**Brand name:**

**TERPCravingz —Find your Terp Eatery Here**

**Business Scenario:**

TERPCravingz is a medium sized restaurant review platform that showcases restaurant information, restaurant review information and UMD Shuttles to the restaurant of choice.

TerpCravingz has a demand for improvement of customer experience by adding analytical dashboards on their website as an add-on feature so that the customers can view these analytical insights and have an overall idea immediately of the best restaurants around. These dashboards will primarily serve customers for the purpose of knowing the three best restaurants and the most popular cuisine etc at once. In addition, customers can either acquire insightful information about restaurants performing best in one or the other category or get the shuttle stop nearest to the restaurant and UMD shuttles passing by if he or she has decided which restaurant to visit. Apart from analytical and travel-searching functions, the ordinary query is available on TerpCravingz, which customers can simply look it up on TERPcravingz website for reviews of restaurants which they are interested or other information to which TERPcravingz offers the access for all visitors.

Knowing the background of five database students studying Business Analytics at University of Maryland, TERPcravingz has decided to hire Team Analytica for developing this add-on feature for their website.

**Describe business processes/transactions in sentences.**

● There are various restaurants listed on the company’s website. Each restaurant is described by a unique identifier, name, address (including street name, city, state and postal code), phone number, coordinates (described by the latitude and longitude in decimal format), the expensiveness of the restaurant(on a scale of 1 to 5), whether or not it makes deliveries or takes pick-ups (labeled as resTransactionType), average rating (shown as the number of stars from 0 to 5) and the total number of its reviews in the database. Moreover, the schedule of the time when the restaurant opens and closes from Monday to Sunday is also stored.

● Foods that a restaurant sells can fall into various categories (Mexican, Italian, etc). Each category is assigned a unique identifier and gets its name as well. Each restaurant may belong to one or more categories, depending on the type of dishes it serves. A category of food can be served by multiple restaurants.

● Customers can eat at any restaurant and decide whether to leave reviews for restaurants where he or she visits after meals. But he or she can leave no more than one review for each meal. Furthermore, a customer can write many online reviews to a restaurant and the number of reviews should be equal to that of visits. Each customer has a unique customer identifier and a customer name. A review is stored by its unique identifier, the rating (the number of stars) that customer assess the restaurant and the text content of the review.

* Even though a customer is logged off for some reason, reviews provided by him or her for restaurants will remain the same. Besides, if a restaurant breaks down or move outside of the surveyed area, reviews that the restaurant obtains will not deleted or changed with the withdrawal of the restaurant.

● Apart from restaurant information, UMD shuttles have at least one station on their scheduled routes. The UMD shuttle is identified by a unique identifier, bus number, bus name, bus final destination.

* Also, there is a stop, among all stations at which shuttles stop routinely, nearest to each restaurant, compared with other stations. Meanwhile, restaurants can share the same nearest stop or have their own nearest stops. The shuttle stops are recorded by unique stop identifiers, and corresponding stop coordinates (including the latitude and longitude information).

● TERPcravings allows customers to drop their reviews in the comment section for the restaurant that they have dined in.

## **Entities, Attributes and Primary Keys**

* Restaurant(**resId**, resName, resStreet, resCity, resState, resPostalCode, resPhoneNo, resLat, resLong, resStars, resRevCNT, resPrice, resTransactionType, monStartTime, monEndTime, tuesStartTime, tuesEndTime, wedStartTime, wedEndTime, thurStartTime, thurEndTime, friStartTime, friEndTime, satStartTime, satEndTime, sunStartTime, sunEndTime)
* Category(**categoryId**, categoryName)
* Customer**(cusId**, cusName)
* Review(**revId**, revRating, revText)
* Shuttle(**busId**, busNo, busName, busFinalDest)
* Stop(**stopId**, stopName, stopLat, stopLong)

## **Relationships, Attributes, Degrees, Participating Entities and Constraints**

* Have: binary relationship:

1 shuttle to 1 or more stops

1 stop to 1 or more shuttles

* Belong: binary relationship:

1 restaurant to 1 or more categories

1 category to 0 or more restaurants

* Be nearest(walkTimeToRes): binary relationship

1 restaurant to 1 stop

1 stop to 1 or more restaurants

* Write: ternary relationship:

1 customer and 1 restaurant to 0 or more reviews

1 customer and 1 review to 0 or 1 restaurant

1 review and 1 restaurant to 0 or 1 customer

