	303	9
10	social sciences	300	4

employees:

INSERT INTO employees VALUES (NULL, "Stevey","Stevenson","Sstevenson@calpoly.edu",1);
INSERT INTO employees VALUES (NULL, "Shannon","Sharpe","Ssharpe@calpoly.edu",1);
INSERT INTO employees VALUES (NULL, "Bob","Bobella","Bbobella@calpoly.edu",2);
INSERT INTO employees VALUES (NULL, "Carly","Shante","Cshante@calpoly.edu",2);
INSERT INTO employees VALUES (NULL, "Johny","Silverglide","Jsilverglide@calpoly.edu",3);

employee_id	first_name	last_name	email	manager_id
1	Stevey	Stevenson	Sstevenson@calpoly.edu	1
2	Shannon	Sharpe	Ssharpe@calpoly.edu	1
3	Bob	Bobella	Bbobella@calpoly.edu	2
4	Carly	Shante	Cshante@calpoly.edu	2
5	Johny	Silverglide	Jsilverglide@calpoly.edu	3

appointments:

INSERT INTO appointments VALUES (NULL, 90000,1,2,TRUE);
INSERT INTO appointments VALUES (NULL, 110000,2,4,TRUE);
INSERT INTO appointments VALUES (NULL, 113000,1,1,TRUE);
INSERT INTO appointments VALUES (NULL, 140000,3,4,TRUE);
INSERT INTO appointments VALUES (NULL, 110000,4,4,TRUE);
INSERT INTO appointments VALUES (NULL, 120000,5,1,FALSE);
INSERT INTO appointments VALUES (NULL, 150000,2,9,TRUE);
INSERT INTO appointments VALUES (NULL, 100000,4,7,TRUE);
INSERT INTO appointments VALUES (NULL, 113000,5,3,FALSE);
INSERT INTO appointments VALUES (NULL, 163000,3,2,TRUE);
INSERT INTO appointments VALUES (NULL, 100000,1,2,TRUE);
INSERT INTO appointments VALUES (NULL, 113000,2,7,TRUE);
INSERT INTO appointments VALUES (NULL, 63000,1,9,TRUE);
INSERT INTO appointments VALUES (NULL, 160000,3,3,FALSE);
INSERT INTO appointments VALUES (NULL, 170000,4,8,TRUE);
INSERT INTO appointments VALUES (NULL, 190000,5,5,FALSE);
INSERT INTO appointments VALUES (NULL, 180000,2,3,TRUE);
INSERT INTO appointments VALUES (NULL, 150000,4,6,FALSE);
INSERT INTO appointments VALUES (NULL, 230000,5,4,FALSE);
INSERT INTO appointments VALUES (NULL, 173000,3,2,TRUE);

appointment_id	scheduled_ti...	employee_id	location_id	completed
1	09:00:00	1	2	1
2	11:00:00	2	4	1
3	11:30:00	1	1	1
4	14:00:00	3	4	1
5	11:00:00	4	4	1
6	12:00:00	5	1	0
7	15:00:00	2	9	1
8	10:00:00	4	7	1
9	11:30:00	5	3	0
10	16:30:00	3	2	1
11	10:00:00	1	2	1
12	11:30:00	2	7	1
13	06:30:00	1	9	1
14	16:00:00	3	3	0
15	17:00:00	4	8	1
16	19:00:00	5	5	0
17	18:00:00	2	3	1
18	15:00:00	4	6	0
19	23:00:00	5	4	0
20	17:30:00	3	2	1

athlete_tutor:

INSERT INTO athlete_tutor VALUES (1,4);
INSERT INTO athlete_tutor VALUES (2,2);
INSERT INTO athlete_tutor VALUES (3,3);
INSERT INTO athlete_tutor VALUES (4,1);
INSERT INTO athlete_tutor VALUES (5,6);
INSERT INTO athlete_tutor VALUES (6,5);
INSERT INTO athlete_tutor VALUES (7,7);
INSERT INTO athlete_tutor VALUES (8,9);
INSERT INTO athlete_tutor VALUES (9,10);
INSERT INTO athlete_tutor VALUES (10,8);
INSERT INTO athlete_tutor VALUES (11,4);
INSERT INTO athlete_tutor VALUES (12,2);
INSERT INTO athlete_tutor VALUES (13,3);
INSERT INTO athlete_tutor VALUES (14,1);
INSERT INTO athlete_tutor VALUES (15,6);
INSERT INTO athlete_tutor VALUES (16,5);
INSERT INTO athlete_tutor VALUES (17,7);

INSERT INTO athlete_tutor VALUES (18,9);
INSERT INTO athlete_tutor VALUES (19,10);
INSERT INTO athlete_tutor VALUES (20,8);

athlete_id	tutor_id
4	1
14	1
2	2
12	2
3	3
13	3
1	4
11	4
6	5
16	5
5	6
15	6
7	7
17	7
10	8
20	8
8	9
18	9
9	10
19	10

athlete_tutor_subject_appointments

INSERT INTO athlete_tutor_subject_appointments VALUES (9,10,5,9);
INSERT INTO athlete_tutor_subject_appointments VALUES (1,4,10,1);
INSERT INTO athlete_tutor_subject_appointments VALUES (3,3,8,3);
INSERT INTO athlete_tutor_subject_appointments VALUES (7,7,2,7);
INSERT INTO athlete_tutor_subject_appointments VALUES (10,8,5,10);
INSERT INTO athlete_tutor_subject_appointments VALUES (2,2,6,2);
INSERT INTO athlete_tutor_subject_appointments VALUES (6,5,4,4);
INSERT INTO athlete_tutor_subject_appointments VALUES (4,1,3,5);
INSERT INTO athlete_tutor_subject_appointments VALUES (5,6,7,6);
INSERT INTO athlete_tutor_subject_appointments VALUES (8,9,3,8);
INSERT INTO athlete_tutor_subject_appointments VALUES (11,9,3,11);
INSERT INTO athlete_tutor_subject_appointments VALUES (12,4,10,12);
INSERT INTO athlete_tutor_subject_appointments VALUES (13,3,8,13);
INSERT INTO athlete_tutor_subject_appointments VALUES (14,7,2,14);

```
INSERT INTO athlete_tutor_subject_appointments VALUES (15,8,5,15);
INSERT INTO athlete_tutor_subject_appointments VALUES (16,2,6,16);
INSERT INTO athlete_tutor_subject_appointments VALUES (17,5,4,17);
INSERT INTO athlete_tutor_subject_appointments VALUES (18,1,3,18);
INSERT INTO athlete_tutor_subject_appointments VALUES (19,6,7,19);
INSERT INTO athlete_tutor_subject_appointments VALUES (20,9,3,20);
```

athlete_id	tutor_id	subject_id	appointment_id
4	1	3	5
18	1	3	18
2	2	6	2
16	2	6	16
3	3	8	3
13	3	8	13
1	4	10	1
12	4	10	12
6	5	4	4
17	5	4	17
5	6	7	6
19	6	7	19
7	7	2	7
14	7	2	14
10	8	5	10
15	8	5	15
8	9	3	8
11	9	3	11
20	9	3	20
9	10	5	9

Testing:

1. Display all athletes' first name and last name who have a GPA over 3.0. Also, display the corresponding tutor's first and last name. Order by GPA descending.

```
SELECT a.athlete_id, a.first_name, a.last_name, t.first_name, t.last_name
FROM athletes a JOIN athlete_tutor ats JOIN tutors t
ON a.athlete_id = ats.athlete_id
AND ats.tutor_id = t.tutor_id
WHERE a.gpa  >=  3.0
ORDER BY a.gpa DESC;
```

athlete_id	first_name	last_name	first_name	last_name
3	Susy	Que	Ben	Brier
16	Nico	Benson	John	James
7	Jill	McFry	Jill	Doe
2	Hilbert	Freud	Ryan	Clarke
9	Steph	Hamilton	Sean	McVay
18	Molly	Tintle	Brit	Briterstan
13	Jill	Jamma	Ben	Brier
11	Samantha	Sanderson	Steve	Stevson
15	Jill	Jamma	John	Doe
17	Jill	Jamma	Jill	Doe
20	Chungus	Lee	Sally	Mcsallyson
8	Ryan	Hilda	Brit	Briterstan
12	John	John	Ryan	Clarke
5	Sally	Aniston	John	Doe
10	Brian	Peterson	Sally	Mcsallyson

2. Display all the tutor information for those who tutor for business class 300. Also, display the class number.

```
SELECT *
FROM tutors t JOIN athlete_tutor_subject_appointments atsa JOIN subjects s
ON t.tutor_id = atsa.tutor_id
AND atsa.subject_id = s.subject_id
WHERE s.subject_name = "business"
AND s.class_number = 300;
```

tutor_id	first_name	last_name	email	subject_name	athlete_id	tutor_id	subject_id	appointment...	subject_id	subject_name	class_number	tutor_id
10	Sean	McVay	Smcvay@calpoly.edu	buiness	9	10	5	9	5	business	300	8
8	Sally	Mcsallyson	Smcsallyson@calpoly.edu	business	10	8	5	10	5	business	300	8
8	Sally	Mcsallyson	Smcsallyson@calpoly.edu	business	15	8	5	15	5	business	300	8

3. We are interested in knowing the number of athletes who didn't attend their tutor sessions for each sport type. Display the count and the sport name.

```
SELECT a.sport, COUNT(*) AS Total_Appt_Missed
FROM athletes a JOIN athlete_tutor_subject_appointments atsa JOIN appointments ap
ON a.athlete_id = atsa.athlete_id
AND atsa.appointment_id = ap.appointment_id
WHERE ap.completed = FALSE
GROUP BY a.sport;
```

sport	Total_Appt_Missed
tennis	2
soccer	2
basketball	1
football	1

4. We want to see how the athletes are doing overall across sports. Display the average GPA across all the sports that are managed by Anaita Agoodgrade.

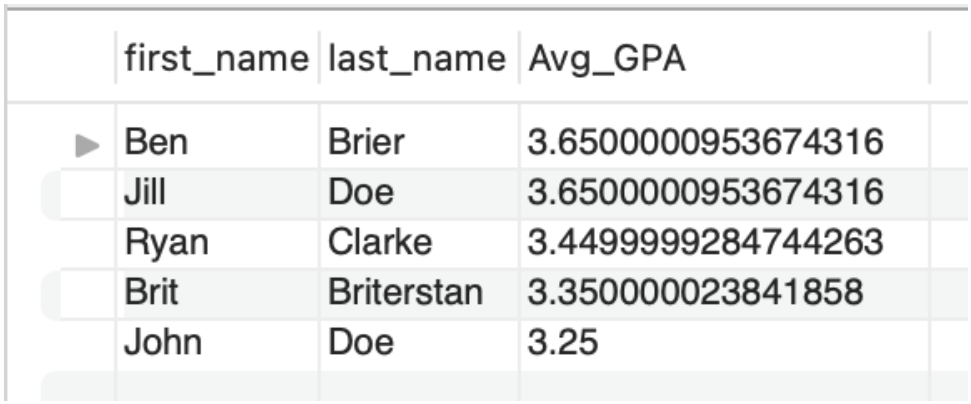
```
SELECT a.sport, AVG(a.GPA) AS Avg_GPA
FROM athletes a JOIN coaches c JOIN managers m
ON a.coach_id = c.coach_id
AND c.manager_id = m.manager_id
WHERE m.first_name = "Anaita"
AND m.last_name = "Agoodgrade"
GROUP BY a.sport;
```

sport	Avg_GPA
soocer	2.9000000953674316
soccer	3.3800000667572023
track	3.149999976158142

5. The leaves are changing; sweater weather is here! We all know what that means….it's time to enter those class grades and see all of our quarter GPA performances! Tutors in the system are given Christmas bonuses for ranking in the top 5 of average corresponding student GPA records. Which tutors will be lucky enough to receive this honorable achievement?

```
SELECT t.first_name, t.last_name, AVG(a.gpa) AS Avg_GPA
FROM tutors t JOIN athlete_tutor ats JOIN athletes a
ON t.tutor_id = ats.tutor_id
AND ats.athlete_id = a.athlete_id
GROUP BY t.tutor_id
```

```
ORDER BY AVG(a.gpa) DESC
LIMIT 5;
```



first_name	last_name	Avg_GPA
Ben	Brier	3.6500000953674316
Jill	Doe	3.6500000953674316
Ryan	Clarke	3.4499999284744263
Brit	Briterstan	3.350000023841858
John	Doe	3.25