

# Exploratory Data Analysis Famous Paintings Project (SQL)

176 -- Exploratory Data Analysis

177

178 • SELECT \*

179 FROM artist\_copy;

180

181 -- Top 10 Common Nationality According To Artist

182 • SELECT nationality, COUNT(\*) AS Total

183 FROM artist\_copy

184 GROUP BY nationality

185 ORDER BY 2 DESC

186 LIMIT 10;

Result Grid

	nationality	Total
▶	French	115
	American	83
	Dutch	68
	English	44
	Italian	26
	German	20
	Russian	14
	Swiss	11
	Spanish	10
	Flemish	8

Result 1 x

Output

Action Output

- Top 10 Common Nationalities According to Artist

- Top 10 Common Styles According To Artist

187

188 -- Top 10 Common Styles According To Artist

189 • SELECT style, COUNT(\*) AS Total

190 FROM artist\_copy

191 GROUP BY style

192 ORDER BY 2 DESC

193 LIMIT 10;

194

195 • --

Result Grid

	style	Total
▶	Baroque	54
	Impressionist	42
	Realist	35
	Expressionist	25
	Rococo	23
	Marine Art	20
	Portraitist	18
	Romantic	17
	Neoclassical	17
	Post-Impressionist	16

Result 2 x

Output

Action Output

LH

```
195 -- Most Frequent Birth Year And Death Year According To Artist
196
197 -- Checking the lowest Birth Year And Highest Death Year
198 • SELECT MIN(birth), MAX(death)
199 FROM artist_copy;
200
201 • SELECT birth AS common_birth_year , death AS common_death_year , COUNT(*) AS Freq_Birth_Death_Year
202 FROM artist_copy
203 GROUP BY birth, death
204 ORDER BY 3 DESC
205 LIMIT 10;
```

Result Grid

common_birth_year	common_death_year	Freq_Birth_Death_Year
1832	1883	2
1844	1910	2
1755	1828	2
1827	1905	2
1839	1924	2
1811	1879	2
1871	1958	2
1881	1955	2
1840	1895	2
1824	1898	2

Result 3 Result 4 x

Output

- Most Frequent Birth Year And Death Year According To Artist

- Countries With The Most Museums

```
221 -- Museum Data Exploration
222 • SELECT *
223 FROM museum_copy;
224
225 -- Countries With The Most Museums In It
226 • SELECT country, COUNT(*) AS Museums_In_Country
227 FROM museum_copy
228 GROUP BY country
229 ORDER BY 2 DESC;
```

Result Grid

country	Museums_In_Country
USA	25
France	7
UK	5
Netherlands	4
Russia	2
Switzerland	2
Spain	2
Australia	1
Brazil	1
Germany	1
United King...	1
Tanzania	1

Result 12 x

Output

LH

LH

```
232 • SELECT city , COUNT(*) AS Musuems_In_City
233 FROM museum_copy
234 GROUP BY city
235 ORDER BY 2 DESC;
236
237
238
239
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	city	Musuems_In_City
▶	New York	3
	Paris	3
	Washington	3
	London	3
	Amsterdam	2
	Madrid	2
	Philadelphia	2
	Los Angeles	2
	Melbourne	1
	SÃ£o Paulo	1
	2	1
	20000	1

Result 13 x

Output

- Most Museums In A City

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```
237 -- Museum Hours Data Exploration
238 • SELECT *
239 FROM museum_hours_copy;
240
241 -- Earliest Opening And Latest Closing
242 • SELECT MIN(open), MAX(close)
243 FROM museum_hours_copy;
244
245
246
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	MIN(open)	MAX(close)
▶	01:00:PM	09:45:PM

- Earliest Opening And Latest Closing Museum Time

- Common Opening Museum Time

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```
244
245 -- Common Opening Time At Museum
246 • SELECT open, COUNT(*) AS Frequency
247 FROM museum_hours_copy
248 GROUP BY 1
249 ORDER BY 2 DESC
250 LIMIT 1;
251
252
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows: |

	open	Frequency
▶	10:00:AM	213

```
252 -- Common Closing Time At Museum
253 • SELECT close, COUNT(*) AS Frequency
254 FROM museum_hours_copy
255 GROUP BY 1
256 ORDER BY 2 DESC
257 LIMIT 1;
```

Result Grid

close	Frequency
05:00:PM	125

- Common Closing Museum Time

```
259 -- Day/Days Opens The Earliest
260 • SELECT day, open
261 FROM museum_hours_copy
262 WHERE open = (SELECT MIN(open) FROM museum_hours_copy);
```

Result Grid

day	open
Monday	01:00:PM
Thursday	01:00:PM

- Days That Close The Latest

```
264 -- Days Closes The Latest
265 • SELECT day, close
266 FROM museum_hours_copy
267 WHERE close = (SELECT MAX(close) FROM museum_hours_copy);
```

Result Grid

day	close
Friday	09:45:PM
Thursday	09:45:PM

- Days That Open The Earliest

The screenshot displays the SQL Server Enterprise Manager interface. The left pane shows the database structure with 'subject\_copy' selected. The central pane contains a SQL query (lines 281-298) that uses a Common Table Expression (CTE) to rank subjects by the count of their occurrences in the 'subject\_copy' table. The right pane shows the 'Result Grid' with the query's output.

```
281 -- Subject Data Exploration
282 SELECT *
283 FROM subject_copy;
284 -- Top RANKING Subjects
285 SELECT subject , COUNT(*) AS Subject_Ranking
286 FROM subject_copy
287 GROUP BY subject
288 ORDER BY 2 DESC ;
289 -- Ranking
290 WITH subject_rank AS (
291     SELECT subject, COUNT(*) AS Subject_Ranking
292     FROM subject_copy
293     GROUP BY subject
294 )
295 SELECT *,
296     DENSE_RANK() OVER(ORDER BY Subject_Ranking DESC) AS Ranks
297 FROM subject_copy
298 ORDER BY Ranks;
```

The 'Result Grid' shows the following data:

subject	Subject_Ranking
Portraits	2140
Nude	1050
Landscape Art	990
Rivers/Lakes	960
Flowers	914
Abstract/Modern Art	914
Still-Life	790
Seascapes	648
Marine Art/Maritime	536
Horses	530
Gardens	522
Christianity	300

- Top Subject Paintings Ranking