**REDIS DATA-STRUCTURES USED:**

1. **For Storing Restaurants:**
   1. **HASHES** - to Store the Restaurant and their attributes like services, facilities, working days and hours.

KEY: restaurant:restID

EG:- restaurant:153

VALUE: {

name: 'tacos los volcanes',

address: 'Francisco I. Madero 145 Centro',

city: 'san luis potosi',

country: 'Mexico',

restID: '56',

state: 'san luis potos',

zip: '78290',

facilities\_ambience: 'solitary',

facilities\_parkingSpace: 'true',

facilities\_seatingArea: 'open',

services\_alcohol: 'false',

services\_smoking: 'true',

workingDays: 'Monday',

payments: 'cash',

cuisine: 'Mexican,Chinese,American,Indonesian',

priceRangeMin: '17',

priceRangeMax: '73',

openHours: '1:40 AM',

closeHours: '10:27 PM',

dresscode: 'informal'

}

* 1. **LISTS - Store** all the restaurant ids

**EG**:- restids [ 1, 2, 3 ……. ]

Lists are used instead of sets or sorted sets so functions like LRANGE can be performed as SETS output random values

* 1. **SETS   
       
       
     1.3.1 Store all the different kind of cuisines**

KEY: cuisines

VALUE: American, Indian, Chinese, Mexican, Cuban ……. etc.

**1.3.2** Store restids of all restaurants of a particular type of cuisine so we can query the restaurant by cuisine.

KEY: cuisine:cuisineName

EG:- cuisine:American

VALUE: 445

1. **Caching data**

For both Rating and Customer, we use a HASH as this was the easiest to implement from a mongo database that uses json.

* 1. **Cache customer**

Key:customer:customerId

example key: customer:46

value:

{

"ambience": "family",

"budget": "low",

"customerID": 282,

"drinkLevel": "casual drinker",

"name": "Alix Bowering",

"smoker": false,

"dressCode": "informal",

"cuisine": ["Japanese","Malaysian","American"],

"paymentMethods": ["American\_Express"]

}

Nested json objects are JSON.stringify so they fit into a string variable.

* 1. **Cache Rating**

Key: rating:ratingId

Example key: rating:61996621181603ed94618714

value:

{

"Food": 5,

"Service": 4,

"cost": 4,

"overall": 4.2,

"parking": 4,

"ratingId": 1,

"restID": 160,

"waiting": 4,

"customer {"ambience":"family","budget":"medium","customerID":46,"drinkLevel":"abstemious","name":"Agatha Kinzett","smoker":false,"dressCode":"informal","cuisine":["Japanese","Malaysian","American"],"paymentMethods":["American\_Express"]}

}

Nested json objects are JSON.stringify so they fit into a string variable.