EXERCISE 13
Creating Views

1. What are three uses for a view from a DBA's perspective?

- Security / Access control
- Simplifying Complex Queries
- Data Consistency.

2. Create a simple view called view_d_songs that contains the ID, title and artist from the DJs on Demand table for each "New Age" type code. In the subquery, use the alias "Song Title" for the title column.

Create view view-d-Songs as Select ID, title as 'Song title', Artist from DJs-On-demand where type Code = 'New Age';

3. SELECT * FROM view_d_songs. What was returned?

All rows from DJS On demand where type Code = 'New Age'.

4. REPLACE view_d_songs. Add type_code to the column list. Use aliases for all columns.

Create or replace view view d-Songs as Select id as 'Song Id', artist as 'Artist Name', title as 'Song title', type-Code as 'Category' from DJs On-demand where type code = 'New Age'.

Or use alias after the CREATE statement as shown.

5. Jason Tsang, the disk jockey for DJs on Demand, needs a list of the past events and those planned for the coming months so he can make arrangements for each event's equipment setup. As the company manager, you do not want him to have access to the price that clients paid for their events. Create a view for Jason to use that displays the name of the event, the event date, and the theme description. Use aliases for each column name.

Create or replace view view_jason_events as Select event-name as 'EventName', event-date as 'EventDate', theme-description as 'Theme Description' from events where evet-date between ADD-MONTHS (SYSDATE, -6) and ADD-MONTHS (SYSDATE, 6);

6. It is company policy that only upper-level management be allowed access to individual employee salaries. The department managers, however, need to know the minimum, maximum, and average salaries, grouped by department. Use the Oracle database to prepare a view that displays the needed information for department managers.

GRANT SELECT ON view_jason_events to JASON;

Indexes and Synonyms

1. What is an index and what is it used for?

An index is a database object used to improve the speed of data retrieval.

2. What is a ROWID, and how is it used?

A Row ID is a unique identifier that represents the physical location of a row in database index.

3. When will an index be created automatically?

When an unique and primary key constraint is defined.

4. Create a nonunique index (foreign key) for the DJs on Demand column (cd_number) in the D_TRACK_LISTINGS table. Use the Oracle Application Express SQL Workshop Data Browser to confirm that the index was created.

Create INDEX idx_cd_number ON d_track_listings (cd_number);

5. Use the join statement to display the indexes and uniqueness that exist in the data dictionary for the DJs on Demand D_SONGS table.

Select i.index_name, i.uniquenen, c.column_name from user_indexe
i JOIN user_ind_columns c ON i.index_name = c.index_name
where i.table_name = 'D_Songs';

6. Use a SELECT statement to display the index_name, table_name, and uniqueness from the data dictionary USER_INDEXES for the DJs on Demand D_EVENTS table.

Select index_name, table_name, uniqueness from user_indexes
where table_name = 'D_EVENTS'.

7. Write a query to create a synonym called dj_tracks for the DJs on Demand d_track_listings table.

Create SYNONYM dj_tracks for d_track_listings;

8. Create a function-based index for the last_name column in DJs on Demand D_PARTNERS table that makes it possible not to have to capitalize the table name for searches. Write a SELECT statement that would use this index.

Create INDEX idx_lastname_lower ON d_partners
(Lower (last_name));

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9. Create a synonym for the D_TRACK_LISTINGS table. Confirm that it has been created by querying the data dictionary.

Create SYNONYM trok-list for d-Track-listings;

10.Drop the synonym that you created in question

Select Synonym-none, tablenok from user-synonyms
where Synonym-none = 'TRACK-LIST';

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	