CSE 4410

DATABASE MANAGEMENT SYSTEMS II LAB

LAB_01: Relational Model

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- Suppose you are given the task of automating the operations of an international food chain via a single platform. There are multiple franchises (KFC, Chester's, Pizza hut, Domino's Pizza) of the food chain spread across over 20 countries. Each of the franchises gets at least 10,0000 customers per year.
  Customers can register themselves under different franchises to order food from different branches of that specific franchise. Each franchise has multiple branches spread around the country. Each branch has its own team of chefs. Each of them is an expert in a particular cuisine. And any customer can see the basic information of the chefs such as special menus developed by them (up to 5 menus). Each franchise has multiple menus (some are unique and some are common) that they offer to customers. The menus are identified by their own name, cuisine, main ingredients(optional), price, calorie_count etc.
  Further to build a proper food recommendation system for the food chain, information about customer details, their personal preferred cuisines (a person can have multiple preferred ones) and customers' ratings of any food need to be stored.

Now, your task is to:

1. Convert the scenario into DDL using standard SQL denoting the appropriate constraints.
2. Write SQL statements for the following queries:
   (a) Find the total number of customers for each franchise.
   (b) Find the avg rating for each menu item among all franchises.
   (c) Find the 5 top most popular items. It should be based on the number of times they were ordered.
   (d) Find the names of all customers who have preferred food that is offered from at least 2 different franchises.
   (e) Find the names of all customers who have not placed any orders.