BUAN 6320

Database Foundations for Business Analytics

Assignment 2

Problem 1

Create the following table in your database with the following schema:

Table: ActorDirector

```
+-----+
| Column Name | Type |
+------+
| actor_id | int |
| director_id | int |
| timestamp | int |
```

timestamp is the primary key column for this table.

Add the following data to your tables:

Input:

ActorDirector table:

actor_id	director_id	+ timestamp
1 1 1 1 1 1 2 2	1 1 1 2 2 1	0
+	+	++

Write a SQL query for a report that provides the pairs (actor_id, director_id) where the actor has cooperated with the director at least three times.

Return the result table in any order.

The results should be:

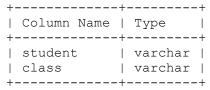
Output:

+	+	+
actor_id	_	
+		+
1	1	
+		+

Problem 2

Assuming you have a table in your database called 'Enrollment with the following schema:

Table: Enrollment



(student, class) is the primary key column for this table. Each row of this table indicates the name of a student and the class in which they are enrolled.

The table contains the following data:

Input:

Enrollment	table:
student	++ class +
A	Math
B	English
C	Math
D	Biology
E	Math
F	Computer
G	Math
H	Math
I	Math
+	++

Write an SQL query to report all the classes that have at least five students.

Return the result table in any order.

The result should be:

Output:

+----+ | class | +----+ | Math | +----+

Problem 3

Create the following table in your database with the following schema:

Table: Orders

order_number is the primary key for this table. This table contains information about the order ID and the customer ID.

Add the following data to your tables:

Input:

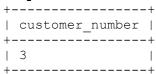
Orders table:

+	++
order_number	customer_number
+	++
1	1
2	2
3	3
4	I 3
+	++

Write an SQL query to find the customer_number for the customer who has placed the largest number of orders.

The results should be:

Output:



Problem 4

Create the following tables in your database with the following schema:

Table: Sales

++	+
Column Name	Type
sale_id product_id year quantity price	int int int int int
++	+

(sale_id, year) is the primary key of this table.

product_id is a foreign key to Product table.

Each row of this table shows a sale on the product product_id in a certain year.

Note that the price is per unit.

Table: Product

İ	Column Name	İ	Type	İ
	product_id		int	
	product_name		varchar	

product id is the primary key of this table.

Each row of this table indicates the product name of each product.

Add the following data to your tables:

Input:

Sales table:

+	+	 	<u> </u>	++
_	product_id	-	= =	=
1	100	2008 2009 2011	10 12	5000 5000 9000

Product table:

+-		+-		+
	product_id		<pre>product_name</pre>	
+-		+-		+
	100		Nokia	
	200		Apple	
	300		Samsung	
+-		+-		+

Write an SQL query that reports the product_name, year, and price for each sale_id in the Sales table.

Return the result table in any order.

The results should be:

Output:

+		+-		-+-		-+
1	product_name		year		price	
+		+-		-+-		-+
	Nokia		2008		5000	
	Nokia		2009		5000	
	Apple		2011		9000	
+		. + .		- +-		- +