Note: submit your file in proper format starting from your name ending with enrollment last digits [Abc001]

**Question 1: [CLO1 9.0 Marks]**

 **BAHRIA UNIVERSITY (KARACHI CAMPUS)**

**(OEL-I) - SPRING 2022**

# DATABASE MANAGEMENT SYSTEM (CSL-220)

Class: **BSE 4(B)**

Course Instructor: **Engr. Laraib Siddique Submission Deadline: 26th April, 2022**

Lab Instructor: **Engr. Ayesha Khan** Max Marks: 12 CLO mapping: CLO 1

**TASK:** Although you always wanted to be an artist, you ended up being an expert on databases because you love to cook data and you somehow confused database with data base. Your old love is still there, however, so you set up a database company, ArtBase, that builds a product for art galleries. The core of this product is a database with a schema that captures all the information that galleries need to maintain. Galleries keep information about artists, their names (which are unique), birthplaces, age,and style of art. For each piece of artwork, the artist, the year it was made, its unique title, its type of art (e.g., painting, lithograph, sculpture, photograph), and its price must be stored. Pieces of artwork are also classified into groups of various kinds, for example, portraits, still lifes, works by Picasso, or works of the 19th century; a given piece may belong to more than one group. Each group is identified by a name (like those just given) that describes the group. Finally, galleries keep information about customers. For each customer, galleries keep that person’s unique name, address, total amount of dollars spent in the gallery (very important!), and the artists and groups of art that the customer tends to like.

1. Draw an ER diagram that captures this information.

2. Design a database schema with proper constraints.

3. Insert values in each table as given in the file.

4. Create a report that should display the following details:

* information about all artists whose name contains ‘sh’, shouldn’t start with any number and must belong to only Capital city and Karachi.
* Top five customers that spend the most amount in the art gallery along with art type.
* artists, their artworks and the customers that are interested in that artists.
* Artwork types/categories in which artists are more interested. Show in numbers , displayed in descending order
* artwork and artist of the gallery having minimum price.
* art work details against each artist.

**File of Insertion:**

ArtistNames: Mahwish ,Ali,Kashif,Ahsan,Munir,Shahwaiz,Hamza,faizan,Yousuf,Faiz

Birthplaces:Karachi,Lahore,Islamabad,Peshawar,Multan,Hyderabad,Rawalpindi,Faisalabad,Quetta,Murree

age:40,35,36,37,38,45,60,38,47,50

StyleofArt:Baroque, Rococo, Neoclassical, Romanticism, Realism, Impressionism, Post Impressionism, Fauvism, Expressionism, Cubism

Year:1996,2000,2005,2004,2008,2014,2015,207,2010,2011

TitleofArtwork:Unconceptual,Black Letters,List,Flat Shadow,Try Harder,Roadkill,Another Show,Holes in the wall,Awful Things,No Negative

TypeofArt:painting, lithograph, sculpture, photograph,sculpture, photograph,lithograph, sculpture, photograph,Painting

Price:100,200,400,300,400,300,400,200,300,400,100

Group Id: 1,2,3,4,5,6,7,8,9,10

Groupname:portraits, still lifes, works by Picasso, works of the 19th century,portraits, still lifes, works by Picasso, works of the 19th century,portraits, still lifes

Customername:ahmed,Sajid,Saqib,Musab,Saad,Sarim,Subhan,Majid,Aqib,Sara

Address:123A,123B,123C,123D,123E,123F,123G,123H,123I,123J

TotalAmountSpend:1000,2000,1500,4500,3000,4000,5000,1000,5555,3999

**Question 2: [CLO1 3.0 Marks]**

**Viva**

**Note**: If you submit your assignment after the given timings then 5 **Marks** will be deducted for the late submissions (i.e. 26th April, 2022 2:15pm ), **Zero** will be awarded to those who would not be able to submit till then.