

## Final Project: COP 4710

### Tables:

1. Users (UserID, Username, Email)
  - PK: UserID
  - Constraints: Username, Email Not NULL
2. Cities (CityID, CityName, State, Latitude, Longitude)
  - PK: CityID
  - Constraints: CityName, State Not NULL
3. PlacesToVisit (PlaceID, City, PlaceName, Tags, Latitude, Longitude)
  - PK: PlaceID
  - FK: City (references Cities)
4. Restaurants (RestaurantID, City, RestaurantName, CuisineType, MealType, Latitude, Longitude)
  - PK: RestaurantID
  - FK: City (references Cities)
5. Hotels (HotelID, City, HotelName, Rating, PriceRange, Latitude, Longitude)
  - PK: HotelID
  - FK: City (references Cities)
6. Interests (InterestID, InterestName)
  - PK: InterestID
7. CanSatisfy (PlaceID, InterestID) (Relation)
  - PK, FK: PlaceID (references PlacesToVisit), InterestID (references Interests)
8. UserPreferences (UserID, InterestID) (Relation)
  - PK, FK: UserID (references Users), InterestID (references Interests)
9. Food (FoodID, FoodName)
  - PK: FoodID
10. FoodPreferences (UserID, FoodID) (Relation)
  - PK, FK: UserID (references Users), FoodID (references Food)
11. UserTrips (TripID, UserID, StartingCity, EndingCity, Notes, NumberOfDays)
  - PK: TripID
  - FK: UserID (references Users), StartingCity (references Cities, NotNULL), EndingCity (references Cities, NotNULL)

12. DayPlan (DayID, TripID, DayNumber, MorningPlaceID, AfternoonPlaceID, NightPlaceID, BreakfastRestaurantID, LunchRestaurantID, DinnerRestaurantID, HotelID, Notes)
- PK: DayID
  - FK: TripID (references UserTrips), MorningPlaceID (references PlacesToVisit), AfternoonPlaceID (references PlacesToVisit), NightPlaceID (references PlacesToVisit), BreakfastRestaurantID (references Restaurants, NotNULL), LunchRestaurantID (references Restaurants, NotNULL), DinnerRestaurantID (references Restaurants, NotNULL)

