

MySQL

Assignment 2nd

Project Objective : The objective of this project is to analyze the game sales data and extract meaningful insights using various SQL operations. The tasks will involve inserting new data, updating records, deleting records, and using aggregate functions and joins to explore game sales performance.

Task 1st: To Insert a new game with the title "Future Racing", genre "Racing", release date "2024-10-01", and developer "Speed Studios".

insert into games (gametitle, genre, releasedate, developer)

values ('future racing', 'racing', '2024-10-01', 'speed studios');

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 use assignment_2;
2
3 insert into games (gametitle, genre, releasedate, developer)
4 values ('future racing', 'racing', '2024-10-01', 'speed studios');
5
6 select * from games;
```

The result grid displays the following data:

GameID	GameTitle	Genre	ReleaseDate	Developer
147	Pre-emptive contextually-based mo...	Sci-Fi	2024-08-10	DarkMoon Games
148	Cross-group 24/7 benchmark	Strategy	2023-05-30	SeaWave Games
149	Organized dynamic moderator	Strategy	2022-09-08	Sunrise Interactive
150	Front-line regional hierarchy	Strategy	2023-01-18	SeaWave Games
151	future racing	racing	2024-10-01	speed studios

The output pane shows the following messages:

```
# Time Action Message Duration / Fetch
14 22:34:26 DEALLOCATE PREPARE stmt OK 0.000 sec
15 22:34:35 insert into games (gametitle, genre, releasedate, developer) values ('future racing', 'racing', '2024-10-01', 'speed studios'); 1 row(s) affected 0.016 sec
16 22:35:02 select * from games LIMIT 0, 1000 151 row(s) returned 0.000 sec / 0.000 sec
```

Task 2nd: To Update the price of the game with GameID 2 on the PlayStation platform to 60.

UPDATE game_sales

SET Price = 60

WHERE GameID = 2 AND Platform = 'PlayStation';

If you got update error you have to do

1. edit -> preferences -> SQL editor -> uncheck the safe update -> OK
2. Query -> Reconnect to server
3. Your error will be resolved.

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
#Question 2
update game_sales set Price=60
where GameID=2 and platform='PlayStation';

select * from game_sales
```

The Result Grid displays the following data:

GameID	Platform	SalesRegion	UnitsSold	Price
1	Xbox	North America	861216	45.39
2	PlayStation	North America	444626	60
3	PlayStation	North America	569637	34.2
4	PlayStation	South America	977779	43.9
5	PC	South America	473349	21.61
6	PC	Europe	214870	37.55

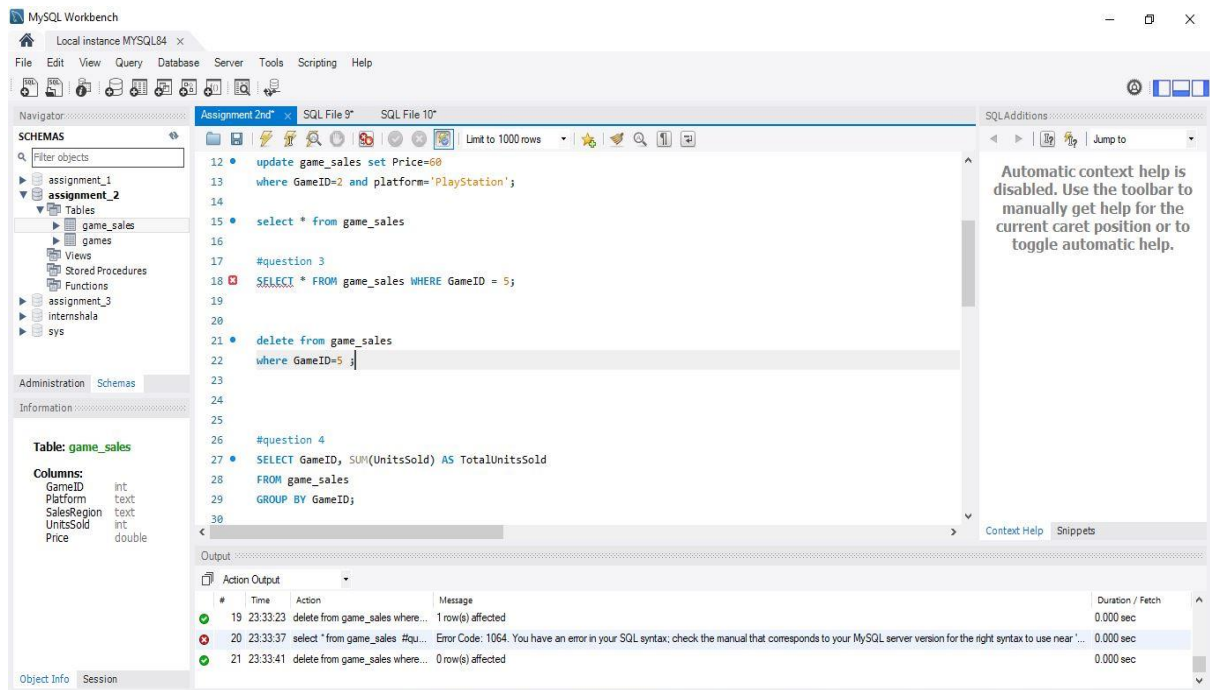
The Output pane shows the execution results:

#	Time	Action	Message	Duration / Fetch
1	22:54:40	update game_sales set Price=60 where GameID=2 and platform='PlayStation'	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0	0.000 sec
2	22:54:57	select * from game_sales LIMIT 0, 1000	150 row(s) returned	0.000 sec / 0.000 sec

Task 3rd: To Delete the record of the game with GameID 5 from the Game Sales table.

DELETE FROM game_sales

WHERE GameID = 5;



Task 4th : To Calculate the total number of units sold for each game across all platforms and regions.

SELECT GameID, SUM(UnitsSold) AS TotalUnitsSold
FROM game_sales
GROUP BY GameID;

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
19 delete from game_sales
20 where GameID=5 ;
21
22 #question 4
23 SELECT GameID, SUM(UnitsSold) AS TotalUnitsSold
24 FROM game_sales
25 GROUP BY GameID;
```

The Results window displays the following data:

GameID	TotalUnitsSold
1	861216
2	444626
3	569637
4	977779
5	473349
6	214870

The Output window shows the following messages:

```
# Time Action Message Duration / Fetch
3 23:00:58 select * from game_sales #qu... Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' 0.000 sec
4 23:05:08 select * from game_sales #qu... Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' 0.000 sec
5 23:07:44 SELECT GameID, SUM(Units... 150 row(s) returned 0.000 sec / 0.000 sec
```

Task 5th : To Identify the game with the highest number of units sold in North America.

```
SELECT GameID, SUM(UnitsSold) AS TotalUnitsSold  
FROM game_sale  
WHERE SalesRegion = 'North America'  
GROUP BY GameID  
ORDER BY TotalUnitsSold DESC  
LIMIT 1;
```

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
25 GROUP BY GameID;  
26  
27 #question 5  
28  
29 • SELECT GameID, SUM(UnitsSold) AS TotalUnitsSold  
30 FROM game_sales  
31 WHERE SalesRegion = 'North America'  
32 GROUP BY GameID  
33 ORDER BY TotalUnitsSold DESC  
34 LIMIT 1;
```

The query was executed, but an error occurred. The error message is displayed in the Output pane:

```
6 23:09:38 SELECT GameID, SUM(UnitsSold) AS TotalUnitsSold  
Error Code: 1146. Table 'assignment_2.game_sales' doesn't exist
```

The Result Grid shows the following data:

GameID	TotalUnitsSold
99	983132

Task 6th: To Get the game titles, platforms, and sales regions along with the units sold for each game.

```
SELECT g.GameTitle, gs.Platform, gs.SalesRegion, gs.UnitsSold
FROM game_sales gs
JOIN Games g ON gs.GameID = g.GameID;
```

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'assignment_2' selected, showing tables 'game_sales' and 'games'. The main editor window contains a SQL query with a blue arrow pointing to the 'LIMIT 1;' line. The 'Result Grid' shows the output of the query, displaying columns 'GameTitle', 'Platform', 'SalesRegion', and 'UnitsSold' with 150 rows of data. The 'Output' pane at the bottom shows the execution log with three entries: an error for a non-existent table, a successful query for 'GameID, SUM(UnitsSold)', and the current query for 'GameTitle, gs.Platform, gs.SalesRegion, gs.UnitsSold' which returned 150 rows.

MySQL Workbench

Local instance MYSQL84 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Assignment 2nd SQL File 9* SQL File 10*

Limit to 1000 rows

31 WHERE SalesRegion = 'North America'

32 GROUP BY GameID

33 ORDER BY TotalUnitsSold DESC

34 LIMIT 1;

35

36 #Question 6

37 • SELECT g.GameTitle, gs.Platform, gs.SalesRegion, gs.UnitsSold

38 FROM game_sales gs

39 JOIN Games g ON gs.GameID = g.GameID;

40

Result Grid

GameTitle	Platform	SalesRegion	UnitsSold
Right-sized human-resource forecast	Xbox	North America	861216
Optional tertiary frame	PlayStation	North America	444626
Team-oriented static standardization	PlayStation	North America	569637
Inverse mobile database	PlayStation	South America	977779
Inverse mission-critical array	PC	South America	473349
Integrated tertiary installation	PC	Europe	214870

Result 4 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
6	23:09:38	SELECT GameID, SUM(Units...	Error Code: 1146. Table 'assignment_2.game_sale' doesn't exist	0.016 sec
7	23:09:47	SELECT GameID, SUM(Units...	1 row(s) returned	0.000 sec / 0.000 sec
8	23:12:47	SELECT g.GameTitle, gs.Plaf...	150 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Task 7th :To Find all games, including those that have no sales data in the Game Sales table.

SELECT g.GameTitle

FROM Games g

LEFT JOIN game_sales gs ON g.GameID = gs.GameID;

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'assignment_2' selected, showing tables 'game_sales' and 'games'. The main editor window contains the following SQL code:

```
37 • SELECT g.GameTitle, gs.Platform, gs.SalesRegion, gs.UnitsSold
38 FROM game_sales gs
39 JOIN Games g ON gs.GameID = g.GameID;
40
41
42 #Question 7
43 • SELECT g.GameTitle
44 FROM Games g
45 LEFT JOIN game_sales gs ON g.GameID = gs.GameID;
46
```

The 'Result Grid' tab is active, showing the results of the last query (Query 5). The results are as follows:

#	Time	Action	Message	Duration / Fetch
7	23:09:47	SELECT GameID, SUM(Units...	1 row(s) returned	0.000 sec / 0.000 sec
8	23:12:47	SELECT g.GameTitle, gs.Plaf...	150 row(s) returned	0.000 sec / 0.000 sec
9	23:15:40	SELECT g.GameTitle FROM ...	151 row(s) returned	0.000 sec / 0.000 sec

The 'Output' tab is also visible, showing 'Action Output'.

Task 8th : Retrieve sales records where the game details are missing in the Games table.

SELECT gs.*

FROM game_sales gs

LEFT JOIN Games g ON gs.GameID = g.GameID

WHERE g.GameID IS NULL;

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows a database named 'assignment_2' with tables 'game_sales' and 'games'. The 'Query Editor' in the center contains the following SQL query:

```
44 FROM Games g
45 LEFT JOIN game_sales gs ON g.GameID = gs.GameID;
46
47
48 #Question 8
49
50 • SELECT gs.*
51 FROM game_sales gs
52 LEFT JOIN Games g ON gs.GameID = g.GameID
53 WHERE g.GameID IS NULL;
```

The 'Result Grid' at the bottom shows the execution results of the query. The columns are 'GameID', 'Platform', 'SalesRegion', 'UnitsSold', and 'Price'. The results are as follows:

GameID	Platform	SalesRegion	UnitsSold	Price
1	PC	North America	150	19.99
2	PC	Europe	151	19.99
3	PC	Asia	152	19.99
4	PC	South America	153	19.99
5	PC	Africa	154	19.99
6	PC	Oceania	155	19.99
7	PC	North America	156	19.99
8	PC	Europe	157	19.99
9	PC	Asia	158	19.99
10	PC	South America	159	19.99
11	PC	Africa	160	19.99
12	PC	Oceania	161	19.99
13	PC	North America	162	19.99
14	PC	Europe	163	19.99
15	PC	Asia	164	19.99
16	PC	South America	165	19.99
17	PC	Africa	166	19.99
18	PC	Oceania	167	19.99
19	PC	North America	168	19.99
20	PC	Europe	169	19.99
21	PC	Asia	170	19.99
22	PC	South America	171	19.99
23	PC	Africa	172	19.99
24	PC	Oceania	173	19.99
25	PC	North America	174	19.99
26	PC	Europe	175	19.99
27	PC	Asia	176	19.99
28	PC	South America	177	19.99
29	PC	Africa	178	19.99
30	PC	Oceania	179	19.99
31	PC	North America	180	19.99
32	PC	Europe	181	19.99
33	PC	Asia	182	19.99
34	PC	South America	183	19.99
35	PC	Africa	184	19.99
36	PC	Oceania	185	19.99
37	PC	North America	186	19.99
38	PC	Europe	187	19.99
39	PC	Asia	188	19.99
40	PC	South America	189	19.99
41	PC	Africa	190	19.99
42	PC	Oceania	191	19.99
43	PC	North America	192	19.99
44	PC	Europe	193	19.99
45	PC	Asia	194	19.99
46	PC	South America	195	19.99
47	PC	Africa	196	19.99
48	PC	Oceania	197	19.99
49	PC	North America	198	19.99
50	PC	Europe	199	19.99
51	PC	Asia	200	19.99
52	PC	South America	201	19.99
53	PC	Africa	202	19.99
54	PC	Oceania	203	19.99
55	PC	North America	204	19.99
56	PC	Europe	205	19.99
57	PC	Asia	206	19.99
58	PC	South America	207	19.99
59	PC	Africa	208	19.99
60	PC	Oceania	209	19.99
61	PC	North America	210	19.99
62	PC	Europe	211	19.99
63	PC	Asia	212	19.99
64	PC	South America	213	19.99
65	PC	Africa	214	19.99
66	PC	Oceania	215	19.99
67	PC	North America	216	19.99
68	PC	Europe	217	19.99
69	PC	Asia	218	19.99
70	PC	South America	219	19.99
71	PC	Africa	220	19.99
72	PC	Oceania	221	19.99
73	PC	North America	222	19.99
74	PC	Europe	223	19.99
75	PC	Asia	224	19.99
76	PC	South America	225	19.99
77	PC	Africa	226	19.99
78	PC	Oceania	227	19.99
79	PC	North America	228	19.99
80	PC	Europe	229	19.99
81	PC	Asia	230	19.99
82	PC	South America	231	19.99
83	PC	Africa	232	19.99
84	PC	Oceania	233	19.99
85	PC	North America	234	19.99
86	PC	Europe	235	19.99
87	PC	Asia	236	19.99
88	PC	South America	237	19.99
89	PC	Africa	238	19.99
90	PC	Oceania	239	19.99
91	PC	North America	240	19.99
92	PC	Europe	241	19.99
93	PC	Asia	242	19.99
94	PC	South America	243	19.99
95	PC	Africa	244	19.99
96	PC	Oceania	245	19.99
97	PC	North America	246	19.99
98	PC	Europe	247	19.99
99	PC	Asia	248	19.99
100	PC	South America	249	19.99
101	PC	Africa	250	19.99
102	PC	Oceania	251	19.99
103	PC	North America	252	19.99
104	PC	Europe	253	19.99
105	PC	Asia	254	19.99
106	PC	South America	255	19.99
107	PC	Africa	256	19.99
108	PC	Oceania	257	19.99
109	PC	North America	258	19.99
110	PC	Europe	259	19.99
111	PC	Asia	260	19.99
112	PC	South America	261	19.99
113	PC	Africa	262	19.99
114	PC	Oceania	263	19.99
115	PC	North America	264	19.99
116	PC	Europe	265	19.99
117	PC	Asia	266	19.99
118	PC	South America	267	19.99
119	PC	Africa	268	19.99
120	PC	Oceania	269	19.99
121	PC	North America	270	19.99
122	PC	Europe	271	19.99
123	PC	Asia	272	19.99
124	PC	South America	273	19.99
125	PC	Africa	274	19.99
126	PC	Oceania	275	19.99
127	PC	North America	276	19.99
128	PC	Europe	277	19.99
129	PC	Asia	278	19.99
130	PC	South America	279	19.99
131	PC	Africa	280	19.99
132	PC	Oceania	281	19.99
133	PC	North America	282	19.99
134	PC	Europe	283	19.99
135	PC	Asia	284	19.99
136	PC	South America	285	19.99
137	PC	Africa	286	19.99
138	PC	Oceania	287	19.99
139	PC	North America	288	19.99
140	PC	Europe	289	19.99
141	PC	Asia	290	19.99
142	PC	South America	291	19.99
143	PC	Africa	292	19.99
144	PC	Oceania	293	19.99
145	PC	North America	294	19.99
146	PC	Europe	295	19.99
147	PC	Asia	296	19.99
148	PC	South America	297	19.99
149	PC	Africa	298	19.99
150	PC	Oceania	299	19.99
151	PC	North America	300	19.99
152	PC	Europe	301	19.99
153	PC	Asia	302	19.99
154	PC	South America	303	19.99
155	PC	Africa	304	19.99
156	PC	Oceania	305	19.99
157	PC	North America	306	19.99
158	PC	Europe	307	19.99
159	PC	Asia	308	19.99
160	PC	South America	309	19.99
161	PC	Africa	310	19.99
162	PC	Oceania	311	19.99
163	PC	North America	312	19.99
164	PC	Europe	313	19.99
165	PC	Asia	314	19.99
166	PC	South America	315	19.99
167	PC	Africa	316	19.99
168	PC	Oceania	317	19.99
169	PC	North America	318	19.99
170	PC	Europe	319	19.99
171	PC	Asia	320	19.99
172	PC	South America	321	19.99
173	PC	Africa	322	19.99
174	PC	Oceania	323	19.99
175	PC	North America	324	19.99
176	PC	Europe	325	19.99
177	PC	Asia	326	19.99
178	PC	South America	327	19.99
179	PC	Africa	328	19.99
180	PC	Oceania	329	19.99
181	PC	North America	330	19.99
182	PC	Europe	331	19.99
183	PC	Asia	332	19.99
184	PC	South America	333	19.99
185	PC	Africa	334	19.99
186	PC	Oceania	335	19.99
187	PC	North America	336	19.99
188	PC	Europe	337	19.99
189	PC	Asia	338	19.99
190	PC	South America	339	19.99
191	PC	Africa	340	19.99
192	PC	Oceania	341	19.99
193	PC	North America	342	19.99
194	PC	Europe	343	19.99
195	PC	Asia	344	19.99
196	PC	South America	345	19.99
197	PC	Africa	346	19.99
198	PC	Oceania	347	19.99
199	PC	North America	348	19.99
200	PC	Europe	349	19.99
201	PC	Asia	350	19.99
202	PC	South America	351	19.99
203	PC	Africa	352	19.99
204	PC	Oceania	353	19.99
205	PC	North America	354	19.99
206	PC	Europe	355	19.99
207	PC	Asia	356	19.99
208	PC	South America	357	19.99
209	PC	Africa	358	19.99
210	PC	Oceania	359	19.99
211	PC	North America	360	19.99
212	PC	Europe	361	19.99
213	PC	Asia	362	19.99
214	PC	South America	363	19.99
215	PC	Africa	364	19.99
216	PC	Oceania	365	19.99
217	PC	North America	366	19.99
218	PC	Europe	367	19.99
219	PC	Asia	368	19.99
220	PC	South America	369	19.99
221	PC	Africa	370	19.99
222	PC	Oceania	371	19.99
223	PC	North America	372	19.99
224	PC	Europe	373	19.99
225	PC	Asia	374	19.99
226	PC	South America	375	19.99
227	PC	Africa	376	19.99
228	PC	Oceania	377	19.99
229	PC	North America	378	19.99
230	PC	Europe	379	19.99
231	PC	Asia	380	19.99
232	PC	South America	381	19.99
233	PC	Africa	382	19.99
234	PC	Oceania	383	19.99
235	PC	North America	384	19.99
236	PC	Europe	385	19.99
237	PC	Asia	386	19.99
238	PC	South America	387	19.99
239	PC	Africa	388	19.99
240	PC	Oceania	389	19.99
241	PC	North America	390	19.99
242	PC	Europe	391	19.99
243	PC	Asia	392	19.99
244	PC	South America	393	19.99
245	PC	Africa	394	19.99
246	PC	Oceania	395	19.99
247	PC	North America	396	19.99
248	PC	Europe	397	19.99
249	PC	Asia	398	19.99
250	PC	South America	399	19.99
251	PC	Africa	400	19.99
252	PC	Oceania	401	19.99
253	PC	North America	402	19.99
254	PC	Europe	403	19.99
255	PC	Asia	404	19.99
256	PC	South America	405	19.99
257	PC	Africa	406	19.99
258	PC	Oceania	407	19.99
259	PC	North America	408	19.99
260	PC	Europe	409	19.99
261	PC	Asia	410	19.99
262	PC	South America	411	19.99
263	PC	Africa	412	19.99
264	PC	Oceania	413	19.99
265	PC	North America	414	19.99
266	PC	Europe	415	19.99
267	PC	Asia	416	19.99
268	PC	South America	417	19.99
269	PC	Africa	418	19.99
270	PC	Oceania	419	19.99
271	PC	North America	420	19.99
272	PC	Europe	421	19.99
273	PC	Asia	422	19.99
274	PC	South America	423	19.99
275	PC	Africa	424	19.99
276	PC	Oceania	425	19.99
277	PC	North America	426	19.99
278	PC	Europe	427	19.99
279	PC	Asia	428	19.99
280	PC	South America	429	19.99
281	PC	Africa	430	19.99
282	PC	Oceania	431	19.99

Task 9th: To Retrieve game sales data for North America and Europe removing duplicate records.

```
SELECT DISTINCT gs.GameID, gs.Platform, gs.SalesRegion, gs.UnitsSold, gs.Price  
FROM game_sales gs  
WHERE gs.SalesRegion IN ('North America', 'Europe');
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
#Question 9  
SELECT DISTINCT gs.GameID, gs.Platform, gs.SalesRegion, gs.UnitsSold, gs.Price  
FROM game_sales gs  
WHERE gs.SalesRegion IN ('North America', 'Europe');
```

The Results Grid displays the following data:

GameID	Platform	SalesRegion	UnitsSold	Price
1	Xbox	North America	861216	45.39
2	PlayStation	North America	444626	60
3	PlayStation	North America	569637	34.2
6	PC	Europe	214870	37.55
7	PC	Europe	644295	33.37
9	Nintendo Switch	Europe	472076	46.39

The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
9	23:15:40	SELECT g.GameTitle FROM ...	151 row(s) returned	0.000 sec / 0.000 sec
10	23:17:38	SELECT gs.* FROM game_sal...	0 row(s) returned	0.000 sec / 0.000 sec
11	23:19:33	SELECT DISTINCT gs.GameID...	72 row(s) returned	0.000 sec / 0.000 sec

Task 10th : To Retrieve all game sales data from North America and Europe without removing duplicate records.

```
SELECT gs.GameID, gs.Platform, gs.SalesRegion, gs.UnitsSold, gs.Price  
FROM game_sales gs  
WHERE gs.SalesRegion IN ('North America', 'Europe');
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
57 FROM game_sales gs  
58 WHERE gs.SalesRegion IN ('North America', 'Europe');  
59  
60  
61  
62 #Question 10  
63 • SELECT gs.GameID, gs.Platform, gs.SalesRegion, gs.UnitsSold, gs.Price  
64 FROM game_sales gs  
65 WHERE gs.SalesRegion IN ('North America', 'Europe');  
66
```

The Results Grid shows the following data:

GameID	Platform	SalesRegion	UnitsSold	Price
1	Xbox	North America	861216	45.39
2	PlayStation	North America	444626	60
3	PlayStation	North America	569637	34.2
6	PC	Europe	214870	37.55
7	PC	Europe	644295	33.37
9	Nintendo Switch	Europe	472076	46.39

The Output tab shows the following actions:

#	Time	Action	Message	Duration / Fetch
10	23:17:38	SELECT gs.* FROM game_sal...	0 row(s) returned	0.000 sec / 0.000 sec
11	23:19:33	SELECT DISTINCT gs.GameID...	72 row(s) returned	0.000 sec / 0.000 sec
12	23:21:52	SELECT gs.GameID, gs.Platform...	72 row(s) returned	0.000 sec / 0.000 sec