Poshem Technologies GROUP LLC

SQL Quizzes done on Microsoft SQL Server

Project Overview:

In this exercise we're going to use the PlayCenter database. PlayCenter is an imaginary online platform, allowing users to browse and download mobile games of different genres.

Please Download the following dataset as this would be utilized to answer the questions below DatabaseCreationScripts - Google Drive Create all Databases using the scripts in the drive above

PlayCenter database consists of a single table: Players - which contains information

about the company customers.

Poshem Technologies Question 1

a) Write a query to display all the information inside players.

```
SELEcT *
FROM playcenter..players
```

	player_id	first_name	last_name	email_address	gender	age_group	country	city	preferred_language	street_address	amount_spent_usd	total_playing_minutes	installed_games	uninstalled_games
1	1	Eddie	Shakshaft	eshakshaft0@gnu.org	Male	51-60	China	Zhanghekou	Malay	13 Transport Street	137.71	658	11	5
2	2	Doralia	Thirlwell	dthirlwell1@chicagotribune.com	Female	21-30	Russia	Lesnoy	Montenegrin	5211 Maryland Junction	775.87	1501	15	9
3	3	Patrizius	Castelin	pcastelin2@hugedomains.com	Male	31-40	France	Sophia Antipolis	Yiddish	763 Welch Center	255.65	835	15	8
4	4	Anselma	Vernalls	avernalls3@over-blog.com	Female	31-40	China	Jingyu	Dari	3886 Monica Center	497.37	2129	24	6
5	5	Arabelle	Starie	astarie4@unicef.org	Male	10-21	Indonesia	Sibreh	Zulu	1398 Anthes Place	764.77	810	13	5
6	6	Abbie	Strathdee	astrathdee5@unicef.org	Female	41-50	Dominican Republic	Villa Francisca	West Frisian	114 Sachs Point	332.97	1162	21	8
7	7	Jayme	Kapelhoff	jkapelhoff6@state.tx.us	Female	21-30	Philippines	Carmen	Hebrew	32469 David Way	260.19	1439	13	5
8	8	Joachim	Froome	jfroome7@bbb.org	Female	10-21	Indonesia	Nginokrajan	Icelandic	5 Gulseth Place	138.96	1452	27	8
9	9	Robinia	Helleckas	rhelleckas8@odnoklassniki.ru	Female	21-30	Indonesia	Teluksantong	Dzongkha	10371 Sauthoff Street	968.46	1799	22	9
10	10	Efren	Heasley	eheasley9@pmewswire.com	Male	51-60	Mauritius	Goodlands	Ndebele	45 Delladonna Plaza	264.9	681	17	6
11	11	Theodor	Buttfield	tbuttfielda@blogger.com	Female	10-21	Israel	Rumat Heib	New Zealand Sig...	1473 Mendota Street	875.73	721	30	9
12	12	Hilliary	Lombard	hlombardb@freewebs.com	Female	31-40	Trinidad and Toba...	Petit Valley	Georgian	6915 Hoepker Point	242.4	590	21	9
13	13	Vernon	Pritchard	vpritchardc@sourceforge.net	Male	41-50	China	Changtan	Marathi	730 Artisan Park	672.24	994	20	5
14	14	Elijah	Chattell	echattelld@slate.com	Female	51-60	Philippines	Corcuera	Dutch	0223 Chinook Terrace	693.65	1577	27	5
15	15	Thorndike	Manicomb	tmanicombe@sciencedaily.com	Male	10-21	Brazil	Santo André	Dzongkha	522 Comanche Circle	98.3	2249	28	6
16	16	Tamqrah	Ingon	tingonf@ask.com	Female	41-50	Ivory Coast	Vavoua	Tswana	8423 Jackson Circle	435.16	1617	17	9
17	17	Kynthia	Gambie	kgambieg@usa.gov	Female	10-21	Philippines	Bagahanlad	Hebrew	6812 Waxwing Road	619.17	563	15	5
18	18	Robena	Barense	rbarenseh@xing.com	Male	10-21	Philippines	Kapatagan	Spanish	2333 Sutteridge Alley	546.14	1515	12	7
19	19	Jesse	Binch	jbinchi@ucla.edu	Female	10-21	United States	Springfield	Azeri	48302 Truax Terrace	712.29	2114	11	7
20	20	Charmian	Dudill	cdudillj@hatena.ne.jp	Female	21-30	Russia	Shumikhinskiy	Korean	495 Cascade Road	171.27	1093	21	5
21	21	Lea	Worthing	lworthingk@csmonitor.com	Female	10-21	Japan	Takarazuka	Swedish	57 Blue Bill Park Cros...	622.27	2048	16	6
22	22	Roman	Alastair	ralastairl@myspace.com	Female	41-50	Jordan	Zarqa	Armenian	8 Bunker Hill Pass	468.27	1683	25	9

Query executed successfully.   PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00   PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 1,000 rows

b) Write a query to retrieve the last_name, first_name and city for each player

```
SELEcT last_name, first_name, city
FROM playcenter..players
```

	last_name	first_name	city
1	Shakshaft	Eddie	Zhanghekou
2	Thirlwell	Doralia	Lesnoy
3	Castelin	Patrizius	Sophia Antipolis
4	Vernalls	Anselma	Jingyu
5	Starie	Arabelle	Sibreh
6	Strathdee	Abbie	Villa Francisca
7	Kapelhoff	Jayme	Carmen
8	Froome	Joachim	Nginokrajan
9	Helleckas	Robinia	Teluksantong
10	Heasley	Efren	Goodlands
11	Buttfield	Theodor	Rumat Heib
12	Lombard	Hilliary	Petit Valley
13	Pritchard	Vernon	Changtan
14	Chattell	Elijah	Corcuera

Query executed successfully.   PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 1,000 rows

c) Write a query to retrieve the email_address, country, and street_address for each player.

```sql
SELECT email_address, country, street_address
FROM playcenter..players
```

	email_address	country	street_address
1	eshakshaft0@gnu.org	China	13 Transport Street
2	dthirlwell1@chicagotribune.com	Russia	5211 Maryland Junction
3	pcastelin2@hugedomains.com	France	763 Welch Center
4	avemalls3@over-blog.com	China	3886 Monica Center
5	astarie4@unicef.org	Indonesia	1398 Anthes Place
6	astrathdee5@unicef.org	Dominican Republic	114 Sachs Point
7	jkapelhoff6@state.tx.us	Philippines	32469 David Way
8	jfroome7@bbb.org	Indonesia	5 Gulseth Place
9	rhelleckas8@odnoklassniki.ru	Indonesia	10371 Sauthoff Street
10	eheasley9@prnewswire.com	Mauritius	45 Delladonna Plaza
11	tbuttfielda@blogger.com	Israel	1473 Mendota Street
12	hlombardb@freewebs.com	Trinidad and Tobago	6915 Hoepker Point
13	vpritchardc@sourceforge.net	China	730 Artisan Park
14	echattelld@slate.com	Philippines	0223 Chinook Terrace
15	tmanicombe@sciencedaily.com	Brazil	522 Comanche Circle
16	tingonf@ask.com	Ivory Coast	8423 Jackson Circle
17	kgambieg@usa.gov	Philippines	6812 Waxwing Road
18	rbarenseh@xing.com	Philippines	2333 Sutteridge Alley

✓ Query executed successfully.   PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 1,000 rows

d) Write a query to display the player_id, total_playing_minutes, and installed_games for each player.

```sql
SELEcT player_id, total_playing_minutes, installed_games
FROM playcenter..players
```

	player_id	total_playing_minutes	installed_games
1	1	658	11
2	2	1501	15
3	3	835	15
4	4	2129	24
5	5	810	13
6	6	1162	21
7	7	1439	13
8	8	1452	27
9	9	1799	22
10	10	681	17
11	11	721	30
12	12	590	21

✓ Query executed successfully.   PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 1,000 rows

e) The installed_games column represents the number of games each player has purchased/installed
Write a query to display the player_id, age_group, and total_playing_minutes for each player.

```sql
SELEcT player_id, age_group, total_playing_minutes
FROM playcenter..players
```

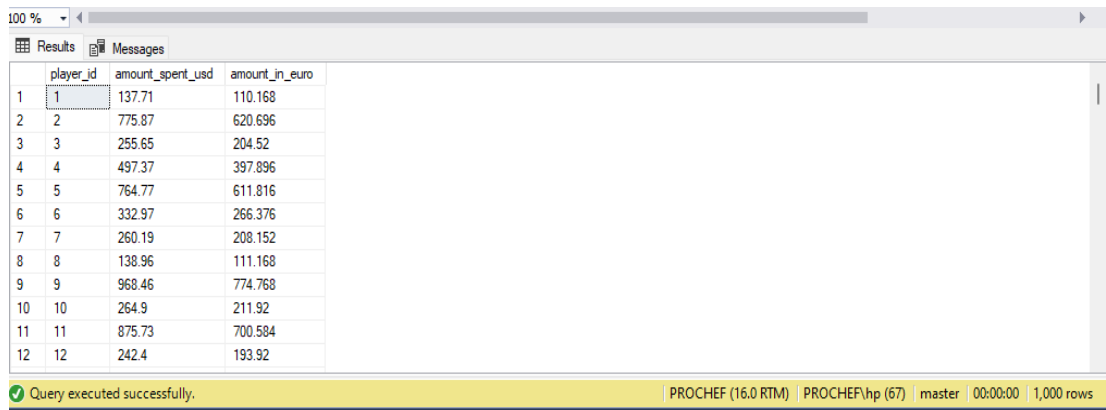|	player_id	age_group	total_playing_minutes
1	1	51-60	658
2	2	21-30	1501
3	3	31-40	835
4	4	31-40	2129
5	5	10-21	810
6	6	41-50	1162
7	7	21-30	1439
8	8	10-21	1452
9	9	21-30	1799
10	10	51-60	681
11	11	10-21	721
12	12	31-40	590

✓ Query executed successfully.   PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 1,000 rows

Poshem Technologies Question 3 :

1- Write a query to display for each player - the player_id, amount_spent_usd, and a new calculation representing the amount spent in euros, with exchange rate of 0.8.

Allow us to elaborate, The amount_spent_usd column represents the amount of money spent by each player in USD so if the current exchange rate is 0.8, the calculation would be amount_spent_usd * 0.8.

```sql
SELEcT player_id, amount_spent_usd, amount_spent_usd * 0.8 as amount_in_euro
FROM playcenter..players
```
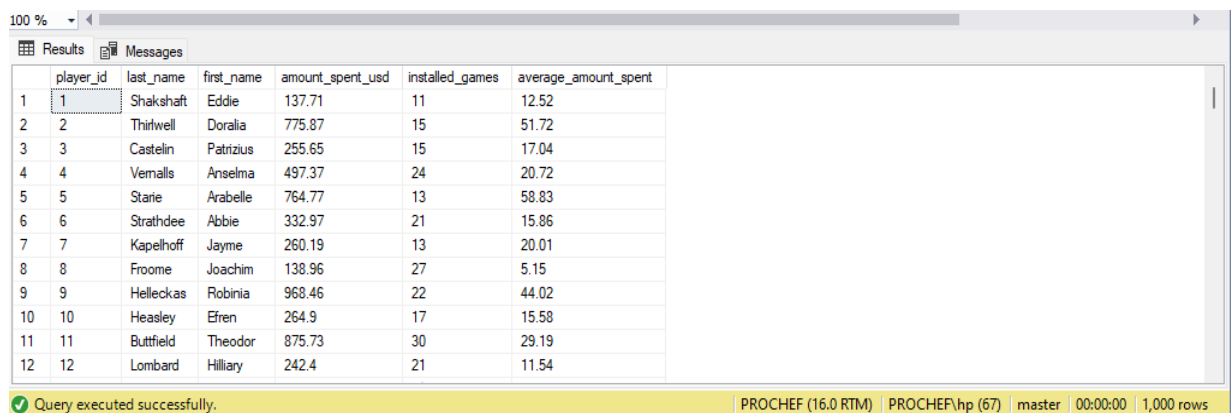
	player_id	amount_spent_usd	amount_in_euro
1	1	137.71	110.168
2	2	775.87	620.696
3	3	255.65	204.52
4	4	497.37	397.896
5	5	764.77	611.816
6	6	332.97	266.376
7	7	260.19	208.152
8	8	138.96	111.168
9	9	968.46	774.768
10	10	264.9	211.92
11	11	875.73	700.584
12	12	242.4	193.92

Query executed successfully.   PROCHEF (16.0 RTM)   PROCHEF\hp (67)   master   00:00:00   1,000 rows

2- Write a query to display
the player_id, last_name, first_name, amount_spent_usd, installed_games, and a new calculation representing the average amount spent on each game (amount_spent_usd / installed_games)

```sql
SELEcT player_id, last_name, first_name, amount_spent_usd, installed_games,
       round(amount_spent_usd / installed_games, 2) as average_amount_spent
FROM playcenter..players
```

	player_id	last_name	first_name	amount_spent_usd	installed_games	average_amount_spent
1	1	Shakshaft	Eddie	137.71	11	12.52
2	2	Thirlwell	Doralia	775.87	15	51.72
3	3	Castelin	Patrizius	255.65	15	17.04
4	4	Vernalls	Anselma	497.37	24	20.72
5	5	Starie	Arabelle	764.77	13	58.83
6	6	Strathdee	Abbie	332.97	21	15.86
7	7	Kapelhoff	Jayme	260.19	13	20.01
8	8	Froome	Joachim	138.96	27	5.15
9	9	Helleckas	Robinia	968.46	22	44.02
10	10	Heasley	Efren	264.9	17	15.58
11	11	Buttfield	Theodor	875.73	30	29.19
12	12	Lombard	Hilliary	242.4	21	11.54

Query executed successfully.   PROCHEF (16.0 RTM)   PROCHEF\hp (67)   master   00:00:00   1,000 rows

3- Write a query to display for each player - the player_id, email_address, installed_games, uninstalled_games, and a new calculation representing the ratio between installed and uninstalled games (uninstalled_games / installed_games)

```sql
-- ratio of uninstalled_games to installed_games

SELEcT player_id, email_address, installed_games, uninstalled_games,
       round((cast(uninstalled_games as numeric)) / installed_games, 2) as install_uninstall_ratio
       FROM playcenter..players
```

	player_id	email_address	installed_games	uninstalled_games	install_uninstall_ratio
1	1	eshakshaft0@gnu.org	11	5	0.45000000000
2	2	dthirlwell1@chicagotribune.com	15	9	0.60000000000
3	3	pcastelin2@hugedomains.com	15	8	0.53000000000
4	4	avernalls3@over-blog.com	24	6	0.25000000000
5	5	astarie4@unicef.org	13	5	0.38000000000
6	6	astrathdee5@unicef.org	21	8	0.38000000000
7	7	jkapelhoff6@state.tx.us	13	5	0.38000000000
8	8	jfroome7@bbb.org	27	8	0.30000000000
9	9	rhelleckas8@odnoklassniki.ru	22	9	0.41000000000
10	10	eheasley9@prnewswire.com	17	6	0.35000000000
11	11	tbuttfielda@blogger.com	30	9	0.30000000000
12	12	hlombardb@freewebs.com	21	9	0.43000000000

Query executed successfully.   PROCHEF (16.0 RTM)   PROCHEF\hp (67)   master   00:00:00   1,000 rows

```sql
-- ratio of installed_games to uninstalled_games
SELEcT player_id, email_address, installed_games, uninstalled_games,
CASE
    WHEN uninstalled_games = 0 THEN NULL   -- avoid an error when no game is installed
    ELSE (installed_games / uninstalled_games)
 END AS install_uninstall_ratio
FROM playcenter..players
```
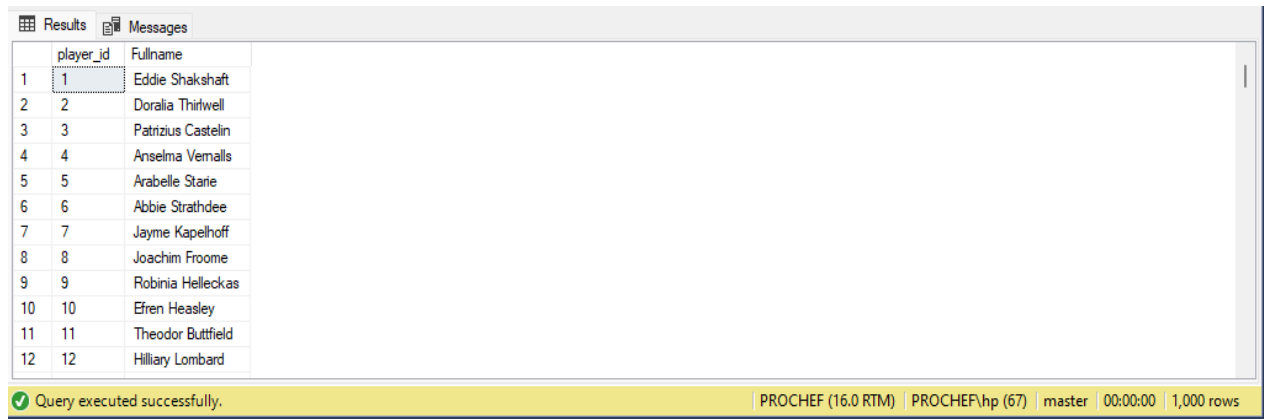
	player_id	email_address	installed_games	uninstalled_games	install_uninstall_ratio
1	1	eshakshaft0@gnu.org	11	5	2
2	2	dthirlwell1@chicagotribune.com	15	9	1
3	3	pcastelin2@hugedomains.com	15	8	1
4	4	avernalls3@over-blog.com	24	6	4
5	5	astarie4@unicef.org	13	5	2
6	6	astrathdee5@unicef.org	21	8	2
7	7	jkapelhoff6@state.tx.us	13	5	2
8	8	jfroome7@bbb.org	27	8	3
9	9	rhelleckas8@odnoklassniki.ru	22	9	2
10	10	eheasley9@prnewswire.com	17	6	2
11	11	tbuttfielda@blogger.com	30	9	3
12	12	hlombardb@freewebs.com	21	9	2

Query executed successfully.   PROCHEF (16.0 RTM)   PROCHEF\hp (67)   master   00:00:00   1,000 rows

Poshem Technologies Question 4:

i.) Write a query to display the:
a. player_id
b. player's first_name concatenated with his/hers last_name

```sql
SELEcT player_id, CONCAT(first_name,' ',last_name) as Fullname
FROM playcenter..players
```

	player_id	Fullname
1	1	Eddie Shakshaft
2	2	Doralia Thirlwell
3	3	Patrizius Castelin
4	4	Anselma Vernalls
5	5	Arabelle Starie
6	6	Abbie Strathdee
7	7	Jayme Kapelhoff
8	8	Joachim Froome
9	9	Robinia Helleckas
10	10	Efren Heasley
11	11	Theodor Buttfield
12	12	Hilliary Lombard

Query executed successfully.　PROCHEF (16.0 RTM)　PROCHEF\hp (67)　master　00:00:00　1,000 rows

ii.) Write a query to display the:
a. player_id
b. email_address
c. country concatenated with city and street_address
d. total playing time in hours (total_playing_minutes / 60)

```sql
SELEcT player_id, email_address, CONCAT(street_address, ', ',city, ', ',country) as Address,
(total_playing_minutes / 60) as total_playing_time_in_hours
FROM playcenter..players
```

	player_id	email_address	Address	total_playing_time_in_hours
1	1	eshakshaft0@gnu.org	13 Transport Street, Zhanghekou, China	10
2	2	dthirlwell1@chicagotribune.com	5211 Maryland Junction, Lesnoy, Russia	25
3	3	pcastelin2@hugedomains.com	763 Welch Center, Sophia Antipolis, France	13
4	4	avernalls3@over-blog.com	3886 Monica Center, Jingyu, China	35
5	5	astarie4@unicef.org	1398 Anthes Place, Sibreh, Indonesia	13
6	6	astrathdee5@unicef.org	114 Sachs Point, Villa Francisca, Dominican Repu...	19
7	7	jkapelhoff6@state.tx.us	32469 David Way, Carmen, Philippines	23
8	8	jfroome7@bbb.org	5 Gulseth Place, Nginokrajan, Indonesia	24
9	9	rhelleckas8@odnoklassniki.ru	10371 Sauthoff Street, Teluksantong, Indonesia	29
10	10	eheasley9@prnewswire.com	45 Delladonna Plaza, Goodlands, Mauritius	11
11	11	tbuttfielda@blogger.com	1473 Mendota Street, Rumat Heib, Israel	12
12	12	hlombardb@freewebs.com	6915 Hoepker Point, Petit Valley, Trinidad and To...	9

Query executed successfully.　PROCHEF (16.0 RTM)　PROCHEF\hp (67)　master　00:00:00　1,000 rows

iii.) Write a query to display the following string for each player:
'Full name preferred language is preferred_language'
(full name is the result of concatenating first_name and last_name)
for example:
'John Watson preferred language is English'

```sql
SELECT  CONCAT(first_name,' ' ,last_name,' preferred language is ', preferred_language) as
preferred_language
FROM playcenter..players
```

	preferred_language
1	Eddie Shakshaft preferred language is Malay
2	Doralia Thirlwell preferred language is Montenegrin
3	Patrizius Castelin preferred language is Yiddish
4	Anselma Vernalls preferred language is Dari
5	Arabelle Starie preferred language is Zulu
6	Abbie Strathdee preferred language is West Frisian
7	Jayme Kapelhoff preferred language is Hebrew
8	Joachim Froome preferred language is Icelandic
9	Robinia Helleckas preferred language is Dzongkha
10	Efren Heasley preferred language is Ndebele
11	Theodor Buttfield preferred language is New Zeal...
12	Hilliary Lombard preferred language is Georgian

✅ Query executed successfully. PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 1,000 rows

Poshem Technologies Question 5:
a.) Write a query to display the distinct values inside the preferred_language column

```sql
SELECT  DISTINCT(preferred_language)
FROM playcenter..players
```

	preferred_language
1	Afrikaans
2	Albanian
3	Amharic
4	Arabic
5	Armenian
6	Assamese
7	Aymara
8	Azeri
9	Belarusian
10	Bengali
11	Bislama
12	Bosnian

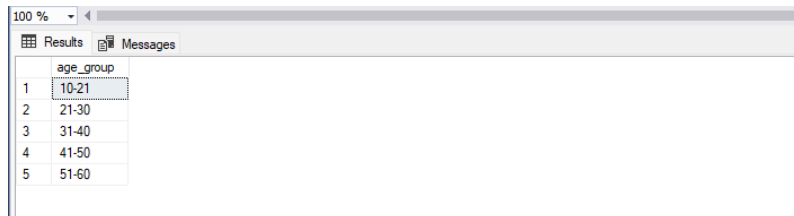✅ Query executed successfully. PROCHEF (16.0 RTM) | PROCHEF\hp (67) | master | 00:00:00 | 97 rows

b.) Write a query to display the distinct list of values inside the gender column

```sql
SELEcT  DISTINCT(gender)
FROM playcenter..players
```

	gender
1	Female
2	Male

c.) Write a query to display the distinct list of values inside the age_group column

```sql
SELEcT  DISTINCT(age_group)
FROM playcenter..players
```
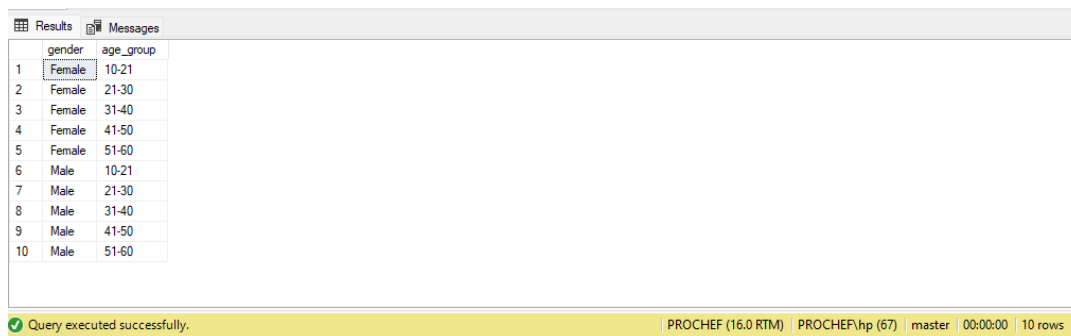
	age_group
1	10-21
2	21-30
3	31-40
4	41-50
5	51-60

d.) Write a query to display the distinct combination of gender and age_group columns

```sql
SELECT  DISTINCT gender, age_group
FROM playcenter..players
```

	gender	age_group
1	Female	10-21
2	Female	21-30
3	Female	31-40
4	Female	41-50
5	Female	51-60
6	Male	10-21
7	Male	21-30
8	Male	31-40
9	Male	41-50
10	Male	51-60

Query executed successfully.   PROCHEF (16.0 RTM) PROCHEF\hp (67) master 00:00:00 10 rows

Note: There is no Question 2 given