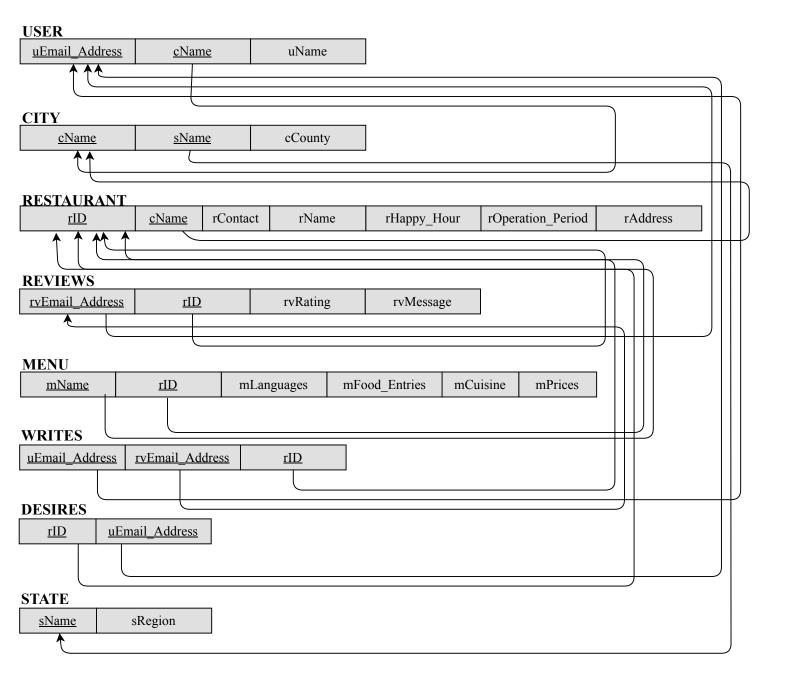**Assumptions:**

1. A REVIEW must be written by a USER. A USER may write 0 or more REVIEWs.
2. A RESTAURANT must contain at least 1 MENU, and likewise a MENU must be associated with a RESTAURANT.
3. REVIEWs must have a RESTAURANT, while RESTAURANTS may have 0 or more REVIEWs.
4. Multiple or no USERs may desire one or more RESTAURANTs.
5. A MENU and REVIEWs must depend on RESTAURANT to be uniquely identifiable.
6. REVIEWs additionally depends on USER for unique identification.
7. A USER can have one or no Favorite_Restaurant.
8. Every USER can use only one Email_Address per account.
9. Every STATE must contain at least 1 or more CITIES, and likewise every CITY must be in a STATE.
10. Every USER must live in a CITY, and every CITY must contain at least 1 USER.

USER

uEmail_Address	cName	uName

CITY

cName	sName	cCounty

RESTAURANT

rID	cName	rContact	rName	rHappy_Hour	rOperation_Period	rAddress

REVIEWS

rvEmail_Address	rID	rvRating	rvMessage

MENU

mName	rID	mLanguages	mFood_Entries	mCuisine	mPrices

WRITES

uEmail_Address	rvEmail_Address	rID

DESIRES

rID	uEmail_Address

STATE

sName	sRegion

Domain Constraints:

1. uEmail_Address, rvEmail_Address are alphanumeric strings up to 20 characters ending with @ domain
2. rAddress is a alphanumeric string up to 100 characters with the format consisting of: street address, state, and zip code.
3. uName, rName, sName, sRegion, cName, cCounty, mCuisine, mFood_Entries are alphabetic strings up to 50 characters long.
4. rID is a series of 4-digit single integers from 0-9.
5. rContact is a series of single digit integers from 0-9 in a US Phone formatting.
6. rHappy_Hours, rOperation_Period consists of four single integers ranging from 0000-2359.
7. rvRatings are single integers from 1-5 formatted in R/5 (where R = defined integer)
8. rMessage is a alphanumeric string up to 150 characters.
9. mLanguages is a string that must be an officially recognized language.
10. mPrices is a double following US Pricing conventions ($dollars.cents).

Referential Constraints:

1. Every USER must be from a CITY.
2. Every RESTAURANT must BE in a CITY.
3. Every CITY must be in a STATE.
4. Every REVIEW must have a USER (who writes it) and RESTAURANT (who is being reviewed).
5. Every USER can have RESTAURANTS that they desire to visit, but have not visited yet.
6. Every RESTAURANT must have at least one MENU.
7. Every MENU can only be associated with one RESTAURANT.

Key Constraints:

1. All primary keys must be unique from one another.

Assumptions:

1. Address attributes only include street address and ZIP code. The CITY and STATE come from those entities.
2. Both uEmail_Address and rvEmail_Address are assumed to be valid.
3. rHappy_Hours and rOperations_Period follow the same time format: the first integer is when they open and the second is when they close.
4. rOperation_Period can be listed sequentially to show when the next opening times occur.

PK refers to Primary Key, FK refers to Foreign Key

USER	
PK	**uEmail_Address**
FK	**cName**

CITY	
PK	**cName**
FK	**sName**

STATE	
PK	**sName**
FK	-

RESTAURANT	
PK	**rID**
FK	**cName**

REVIEWS	
PK	**rvEmail_Address + rID**
FK	**rvEmail_Address**
FK	**rID**

MENU	
PK	**mName + rID**
FK	**rID**

DESIRES	
PK	**rID + uEmail_Address**
FK	**rID**
FK	**uEmail_Address**

WRITES	
PK	**uEmail_Address + rID + rvEmail_Address**
FK	**uEmail_Address**
FK	**rEmail_Address**
FK	rID