# Project 3\_1 ( 26 points)

It is possible that the instances of your tables are different from the ones presented below as an example. What is mandatory is the table schema: attributes' list and names. Your tables must have the same names in the header of the tables as presented below for each query. Use Cast() function to display a tuple in row with 80 characters. One instance of MUSEUM database follows:

SELECT	SELECT * FROM ARTIST2016					
A_ID	ANAME	ABIRTH	ADEATH	ACOUNTRY	AEPOCH	ASTYLE
MK_A1	MK_Artist1	12/02/1657	12/12/1702	Holland	Ancient	Academic
MK A2	MK Artist2	12/12/1980	-	Canada	Modern	Modern
MK_A3	MK_Artist3	01/12/1978	-	Canada	Modern	Modern
unknown	unknown	-	-	-	-	-

select * from ARTOBJ2016								
ARTID	A_ID	ARTYEAR	ARTTITLE	ARTEPOCH	ARTDESCR	ARTSTYLE		
MK01	MK A1	1700	The lake with sun	Ancient	The colors are shades of blue and green	style1		
MK02	MK A1	1710	Under the trees	Ancient	Description for MK02	style1		
MK04	MK A2	2000	Flying	Modern	Description for MK04	style2		
MK05	MK A2	2007	Sun	Modern	Description for MK05	style3		
MK06	MK A2	2008	Flower	Modern	Description for MK06	style3		
MK07	unknown	1600	Saint James	Renaissance	Description for MK07	style2		
MK08	MK A3	2000	Animals	Modern	Description for MK08	style4		
MK09	MK_A3	2002	CN Tower	Modern	Description for MK09	style4		
MK03	MK A2	2000	position	Modern	Description for MK03	style2		

SELECT * FROM painting2016	SELECT * FROM OTHERS2016	SELECT * FROM EXPOSED2016			
ARTID PTYPE PMAT	ARTID OTYPE MK05 photo MK06 video	E_ID			

SELECT * FROM Sculpture2016				SELECT * FROM Permanent2016				
ARTID S	SMAT	SHEIGHT	SWEIGHT	ARTID	ARTDATE	ARTCOST	ARTSTATE	
MK04 v	stone wood steel	+2.3000E+000 +1.2000E+001 +5.0000E-001	+2.34500E+002 +5.55000E+001 +2.50000E+000	MK03 MK02 MK04 MK05 MK06	12/12/1978 12/30/1980 12/23/2000 12/23/2007 12/12/2007	+5.50000E+006 +2.00000E+005 +2.00000E+005	DISPLAY DISPLAY STORED	

SELECT *	FROM Borro	owed2016 select	select * from exibition2016				
ARTID COL ID	DATEBORW DATE	E_ID	EXIBNAME	EXIBPLACE	EXIBSTART	EXIBEND	
MK01 MK_C1 MK01 MK_C1 MK08 MK_C3 MK09 MK_C3 MK01 MK_C1 MK07 MK_C2 MK07 MK_C2	12/23/2004 12/ 12/23/2005 11/ 12/30/2006 12/ 12/30/2006 12/ 02/05/2009 03/ 02/02/2005 02/ 12/02/2007 12/	02/2005 MK_E02 02/2006 MK_E03 30/2008 30/2008 04/2009 03/2006	Exibition1 Exibition2 Exibition3	Hamilton TORONTO Toronto	01/23/2009 11/24/2007 01/01/2009	05/05/2008	

select	select * from collection2016						
COT_ID	COLNAME	COLTYPE	COLDESCR	COLADR	COLPHONE	COLCONTACT	
MK C1	Colection1	Private	-	-	4162341234	Anissa Maw	
MK C2	Colection2	Museum	-	-	4161234567	Hector Berlioz	
MK_C3	Colection3	Museum	-	-	4162341444	Your name	

Use SQL language to obtain the tables (answers) for the following questions:

### 1. List all art objects exposed in any exposition

Attributes list: exhibition name, art object id, the start date of the exposure, the end date of the exposure, start date of the exhibition, end date of the exhibition, artist name; order by exhibition name and artist name. A correct answer table is presented in Figure 1.

EXIB_NAME	ARTID	STARTDATE	ENDDATE	EXIBSTART	EXIBEND	ARTIST
Exibition1	MK01	02/05/2009	03/04/2009	01/23/2009	05/04/2009	MK_Artist1
Exibition2	MK02	11/24/2007	12/24/2007	11/24/2007	05/05/2008	MK Artist1
Exibition2	MK03	02/02/2008	04/25/2008	11/24/2007	05/05/2008	MK Artist2
Exibition2	MK04	02/02/2008	04/25/2008	11/24/2007	05/05/2008	MK Artist2
Exibition2	MK05	02/02/2008	04/25/2008	11/24/2007	05/05/2008	MK Artist2
Exibition2	MK07	12/02/2007	02/02/2008	11/24/2007	05/05/2008	unknown
Exibition3	MK06	01/01/2009	02/28/2009	01/01/2009	05/30/2009	MK Artist2
Exibition3	MK06	03/30/2009	04/30/2009	01/01/2009	05/30/2009	MK_Artist2

Figure 1

2. List the most expensive art object which belongs to the museum.

The attributes list (table's schema) is presented in Figure 2. A correct answer table is presented in Figure 2.

ARTID	ARTIST	ARTEPOCH	ARTSTATE	PRICE		ARTDATE
MK06	MK Artist2	Modern	STORED	+2.0	0000E+007	12/12/2007

Figure 2

3. List the art objects borrowed from other collections.

The attributes list is presented in Figure 3. A correct answer table is presented in Figure 3. TIMES represent how many times each art object was borrowed, COLNAME is collection name.

ARTI	D COLNAME	TIMES	
MK01	Colection1		3
MK07	Colection2		2
MK08	Colection3		1
MK09	Colection3		1

Figure 3

4. List all distinct paintings and sculptures borrowed from other collections ordered by the year when they were done (ARTYEAR); ARTIST is artist name.

The attributes list is presented in Figure 4. A correct answer table is presented in Figure 4.

ARTID ARTIST	ARTYEAR ARTTITLE	
MK07 unknown MK01 MK_Artist1 MK08 MK_Artist3	1600 Saint James 1700 The lake with sun 2000 Animals	_

Figure 4

5. List how many paintings, how many sculptures, and how many "others" artobjects owns the museum (permanent).

The attributes list is presented in Figure 5. A correct answer table is presented in Figure 5.

NBR	ARTTYPE				
	2 others				
	1 paintings				
	2 sculptures				

Figure 5

## 6. List all artobjects owned by the museum (permanent).

The attributes list is presented in Figure 6. An example of answer table is presented in Figure 6.

ARTID	ARTDATE	ARTCOST		ARTSTATE	ARTTYPE
MK03	12/12/1978		+2.30000E+004	DISPLAY	sculpture
MK04	12/23/2000		+2.00000E+005	DISPLAY	sculpture
MK05	12/23/2007		+2.00000E+005	STORED	other
MK02	12/30/1980		+5.50000E+006	DISPLAY	painting
MK06	12/12/2007		+2.00000E+007	STORED	other

Figure 6

### 7. List for each artist the total value of artobjects owned by the museum.

The attributes list is presented in Figure 7. An example of answer table is presented in Figure 7.

Total value	Artist name
+5.5000000000000E+006	MK Artist1
+2.04230000000000E+007	MK Artist2

Figure 7

### 8. List all artobjects owned by the museum (permanent).

The attributes list is presented in Figure 8. An example of answer table is presented in Figure 8.

ARTID ARTCOST		A_ID	ANAME
MK02	+5.50000E+006	MK A1	MK Artist1
MK04	+2.00000E+005	MK A2	MK Artist2
MK05	+2.00000E+005	MK A2	MK Artist2
MK06	+2.00000E+007	MK A2	MK Artist2
MK03	+2.30000E+004	MK_A2	MK_Artist2

Figure 8

You have to upload the file project\_3\_1.txt which is a copy of all your queries and their result in folder P3\_1.

It is mandatory to start your file project\_3\_1.txt file with a select from all tables in your MUSEUM database (the corrector needs to have an image of your tables).

Use the same tables' schemas as in the examples in pages 1 and 2 of the project 3\_1.

```
update command options using v ON update command options using z on project 3 1.txt
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