**Assignment#1**

**Name: Kulsoom Khurshid**

**Reg #: SP20-BCS-044**

**Course: Database Management**

**Instructor: Mr. Qasim Malik**

**You need to figure out the query in SQL that must produce the expected result. You should test your SQL queries on Oracle Server before submission.**

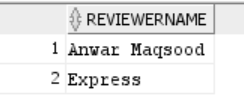
**Problem-1: Drama-Rating Database**

1. Find the names of all reviewers who have contributed three or more ratings.

**SELECT reviewername FROM (rating natural join reviewer)**

**GROUP BY reviewername**

**HAVING COUNT(stars) >= 3;**

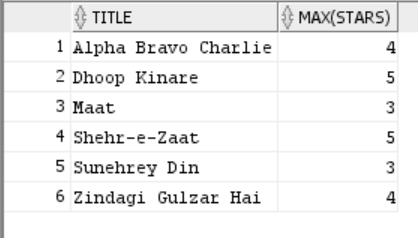
****

1. For each drama that has at least one rating, find the highest number of stars that drama received. Return the drama title and number of stars. Sort by drama title.

**SELECT title, MAX(stars) FROM (drama natural join rating)**

**GROUP BY title**

**ORDER BY title;**

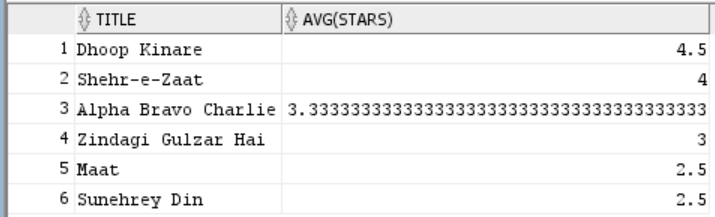
****

1. List drama titles and average ratings, from highest-rated to lowest-rated. If two or more dramas have the same average rating, list them in alphabetical order.

**SELECT title, AVG(stars) FROM (drama natural join rating)**

**GROUP BY title**

**ORDER BY AVG(stars) DESC, title;**

****

**QUESTION 2)**

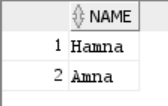
**Even though the database contains six relations, however, in order to answer the following set of queries, you only need to use the first four relations.**

1. Find the names of all females who eat at least one pizza served by Rahat.

(Note: The pizza need not be eaten at Rahat)

**SELECT name FROM (eats natural join serves natural join person)**

**WHERE (restaurant = 'Rahat' and gender = 'female');**

****

1. Find all pizzas that are eaten only by people younger than 24, OR that cost less than Rs.1000 everywhere they're served.

**(SELECT pizza FROM (eats natural join person)**

**GROUP BY pizza**

**HAVING MAX(age) < 24 )**

**UNION ALL**

**(SELECT DISTINCT pizza FROM serves**

**GROUP BY pizza**

**HAVING MAX(price) < 1000);**

****

1. Find all restaurants that serve at least one pizza for less than Rs.1000 that both Amna and Faria eat.

**SELECT DISTINCT rA.restaurant FROM (SELECT \* FROM (person natural join eats natural join serves)) rA,**

**(SELECT \* FROM (person natural join eats natural join serves)) rB**

**WHERE rA.name = 'Amna' and rB.name = 'Faria' and rA.price = rB.price and rA.price < 1000;**



1. Find all restaurants that serve ONLY pizzas eaten by people over 30.

**SELECT DISTINCT restaurant from serves**

**MINUS**

**SELECT DISTINCT restaurant from serves**

**WHERE pizza not in (SELECT pizza FROM eats natural join person**

**GROUP BY pizza**

**HAVING MAX (age) > 30);**

****

1. Find the age of the oldest person who eat mushroom pizza.

**SELECT MAX(age) FROM (eats natural join person)**

**Where pizza = 'mushroom'**

**GROUP BY pizza;**

****