# CREATE TABLE statements

CREATE TABLE[Yelp.Business](

bId CHAR(3) NOT NULL,

bName VARCHAR(30),

address VARCHAR(50),

city VARCHAR(10),

state CHAR(2),

postCode CHAR(5),

latitude NUMERIC(10,7),

longitude NUMERIC(10,7),

stars NUMERIC(2,1),

reviewCount INTEGER,

isOpen CHAR(1),

CONSTRAINT pk\_Business\_bId PRIMARY KEY(bId));

CREATE TABLE [Yelp.Coupon] (

cId CHAR(3) NOT NULL,

percentageOff NUMERIC(3,2),

CONSTRAINT pk\_Coupon\_cId PRIMARY KEY (cId));

CREATE TABLE[Yelp.User](

uId CHAR(3) NOT NULL,

uName VARCHAR(30),

yelpingSince DATE,

averageStars NUMERIC(2,1),

eliteDate DATE,

fans INTEGER,

CONSTRAINT pk\_User\_uId PRIMARY KEY(uId));

CREATE TABLE [Yelp.Review] (

rId CHAR(3) NOT NULL,

bId CHAR(3),

uId CHAR(3),

rStars NUMERIC(2,1),

rDate DATE,

rText VARCHAR(255),

useful INTEGER,

funny INTEGER,

cool INTEGER,

CONSTRAINT pk\_Review\_rId PRIMARY KEY (rId),

CONSTRAINT fk\_Review\_bId FOREIGN KEY (bId)

REFERENCES [Yelp.Business] (bId)

ON DELETE CASCADE ON UPDATE NO ACTION,

CONSTRAINT fk\_Review\_uId FOREIGN KEY (uId)

REFERENCES [Yelp.User] (uId)

ON DELETE CASCADE ON UPDATE CASCADE);

CREATE TABLE[Yelp.Hours](

hId CHAR(6) NOT NULL,

day CHAR(3) ,

bId CHAR(3) ,

openHours INTEGER,

closeHours INTEGER,

CONSTRAINT pk\_Hours\_day\_bId PRIMARY KEY (hId),

CONSTRAINT fk\_Hours\_bId FOREIGN KEY (bId)

REFERENCES [Yelp.Business] (bId)

ON DELETE CASCADE ON UPDATE CASCADE);

CREATE TABLE [Yelp.AddTips] (

bId CHAR(3) NOT NULL,

uId CHAR(3) NOT NULL,

likes INTEGER,

tText VARCHAR(255),

tDate DATE,

CONSTRAINT pk\_Addtips\_bId\_uId PRIMARY KEY (bId,uId),

CONSTRAINT fk\_Addtips\_bId FOREIGN KEY (bId)

REFERENCES [Yelp.Business] (bId)

ON DELETE CASCADE ON UPDATE NO ACTION,

CONSTRAINT fk\_Addtips\_uId FOREIGN KEY (uId)

REFERENCES [Yelp.User] (uId)

ON DELETE CASCADE ON UPDATE CASCADE);

CREATE TABLE [Yelp.Use] (

cId CHAR(3) NOT NULL,

bId CHAR(3) NOT NULL,

expireDate DATE,

CONSTRAINT pk\_Use\_cId\_bId PRIMARY KEY (cId,bId),

CONSTRAINT fk\_Use\_cId FOREIGN KEY (cId)

REFERENCES [Yelp.Coupon] (cId)

ON DELETE CASCADE ON UPDATE NO ACTION,

CONSTRAINT fk\_Use\_uId FOREIGN KEY (bId)

REFERENCES [Yelp.Business] (bId)

ON DELETE CASCADE ON UPDATE NO ACTION);

# DROP TABLE statements

DROP TABLE [Yelp.Addtips];

DROP TABLE [Yelp.Hours];

DROP TABLE [Yelp.Review];

DROP TABLE [Yelp.User];

DROP TABLE [Yelp.Business];

DROP TABLE [Yelp.Coupon];

DROP TABLE [Yelp.Use];

# INSERT INTO statements

INSERT INTO [Yelp.Business] VALUES

('B01', 'The Coffee Bean & Tea Leaf', '20235 N Cave Creek Rd, Ste 1115 ','Phoenix', 'AZ','85024',33.6713751,-112.0300171,4.0,63,1),

('B02','Original Hamburger Works','2801 N 15th Ave','Phoenix', 'AZ','85007',33.4798071,-112.0911877,4.0,277,1),

('B03','Rib Shop','4131 N 83rd Ave','Phoenix', 'AZ','85033',33.4952976,-112.2360764,2.5,3,1),

('B04','Little Caesars Pizza','4145 N 83Rd','Phoenix', 'AZ','85033',33.4954215852,-112.235797843,2.0,4,1),

('B05','Barrio Cafe Gran Reserva','1301 W Grand Ave, Ste 1','Phoenix', 'AZ','85007',33.4573881,-112.0897301,4.5,117,1),

('B06','Quickies Mobile Foods',NULL,'Phoenix', 'AZ','85001',33.4499672,-112.0702225,5.0,3,0),

('B07','Starbucks','3131 E Thunderbird Rd','Phoenix', 'AZ','85032',33.6102008,-112.0149317,2.0,8,1),

('B08','Taste of India','1609 E Bell Rd','Phoenix', 'AZ','85022',33.6398283,-112.0472243,2.0,25,1),

('B09','Tom Yum Thai Restaurant','3510 E Bell Rd','Phoenix', 'AZ','85032',33.641201,-112.0067284,4.0,127,1),

('B10','Food City','3202 E Greenway Rd','Phoenix', 'AZ','85032',33.6272318,-112.0121147,3.0,22,1);

INSERT INTO [Yelp.User] VALUES

('U01','Jonathan','2009-08-04',4.2,'2009-08-05',0),

('U02','Matthew','2015-05-07',3.0,NULL,1),

('U03','Matt','2013-07-02',3.3,NULL,0),

('U04','Aisha','2013-05-06',3.1,'2014-04-13',3),

('U05','Teresa','2014-10-26',3.0,NULL,0),

('U06','Sarah','2010-01-19',3.7,'2010-02-11',2),

('U07','Aja','2014-02-28',4.1,NULL,1),

('U08','Dellene','2010-03-28',4.2,'2010-03-29',2);

INSERT INTO [Yelp.Review] VALUES

('R01','B01','U01',5.0,'2014-11-13','I love this place! My fiance And I go here atleast once a week. The portions are huge! Food is amazing. I love their carne asada. They have great lunch specials.',0,0,0),

('R02','B05','U02',4.8,'2017-06-28','One of the best breakfast places I have been to! The menu had so many options, above & beyond your typical breakfast choices.',0,0,2),

('R03','B02','U03',4.0,'2014-02-12','The food was ok. You get a lot of food for the price. There is bot a lot of seating.',3,0,0),

('R04','B07','U06',3.9,'2014-03-21','Tables almost completely full of people with laptops',1,0,0),

('R05','B10','U07',3.8,'2015-7-13','If you like fried fatty bar food then this is the place for you.',2,0,0),

('R06','B04','U02',4.7,'2015-5-07','Small interior, but good if you go with a large group and take over the joint! Excellent bar staff',5,2,0),

('R07','B03','U04',1.0,'2015-11-05','This place does not even deserve 1 star. Horrible service! The service manager was rude and unprofessional. He should not even have a job after the way he spoke to customers.',18,0,0),

('R08','B04','U01',2.0,'2011-02-25','The pizza was okay. Not the best I have had. I prefer Biaggio is on Flamingo \/ Fort Apache. The chef there can make a MUCH better NY style pizza.',0,3,0),

('R09','B01','U08',3.9,'2016-09-03','Felt a mite hipstery, but I was treated well and served great coffee and pastry.',3,0,0),

('R10','B06','U06',5.0,'2013-03-10','Food is so good! They have a new menu out with new pasta dishes and pizza. Service is great they deliver also. Their food is like having a restaurant like olive garden deliver to you.',1,0,0),

('R11','B07','U07',3.0,'2016-06-09','Regular starbucks, nothing special. No one exceptionally friendly or anything. Staff seemed more in a hurry to get back to chatting with one another, not really building rapport with customer.',0,0,1),

('R12','B08','U08',3.5,'2011-01-12','there is no possible way this place was built to be an Indian restaurant. I have been here a few times, and my opinion is that the best way to order is to share, especially if your experience with Indian food is limited',8,1,2),

('R13','B09','U01',5.0,'2011-10-10','If you like Thai food, you have to try the original thai bbq. Their pad se ew is to DIE for. Their thai egg rolls are delicious. ',1,0,0),

('R14','B10','U07',4.0,'2016-06-24','Food is always hot, order always correct. Food tastes good, not overly salty and definitely bland. It is not a gourmet meal, but it hits the spot.',0,0,0),

('R15', 'B01','U03',4.8,'2015-12-02', 'The marketing lady is out handing out gifts and coupons today. Nice lady and great service again!","date',5,2,2),

('R16','B01','U06',5.0,'2014-08-13','Nice service!Hope meat more salty.',1,0,0);

INSERT INTO [Yelp.AddTips] VALUES

('B01','U01',3,'Come early on Sundays to avoid the rush','2014-11-13'),

('B05','U02',2,'Tuesday spaghetti special all day $5.59 includes soup or salad and bread','2017-06-28'),

('B02','U03',1,'If you are in a hurry be prepared to WAIT...this is one of the slowest \"fast food\" restaurants around.','2014-02-12'),

('B03','U04',0,'It is best to make a reservation in advance especially on weekends.','2015-11-05'),

('B04','U01',0,'Hot here too. Dang!','2011-02-25'),

('B06','U06',1,'My gold service rate was going to be $100. My AAA is $60! Ask for it','2013-03-10'),

('B07','U07',2,'Ask for free refills!','2016-06-09'),

('B08','U08',4,'The place to go after work, but, it is not cheap','2011-01-12'),

('B09','U01',3,'Tables almost completely full of people with laptops','2011-10-10'),

('B10','U07',1,'Brunch until 2:30 Saturday and Sunday','2016-06-24');

INSERT INTO [Yelp.Hours] VALUES

('B01Mon','Mon','B01',9,19),

('B01Wed','Wed','B01',9,19),

('B02Tue','Tue','B02',10,22),

('B02Thu','Thu','B02',10,22),

('B03Mon','Mon','B03',11,21),

('B03Fri','Fri','B03',10,21),

('B04Sat','Sat','B04',12,21),

('B04Sun','Sun','B04',12,21),

('B05Mon','Mon','B05',8,15),

('B05Tue','Tue','B05',8,15),

('B10Wed','Wed','B10',8,23),

('B10Fri','Fri','B10',8,23),

('B07Wed','Wed','B07',07,20),

('B07Sun','Sun','B07',07,20),

('B08Sat','Sat','B08',15,24),

('B08Sun','Sun','B08',15,24),

('B09Mon','Mon','B09',9,18),

('B09Fri','Fri','B09',9,18);

INSERT INTO [Yelp.Coupon] VALUES

('C01',0.25),

('C02',0.3),

('C03',0.1),

('C04',0.1),

('C05',0.1),

('C06',0.2),

('C07',0.1),

('C08',0.15),

('C09',0.05),

('C10',0.1);

INSERT INTO [Yelp.Use] VALUES

('C01','B01','2015-12-04'),

('C03','B01','2016-11-26'),

('C02','B02','2016-11-26'),

('C02','B10','2016-11-26'),

('C02','B09','2016-11-26'),

('C03','B03','2017-2-15'),

('C04','B02','2017-5-18'),

('C05','B10','2017-8-31'),

('C06','B01','2017-9-23'),

('C07','B09','2018-3-27');

# SELECT COUNT statements

SELECT COUNT (\*) AS 'Number of Business' FROM [Yelp.Business]

SELECT COUNT (\*) AS 'Number of Coupon' FROM [Yelp.Coupon]

SELECT COUNT (\*) AS 'Number of User' FROM [Yelp.User]

SELECT COUNT (\*) AS 'Number of Review' FROM [Yelp.Review]

SELECT COUNT (\*) AS 'Number of Hour' FROM [Yelp.Hours]

SELECT COUNT (\*) AS 'Number of Tip' FROM [Yelp.AddTips]

SELECT COUNT (\*) AS 'Number of Use' FROM [Yelp.Use]

# Business transaction questions and answer statements

1.Which restaurants have ever got a five-star review?

SELECT b.bName,COUNT(r.rId) AS 'Number of 5 stars'

FROM [Yelp.Review] r,[Yelp.Business] b

WHERE r.bId=b.bId AND rStars=5

GROUP BY bName

2.Which restaurants open on Friday 3:00pm-5:00pm?

SELECT B.bName,openHours,closeHours

FROM [Yelp.Business] B, [Yelp.Hours] H

WHERE B.bId = H.bId

AND day='Fri'

AND H.openHours <= 15

AND H.closeHours >= 17

3.What are the reviews and tips for Restaurant Starbucks?

SELECT bName,tText,rText

FROM [Yelp.Review] R, [Yelp.Business] B,[Yelp.AddTips] T

WHERE R.bId = B.bId

AND T.bId=B.bId

AND B.bName = 'Starbucks'

4.Which restaurants have a COUPON GREATER THAN 20% off?

SELECT B.bName,cast(cast(percentageOff\*100 as numeric(10,2)) as varchar(50))+'%' AS 'percentageoff'

FROM [Yelp.Business] B, [Yelp.Coupon] C,[Yelp.Use] U

WHERE B.bId = U.bId

AND C.cId = U.cId

AND C.percentageOff >= 0.2

5.Which 3 restaurants have the highest average reviews?

SELECT top 3 B.bName,AVG(rStars) AS 'average stars'

FROM [Yelp.Business] B, [Yelp.Review] R

WHERE R.bId = B.bId

AND 'average stars'>=(SELECT MAX('average stars')

FROM [Yelp.Review])

GROUP BY bName

ORDER BY 'average stars' desc

6.Which restaurant has the most reviews?

SELECT DISTINCT TOP 1 bName,COUNT(rText) AS 'number of review'

FROM [Yelp.Business] B,[Yelp.Review] R

WHERE B.bId=R.bId

GROUP BY bName

ORDER BY 'number of review' DESC