# Campus Eats

Group 1

# Project Members

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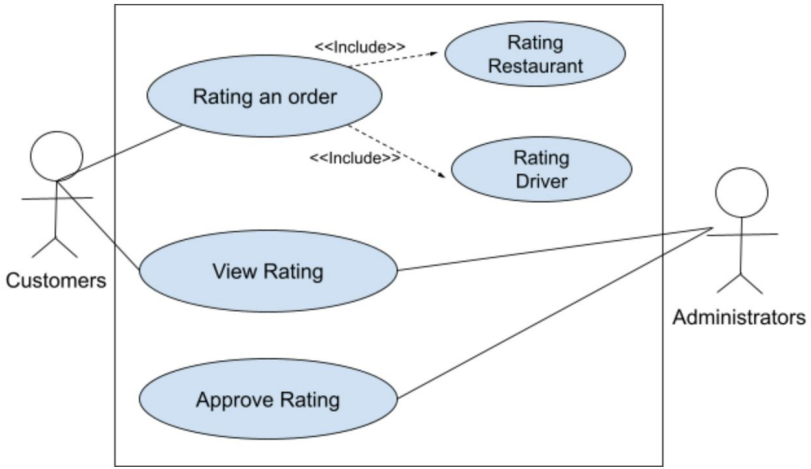
# Purpose of Project

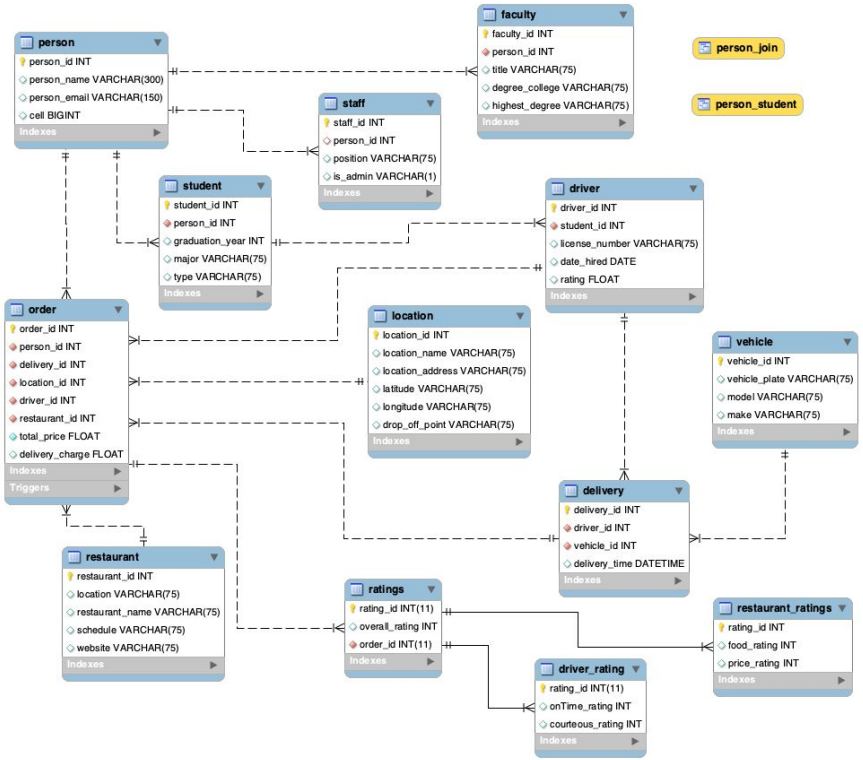
- In this project, a database regarding Food Delivery on Campus has been provided to us.
- Understand a test database for a campus-controlled food delivery service similar to craveoncampus.com
- Based on this database, we generated rating tables for restaurants and drivers. Our rating tables are sorted by high to low rating/low to high rating (5 is the highest and 1 is the lowest).
- Additionally, there are two views that uses join, Query Optimization, and a description of the types of users and their roles.

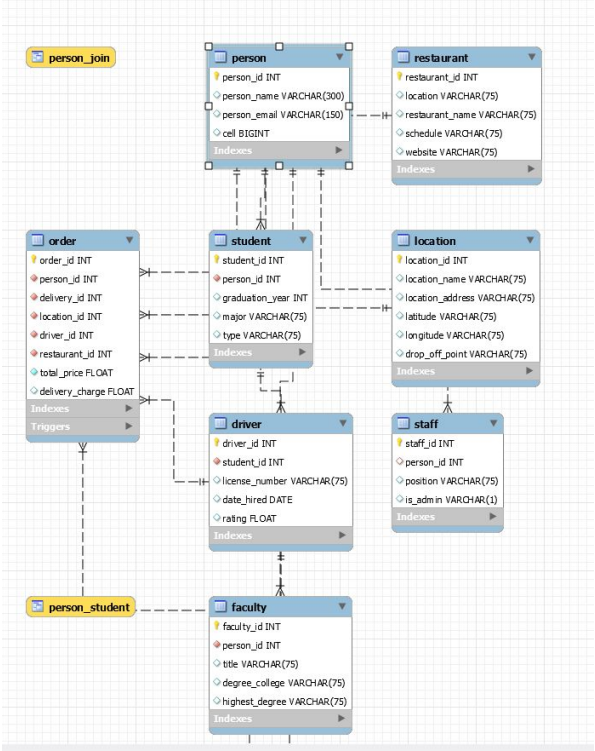
# Users and Use Case for Rating System

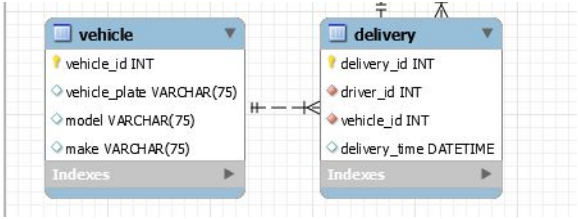
- Students can either order food or become a driver
- Faculty and staff can order food
- Administrators can view ratings and approve them



# New Tables


person
person_id INT
person_name VARCHAR(300)
person_email VARCHAR(150)
cell BIGINT
Indexes
faculty
faculty_id INT
person_id INT
title VARCHAR(75)
degree_college VARCHAR(75)
highest_degree VARCHAR(75)
Indexes
person_join
person_student
staff
staff_id INT
person_id INT
position VARCHAR(75)
is_admin VARCHAR(1)
Indexes
student
student_id INT
person_id INT
graduation_year INT
major VARCHAR(75)
type VARCHAR(75)
Indexes
driver
driver_id INT
student_id INT
license_number VARCHAR(75)
date_hired DATE
rating FLOAT
Indexes
order
order_id INT
person_id INT
delivery_id INT
location_id INT
driver_id INT
restaurant_id INT
total_price FLOAT
delivery_charge FLOAT
Indexes
Triggers
location
location_id INT
location_name VARCHAR(75)
location_address VARCHAR(75)
latitude VARCHAR(75)
longitude VARCHAR(75)
drop_off_point VARCHAR(75)
Indexes
vehicle
vehicle_id INT
vehicle_plate VARCHAR(75)
model VARCHAR(75)
make VARCHAR(75)
Indexes
delivery
delivery_id INT
driver_id INT
vehicle_id INT
delivery_time DATETIME
Indexes
restaurant
restaurant_id INT
location VARCHAR(75)
restaurant_name VARCHAR(75)
schedule VARCHAR(75)
website VARCHAR(75)
Indexes
ratings
rating_id INT(11)
overall_rating INT
order_id INT(11)
Indexes
restaurant_ratings
rating_id INT
food_rating INT
price_rating INT
Indexes
driver_rating
rating_id INT(11)
onTime_rating INT
courteous_rating INT
Indexes


person_join
person
person_id INT
person_name VARCHAR(300)
person_email VARCHAR(150)
cell BIGINT
Indexes
restaurant
restaurant_id INT
location VARCHAR(75)
restaurant_name VARCHAR(75)
schedule VARCHAR(75)
website VARCHAR(75)
Indexes
order
order_id INT
person_id INT
delivery_id INT
location_id INT
driver_id INT
restaurant_id INT
total_price FLOAT
delivery_charge FLOAT
Indexes
Triggers
student
student_id INT
person_id INT
graduation_year INT
major VARCHAR(75)
type VARCHAR(75)
Indexes
location
location_id INT
location_name VARCHAR(75)
location_address VARCHAR(75)
latitude VARCHAR(75)
longitude VARCHAR(75)
drop_off_point VARCHAR(75)
Indexes
driver
driver_id INT
student_id INT
license_number VARCHAR(75)
date_hired DATE
rating FLOAT
Indexes
staff
staff_id INT
person_id INT
position VARCHAR(75)
is_admin VARCHAR(1)
Indexes
person_student
faculty
faculty_id INT
person_id INT
title VARCHAR(75)
degree_college VARCHAR(75)
highest_degree VARCHAR(75)
Indexes


vehicle
vehicle_id INT
vehicle_plate VARCHAR(75)
model VARCHAR(75)
make VARCHAR(75)
Indexes
delivery
delivery_id INT
driver_id INT
vehicle_id INT
delivery_time DATETIME
Indexes

# Data Dictionary for new tables

| Table: driver_rating | | | | | | |
|---|---|---|---|---|---|---|
| Table Comments | | | | | | |
| Columns | | | | | | |
| **Name** | **Data Type** | **Nullable** | **PK** | **FK** | **Default** | **Comment** |
| rating_id | INT(11) | Yes | Yes | No | | |
| onTime_rating | INT | No | No | No | | |
| courteous_rating | INT | No | No | No | | |

Table List

| Table: restaurant_ratings | | | | | | |
|---|---|---|---|---|---|---|
| Table Comments | | | | | | |
| Columns | | | | | | |
| **Name** | **Data Type** | **Nullable** | **PK** | **FK** | **Default** | **Comment** |
| rating_id | INT | Yes | Yes | No | | |
| food_rating | INT | No | No | No | | |
| price_rating | INT | No | No | No | | |

Table List

| Table: student | | | | | | |
|---|---|---|---|---|---|---|
| Table Comments | | | | | | |
| Columns | | | | | | |
| **Name** | **Data Type** | **Nullable** | **PK** | **FK** | **Default** | **Comment** |
| student_id | INT | Yes | Yes | No | | |
| person_id | INT | Yes | No | Yes | | |
| graduation_year | INT | No | No | No | NULL | |
| major | VARCHAR(75) | No | No | No | NULL | |
| type | VARCHAR(75) | No | No | No | NULL | |

Table List

| Table: vehicle | | | | | | |
|---|---|---|---|---|---|---|
| Table Comments | | | | | | |
| Columns | | | | | | |
| **Name** | **Data Type** | **Nullable** | **PK** | **FK** | **Default** | **Comment** |
| vehicle_id | INT | Yes | Yes | No | | |
| vehicle_plate | VARCHAR(75) | No | No | No | NULL | |
| model | VARCHAR(75) | No | No | No | NULL | |
| make | VARCHAR(75) | No | No | No | NULL | |

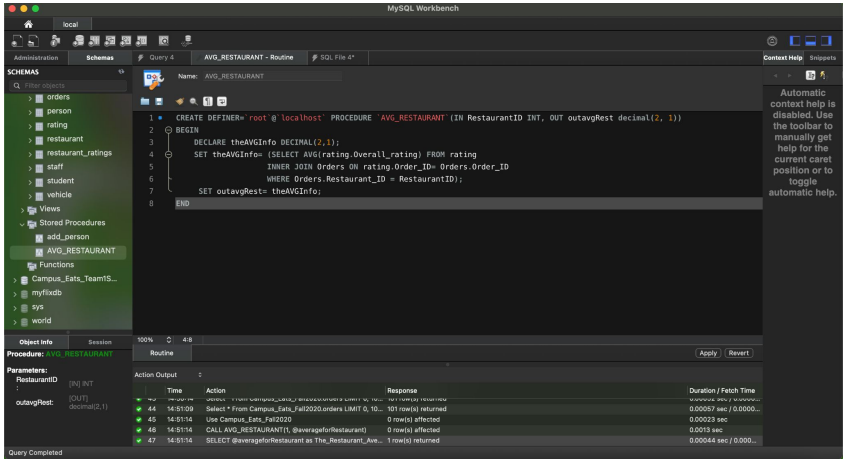
Table List

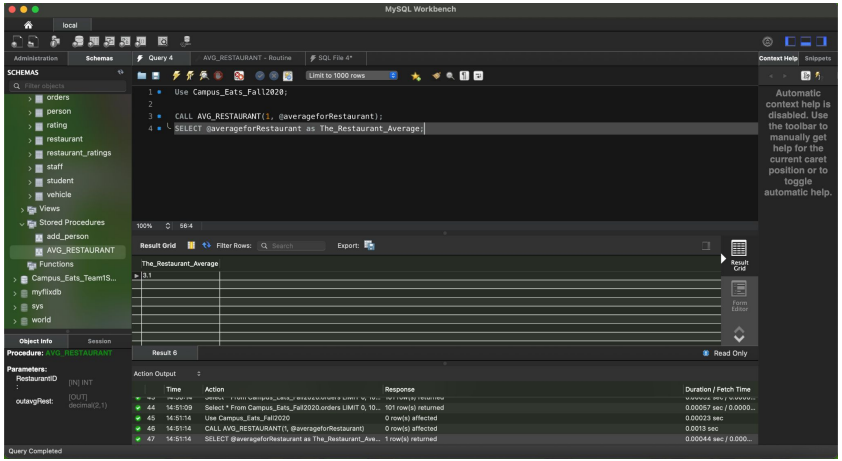
| Table: ratings | | | | | | |
|---|---|---|---|---|---|---|
| Table Comments | | | | | | |
| Columns | | | | | | |
| **Name** | **Data Type** | **Nullable** | **PK** | **FK** | **Default** | **Comment** |
| rating_id | INT(11) | Yes | Yes | No | | |
| overall_rating | INT | No | No | No | | |
| order_id | INT(11) | Yes | No | Yes | | |

Table List

# Process Used and Technologies

## Store Procedures



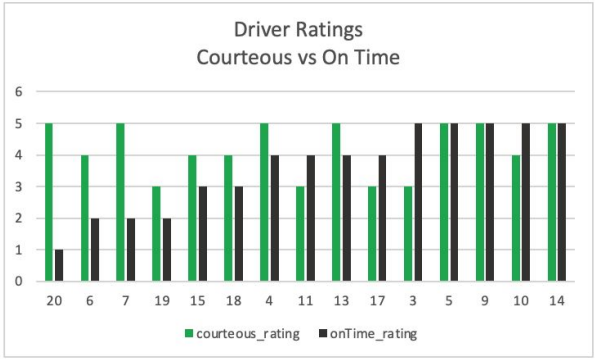
# Driver Ratings: Courteous and On Time Rating Comparison

```sql
-- Select Rating IDs, Courteous ratings, and the On Time ratings of drivers
SELECT rating_id, courteous_rating, onTime_rating

-- Select only from drivers with a courteous rating of 3 or more
FROM (
SELECT rating_id, courteous_rating, onTime_rating
FROM driver_rating
WHERE courteous_rating >= 3) AS courteous_3

-- Order by onTime_rating
ORDER BY onTime_rating;
```

| rating_id | courteous_rating | onTime_rating |
|---|---|---|
| 20 | 5 | 1 |
| 6 | 4 | 2 |
| 7 | 5 | 2 |
| 19 | 3 | 2 |
| 15 | 4 | 3 |
| 18 | 4 | 3 |
| 4 | 5 | 4 |
| 11 | 3 | 4 |
| 13 | 5 | 4 |
| 17 | 3 | 4 |
| 3 | 3 | 5 |
| 5 | 5 | 5 |
| 9 | 5 | 5 |
| 10 | 4 | 5 |
| 14 | 5 | 5 |




| id | select_type | table | partitions | type | possible_keys | key | key_len | ref | rows | filtered | Extra |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SIMPLE | driver_rating | | ALL | | | | | 20 | 33.33 | Using where; Using filesort |

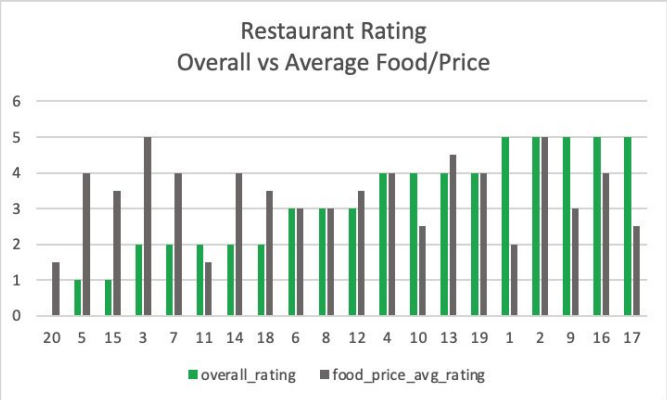
# Restaurant Ratings: Overall and Average Detail Comparison

```sql
-- Select rating IDs, food ratings, price ratings, and overall ratings of restaurants
SELECT rating_id, food_rating, price_rating, overall_rating, food_price_sum/2 AS food_price_avg_rating

-- Subquery to calculate food_price_avg_rating
FROM (SELECT rating.rating_id, food_rating, price_rating, overall_rating,
        food_rating + price_rating AS food_price_sum
        FROM restaurant_ratings
        -- Join rating and restaurant_ratings by rating_id
        INNER JOIN rating
        ON rating.rating_id = restaurant_ratings.rating_id) AS sub

-- Order by overall rating
ORDER BY overall_rating;
```

| rating_id | food_rating | price_rating | overall_rating | food_price_avg_rating |
|---|---|---|---|---|
| 20 | 1 | 2 | 0 | 1.5 |
| 5 | 3 | 5 | 1 | 4 |
| 15 | 5 | 2 | 1 | 3.5 |
| 3 | 5 | 5 | 2 | 5 |
| 7 | 5 | 3 | 2 | 4 |
| 11 | 2 | 1 | 2 | 1.5 |
| 14 | 3 | 5 | 2 | 4 |
| 18 | 3 | 4 | 2 | 3.5 |
| 6 | 4 | 2 | 3 | 3 |
| 8 | 2 | 4 | 3 | 3 |
| 12 | 4 | 3 | 3 | 3.5 |
| 4 | 4 | 4 | 4 | 4 |
| 10 | 1 | 4 | 4 | 2.5 |
| 13 | 5 | 4 | 4 | 4.5 |
| 19 | 3 | 5 | 4 | 4 |
| 1 | 1 | 3 | 5 | 2 |
| 2 | 5 | 5 | 5 | 5 |
| 9 | 1 | 5 | 5 | 3 |
| 16 | 4 | 4 | 5 | 4 |
| 17 | 2 | 3 | 5 | 2.5 |




| id | select_type | table | partitions | type | possible_keys | key | key_len | ref | rows | filtered | Extra |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SIMPLE | restaurant_ratings | | ALL | | | | | 20 | 100 | Using where; Using temporary; Using filesort |
| 1 | SIMPLE | rating | | eq_ref | PRIMARY | PRIMARY | 4 | campus_eats_fall2020.restaurant_ratings.rating_id | 1 | 100 | |