

HOMEWORK 3

Q1) Which track has the longest length?

Ans) query:

```
SELECT * FROM Track WHERE Milliseconds IN (SELECT MAX(Milliseconds) FROM Track);
```

Output:

```
mysql> SELECT * FROM Track WHERE Milliseconds IN (SELECT MAX(Milliseconds) FROM Track);
+-----+-----+-----+-----+-----+-----+-----+
| TrackID | Name           | AlbumID | Milliseconds | Bytes   | GenreID | ArtistID |
+-----+-----+-----+-----+-----+-----+-----+
|      15 | Under Pressure |        6 |      559000 | 55900000 |        4 |         2 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.03 sec)

mysql> █
```

Q2) How many audio tracks were listened to by the people of 'Indian' nationality?

Ans) query:

```
SELECT COUNT(*) FROM ListeningTo AS LT JOIN Listener AS L ON LT.ListenerID = L.ListenerID WHERE L.Nationality = "Indian";
```

Output:

```
mysql> clear
mysql> SELECT COUNT(*) FROM ListeningTo AS LT JOIN Listener AS L ON LT.ListenerID = L.ListenerID WHERE L.Nationality = "Indian";
+-----+
| COUNT(*) |
+-----+
|        20 |
+-----+
1 row in set (0.06 sec)

mysql> █
```

Q3) Which album takes up the maximum space?

Ans) **query:**

SELECT A.Name, SUM(T.Bytes) AS Size FROM Track AS T JOIN Album AS A ON
T.AlbumID = A.AlbumID GROUP BY A.Name ORDER BY Size DESC LIMIT 1;

Output:

```
mysql> SELECT A.Name, SUM(T.Bytes) AS Size FROM Track AS T JOIN Album AS A ON T.AlbumID = A.AlbumID GROUP BY A.Name ORDER BY Size DESC LIMIT 1;
+-----+-----+
| Name          | Size      |
+-----+-----+
| Under Pressure | 80300000  |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Q4) Which nationality listens to music the least?

Ans) **query:**

SELECT L.Nationality, SUM(LT.Milliseconds) AS Time FROM ListeningTo AS LT JOIN
Listener AS L ON LT.ListenerID = L.ListenerID GROUP BY L.Nationality ORDER BY Time
ASC LIMIT 1;

Output:

```
mysql> SELECT L.Nationality, SUM(LT.Milliseconds) AS Time FROM ListeningTo AS LT JOIN Listener AS L ON LT.ListenerID = L.ListenerID GROUP BY L.Nationality ORDER BY Time ASC LIMIT 1;
+-----+-----+
| Nationality | Time      |
+-----+-----+
| Indian      | 468984058 |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Q5) Which genre is listened to by the most people among “Americans”?

Ans) **query:**

```
SELECT G.Name, COUNT(*) FROM Listener AS L JOIN ListeningTo AS LT ON  
LT.ListenerID = L.ListenerID JOIN Track AS T ON T.TrackID = LT.TrackID JOIN Genre AS  
G ON T.GenreID = G.GenreID WHERE L.Nationality = "American" Group BY G.NAME  
ORDER BY COUNT(*) DESC LIMIT 1;
```

Output;

```
mysql> Clear  
mysql> SELECT G.Name, COUNT(*) FROM Listener AS L JOIN ListeningTo AS LT ON LT.ListenerID = L.ListenerID JOIN Track AS T ON T.TrackID = LT.TrackID JOIN Genre AS G ON T.GenreID = G.GenreID WHERE L.Nationality = "American" Group BY G.NAME ORDER BY COUNT(*) DESC LIMIT 1;  
+-----+  
| Name | COUNT(*) |  
+-----+  
| Rap | 8 |  
+-----+  
1 row in set (0.05 sec)  
  
mysql> █
```

Q6) Which artist did not make any albums at all?

Ans) **query:**

```
SELECT A.Name FROM Artist AS A WHERE NOT EXISTS (SELECT * FROM Track AS T  
WHERE A.ArtistID = T.ArtistID AND T.AlbumID IS NOT NULL);
```

Output;

```
mysql> SELECT A.Name FROM Artist AS A WHERE NOT EXISTS (SELECT * FROM Track AS T WHERE A.ArtistID = T.ArtistID AND T.AlbumID IS NOT NULL);  
+-----+  
| Name |  
+-----+  
| Vennu Mallesh |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> █
```

Q7) Which artists did not record any tracks of the “pop” genre type?

Ans) **query:**

```
SELECT A.Name FROM Artist AS A WHERE NOT EXISTS (SELECT * FROM Track AS T  
JOIN Genre AS G ON T.GenreID = G.GenreID WHERE T.ArtistID = A.ArtistID AND  
G.Name = "Pop");
```

Output:

```
mysql> SELECT A.Name FROM Artist AS A WHERE NOT EXISTS (SELECT * FROM Track AS T JOIN Genre AS G ON T.GenreID = G.GenreID WHERE T.ArtistID = A.ArtistID AND G.Name = "Pop");  
+-----+  
| Name |  
+-----+  
| Logic |  
| Vennu Mallesh |  
+-----+  
2 rows in set (0.00 sec)  
  
mysql> 
```