**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 user experience by adding analytical dashboards on their website as an add-on feature so that users can view these analytical insights and have an overall idea immediately of the best restaurants around. End users are entrepreneurs who are looking for restaurant business opportunities nearby University of Maryland (UMD) and need analysis insights for their decision making, and customers who want to find their best restaurants to visit. In addition, customers can get information about the UMD shuttles passing by the restaurant and the nearest shuttle stop to the restaurant that they want to visit. Apart from analytical and travel-searching functions, the ordinary queries are available on TerpCravingz, so that customers can look up on TERPcravingz website for reviews of restaurants and other information to which TERPcravingz offers the access for all visitors.

Knowing the background of Team Analytica, including 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 ( 2799 restaurants in 15 areas nearby UMD: College Park, East Riverdale, Hyattsville, Langley Park, Mount Rainier, Chillum, New Carrollton, Greenbelt, Hillandale, Takoma Park, Beltsville, Silver Spring, White Oak, Glenn Dale, Fairland). Each restaurant is described by a unique identifier, name, address (including street, city, state and postal code), phone number, coordinates (described by the latitude and longitude in decimal format), average rating (shown as the number of stars from 0 to 5), the total number of its reviews in the database, the expensiveness of the restaurant (on a scale of 1 to 5) and whether or not it provides delivery, pick-up or restaurant reservation services (labeled as resTransactionType). 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. A category of food can be served by multiple restaurants.

● Customers can eat and leave reviews for any restaurants, but they can leave no more than one review for each of their meal. Furthermore, a customer can write many online reviews to a restaurant for multiple 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 a customer assesses that restaurant and the text content of the review. Customers can edit their reviews for a restaurant.

● Apart from restaurant information, there are 25 UMD shuttles that can take customers go to their chosen restaurants. Each shuttle have at least one station on their scheduled routes. The UMD shuttle is identified by a unique identifier, bus number, bus name and bus final destination.

* There are many bus stops where a shuttle stops for passengers to board or alight from it. Each restaurant has the nearest bus stop to it. Restaurants can share the same nearest stop or have their own nearest stop. The shuttle stops are recorded by unique stop identifiers, name and corresponding coordinates (including the latitude and longitude information).

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

* Restaurant(**resId**, resName, resAddress, -resStreet, -resCity, -resState, -resPostalCode, resPhoneNo, resLat, resLong, resStars, resRevCNT, resPrice, resTransactionType, resOpenHour, -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

