ASD-LAB-SET-1

Song				
SongID (string)	**Song Name (string)**	**AlbumID (string)**	**Genre (string)**	**Views (INT)**
S0001	Panic and Sentiment	AL0004	Pop	450
S0002	Addicted to Dignity	AL0001	Rap	600
S0003	Expressed	AL0002	Pop	500
S0004	Promise to Science	AL0005	Rock	920
S0005	Comfortable Illusion	AL0003	Rock	760
S0006	Handicapped Bomber	AL0002	Rap	1000
S0007	Default Agenda	AL0004	Jazz	260
S0008	Tropical River	AL0002	Pop	420

Album				
AlbumID (String)	**Album Name (String)**	**Artist ID (String)**	**Release_Date (Date)**	**Sales (INT)**
AL0001	Jurisdiction	AR0004	16-03-2004	570
AL0002	Limitless	AR0003	24-05-2007	650
AL0003	69 cents	AR0001	6-09-2005	400
AL0004	Confession	AR0002	28-11-2012	120
AL0005	Hero	AR0004	7-07-2002	900

Artist

ArtistID (String)	Artist Name (String)	Country (String)
AR0001	Natalia Finch	France
AR0002	Suman Yu	India
AR0003	Hill Will	USA
AR0004	Sham E	France

Grammy

Year	SongID
2003	S0004
2007	S0006
2009	S0003
2004	S0002
2012	S0007

1. Create and populate shown tables. Check the following constraints:
   a. Song_ID should be of the format "S00__"
   b. Album_ID should be of the format "AL00__",
   c. Album_ID should be of the format "AL00__",
   d. Artist_ID should be of the format "AR00__".

2. List all the songs by Sham E in the year 2002.
3. List all songs in the same album as Expressed.
4. Display the name and total number of views of all albums with sales more than 500
5. Display the number of songs that did not win a Grammy in each album
6. Create a Trigger such that whenever a new song is added, if it has more than 750 views, it wins a Grammy in that year itself

7. Create a view "Golden Winners" which contains the name of the song,album and artists which won the Grammy on the year they released.
8. Decrease the sales by 10% for all albums released before 2009. Perform the operation using cursor.

9. You are given a table, BST, containing two columns: N and P, where N represents the value of a node in a Binary Tree, and P is the parent of N.
   Write a query to find the node type of Binary Tree ordered by the value of the node.
   Output one of the following for each node:
   - Root: If node is the root node.
   - Leaf: If node is leaf node.
   - Inner: If node is neither root nor leaf node

Sample Input

N	P
1	2
3	2
6	8
9	8
2	5
8	5
5	NULL

Sample Output

1 Leaf
2 Inner
3 Leaf
5 Root
6 Leaf
8 Inner
9 Leaf

PL/SQL

1. For the above database, multiply the sales value of all albums which have received grammy award with the number of grammys received and update the sales column.
2. Write a function to find the first n Fibonacci numbers which are not prime and store them into a table.

Exam Report should be prepared with the following contents.

A proper report is to be submitted after the examination. It should include at least the following:

1. A title page that includes subject, date, author name, roll no and University Register Number.
2. Problem statement.
3. Brief explanation of the theory related to your problem.
4. Informative listings of test runs, i.e. at least Three or Four test runs.
5. Listings of well-commented and well-structured programs.