Yummy Yummy, Inc.

YUMMY IN MY TUMMY

Project_0503_11

Shlok Mehta, Murtaza Colombowala, Issac(Jie) Zhang

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Background: Who are the users?

- **Employees** of University of Maryland, College Park
- **Students** of University of Maryland, College Park
- Potential **business owners** looking to start a restaurant business in the College Park area.

I'm not mad.

I'm just from College Park.

Background: What are the data sources?

Restaurant Data: Yelp, Google Reviews

    Includes: Contact information, address, amenities, cuisines, and timings

Delivery Data: GrubHub, Uber Eats

    Includes: Delivery cost, estimated time, and promotions

Distance Data: Google Maps

    Includes: Distance of restaurants from Van Munching Hall
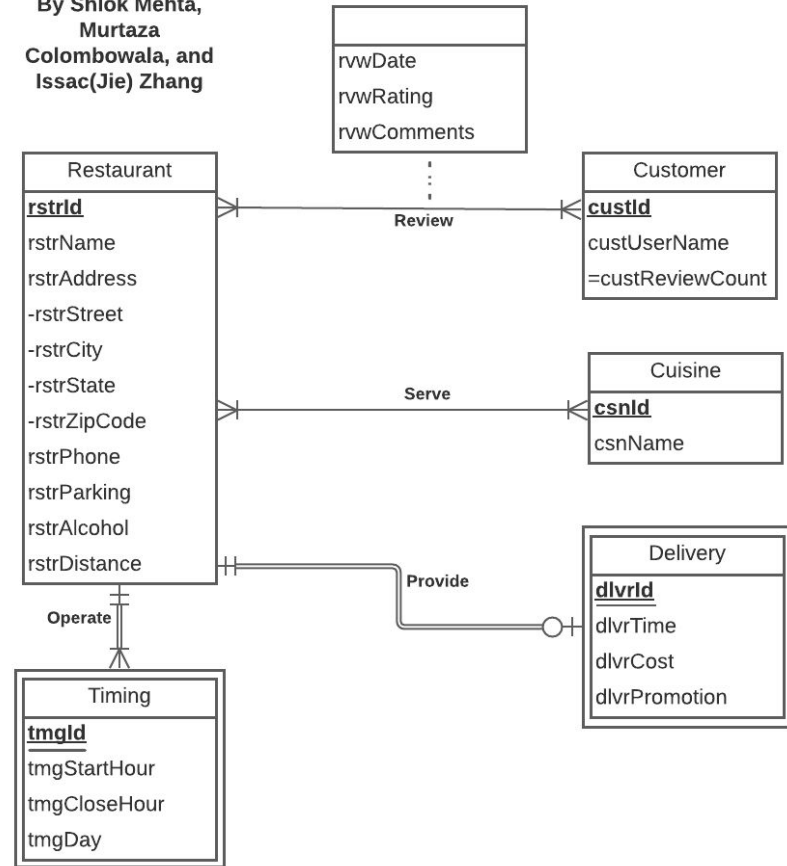
Introduction: Mission Statement

To improve a user's experience of deciding on which restaurant to visit and/or order from, by taking into consideration details like food preferences, amenities and timing to ensure that the member enjoys their meal to the fullest.

Introduction: Mission Objectives

- To find the names and addresses of restaurants that are renowned for particular types of dishes.
- To find the average rating of restaurants that serve food from a particular region.
- To find restaurants that are most appealing to University students.
- To find restaurants that have ongoing promotions and offer fastest deliveries.
- To find the top 3 restaurants in terms of reviews for a customer looking for a particular set of cuisines.
- To find restaurants that open early on weekdays, for students to collect meals on the way to class/work.

ER Diagram

Relational Schema: Relations

Restaurant (rstrId, rstrName, rstrStreet, rstrCity, rstrState , rstrZipCode, rstrPhone, rstrParking, rstrAlcohol, rstrDistance)

Customer (custId, custUserName)

Cuisine (csnId, csnName)

Review (*rstrId*, *custId*, rvwDate, rvwRating, rvwComments)

Serve (*rstrId*, *csnId*)

Timing (*rstrId*, tmgID, tmgDay, tmgStartHour, tmgCloseHour)

Delivery (*rstrId*, dlvrId, dlvrTime, dlvrCost, dlvrPromotion)

Physical Database design

```sql
CREATE TABLE [Yummy.Review] (
    rvwId CHAR (10) NOT NULL,
    rvwDate DATE,
    rvwRating DECIMAL (2,1),
    rvwComments VARCHAR(200),
    rstrId CHAR (10) NOT NULL,
    custId CHAR (10) NOT NULL,
    CONSTRAINT pk_Review_rvwId PRIMARY KEY (rvwId),
    CONSTRAINT fk_Review_rstrId FOREIGN KEY (rstrId)
        REFERENCES [Yummy.Restaurant] (rstrId)
        ON DELETE CASCADE ON UPDATE NO ACTION,
    CONSTRAINT fk_Review_custId FOREIGN KEY (custId)
        REFERENCES [Yummy.Customer] (custId)
        ON DELETE CASCADE ON UPDATE CASCADE
)
```

Use Case: 1

What are the names and addresses of restaurants that serve good chicken dishes?

```sql
)CREATE VIEW [V_CHICKEN_DISHES] AS
    SELECT rst.rstrName, rst.rstrStreet, rst.rstrCity, rst.rstrState
    FROM [Yummy.Restaurant] rst
    WHERE rst.rstrId IN (
        SELECT rvw.rstrId
        FROM [Yummy.Review] rvw
        WHERE rvw.rvwComments LIKE '%chicken%' AND (rvw.rvwComments LIKE '%good%') OR (rvw.rvwComments LIKE '%delicious%'))
```

The restaurants that serve good chicken dishes are…

	rstrName	rstrStreet	rstrCity	rstrState
1	Taco Bell	8428 Baltimore Ave	College Park	MD
2	Dennys	8424 Baltimore Ave	College Park	MD
3	Kangnam BBQ	8503 Baltimore Ave	College Park	MD
4	Krazi Kebob	5110 Roanoke Pl #102	College Park	MD
5	Dolan Uyghur Restaurant	3518 Connecticut Ave NW	Washington	DC
6	Pho Thom	7313 Baltimore Ave	College Park	MD
7	Sweetgreen	8300 Baltimore Ave	College Park	MD
8	Sardis Pollo A La Brasa	10433 Baltimore Ave	Beltsville	MD

Use Case: 2

To find restaurants that open before 11:30 AM on Monday within 25 minutes delivery time.


```
CREATE VIEW [V_REST_OPEN_EARLY_FAST_DELIVERY] AS
    SELECT r.rstrId, r.rstrName,d.dlvrTime
    FROM [Yummy.Restaurant] r, [Yummy.Delivery] d
    WHERE d.dlvrTime<25 AND r.rstrId=d.rstrId
        AND r.rstrId IN (
        SELECT t.rstrId
        FROM [Yummy.Timing] t
        WHERE t.tmgStartHour<='11:30:00.0000000' AND t.tmgDay='MON')
```

When you are in a hurry on Monday morning, you can order from…

	rstrId	rstrName	dlvrTime
1	1111111111	Taco Bell	20
2	1111111116	McDonalds	20
3	1111111118	Krazi Kebob	20
4	1111111120	Aroy Thai Restaurant	20

Use Case: 3

To find average rating of all the Asian Restaurant

```sql
]CREATE VIEW [AVERAGE_ASIAN_RATING] AS
    SELECT AVG(DISTINCT(rvw.rvwRating)) AS 'Average Rating'
    FROM [Yummy.Restaurant] r, [Yummy.Cuisine] c, [Yummy.Serve] s, [Yummy.Review] rvw
    WHERE r.rstrId=s.rstrId
        AND c.csnId=s.csnId
        AND (c.csnName IN ('Indian','Vietnamese','Japanese','Korean','Pakistani','Thai'))
        AND r.rstrId=rvw.rstrId

GO
```

The result for average rating for Asian restaurants

Use Case: 4

To find the restaurant that serves alcohol and is open the latest on Friday night

```sql
CREATE VIEW [REST_FRIDAY_NIGHT_ALCOHOL] AS
    SELECT TOP 1 r.rstrName, t.tmgCloseHour
    FROM [Yummy.Restaurant] r, [Yummy.Timing] t
    WHERE r.rstrId=t.rstrId AND r.rstrAlcohol = 1 AND  t.tmgDay='FRI'
    ORDER BY t.tmgCloseHour DESC
GO
```

The restaurant that serves alcohol and is open the latest on Friday night

Use Case: 5

To find restaurants that have ongoing promotions and offer delivery within 30 minutes

```sql
CREATE VIEW [REST_DELIVERY_PROM_DEL_30MINS] AS
    SELECT r.rstrName
    FROM [Yummy.Restaurant] r
    WHERE r.rstrId IN (
        SELECT d.rstrId
        FROM [Yummy.Delivery] d
        WHERE d.dlvrPromotion=1
            AND d.dlvrTime<=30)
GO
```

You can find ongoing promotions and get delivery within 30 minutes at…

	rstrName
1	Taco Bell
2	Pizza Hut
3	Dennys
4	LaTao Hotpot
5	McDonalds
6	Krazi Kebob
7	Aroy Thai Restaurant
8	NuVegan Cafe -College Park

Use Case: 6

To find restaurants that open before noon and serve Chinese food

```
CREATE VIEW [REST_CHINESE_MONDAY_BEFORE12] AS
    SELECT r.rstrId, r.rstrName
    FROM [Yummy.Restaurant] r, [Yummy.Cuisine] c, [Yummy.Serve] s
    WHERE r.rstrId=s.rstrId AND c.csnId=s.csnId AND c.csnName='Chinese'
        AND r.rstrId IN (
        SELECT t.rstrId
        FROM [Yummy.Timing] t
        WHERE t.tmgStartHour<='12:00:00.0000000' AND t.tmgDay='MON')
GO
```

You can get Chinese food early at…

	rstrId	rstrName
1	1111111115	LaTao Hotpot
2	1111111119	Dolan Uyghur Restaurant

Use Case: 7

To find the top 3 restaurants in terms of reviews and offer Hispanic Cuisine

```sql
]CREATE VIEW [REST_TOP3_HISPANIC] AS
    SELECT DISTINCT TOP 3 r.rstrName
    FROM [Yummy.Restaurant] r, [Yummy.Cuisine] c, [Yummy.Review] rev, [Yummy.Serve] s
    WHERE (c.csnName IN ('Mexican', 'Salvadoran', 'Peruvian')) AND r.rstrId = s.rstrId AND c.csnId = s.csnId AND rev.rvwRating > 3.0
 GO
```

You can get exquisite hispanic food at…

	rstrName
1	Pupuseria La Familiar
2	Sardis Pollo A La Brasa
3	Taco Bell

Thank you!