DELHI TECHNOLOGICAL UNIVERSITY

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PRACTICAL - 6

AIM:

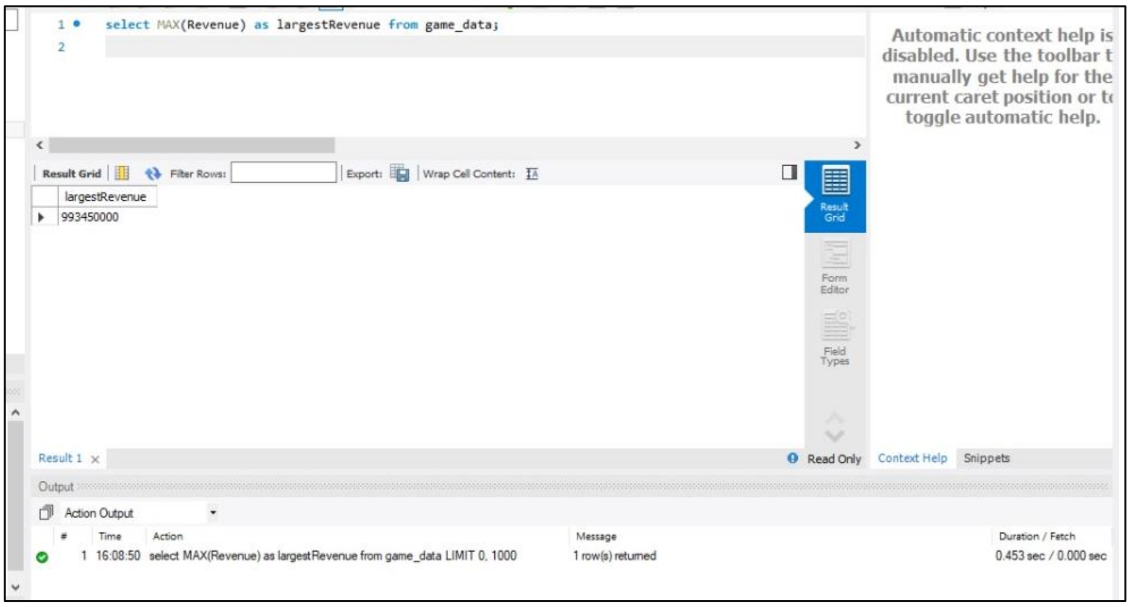
1. Use aggregate functions like max, min, count, sum.
2. Use GROUP BY and HAVING clause to fetch data from a group.
3. Check if any value exists in the result set using EXISTS and NOT EXISTS.

CODE AND OUTPUT:

Command to use MAX():

```sql
select MAX(Revenue) as largestRevenue from game_data;
```

Output :



```
select MAX(Revenue) as largestRevenue from game_data;
```

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

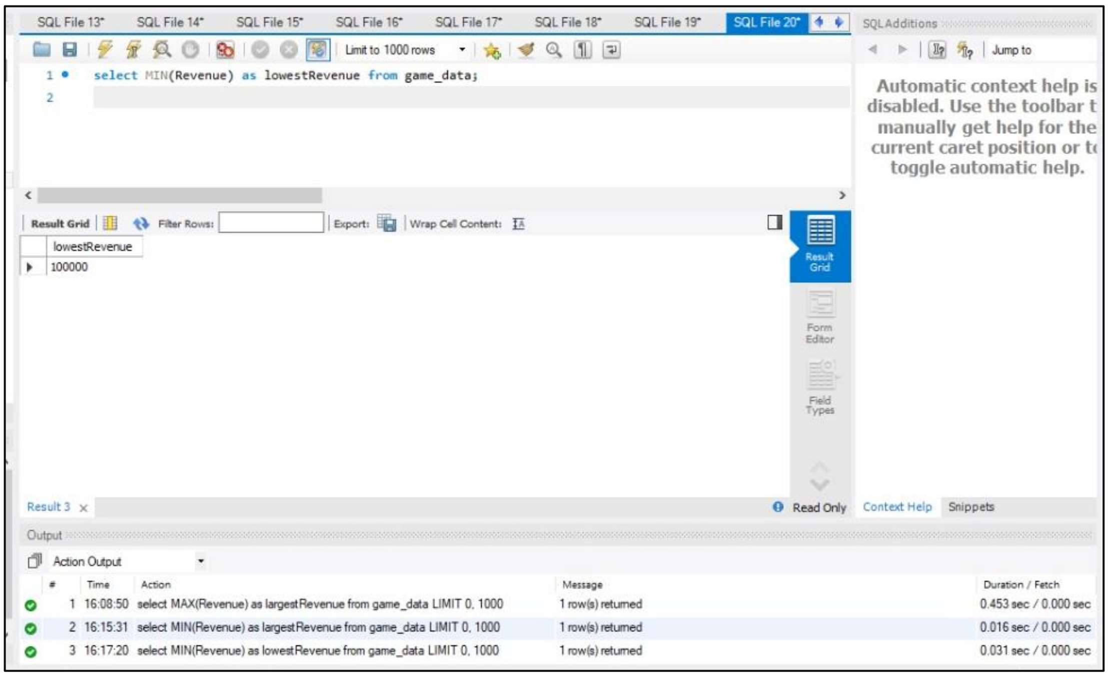
```
largestRevenue
993450000
```

```
#   Time      Action                                                            Message             Duration / Fetch
1   16:08:50  select MAX(Revenue) as largestRevenue from game_data LIMIT 0, 1000   1 row(s) returned   0.453 sec / 0.000 sec
```

Command to use MIN():

```
select MIN(Revenue) as lowestRevenue from game_data;
```

Output :



```
select MIN(Revenue) as lowestRevenue from game_data;
```

```
lowestRevenue
100000
```

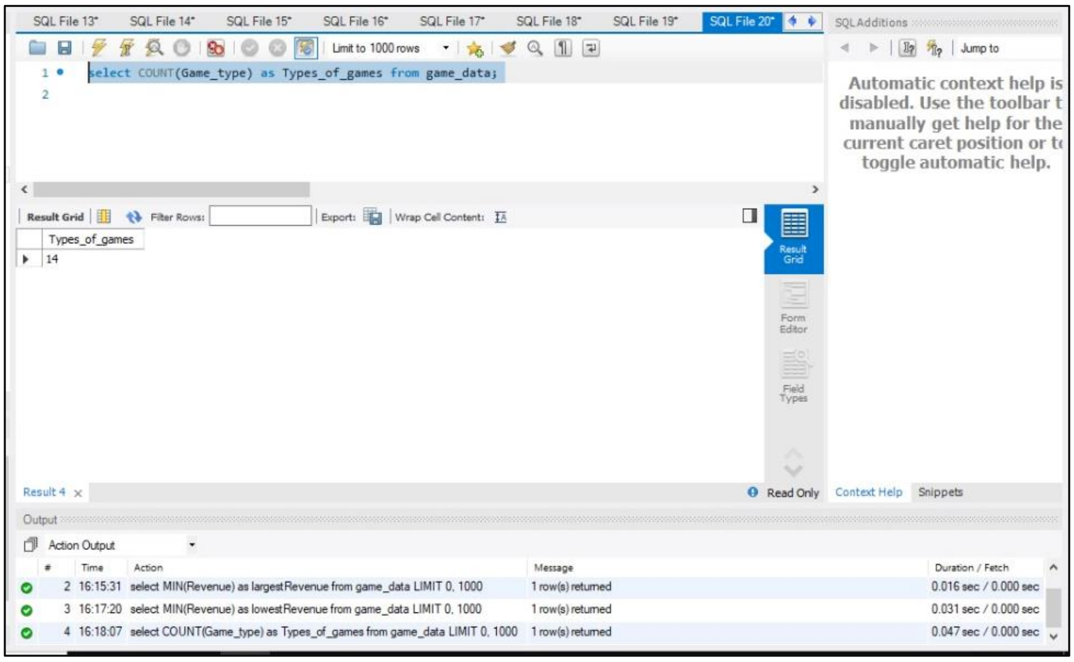
```
#  Time      Action                                                             Message            Duration / Fetch
1  16:08:50  select MAX(Revenue) as largestRevenue from game_data LIMIT 0, 1000  1 row(s) returned  0.453 sec / 0.000 sec
2  16:15:31  select MIN(Revenue) as largestRevenue from game_data LIMIT 0, 1000  1 row(s) returned  0.016 sec / 0.000 sec
3  16:17:20  select MIN(Revenue) as lowestRevenue from game_data LIMIT 0, 1000   1 row(s) returned  0.031 sec / 0.000 sec
```

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

Command to use COUNT():

```
select COUNT(Game_type) as Types_of_games from game_data;
```

Output :



```
select COUNT(Game_type) as Types_of_games from game_data;
```

```
Types_of_games
14
```

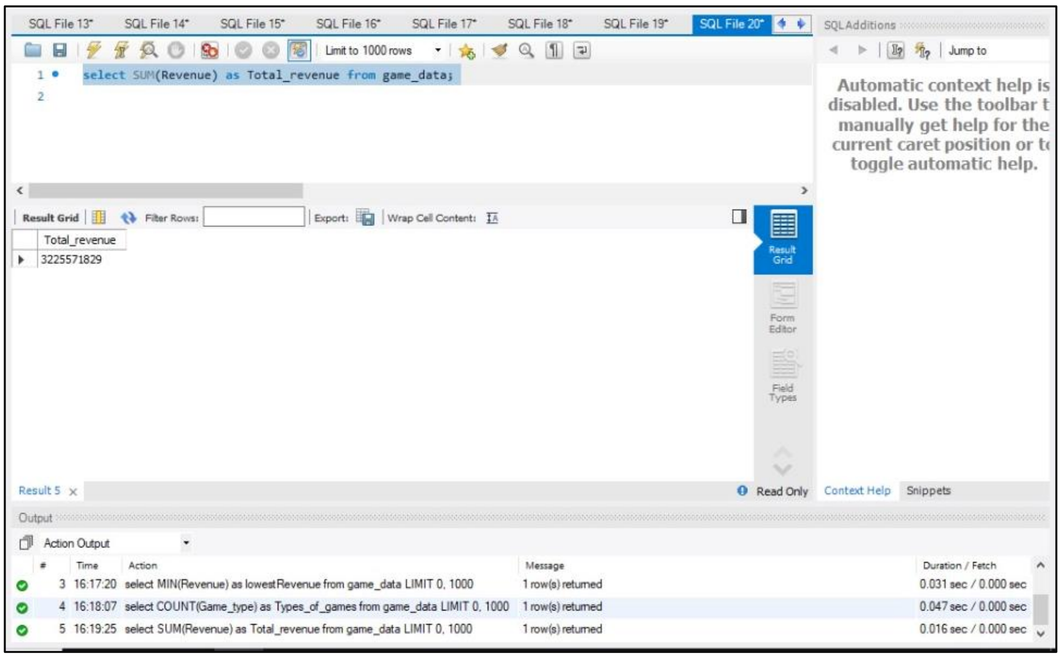
```
#  Time      Action                                                                      Message            Duration / Fetch
2  16:15:31  select MIN(Revenue) as largestRevenue from game_data LIMIT 0, 1000           1 row(s) returned  0.016 sec / 0.000 sec
3  16:17:20  select MIN(Revenue) as lowestRevenue from game_data LIMIT 0, 1000            1 row(s) returned  0.031 sec / 0.000 sec
4  16:18:07  select COUNT(Game_type) as Types_of_games from game_data LIMIT 0, 1000       1 row(s) returned  0.047 sec / 0.000 sec
```

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

Command to use SUM():

```
select SUM(Revenue) as Total_revenue from game_data;
```

Output :



```
select SUM(Revenue) as Total_revenue from game_data;
```

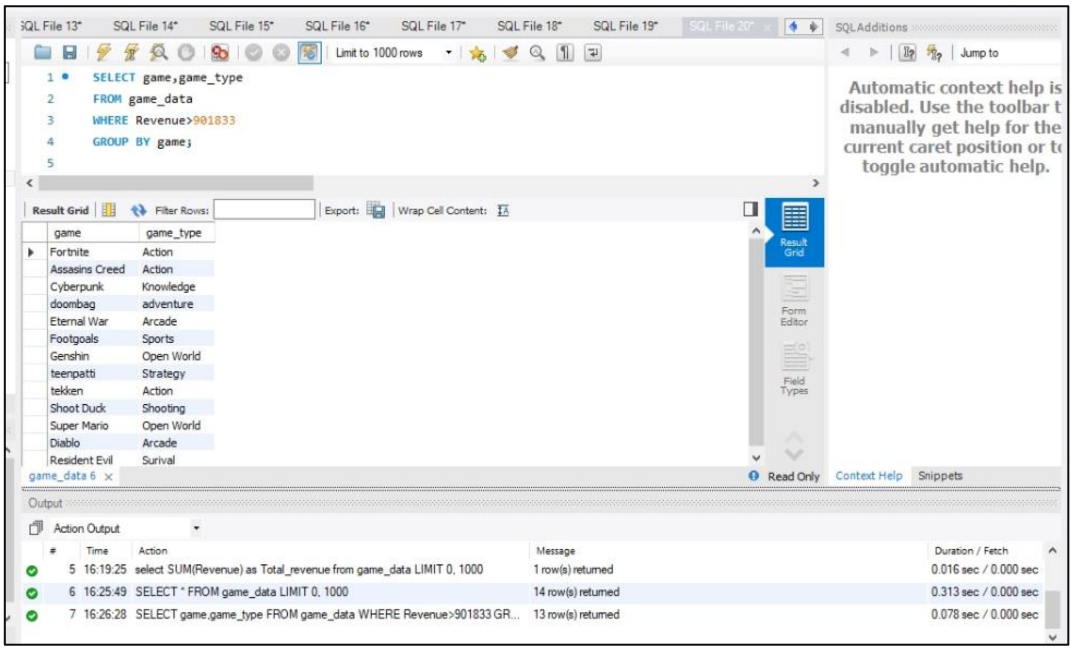
Total_revenue
3225571829

```
#  Time      Action                                                                  Message            Duration / Fetch
3  16:17:20  select MIN(Revenue) as lowestRevenue from game_data LIMIT 0, 1000           1 row(s) returned  0.031 sec / 0.000 sec
4  16:18:07  select COUNT(Game_type) as Types_of_games from game_data LIMIT 0, 1000      1 row(s) returned  0.047 sec / 0.000 sec
5  16:19:25  select SUM(Revenue) as Total_revenue from game_data LIMIT 0, 1000          1 row(s) returned  0.016 sec / 0.000 sec
```

Command to use GROUP BY:

```
SELECT game,game_type
FROM game_data
WHERE Revenue>901833
GROUP BY game;
```

Output :



```
SELECT game,game_type
FROM game_data
WHERE Revenue>901833
GROUP BY game;
```

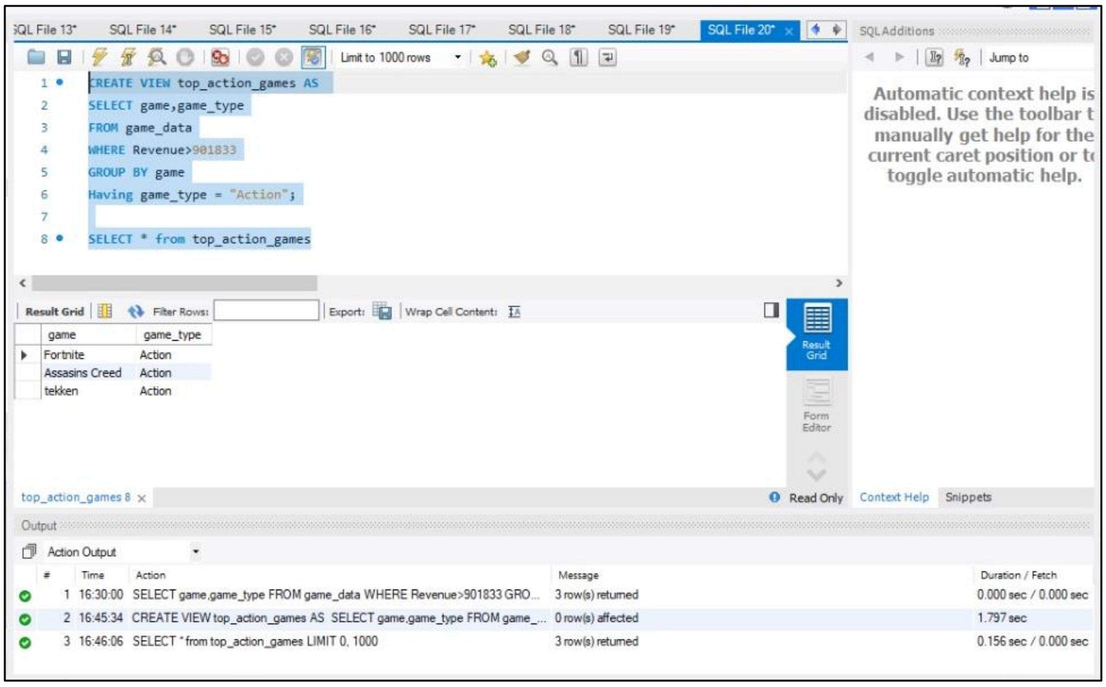
game	game_type
Fortnite	Action
Assasins Creed	Action
Cyberpunk	Knowledge
doombag	adventure
Eternal War	Arcade
Footgoals	Sports
Genshin	Open World
teenpatti	Strategy
tekken	Action
Shoot Duck	Shooting
Super Mario	Open World
Diablo	Arcade
Resident Evil	Surival

```
#  Time      Action                                                               Message              Duration / Fetch
5  16:19:25  select SUM(Revenue) as Total_revenue from game_data LIMIT 0, 1000       1 row(s) returned    0.016 sec / 0.000 sec
6  16:25:49  SELECT * FROM game_data LIMIT 0, 1000                                   14 row(s) returned   0.313 sec / 0.000 sec
7  16:26:28  SELECT game,game_type FROM game_data WHERE Revenue>901833 GR...        13 row(s) returned   0.078 sec / 0.000 sec
```

Command to use GROUP BY and HAVING:

```
CREATE VIEW top_action_games AS
SELECT game,game_type
FROM game_data
WHERE Revenue>901833
GROUP BY game
Having game_type = "Action";
SELECT * from top_action_games;
```

Output :



```
CREATE VIEW top_action_games AS
SELECT game,game_type
FROM game_data
WHERE Revenue>901833
GROUP BY game
Having game_type = "Action";

SELECT * from top_action_games
```

game	game_type
Fortnite	Action
Assasins Creed	Action
tekken	Action

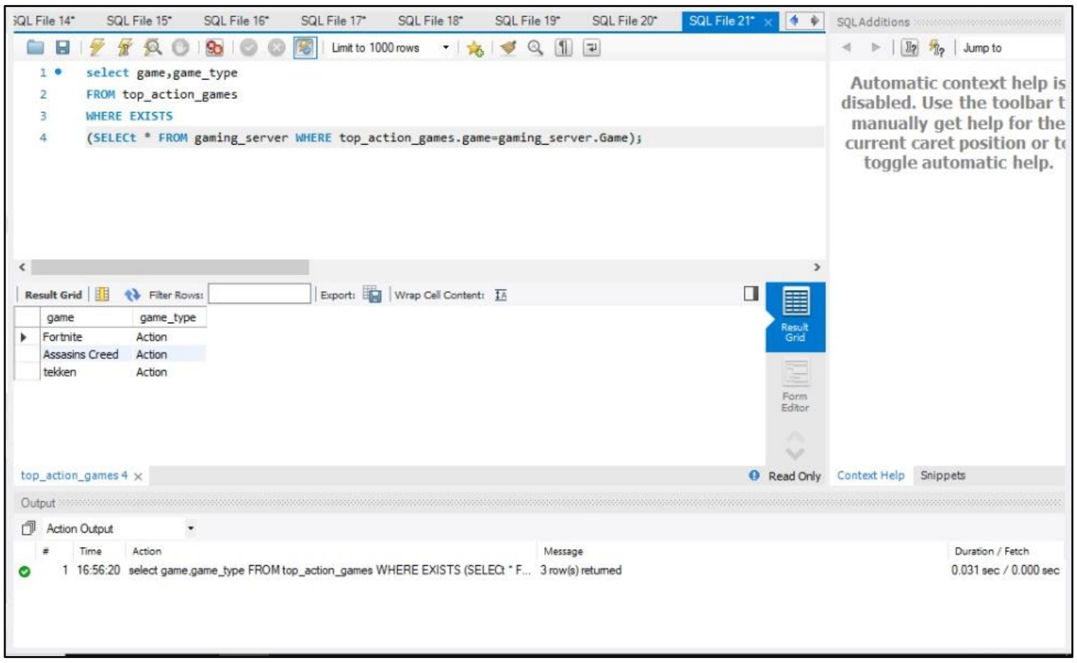
```
#  Time      Action                                                     Message             Duration / Fetch
1  16:30:00  SELECT game,game_type FROM game_data WHERE Revenue>901833 GRO...  3 row(s) returned   0.000 sec / 0.000 sec
2  16:45:34  CREATE VIEW top_action_games AS  SELECT game,game_type FROM game_...  0 row(s) affected   1.797 sec
3  16:46:06  SELECT * from top_action_games LIMIT 0, 1000              3 row(s) returned   0.156 sec / 0.000 sec
```

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

Command to use EXISTS:

```
select game,game_type
FROM top_action_games
WHERE EXISTS
(SELECt * FROM gaming_server WHERE top_action_games.game=gaming_server.Game);
```

Output :



```
select game,game_type
FROM top_action_games
WHERE EXISTS
(SELECt * FROM gaming_server WHERE top_action_games.game=gaming_server.Game);
```

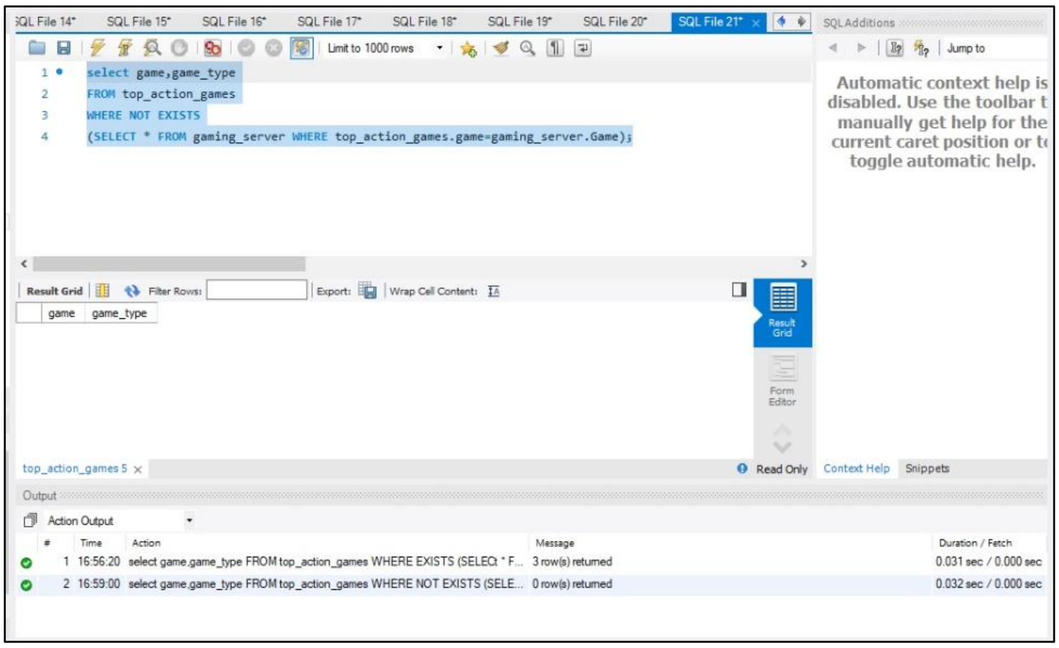
```
game            game_type
Fortnite        Action
Assasins Creed  Action
tekken          Action
```

```
#  Time      Action                                                                  Message               Duration / Fetch
1  16:56:20  select game,game_type FROM top_action_games WHERE EXISTS (SELECt * F...  3 row(s) returned     0.031 sec / 0.000 sec
```

Command to use NOT EXISTS:

```
select game,game_type
FROM top_action_games
WHERE NOT EXISTS
(SELECT * FROM gaming_server WHERE top_action_games.game=gaming_server.Game);
```

Output :



```
select game,game_type
FROM top_action_games
WHERE NOT EXISTS
(SELECT * FROM gaming_server WHERE top_action_games.game=gaming_server.Game);
```

```
game  game_type
```

```
#  Time      Action                                                                  Message               Duration / Fetch
1  16:56:20  select game,game_type FROM top_action_games WHERE EXISTS (SELECt * F...  3 row(s) returned     0.031 sec / 0.000 sec
2  16:59:00  select game,game_type FROM top_action_games WHERE NOT EXISTS (SELE...    0 row(s) returned     0.032 sec / 0.000 sec
```