Fast**National University of Computer & Emerging Sciences, Karachi  
Fall 2019 CS-Department  
Mid-Term Exam  
24th-Oct-2019, 08:10 am – 09:20 am**

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| **Course Code: CL-203** | **Course Name: Database Systems Lab** | |
| **Instructor Name: Ammara Yaseen** | | |
| **Student Roll No:** | | **Section: F** |

**Instructions:**

* Return the question paper.
* In case of any ambiguity, you may make assumption. But your assumption should not contradict any statement in the question paper.
* You are required to submit your exam in a single text file (Questions must be in order), Save the file with your student id i-e (17K-XXXX).

**Time:** 70 minutes. **Max Marks:** 50

**Q1-**

1. Display the staff’s name with the first letter capitalized and all other letters lowercase and the length of their name, for all staff whose name's 3rd letter contains A, E or I.

select initcap(staff\_name),length(staff\_name) from staff where upper(staff\_name) like '\_\_A%' or upper(staff\_name) like '\_\_E%' or upper(staff\_name) like '\_\_I%';

1. Find the name(s) of the movie(s) for which the duration is greater than 2 hours or the language is 'ENGLISH'.

select movie\_name from movies where upper(language)='ENGLISH' or duration\_hours>2;

**Q2-**

1. Fetch the movie name, the type of the cinema in which the movie is being shown and the staff name who scheduled the movie.

select movie\_name,type\_name,staff\_name from movies m,staff s,cinema\_type c,schedule sc where m.movie\_num=sc.movie\_num and s.staff\_id=sc.staff\_id and c.type\_id=sc.type\_id;

1. Fetch the 3rd youngest staff name.

select staff\_name from staff where age =(select min(age) from staff where age>(select min(age) from staff where age>(select min(age) from staff)));

**Q3-** Find the number of different types of movies that are being shown in branch 'Karachi'.

select count(distinct genre) from movies m,branch b,cinema\_type c ,schedule sc where b.branch\_id=c.branch\_id and sc.type\_id=c.type\_id and b.location='Karachi' ;

**Q4-** Find the name of the movie which is being shown the most in Lahore.

select ms.MOVIE\_NAME,count(sc.movie\_num)

from movies ms,schedule sc

where ms.MOVIE\_NUM=sc.MOVIE\_NUM

group by ms.movie\_name

having count(sc.movie\_num) in(select max(count(sc.movie\_num))

from movies ms,schedule sc natural join cinema\_type natural join branch

where ms.MOVIE\_NUM=sc.MOVIE\_NUM and location='Lahore'

group by ms.movie\_name) ;

**Q5-** Find the name(s) of the movie(s) which is being shown in the least number of cinemas.

select ms.MOVIE\_NAME,count(sc.movie\_num)

from movies ms,schedule sc,CINEMA\_TYPE CT

where ms.MOVIE\_NUM=sc.MOVIE\_NUM and CT.TYPE\_ID=sc.TYPE\_ID

group by ms.movie\_name

having count(sc.movie\_num) in(select min(count(sc.movie\_num))

from movies ms,schedule sc

where ms.MOVIE\_NUM=sc.MOVIE\_NUM

group by sc.movie\_num);

**Q6-** Find the name of the oldest staff, who has scheduled the least number of movies.

select STAFF\_name,max(age),count(movie\_num)

from staff natural join schedule sc natural join movies where age=(select max(age) from staff)

group by STAFF\_name

having count(movie\_num) = (select min(count(movie\_num)) from schedule natural join movies group by movie\_num);

**Q7-** Display the name of the 'comedy' movie which is being shown in Lahore, irrespective of any type of cinema.

SELECT m.movie\_name

FROM movies m, branch b, staff s, schedule sch

WHERE b.branch\_id = s.branch\_id AND s.staff\_id = sch.staff\_id AND m.movie\_num = sch.movie\_num AND b.location = 'Lahore' AND m.genre = 'Comedy';

**Q8-** Display the owner of the branch in which 3 or more staffs are working.

select e.owner from branch e join staff f on(e.branch\_id=f.branch\_id) group by owner

having count(staff\_id)>=3;

**Q9-**

1. Create a table with your name (username, current date).Write a PL/SQL program to insert a record in the table.

Create table ammara(

User\_name varchar2(25),

Current\_date date);

Begin

Insert into ammara values (user,sysdate);

End;

1. Update the branch id in branch table from 6 to 9. If it is not possible give the reason why? and how do we do so?

Update branch set branch\_id=9 where branch\_id=6;

This is not possible as branch id is foreign key in another table.

We can do so by delaying the this foreign key constraint checking.

**Q10**- An admission charge for The Little Rep Theater varies according to the age of the person. Develop a solution to print the ticket charge given the age of the person. The charges are as follows:

1. Over 55: PKR 10.00
2. 21–54: PKR 15.00
3. 13–20: PKR 10.00
4. 3–12: PKR 5.00
5. Under 3: Free

declare

age number;

begin

age := &age;

if age >= 55 then

dbms\_output.put\_line('PKR 10.00');

end if;

if age >=21 and age <= 54 then

dbms\_output.put\_line('PKR 15.00');

end if;

if age >=13 and age <= 20 then

dbms\_output.put\_line('PKR 15.00');

end if;

if age >=3 and age <= 12 then

dbms\_output.put\_line('PKR 15.00');

end if;

if age < 3 then

dbms\_output.put\_line('FREE');

end if;

end;

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***BEST OF LUCK!***