**CS3431-A24: Project Description**

**Phase 2: Views, Triggers, and Procedures**

**Teams:** The project is to be done in the same teams of two as before.

**Submission:** Make sure to include both of your names on the project submission. Only one student is to submit the assignment so be certain to determine who that will be in advance. The SQL code should be in a file named p2.sql and NOT include the SQL commands from p2start.sql.

**Description:**

1. a. Create a view named “WinnerOrder” that displays the order number that a Participant won an artwork, the artist’s name in a single field named ARTIST, the title of the artwork, the category of the artwork, and the winner’s name in a single field named WINNER. Sort the results by the win order starting from 1.  
     
   b. Create a query that uses the WinnerOrder view to display each art category and the number of items that were won of that art category. There should be a record at the bottom of the results indicating the total number of items that were won.
2. Create a procedure named “FavoriteArtwork” that takes an artworkID and year (for example, 31 and 2021) as input parameters and displays the artwork ID, year, and the number of Participants who have it on their ranking list. For example, your procedure will display the following text.

**Artwork #31, 2021: Selected 4 times.**

Hint: Use the function dbms\_output.put\_line().Make sure to run the following command so you can see the output of your program:

**set serveroutput on;**

Create the following triggers (do not use views in your solutions):

1. DeleteWonArtwork trigger that deletes the artwork from everyone's rankings when that artwork is won
2. A trigger named MultiPurchase. When a new ticket is purchased, only customers who have purchased a ticket in the past are allowed to buy more than one ticket.
3. A trigger named CalculateAllDonations. When a new artwork is added, the number of donations field is calculated for all artists in the Artists table.   
     
   Note that in real life, this type of trigger would be run only once to fill the initially empty field and then the trigger would be changed to increment the donations field for just the records being added.
4. A trigger named CalculateNewDonations. When a new artwork is added, the number in the donations field is incremented for the artworks’ artist.