**Spotify Assignment**

1. **Check the entire dataset**

CREATE OR REPLACE TABLE RS\_SPOTIFY\_DATA

(

playlist\_url VARCHAR(100),

year INT,

track\_id VARCHAR(100),

track\_name VARCHAR(100),

track\_popularity INT,

album VARCHAR(100),

artist\_id VARCHAR(100),

artist\_name VARCHAR(100),

artist\_genres VARCHAR(180),

artist\_popularity INT,

danceability NUMBER(12),

energy NUMBER(8),

key NUMBER(5),

loudness NUMBER(12),

mode NUMBER(2),

speechiness NUMBER(12),

acousticness NUMBER(9),

instrumentalness NUMBER(12),

liveness NUMBER(5,4),

valence NUMBER(5,4),

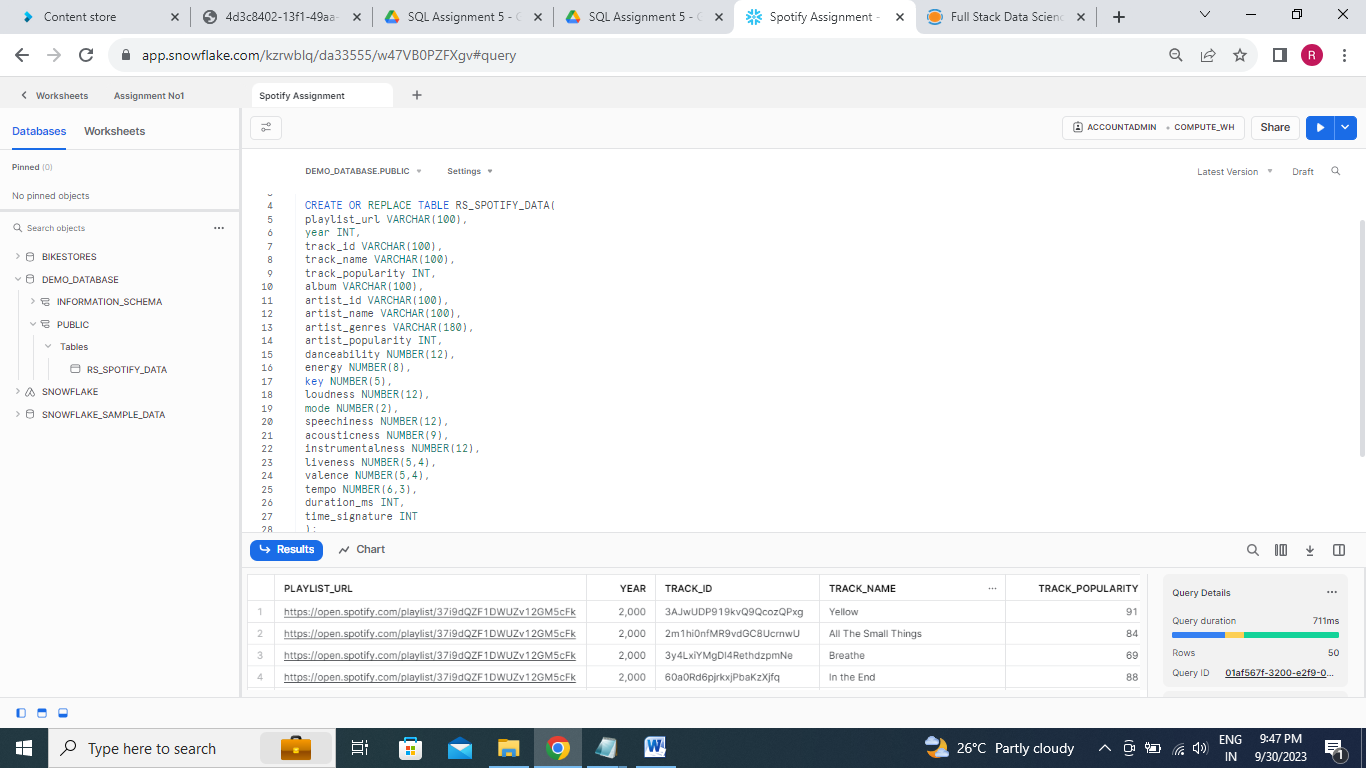
tempo NUMBER(6,3),

duration\_ms INT,

time\_signature INT

);

SELECT \* FROM RS\_SPOTIFY\_DATA LIMIT 50;



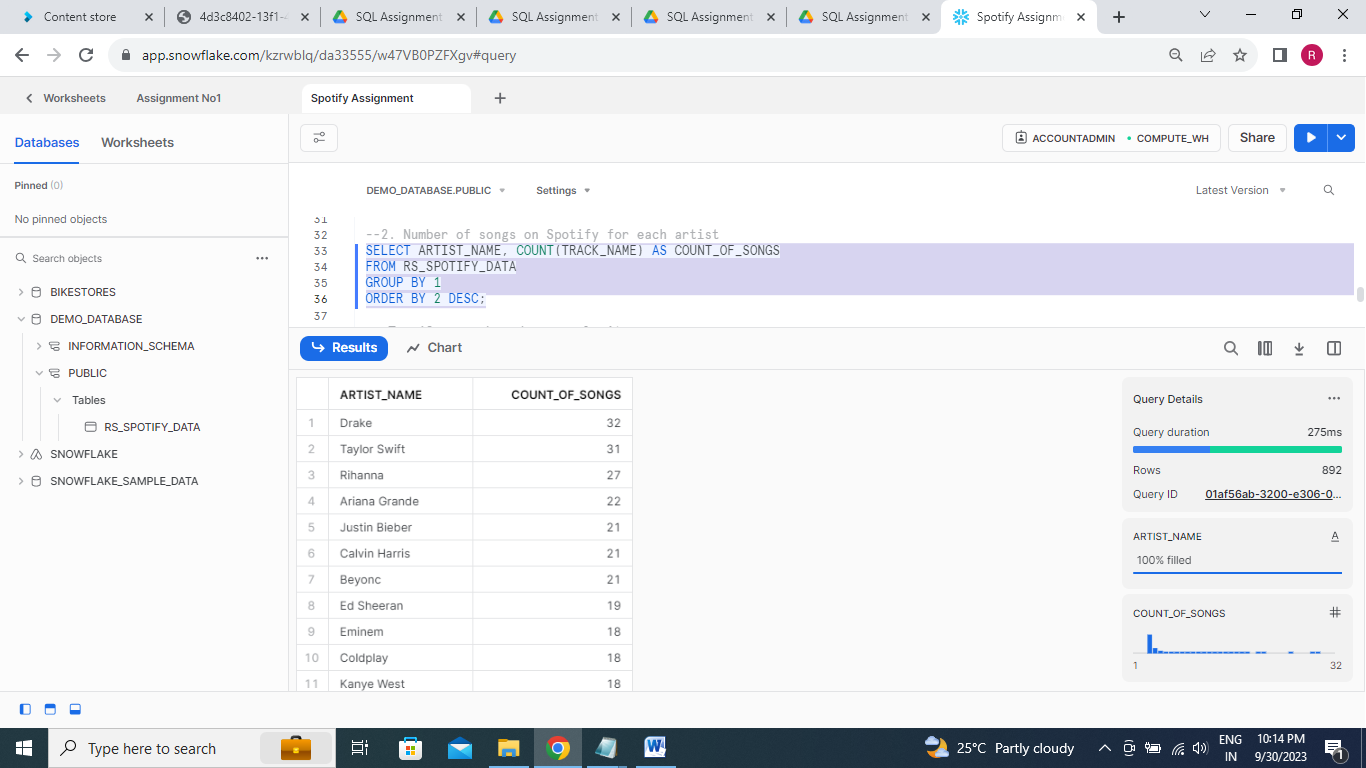
**2.Number of songs on Spotify for each artist**

SELECT ARTIST\_NAME, COUNT(TRACK\_NAME) AS COUNT\_OF\_SONGS

FROM RS\_SPOTIFY\_DATA

GROUP BY 1

ORDER BY 2 DESC;



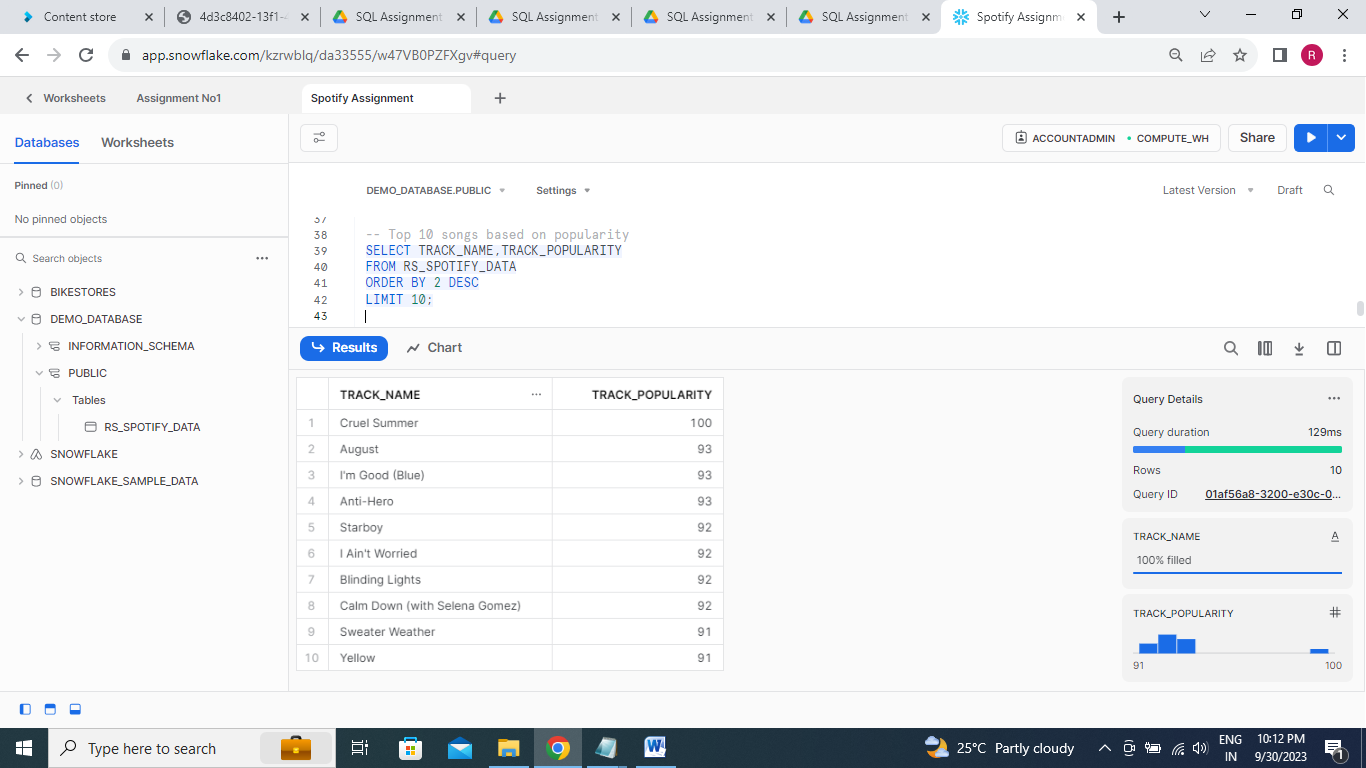
**3.Top 10 songs based on popularity**

SELECT TRACK\_NAME,TRACK\_POPULARITY

FROM RS\_SPOTIFY\_DATA

ORDER BY 2 DESC

LIMIT 10;

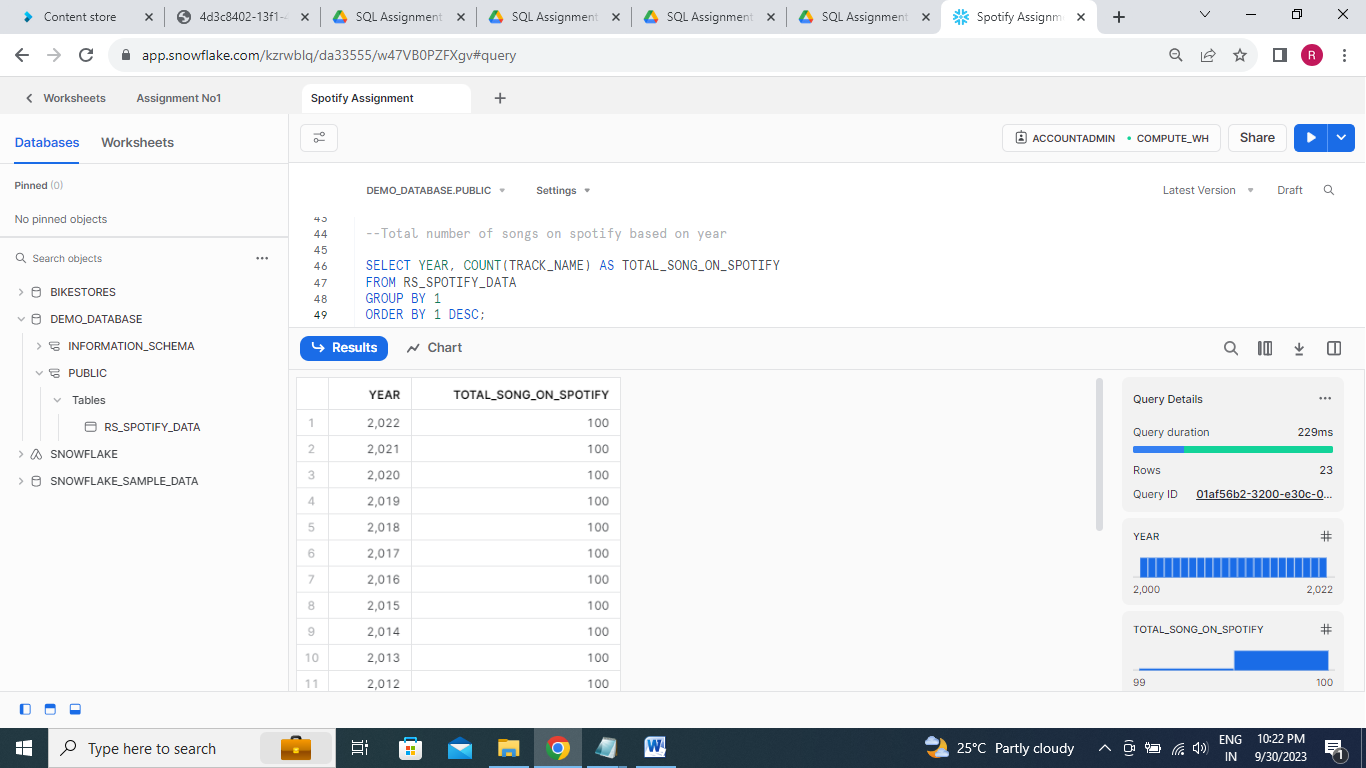
**4. Total number of songs on spotify based on year**

SELECT YEAR, COUNT(TRACK\_NAME) AS TOTAL\_SONG\_ON\_SPOTIFY

FROM RS\_SPOTIFY\_DATA

GROUP BY 1

ORDER BY 1 DESC;



**5.Top song for each year (2000-2022) based on popularity**

SELECT MAX(TRACK\_NAME) AS TOP\_SONG, YEAR, MAX(TRACK\_POPULARITY) AS

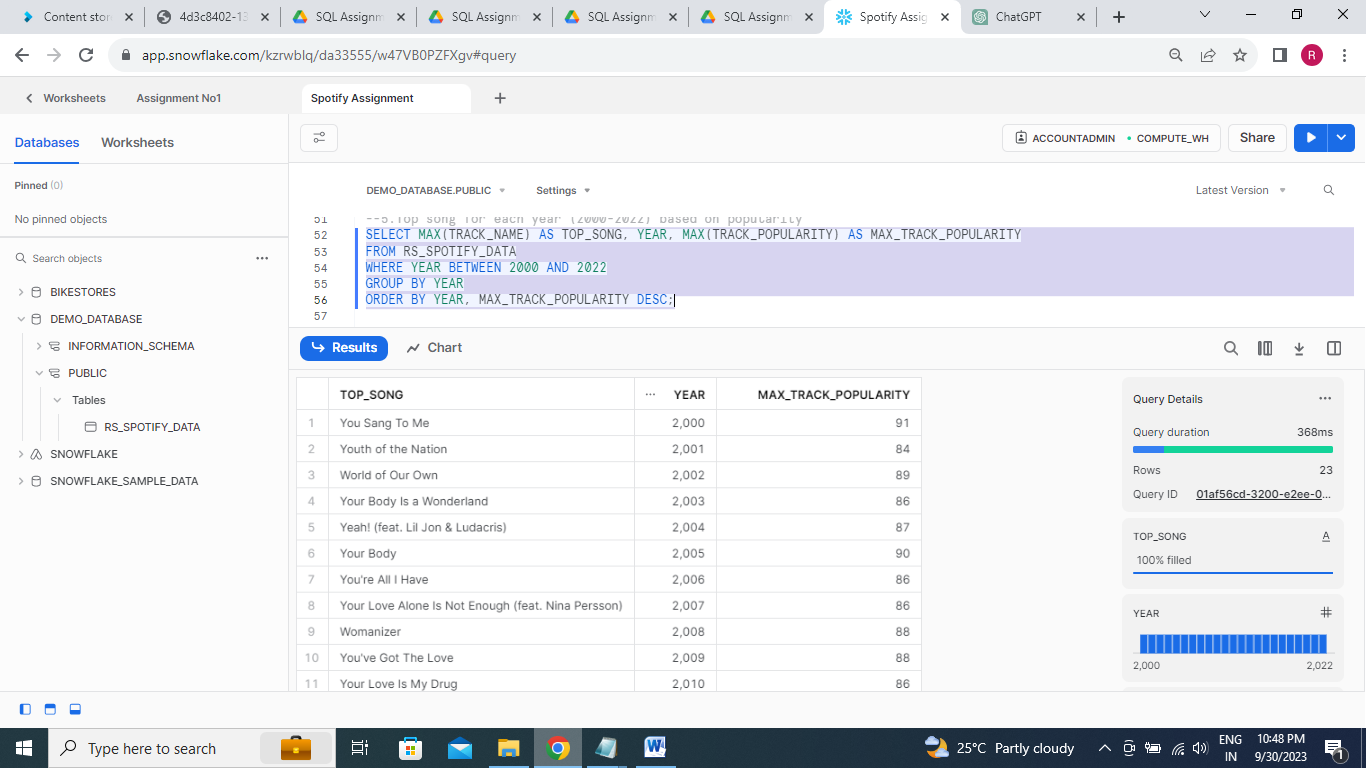
MAX\_TRACK\_POPULARITY

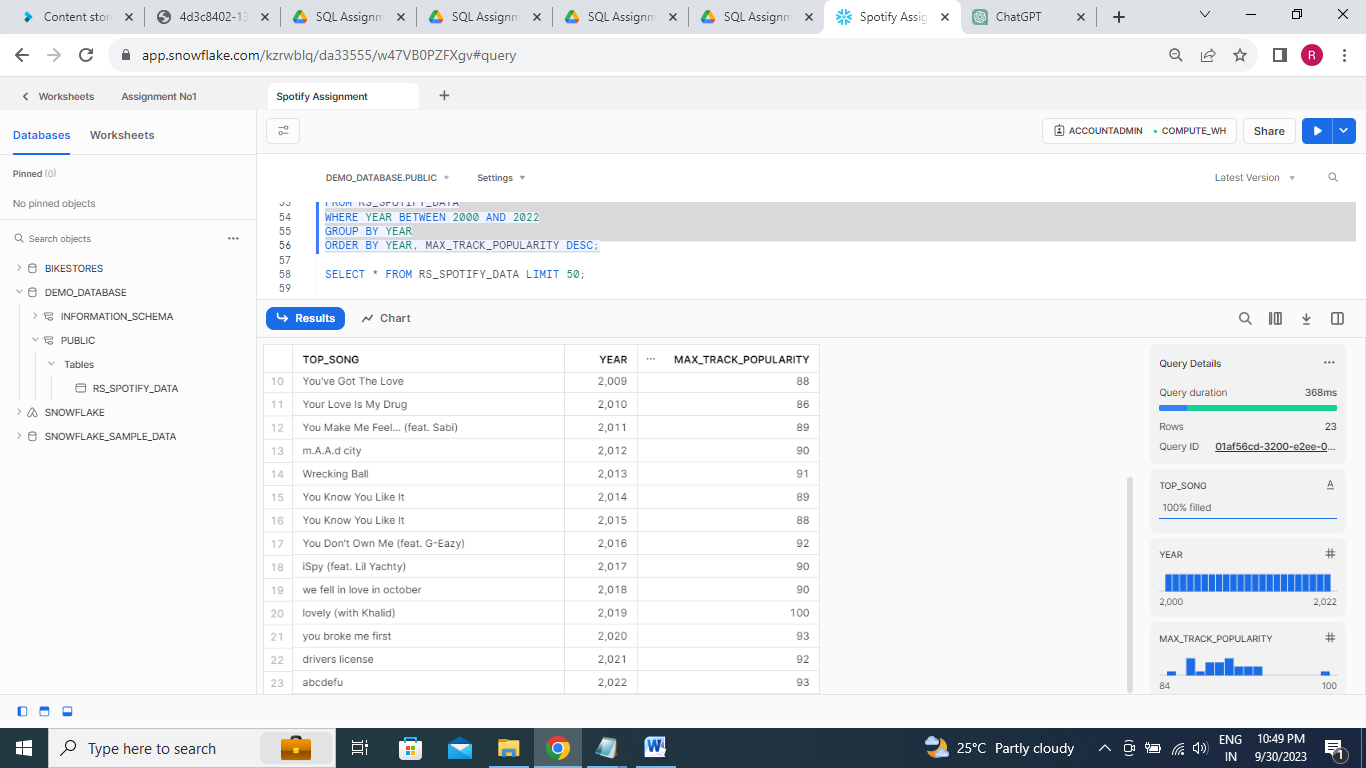
FROM RS\_SPOTIFY\_DATA

WHERE YEAR BETWEEN 2000 AND 2022

GROUP BY YEAR

ORDER BY YEAR, MAX\_TRACK\_POPULARITY DESC;





**6. Analysis based on Tempo :**

**tempo > 121.08 -> 'Above Average Tempo'**

**tempo = 121.08 -> 'Average Tempo'**

**tempo < 121.08 -> 'Below Average Tempo'**

SELECT TRACK\_NAME, TEMPO,

CASE

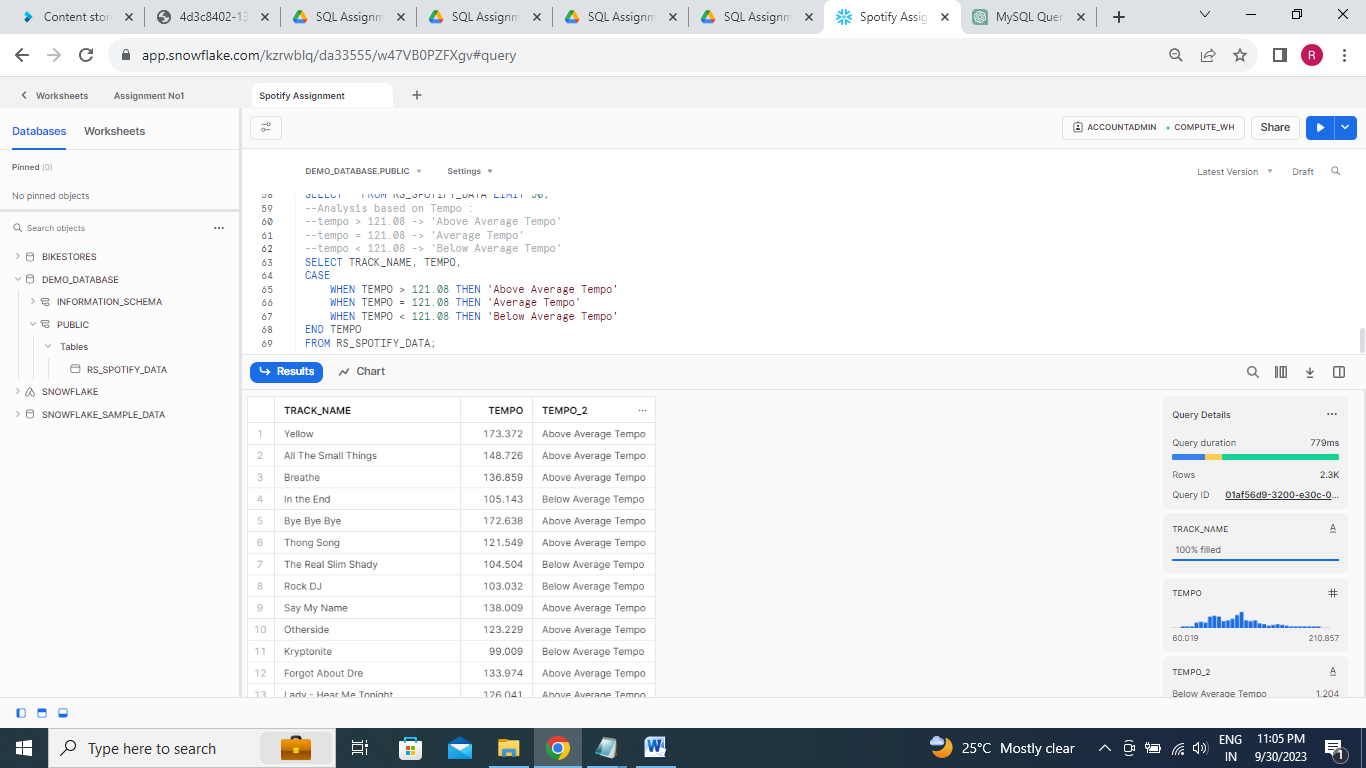
WHEN TEMPO > 121.08 THEN 'Above Average Tempo'

WHEN TEMPO = 121.08 THEN 'Average Tempo'

WHEN TEMPO < 121.08 THEN 'Below Average Tempo'

END TEMPO

FROM RS\_SPOTIFY\_DATA;



**7. Songs with Highest Tempo**

SELECT TRACK\_NAME AS SONGS,MAX(TEMPO) AS HIGHEST\_TEMPO FROM RS\_SPOTIFY\_DATA

GROUP BY 1

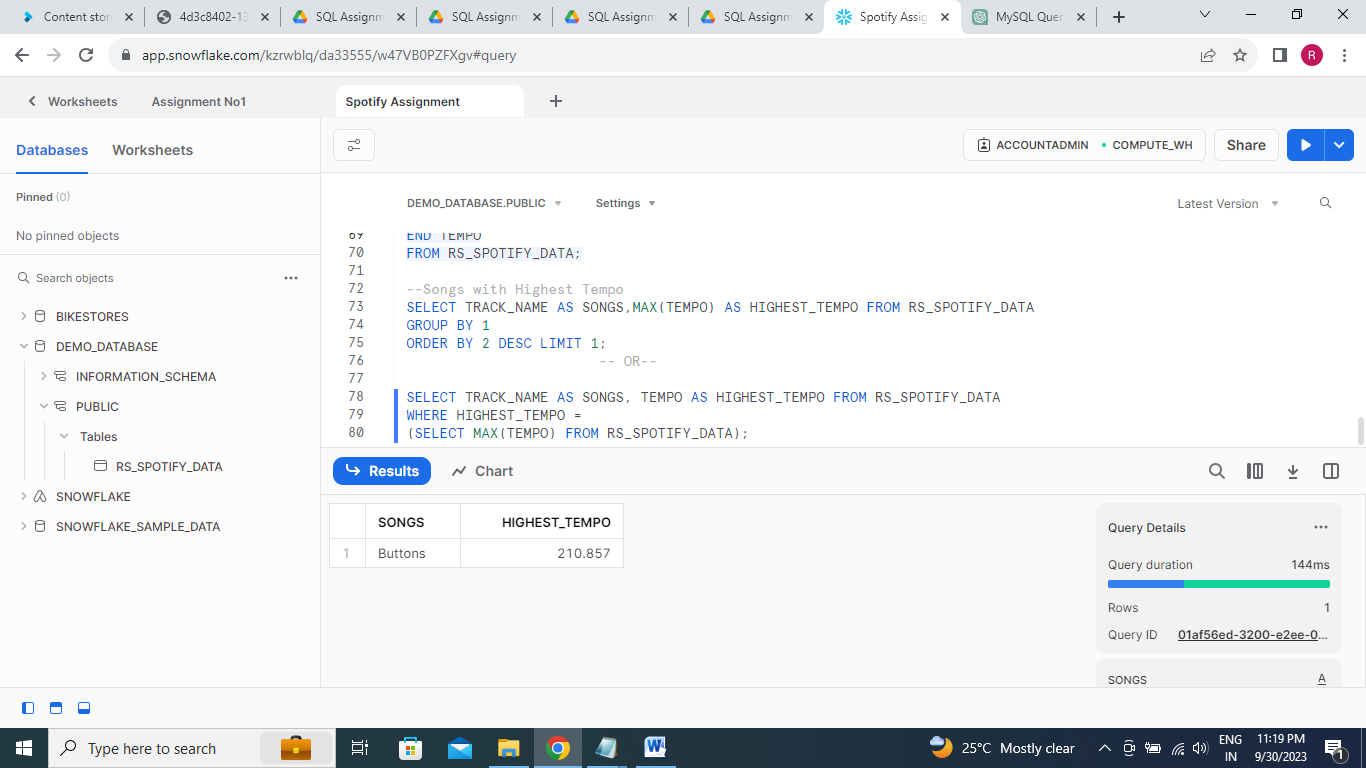
ORDER BY 2 DESC LIMIT 1;

**-- OR--**

SELECT TRACK\_NAME AS SONGS, TEMPO AS HIGHEST\_TEMPO FROM RS\_SPOTIFY\_DATA

WHERE HIGHEST\_TEMPO =

(SELECT MAX(TEMPO) FROM RS\_SPOTIFY\_DATA);



**8. Number of Songs for different Tempo Range : track\_name, energy**

**Modern\_Music -> tempo BETWEEN 60.00 AND 100.00**

**Classical\_Music -> tempo BETWEEN 100.001 AND 120.00**

**Dance\_Music -> tempo BETWEEN 120.001 AND 150.01**

**HighTempo\_Music -> tempo > 150.01**

SELECT TRACK\_NAME,ENERGY, TEMPO,

CASE

WHEN TEMPO BETWEEN 60.00 AND 100.00 THEN 'Modern\_Music'

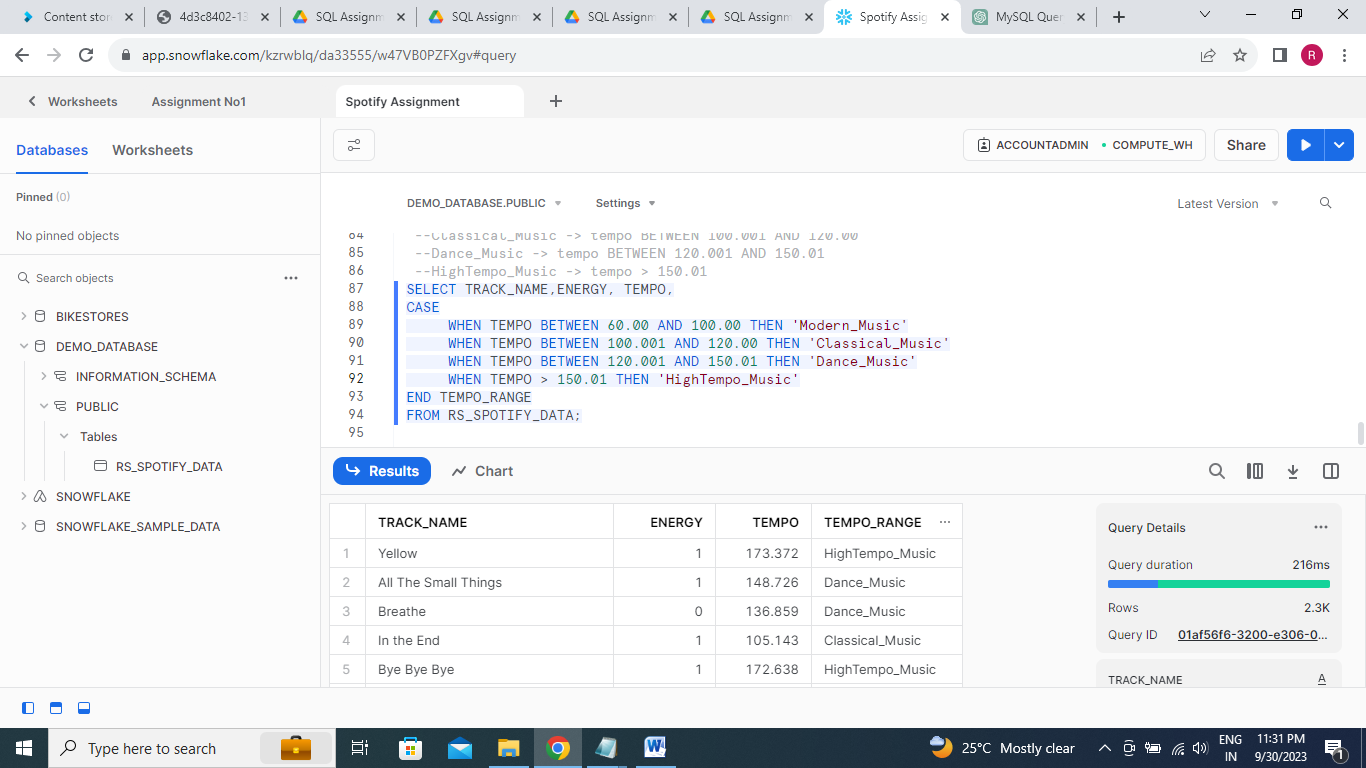
WHEN TEMPO BETWEEN 100.001 AND 120.00 THEN 'Classical\_Music'

WHEN TEMPO BETWEEN 120.001 AND 150.01 THEN 'Dance\_Music'

WHEN TEMPO > 150.01 THEN 'HighTempo\_Music'

END TEMPO\_RANGE

FROM RS\_SPOTIFY\_DATA;



**9.** **Energy Analysis : TOP 10 track\_name, danceability, track\_popularity**

**energy > 0.64 -> 'Above Average Energy**

**energy = 0.64 -> 'Average Energy’**

**energy < 0.64 -> 'Below Average Energy’**

**energy BETWEEN 0.1 AND 0.3 -> 'Calm Music'**

**energy BETWEEN 0.3 AND 0.6 -> 'Moderate Music'**

**Energy >0.6 -> ‘Energetic Music'**

SELECT TOP 10 TRACK\_NAME, DANCEABILITY, TRACK\_POPULARITY,

CASE

WHEN ENERGY > 0.64 THEN 'Above Average Energy'

WHEN ENERGY = 0.64 THEN 'Average Energy'

WHEN ENERGY < 0.64 THEN 'Below Average Energy'

WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'Calm Music'

WHEN ENERGY BETWEEN 0.3 AND 0.6 THEN 'Moderate Music'

WHEN ENERGY >0.6 THEN 'Energetic Music'

END ENERGY\_ANALYSIS

FROM RS\_SPOTIFY\_DATA;



**10. Number of Songs for different energy ranges(above)**

SELECT COUNT(TRACK\_NAME),

CASE

WHEN ENERGY > 0.64 THEN 'Above Average Energy'

WHEN ENERGY = 0.64 THEN 'Average Energy'

WHEN ENERGY < 0.64 THEN 'Below Average Energy'

WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'Calm Music'

WHEN ENERGY BETWEEN 0.3 AND 0.6 THEN 'Moderate Music'

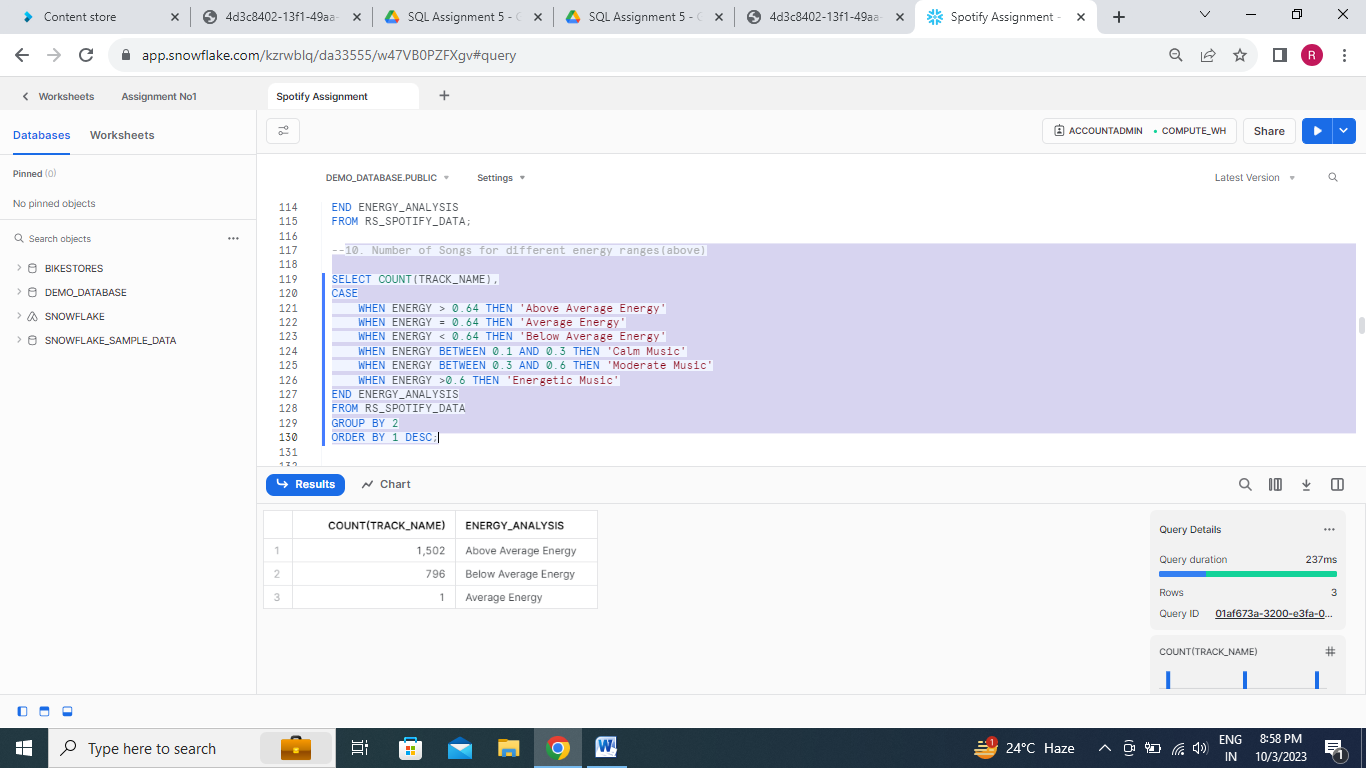
WHEN ENERGY >0.6 THEN 'Energetic Music'

END ENERGY\_ANALYSIS

FROM RS\_SPOTIFY\_DATA

GROUP BY 2

ORDER BY 1 DESC;



**11. Danceability Analysis : Top 20 track\_name, danceability**

**danceability BETWEEN 0.69 AND 0.79 -> 'Low Danceability'**

**(danceability BETWEEN 0.49 AND 0.68) OR (danceability BETWEEN ACCOUNT0.79 AND 0.89) -> 'Moderate Danceability'**

**ACCOUNT(danceability BETWEEN 0.39 AND 0.49) OR (danceability BETWEEN 0.89 AND 0.99) -> 'High Danceability'**

**danceability < 0.39 OR danceability > 0.99 -> 'Cant Dance on this one'**

SELECT TOP 20 TRACK\_NAME AS TOP\_20\_SONGS,DANCEABILITY,

CASE

WHEN DANCEABILITY BETWEEN 0.69 AND 0.79 THEN 'Low Danceability'

WHEN (DANCEABILITY BETWEEN 0.49 AND 0.68) OR (DANCEABILITY BETWEEN 0.79 AND

0.89) THEN 'Moderate Danceability'

WHEN (DANCEABILITY BETWEEN 0.39 AND 0.49) OR (DANCEABILITY BETWEEN 0.89 AND

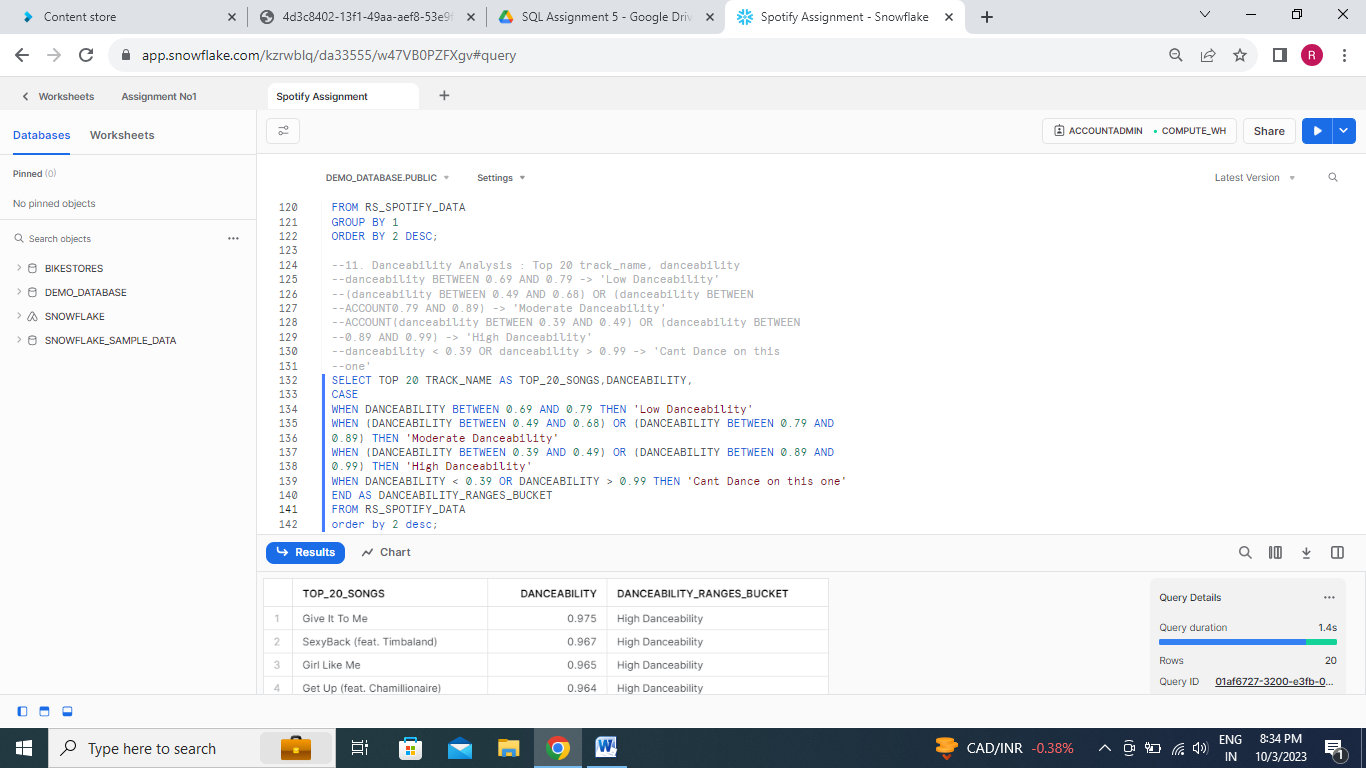
0.99) THEN 'High Danceability'

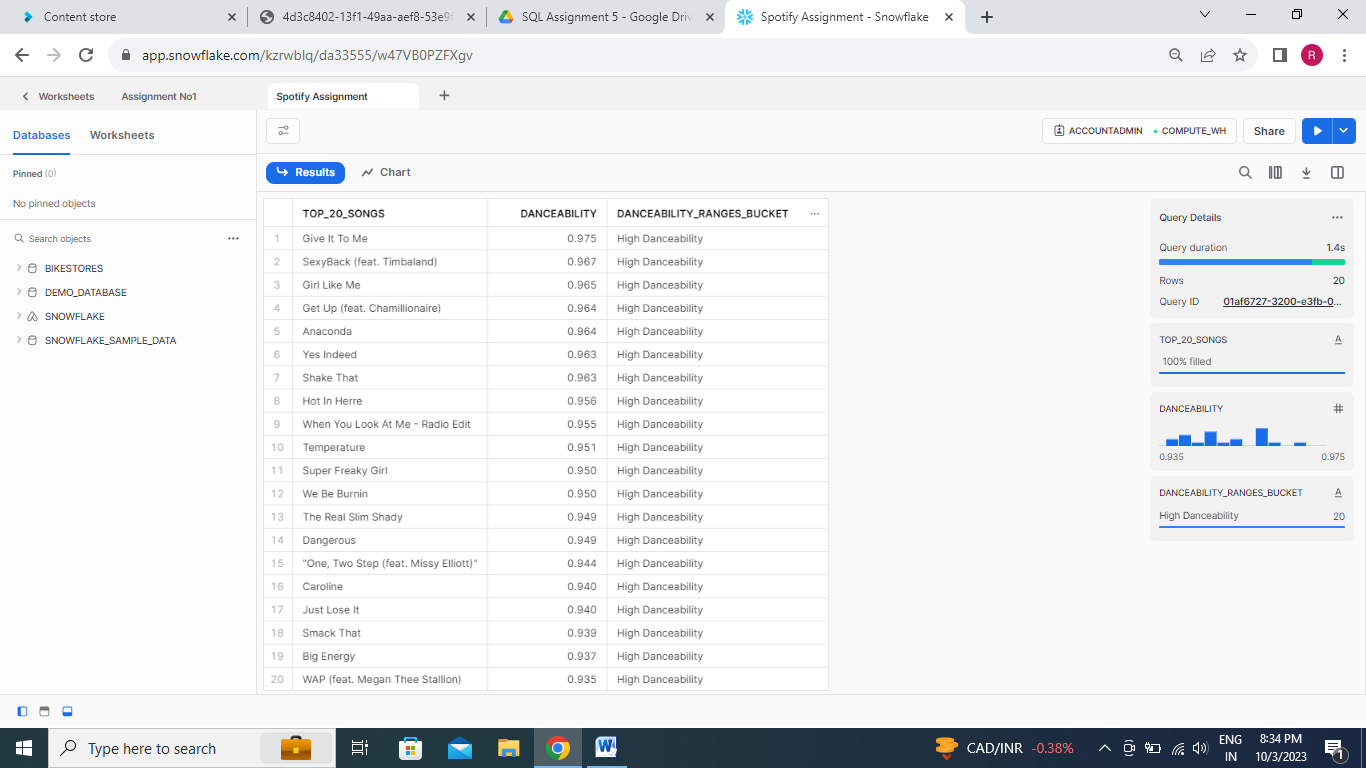
WHEN DANCEABILITY < 0.39 OR DANCEABILITY > 0.99 THEN 'Cant Dance on this one'

END AS DANCEABILITY\_RANGES\_BUCKET

FROM RS\_SPOTIFY\_DATA

Order by 2 desc;





**12. Number of Songs for different danceability ranges(above)**

SELECT COUNT(\*) AS SONGS\_FOR\_DIFF\_DANCEABILITY,

CASE

WHEN DANCEABILITY BETWEEN 0.69 AND 0.79 THEN 'Low Danceability'

WHEN (DANCEABILITY BETWEEN 0.49 AND 0.68) OR (DANCEABILITY BETWEEN 0.79 AND

0.89) THEN 'Moderate Danceability'

WHEN (DANCEABILITY BETWEEN 0.39 AND 0.49) OR (DANCEABILITY BETWEEN 0.89 AND

0.99) THEN 'High Danceability'

WHEN DANCEABILITY < 0.39 OR DANCEABILITY > 0.99 THEN 'Cant Dance on this one'

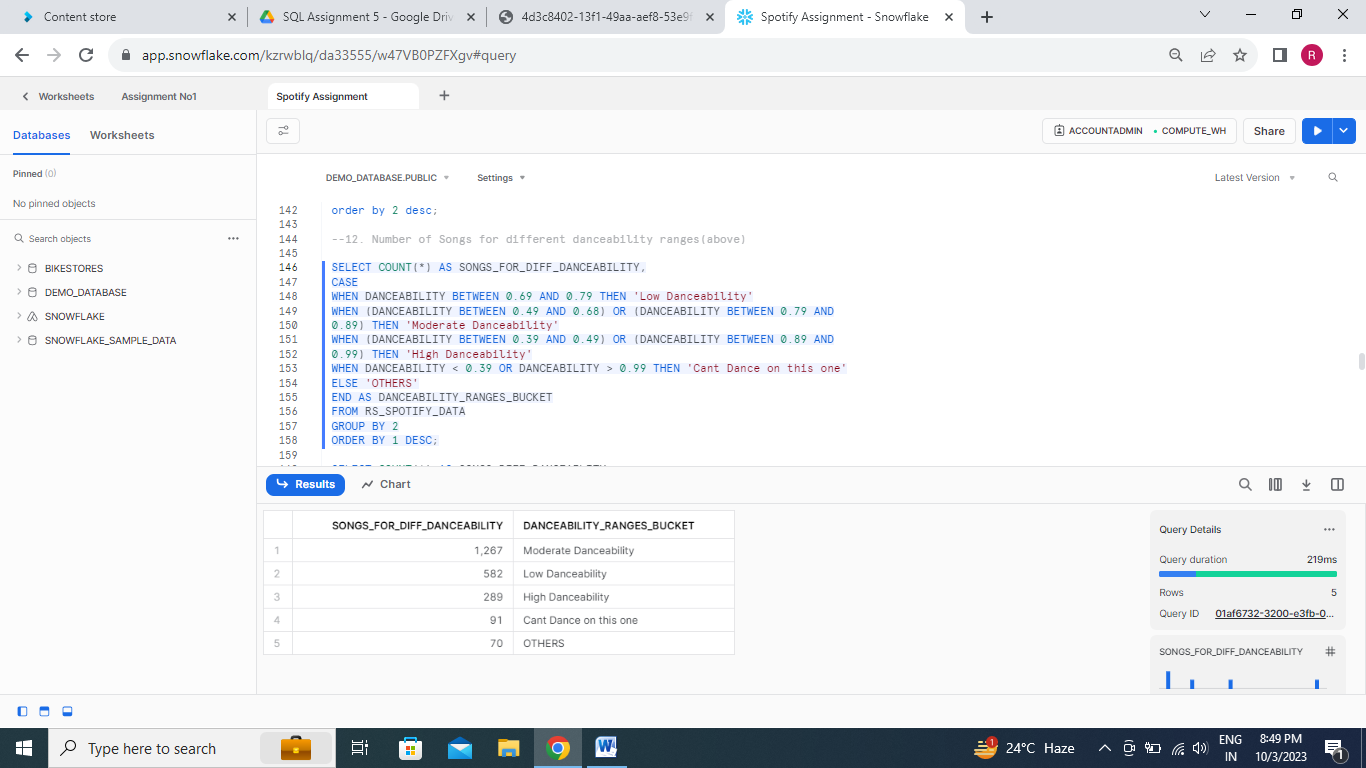
ELSE 'OTHERS'

END AS DANCEABILITY\_RANGES\_BUCKET

FROM RS\_SPOTIFY\_DATA

GROUP BY 2

ORDER BY 1 DESC;



**13.Loudness Analysis : Top 20 track\_name, loudness,**

**loudness BETWEEN -23.00 AND -15.00 ->'Low Loudness'**

**loudness BETWEEN -14.99 AND -6.00 -> 'Below Average Loudness'**

**loudness BETWEEN -5.99 AND -2.90 -> 'Above Average Loudness'**

**loudness BETWEEN -2.89 AND -1.00 -> 'Peak Loudness'**

SELECT TOP 20 TRACK\_NAME, LOUDNESS,

CASE

WHEN LOUDNESS BETWEEN -23.00 AND -15.00 THEN 'LOW LOUDNESS'

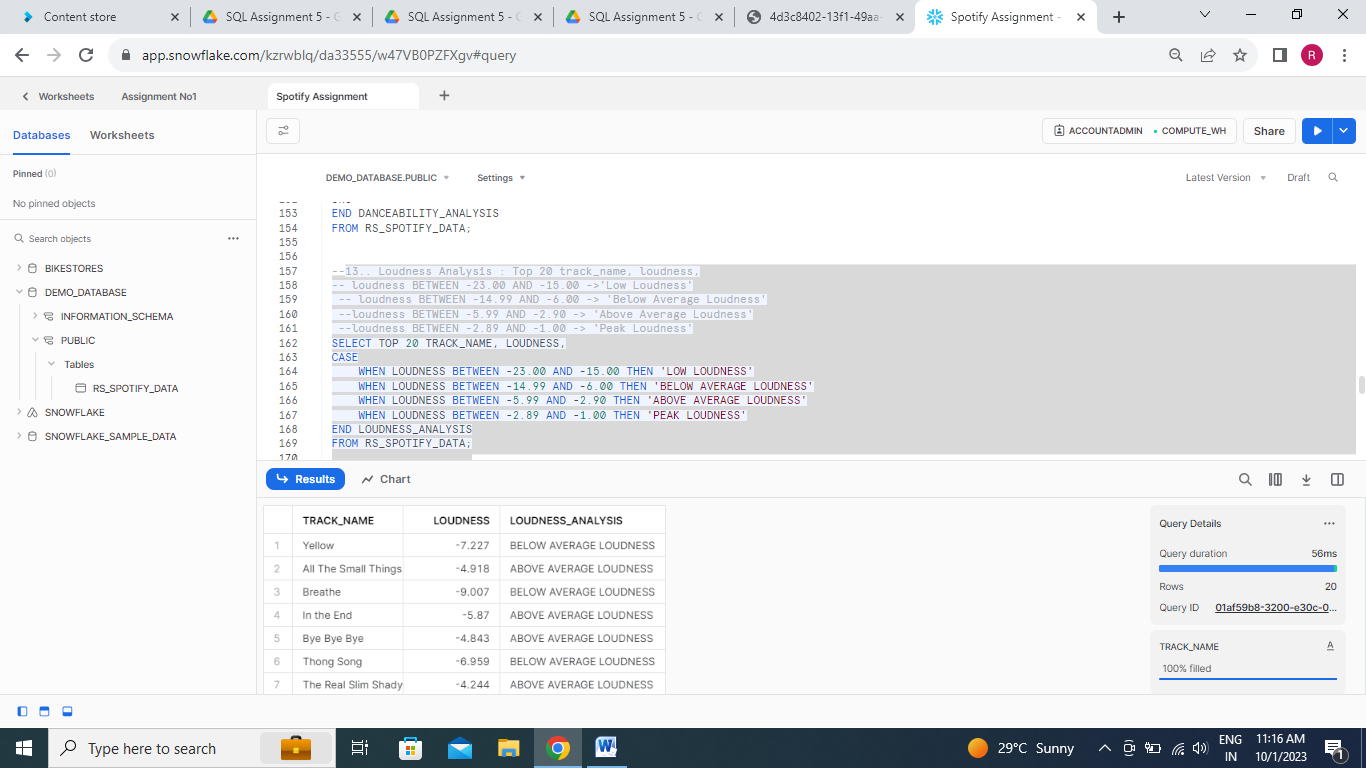
WHEN LOUDNESS BETWEEN -14.99 AND -6.00 THEN 'BELOW AVERAGE LOUDNESS'

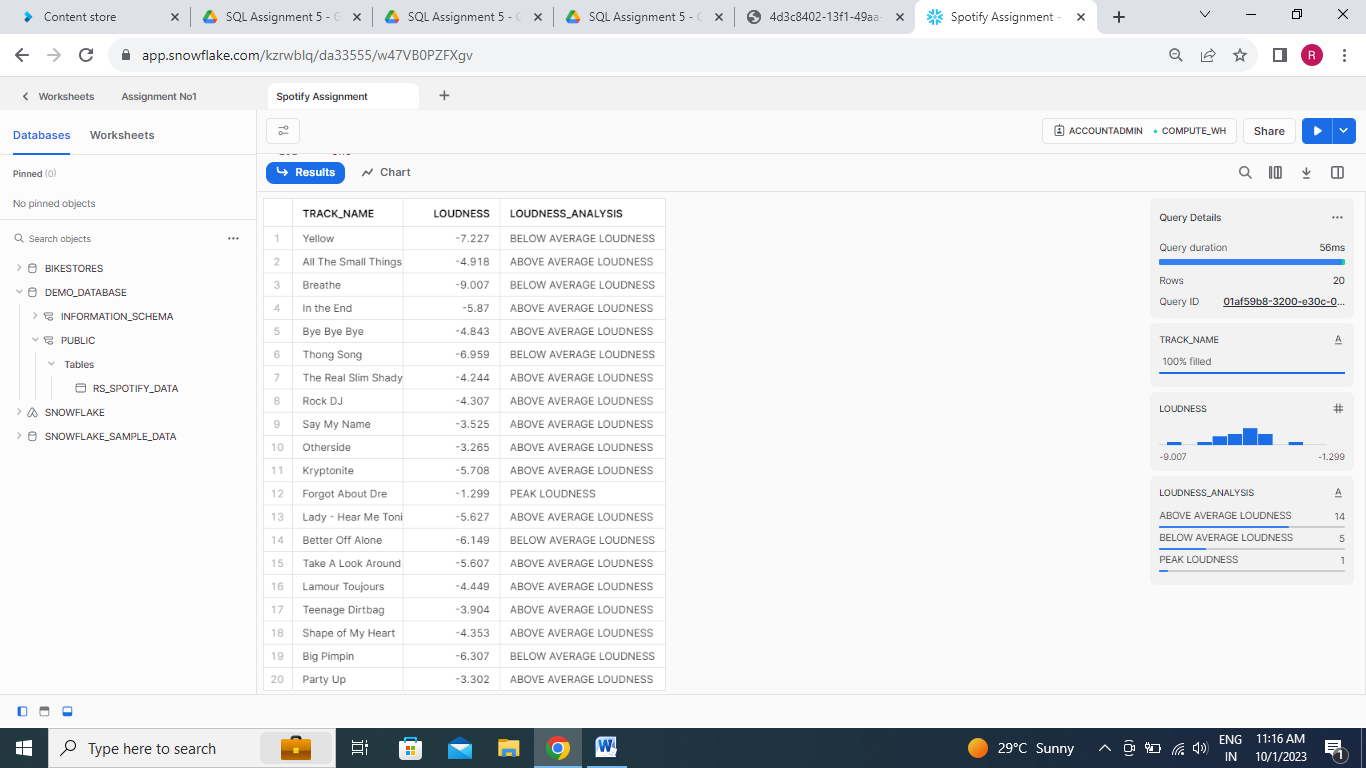
WHEN LOUDNESS BETWEEN -5.99 AND -2.90 THEN 'ABOVE AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -2.89 AND -1.00 THEN 'PEAK LOUDNESS'

END LOUDNESS\_ANALYSIS

FROM RS\_SPOTIFY\_DATA;





**14. Number of Songs for different loudness ranges(above)**

SELECT COUNT(\*) AS SONGS\_FOR\_DIFF\_LOUDNESS,

CASE

WHEN LOUDNESS BETWEEN -23.00 AND -15.00 THEN 'LOW LOUDNESS'

WHEN LOUDNESS BETWEEN -14.99 AND -6.00 THEN 'BELOW AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -5.99 AND -2.90 THEN 'ABOVE AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -2.89 AND -1.00 THEN 'PEAK LOUDNESS'

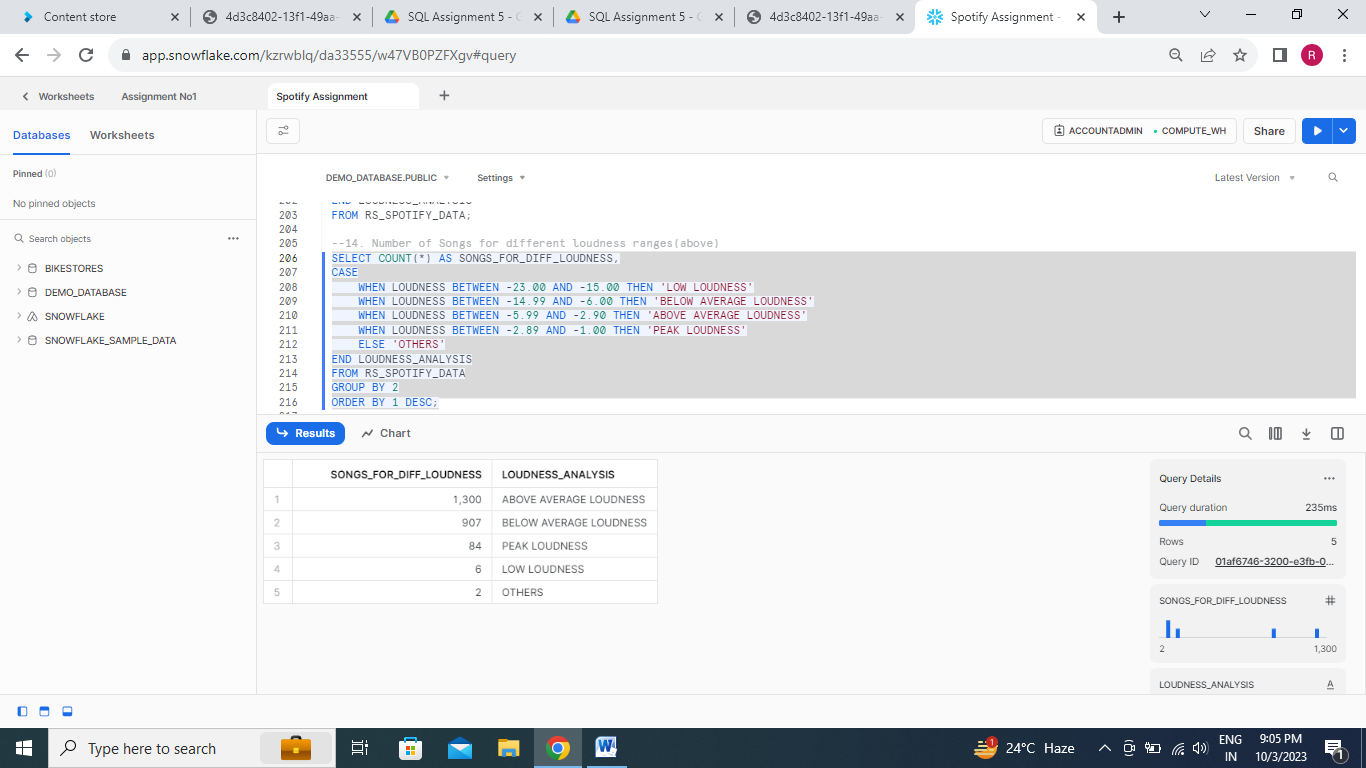
ELSE 'OTHERS'

END LOUDNESS\_ANALYSIS

FROM RS\_SPOTIFY\_DATA

GROUP BY 2

ORDER BY 1 DESC;



**15. Valence Analysis : Top 20 track\_name, valence, track\_popularity,**

**valence > 0.535 -> Above Avg Valence**

**valence = 0.535 -> Avg Valence**

**valence < 0.535 -> Below Average'**

SELECT TOP 20 TRACK\_NAME,TRACK\_POPULARITY, VALENCE,

CASE

WHEN VALENCE > 0.535 THEN 'ABOVE AVG VALENCE'

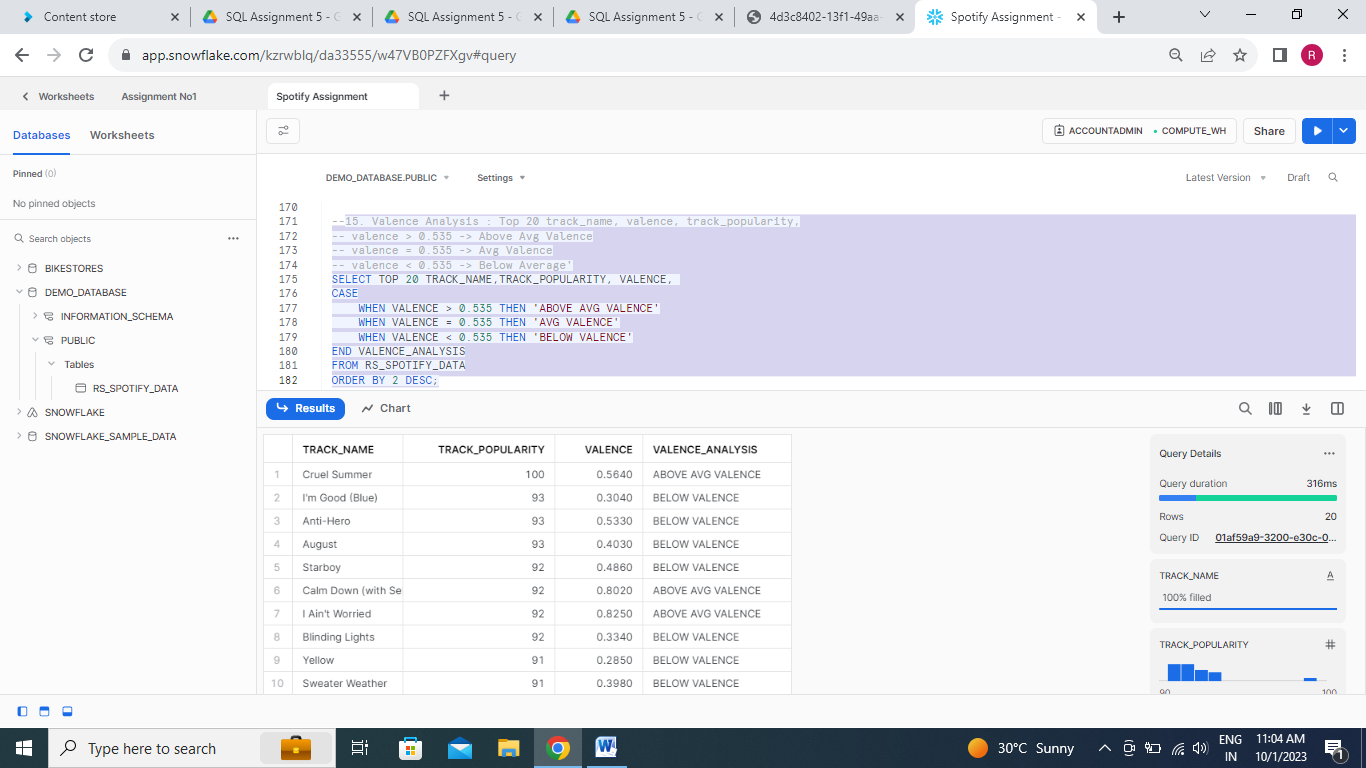
WHEN VALENCE = 0.535 THEN 'AVG VALENCE'

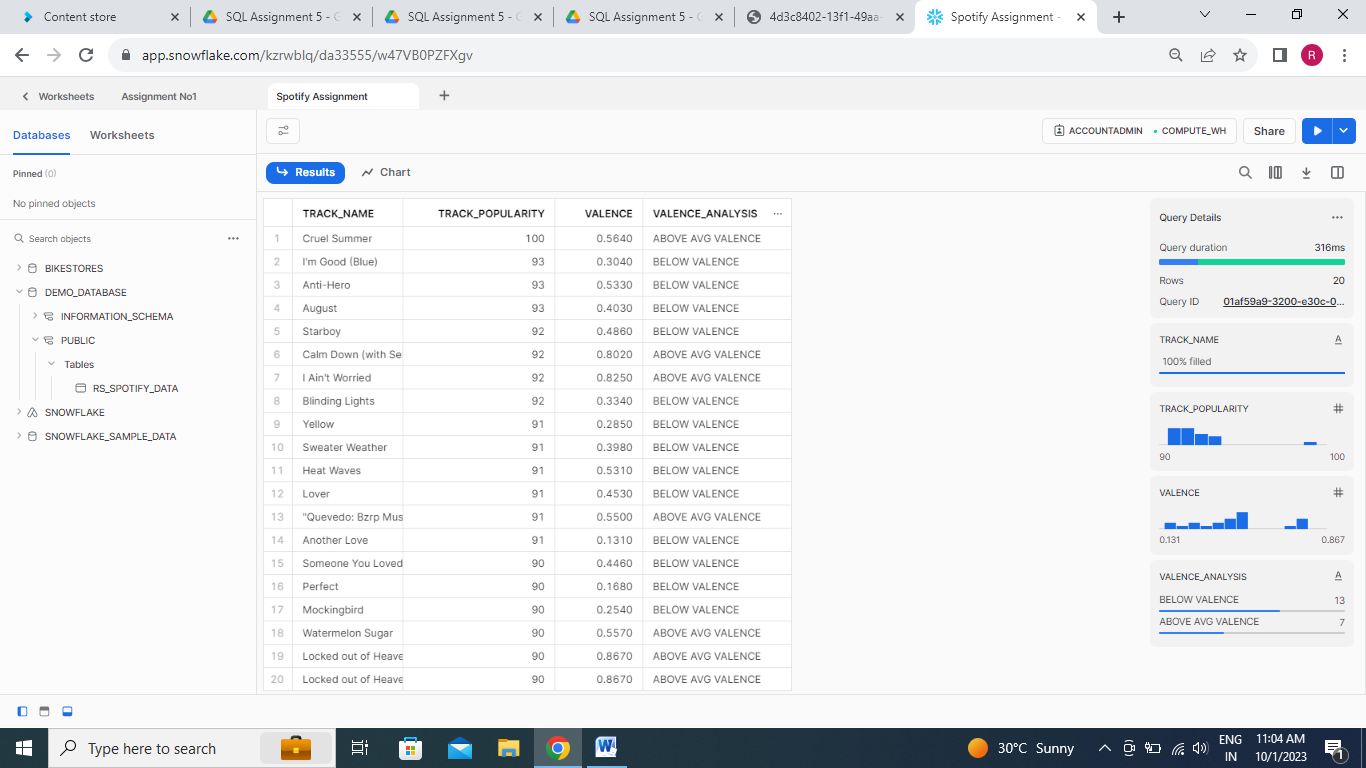
WHEN VALENCE < 0.535 THEN 'BELOW VALENCE'

END VALENCE\_ANALYSIS

FROM RS\_SPOTIFY\_DATA

ORDER BY 2 DESC;





**16. Number of Songs for different valence ranges(above)**

SELECT COUNT(\*) AS SONGS\_FOR\_DIFF\_VALENCE,

CASE

WHEN VALENCE > 0.535 THEN 'ABOVE AVG VALENCE'

WHEN VALENCE = 0.535 THEN 'AVG VALENCE'

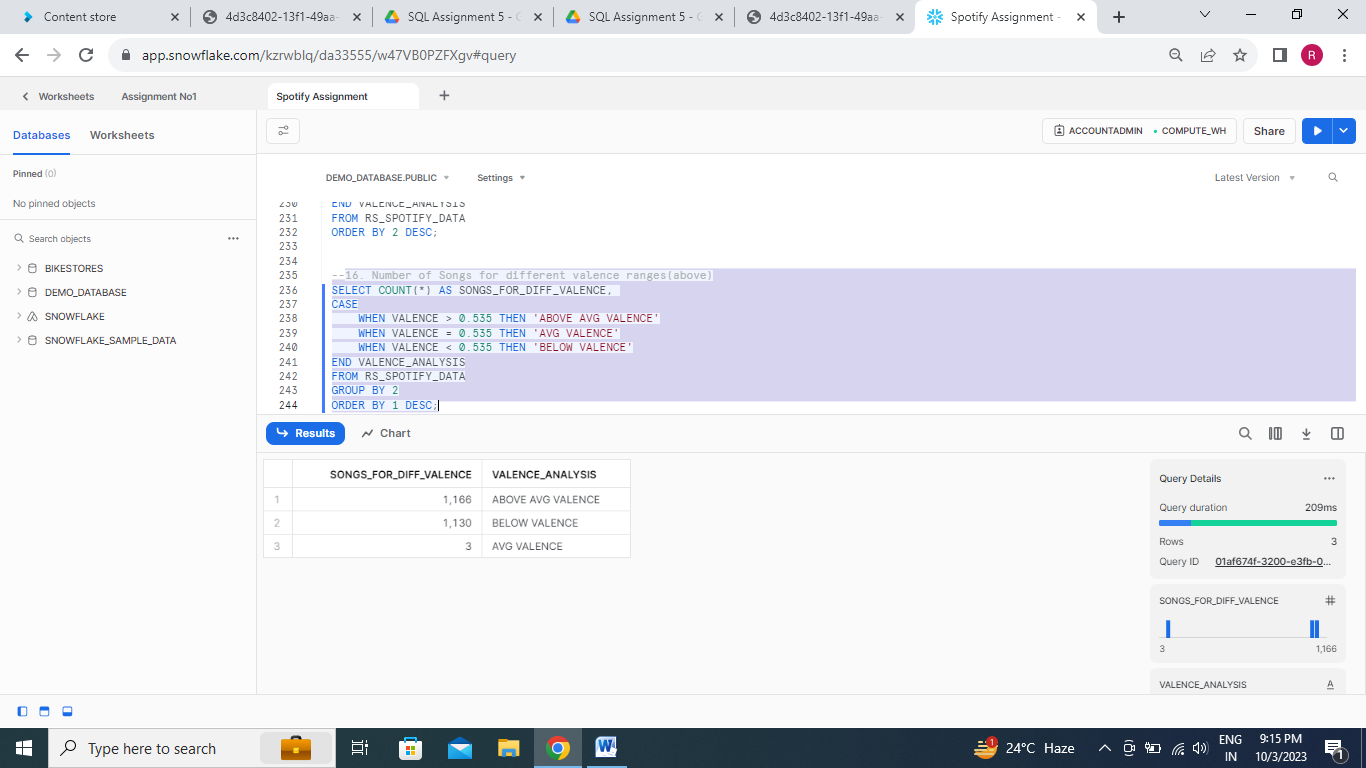
WHEN VALENCE < 0.535 THEN 'BELOW VALENCE'

END VALENCE\_ANALYSIS

FROM RS\_SPOTIFY\_DATA

GROUP BY 2

ORDER BY 1 DESC;



**17.** **Speechiness Analsis : Top 20 track\_name, speechiness, tempo,**

**speechiness > 0.081-> Above Avg Speechiness**

**speechiness = 0.081-> Avg Speechiness**

**speechiness < 0.081-> Below Speechiness**

SELECT TOP 20 TRACK\_NAME,TEMPO,SPEECHINESS,

CASE

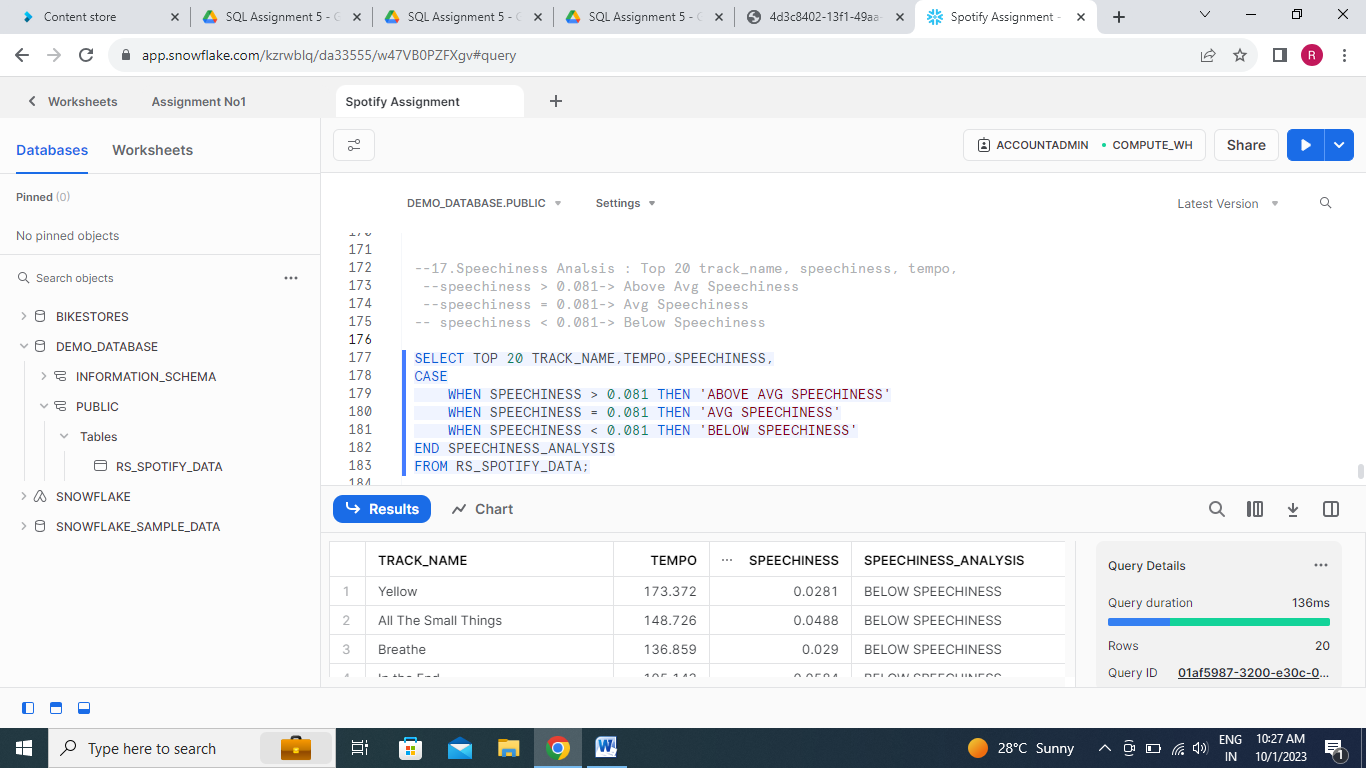
WHEN SPEECHINESS > 0.081 THEN 'ABOVE AVG SPEECHINESS'

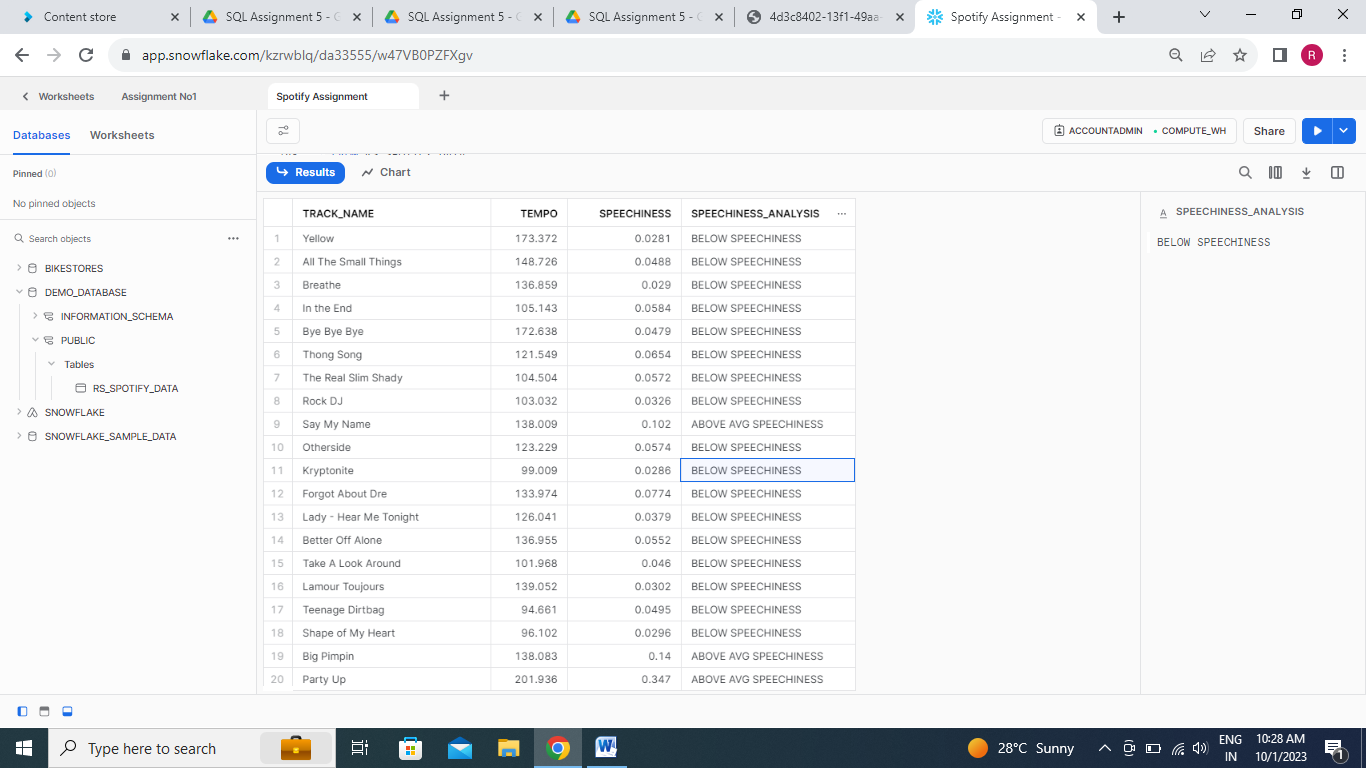
WHEN SPEECHINESS = 0.081 THEN 'AVG SPEECHINESS'

WHEN SPEECHINESS < 0.081 THEN 'BELOW SPEECHINESS'

END SPEECHINESS\_ANALYSIS

FROM RS\_SPOTIFY\_DATA;





**18.Acoustic Analysis : DISTINCT TOP 25 track\_name, album, artist\_name, acousticness**

**(acousticness BETWEEN 0 AND 0.40000 -> 'Not Acoustic'**

**(acousticness BETWEEN 0.40001 AND 0.80000) ->'Acoustic'**

**(acousticness BETWEEN 0.80001 AND 1) ->'Highly Acoustic**

SELECT DISTINCT TOP 25 TRACK\_NAME,ALBUM, ARTIST\_NAME,ACOUSTICNESS,

CASE

WHEN ACOUSTICNESS BETWEEN 0 AND 0.40000 THEN 'NOT ACOUSTIC'

WHEN ACOUSTICNESS BETWEEN 0.40001 AND 0.80000 THEN 'ACOUSTIC'

WHEN ACOUSTICNESS BETWEEN 0.80001 AND 1 THEN 'HIGHLY ACOUSTIC'

END ACOUSTIC\_ANALYSIS

FROM RS\_SPOTIFY\_DATA;

