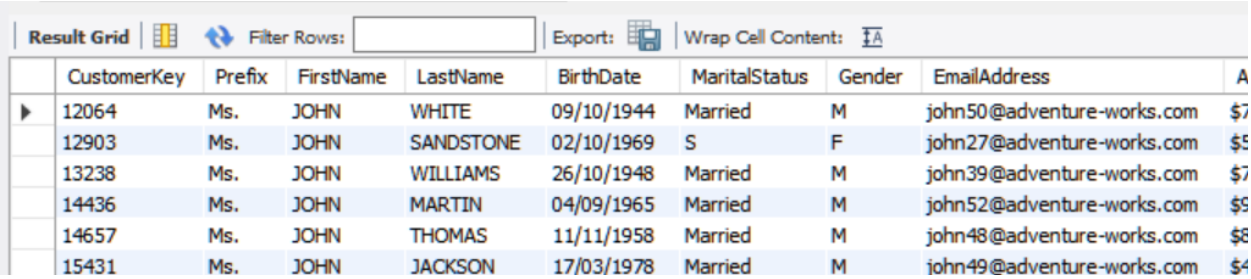
MY SQL

1. Write a query to find all customers with the first name 'John'.

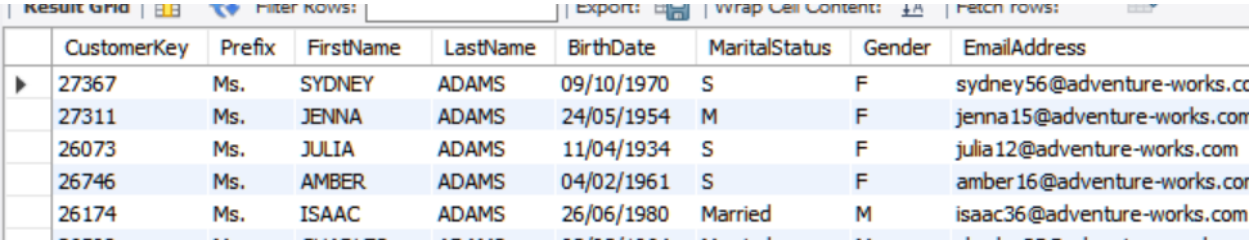


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress	A
12064	Ms.	JOHN	WHITE	09/10/1944	Married	M	john50@adventure-works.com	$7
12903	Ms.	JOHN	SANDSTONE	02/10/1969	S	F	john27@adventure-works.com	$5
13238	Ms.	JOHN	WILLIAMS	26/10/1948	Married	M	john39@adventure-works.com	$7
14436	Ms.	JOHN	MARTIN	04/09/1965	Married	M	john52@adventure-works.com	$9
14657	Ms.	JOHN	THOMAS	11/11/1958	Married	M	john48@adventure-works.com	$8
15431	Ms.	JOHN	JACKSON	17/03/1978	Married	M	john49@adventure-works.com	$4

```
select * from adventureworks_customers
where firstName ='John';
```

2. Create a query to sort customers alphabetically by their last name in ascending order.

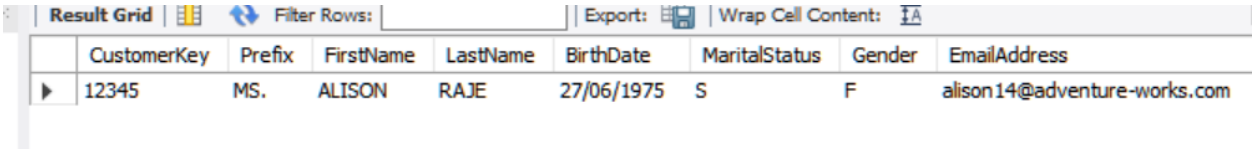


Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress
27367	Ms.	SYDNEY	ADAMS	09/10/1970	S	F	sydney56@adventure-works.co
27311	Ms.	JENNA	ADAMS	24/05/1954	M	F	jenna15@adventure-works.com
26073	Ms.	JULIA	ADAMS	11/04/1934	S	F	julia12@adventure-works.com
26746	Ms.	AMBER	ADAMS	04/02/1961	S	F	amber16@adventure-works.com
26174	Ms.	ISAAC	ADAMS	26/06/1980	Married	M	isaac36@adventure-works.com

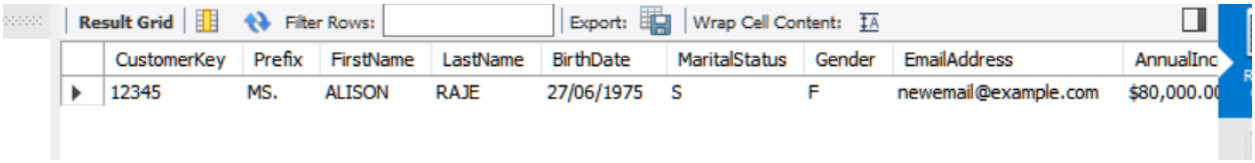
```
select * from adventureworks_customers
order by LastName ASC;
```

3. Write a query that updates the email address of a customer with CustomerKey 12345 to 'newemail@example.com'.



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

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress
12345	MS.	ALISON	RAJE	27/06/1975	S	F	alison14@adventure-works.com

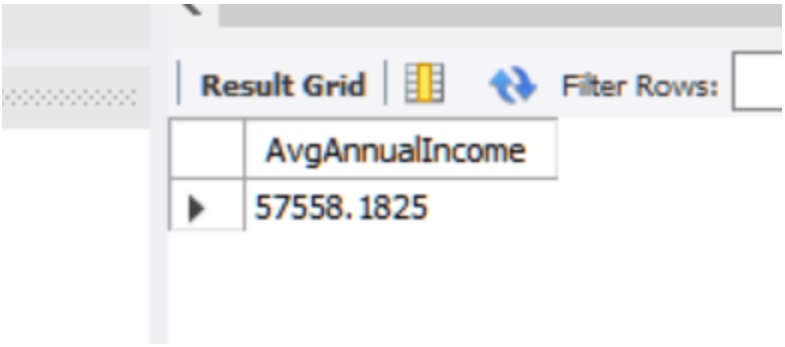


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress	AnnualInc
12345	MS.	ALISON	RAJE	27/06/1975	S	F	newemail@example.com	$80,000.0

```
UPDATE adventureworks_customers
SET EmailAddress = 'newemail@example.com'
WHERE CustomerKey = 12345;
```

4. Create a query to calculate the average annual income of customers.

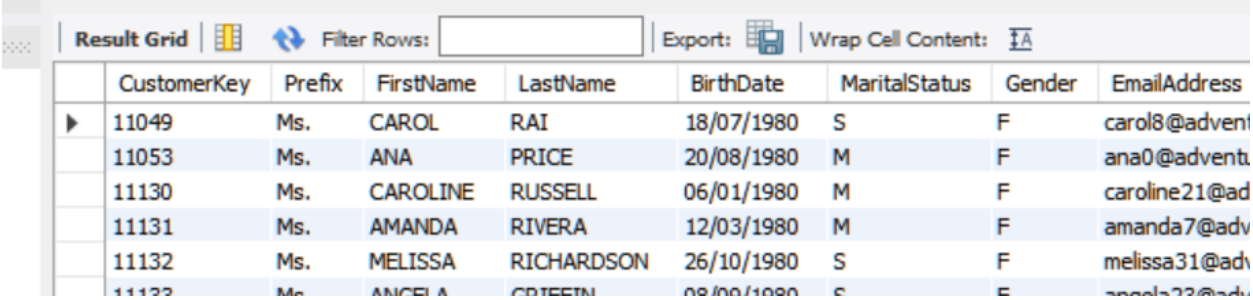


Result Grid | Filter Rows:

AvgAnnualIncome
57558.1825

```
select AVG(AnnualIncome_clean) AvgAnnualIncome
from adventureworks_customers;
```

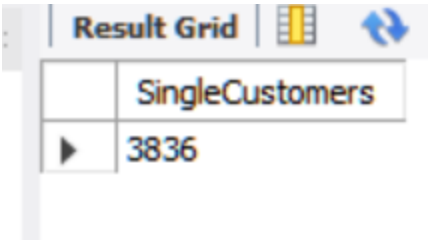
5. Write a query to find customers who were born in the year 1980.



CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress
11049	Ms.	CAROL	RAI	18/07/1980	S	F	carol8@advent
11053	Ms.	ANA	PRICE	20/08/1980	M	F	ana0@adventu
11130	Ms.	CAROLINE	RUSSELL	06/01/1980	M	F	caroline21@ad
11131	Ms.	AMANDA	RIVERA	12/03/1980	M	F	amanda7@adv
11132	Ms.	MELISSA	RICHARDSON	26/10/1980	S	F	melissa31@adv

```
SELECT *
FROM adventureworks_customers
WHERE Birthdate LIKE '%1980';
```

6. Create a query that counts the number of customers with a specific marital status (e.g., Single).



SingleCustomers
3836

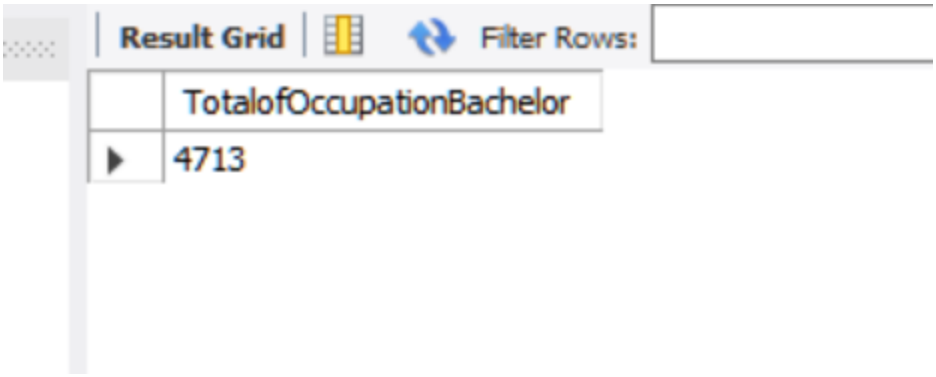
```
SELECT COUNT(MaritalStatus) AS SingleCustomers
FROM adv_works.adventureworks_customers
WHERE MaritalStatus = 'S'

--additional code
SELECT MaritalStatus, Gender, COUNT(MaritalStatus) as CountCust
FROM adv_works.adventureworks_customers
GROUP BY Gender, MaritalStatus
```

7. Write a query to update the marital status of customers with a specific prefix (e.g., Mr.) to 'Married'.

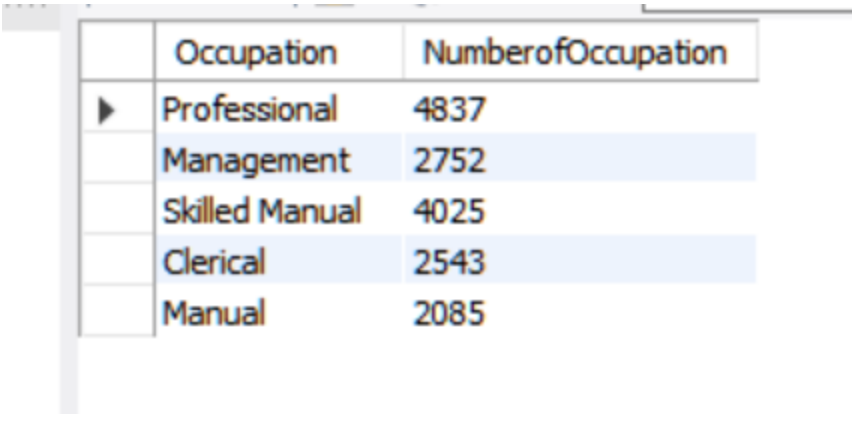
```
UPDATE adventureworks_customers
SET MaritalStatus = 'Married'
WHERE Prefix = 'MR.';
```

8. Create a query to calculate the total number of customers with a specific education level (e.g., Bachelor's degree).




```
SELECT Count(Occupation) AS TotalofOccupationBachelor
FROM adv_works.adventureworks_customers
WHERE EducationLevel= 'Bachelors';
```

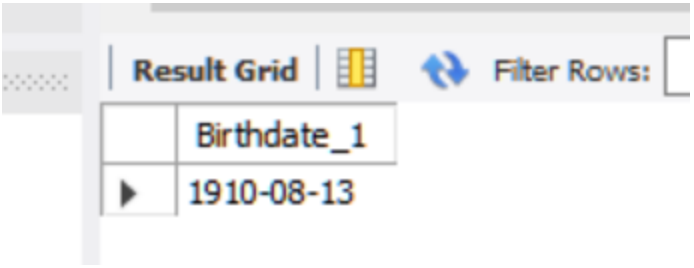
9. Write a query that counts the number of customers in each occupation category.



Occupation	NumberofOccupation
Professional	4837
Management	2752
Skilled Manual	4025
Clerical	2543
Manual	2085

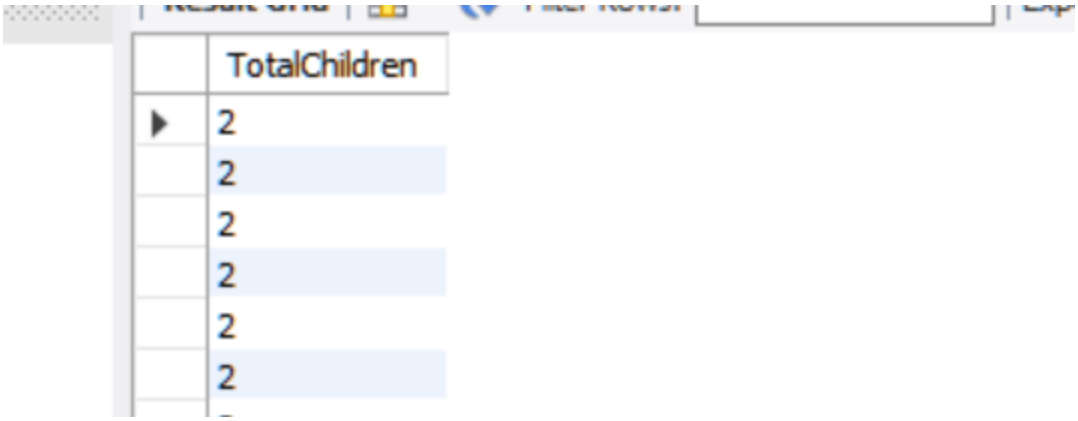
```
SELECT Occupation, COUNT(Occupation) AS NumberofOccupation
FROM adv_works.adventureworks_customers
GROUP BY Occupation;
```

10. Create a query to find the oldest customer in the dataset based on their birthdate.



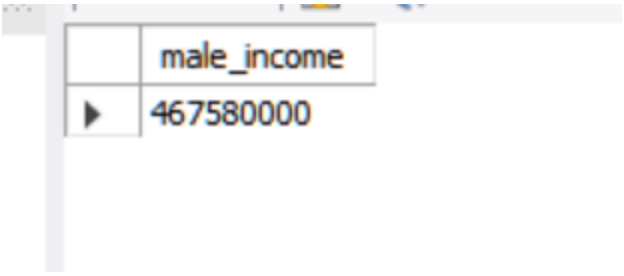

```
SELECT Birthdate_1
FROM adv_works.adventureworks_customers
ORDER BY Birthdate_1  ASC
LIMIT 1;
```

11. Write a query to find customers who have at least two children.



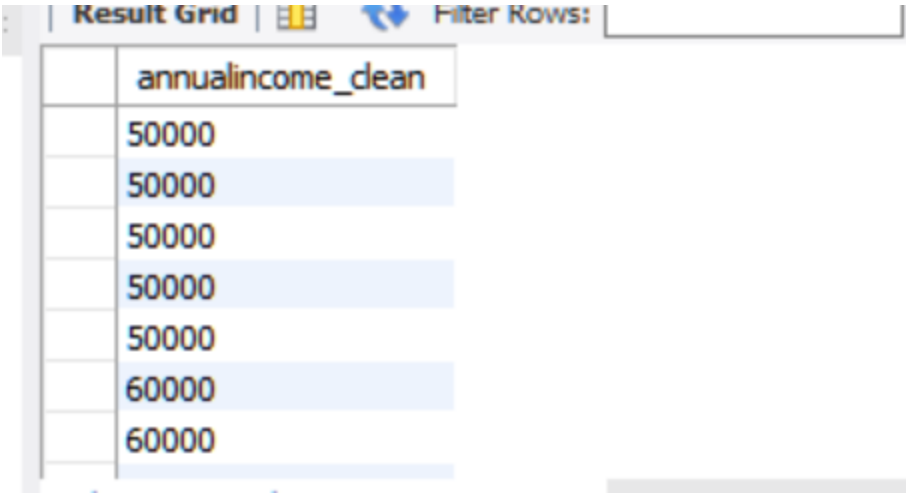
```
select TotalChildren from adventureworks_customers
where TotalChildren <=2
order by TotalChildren desc
```

12. Create a query that calculates the sum of annual income for customers with a specific gender (e.g., Male).



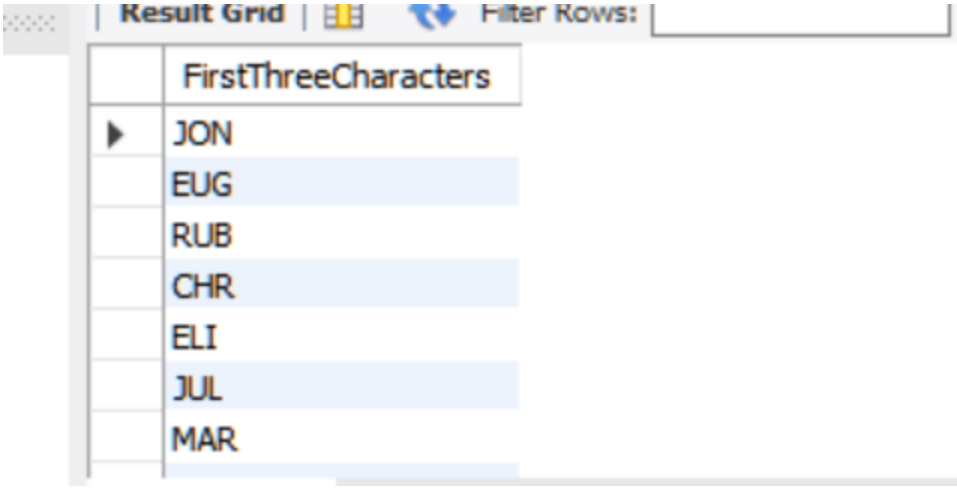

```
select sum(annualincome_clean) as male_income
from adv_works.adventureworks_customers
where Gender ='M';
```

13. Write a query to find customers with an annual income between $50,000 and $100,000.



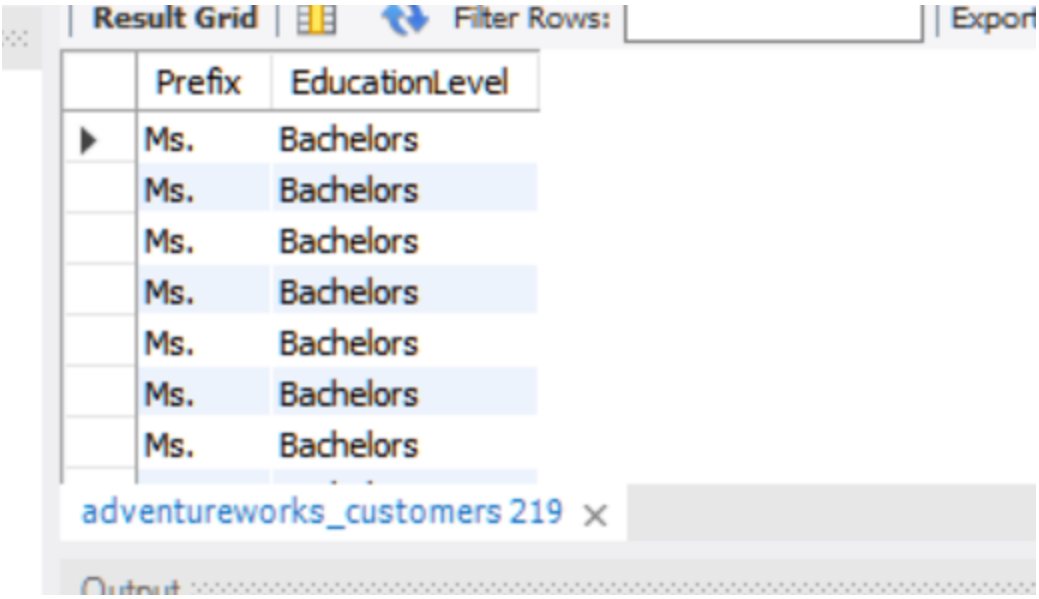

```
select annualincome_clean
from adv_works.adventureworks_customers
where annualincome_clean between 50000 and 100000
order by annualincome_clean;
```

14. Create a query that extracts the first three characters of the first name for each customer.



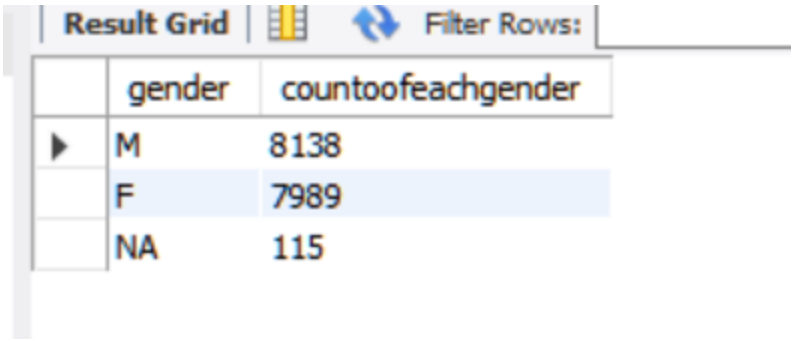
```
SELECT LEFT(FirstName, 3) AS FirstThreeCharacters
FROM adv_works.adventureworks_customers;
```

15. Write a query to find customers with a specific prefix (e.g., Dr.) and a specific education level (e.g., Master's degree).




```
SELECT prefix, EducationLevel
FROM adv_works.adventureworks_customers
where Prefix = 'MS.' AND EducationLevel = "Bachelors";
```

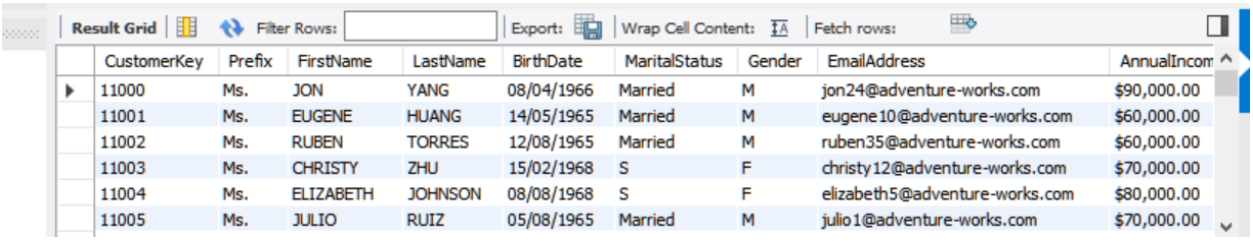
16. Create a query to count the number of customers in each gender category.



gender	countoofeachgender
M	8138
F	7989
NA	115

```
SELECT gender, count(gender) as countoofeachgender
FROM adv_works.adventureworks_customers
group by gender;
```

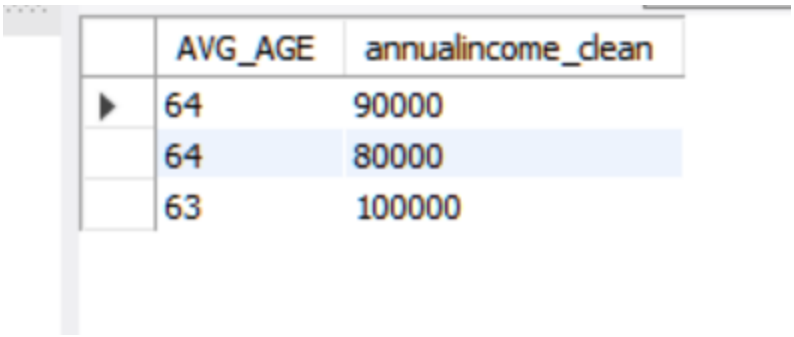
17. Write a query that updates the prefix of all customers with CustomerKey greater than 10000 to 'Ms.'.



CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress	AnnualIncom
11000	Ms.	JON	YANG	08/04/1966	Married	M	jon24@adventure-works.com	$90,000.00
11001	Ms.	EUGENE	HUANG	14/05/1965	Married	M	eugene10@adventure-works.com	$60,000.00
11002	Ms.	RUBEN	TORRES	12/08/1965	Married	M	ruben35@adventure-works.com	$60,000.00
11003	Ms.	CHRISTY	ZHU	15/02/1968	S	F	christy12@adventure-works.com	$70,000.00
11004	Ms.	ELIZABETH	JOHNSON	08/08/1968	S	F	elizabeth5@adventure-works.com	$80,000.00
11005	Ms.	JULIO	RUIZ	05/08/1965	Married	M	julio1@adventure-works.com	$70,000.00

```
UPDATE adventureworks_customers
SET Prefix ='Ms.'
WHERE CustomerKey >10000;
```

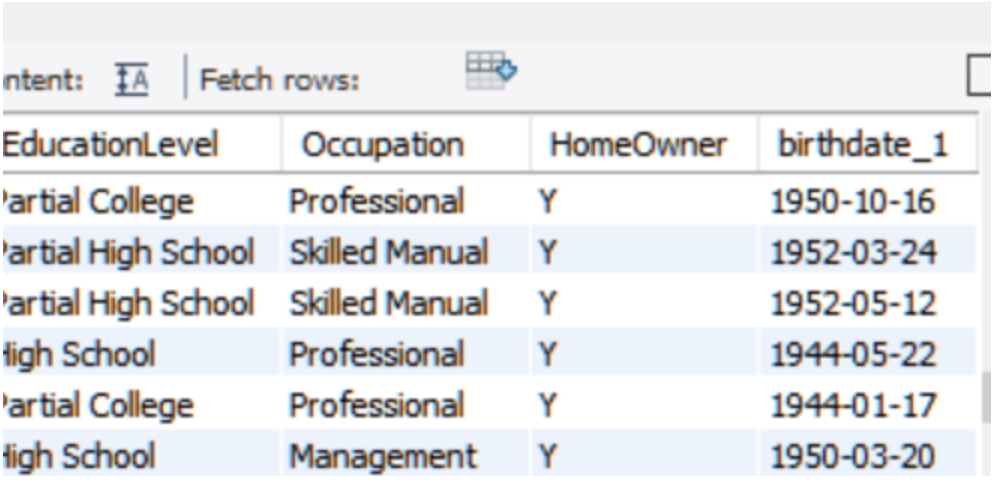
18. Create a query to find the average age of customers with a specific annual income range (e.g., $75,000 - $100,000).



	AVG_AGE	annualincome_clean
▶	64	90000
	64	80000
	63	100000

```
SELECT  ROUND(AVG(YEAR(CURDATE()) - YEAR(BirthDate_1)),0) AS AVG
from adv_works.adventureworks_customers
WHERE annualincome_clean between 75000 and 100000
GROUP BY annualincome_clean;
```

19. Write a query to find customers who were born on a specific day of the week (e.g., Monday).



ntent: | Fetch rows:

EducationLevel	Occupation	HomeOwner	birthdate_1
artial College	Professional	Y	1950-10-16
artial High School	Skilled Manual	Y	1952-03-24
artial High School	Skilled Manual	Y	1952-05-12
igh School	Professional	Y	1944-05-22
artial College	Professional	Y	1944-01-17
igh School	Management	Y	1950-03-20

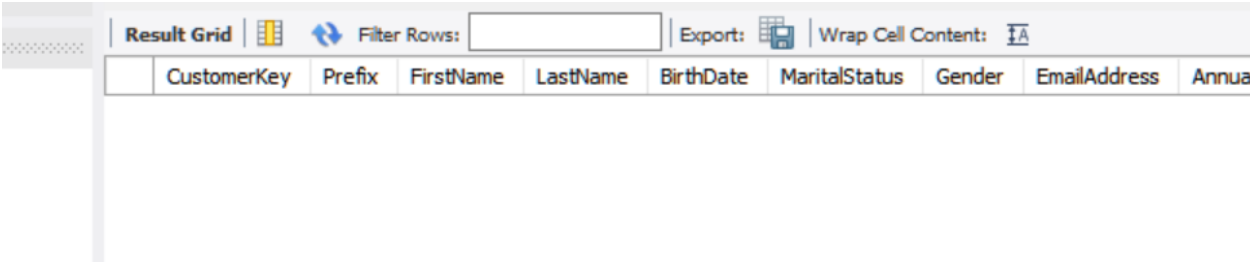
all of them were born on monday

```
SELECT *
FROM adv_works.adventureworks_customers
```

```
WHERE DAYOFWEEK(BirthDate_1) = 2;
```

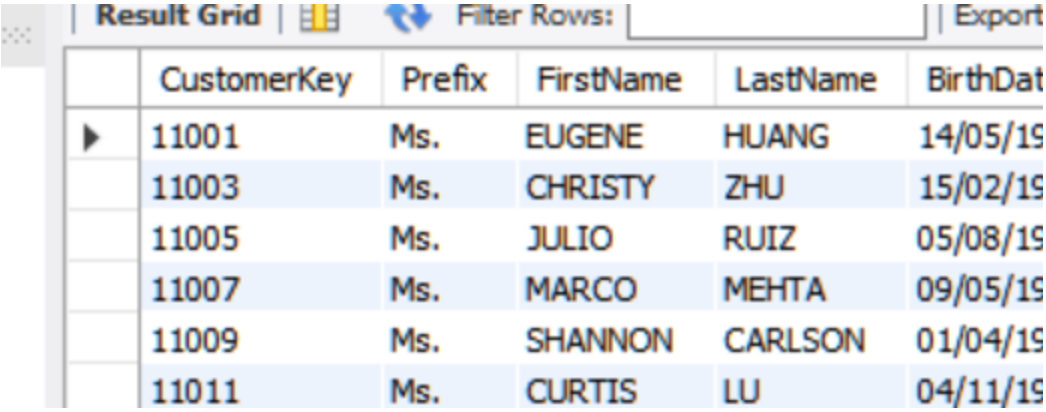
The MySQL **DAYOFWEEK()** function is used to retrieve the index of the weekday of the given date. This function returns a numerical value which can be either one of the following: **1** for Sunday, **2** for Monday, **3** for Tuesday, **4** for Wednesday, **5** for Thursday, **6** for Friday, **7** for Saturday respectively (as any week starts from Sunday).

20. Create a query that identifies customers who have not provided their email address.



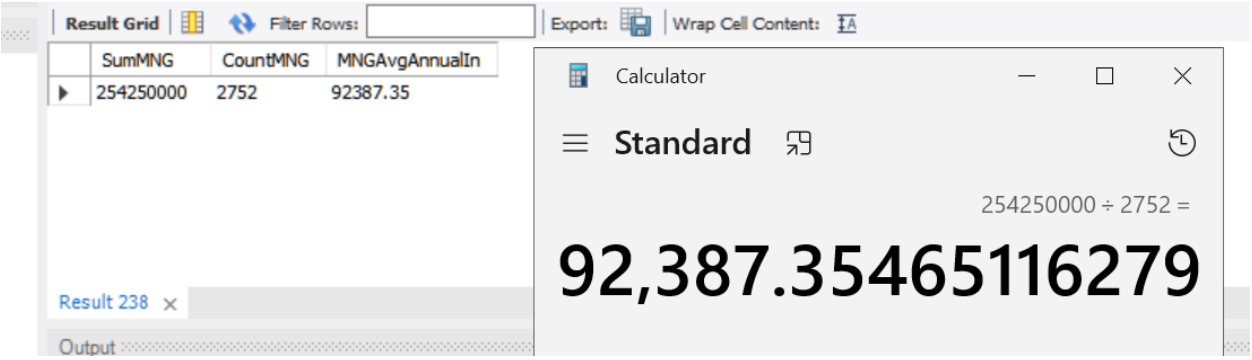

```
SELECT *
FROM adv_works.adventureworks_customers
where EmailAddress IS NULL;
```

21. Write a query to find customers with an odd-numbered CustomerKey.



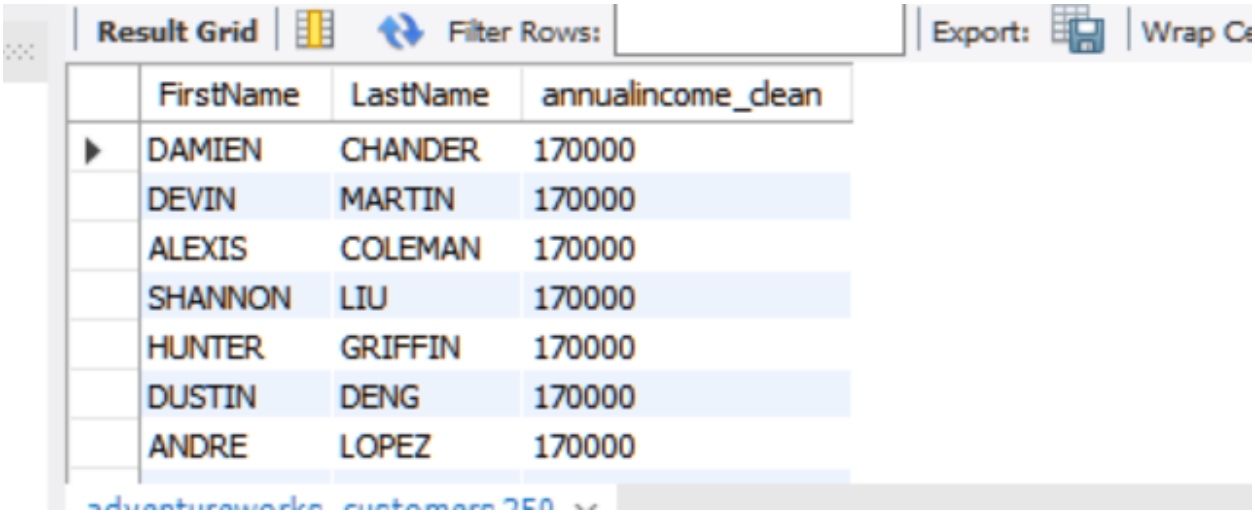
```
SELECT *
FROM adv_works.adventureworks_customers
WHERE CustomerKey % 2 <> 0;
```

22. Create a query to calculate the average annual income of customers with a specific occupation (e.g., Engineer).



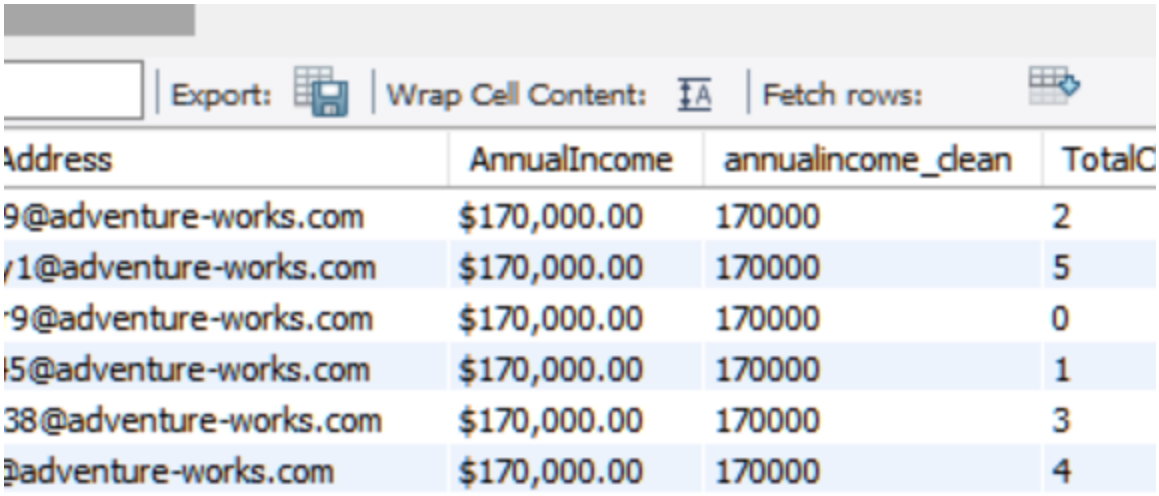

```
select  Round(avg(annualincome_clean),2) as MNGAvgAnnualIn
from adv_works.adventureworks_customers
where occupation = 'Management'
```

23. Write a query to find the customer with the highest annual income.



```
SELECT FirstName, LastName, annualincome_clean
FROM adv_works.adventureworks_customers
WHERE annualincome_clean = (
    SELECT MAX(annualincome_clean)
    FROM adv_works.adventureworks_customers
   );
```

24. Create a query that sorts customers by their annual income in descending order.

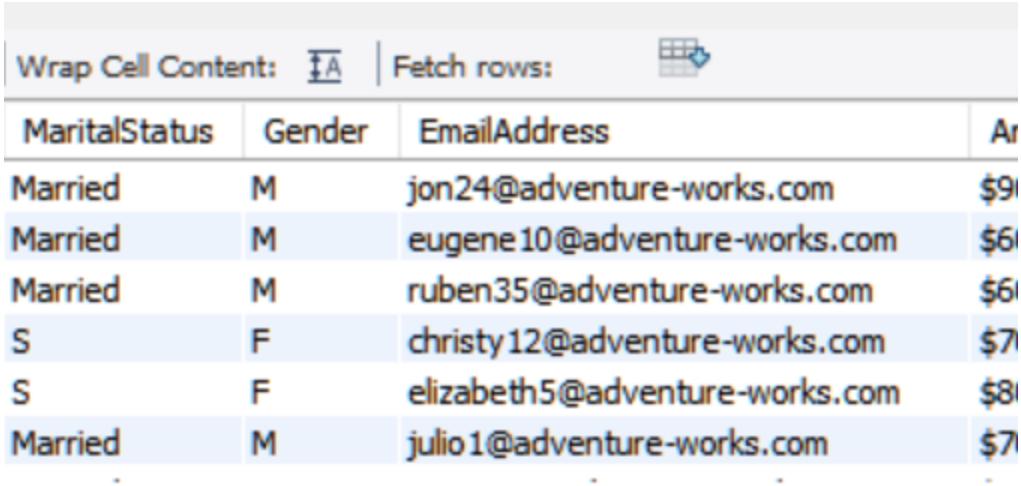


Export: Wrap Cell Content: Fetch rows:

Address	AnnualIncome	annualincome_clean	TotalC
9@adventure-works.com	$170,000.00	170000	2
1@adventure-works.com	$170,000.00	170000	5
9@adventure-works.com	$170,000.00	170000	0
5@adventure-works.com	$170,000.00	170000	1
38@adventure-works.com	$170,000.00	170000	3
@adventure-works.com	$170,000.00	170000	4

```
SELECT *
FROM adv_works.adventureworks_customers
ORDER BY annualincome_clean DESC;
```

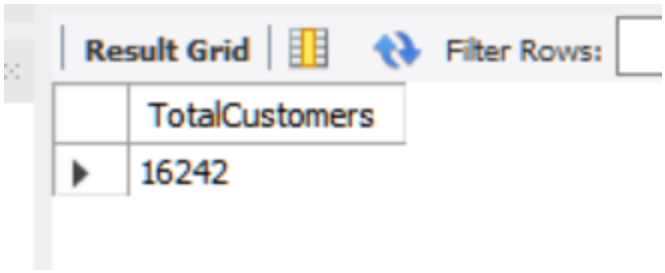
25.Write a query to find customers with a specific suffix in their email address (e.g., @gmail.com).



MaritalStatus	Gender	EmailAddress	Ar
Married	M	jon24@adventure-works.com	$9
Married	M	eugene10@adventure-works.com	$6
Married	M	ruben35@adventure-works.com	$6
S	F	christy12@adventure-works.com	$7
S	F	elizabeth5@adventure-works.com	$8
Married	M	julio1@adventure-works.com	$7

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE EmailAddress LIKE '%@adventure%';
```

26. Create a query to calculate the total number of customers in the dataset.




```
SELECT COUNT(*) AS TotalCustomers
FROM adv_works.adventureworks_customers
```

27. Write a query that calculates the number of customers with each marital status within a specific gender group (e.g., Male).

	MaritalStatus	Gender	CountCustomer
▶	Married	M	8138
	S	F	3782
	M	F	4207
	M	NA	61
	S	NA	54

```
SELECT MaritalStatus, Gender, COUNT(MaritalStatus) as CountCust
FROM adv_works.adventureworks_customers
GROUP BY Gender, MaritalStatus
```

28. Create a query to find customers whose first name contains a specific letter (e.g., 'a').

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

	CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender
▶	11025	Ms.	ALEJANDRO	BECK	23/12/1945	M	NA
	11041	Ms.	AMANDA	CARTER	16/10/1977	M	F
	11044	Ms.	ADAM	FLORES	24/05/1949	Married	M
	11050	Ms.	ALAN	ZHENG	07/09/1951	Married	M
	11053	Ms.	ANA	PRICE	20/08/1980	M	F
	11059	Ms.	ASHLEE	ANDERSEN	01/04/1954	S	F

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE FirstName LIKE 'a%';
```

29. Write a query to count the number of customers with an even-numbered CustomerKey.

	CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStat
▶	11000	Ms.	JON	YANG	08/04/1966	Married
	11002	Ms.	RUBEN	TORRES	12/08/1965	Married
	11004	Ms.	ELIZABETH	JOHNSON	08/08/1968	S
	11008	Ms.	ROBIN	VERHOFF	07/07/1964	S
	11010	Ms.	JACQUELYN	SUAREZ	06/02/1964	S

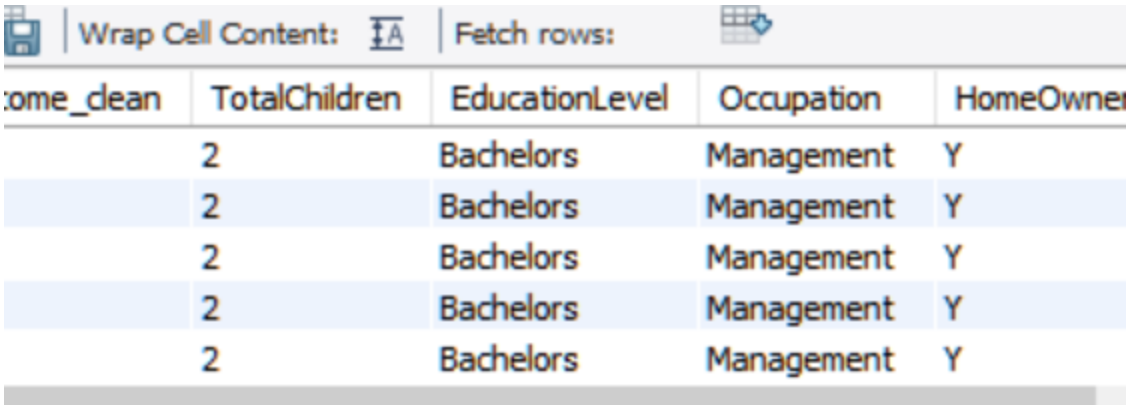
```
SELECT *
FROM adv_works.adventureworks_customers
WHERE CustomerKey % 2 = 0;
```

30.Create a query to find customers who were born in a specific month (e.g., May).

	CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	G
▶	11001	Ms.	EUGENE	HUANG	14/05/1965	Married	M
	11007	Ms.	MARCO	MEHTA	09/05/1964	Married	M
	11014	Ms.	SYDNEY	BENNETT	09/05/1968	S	F
	11044	Ms.	ADAM	FLORES	24/05/1949	Married	M
	11045	Ms.	LEONARD	NARA	19/05/1950	Married	M

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE MONTH(BirthDate_1) = '5';
```

31.Write a query to find customers with a specific occupation and a specific education level.

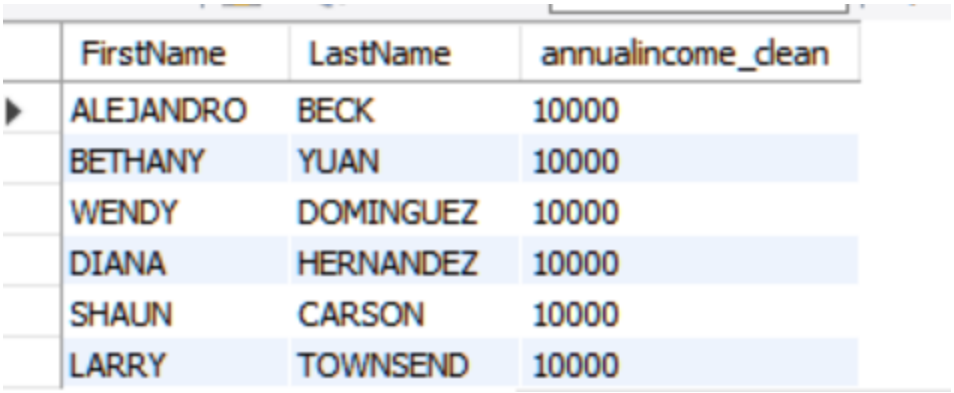


Wrap Cell Content: | Fetch rows:

ome_clean	TotalChildren	EducationLevel	Occupation	HomeOwner
	2	Bachelors	Management	Y
	2	Bachelors	Management	Y
	2	Bachelors	Management	Y
	2	Bachelors	Management	Y
	2	Bachelors	Management	Y

```
select  *
from adv_works.adventureworks_customers
where occupation = 'Management' and EducationLevel= 'Bachelors'
```

32. Create a query that finds the customer with the lowest annual income.



FirstName	LastName	annualincome_clean
ALEJANDRO	BECK	10000
BETHANY	YUAN	10000
WENDY	DOMINGUEZ	10000
DIANA	HERNANDEZ	10000
SHAUN	CARSON	10000
LARRY	TOWNSEND	10000

```
SELECT FirstName, LastName, annualincome_clean
FROM adv_works.adventureworks_customers
WHERE annualincome_clean = (
    SELECT MIN(annualincome_clean)
    FROM adv_works.adventureworks_customers
   );
```

33. Write a query to sort customers by their birthdate in descending order.

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	G
17724	Ms.	SHEILA	BLANCO	21/04/1980	M	F
14332	Ms.	JADE	ROGERS	21/04/1980	S	F
26783	Ms.	JUAN	TORRES	19/04/1980	Married	M
15640	Ms.	GARY	GOMEZ	16/04/1980	Married	M
17904	Ms.	GINA	TORRES	15/04/1980	S	F

```
SELECT *
FROM adv_works.adventureworks_customers
ORDER BY BirthDate_1 DESC;
```

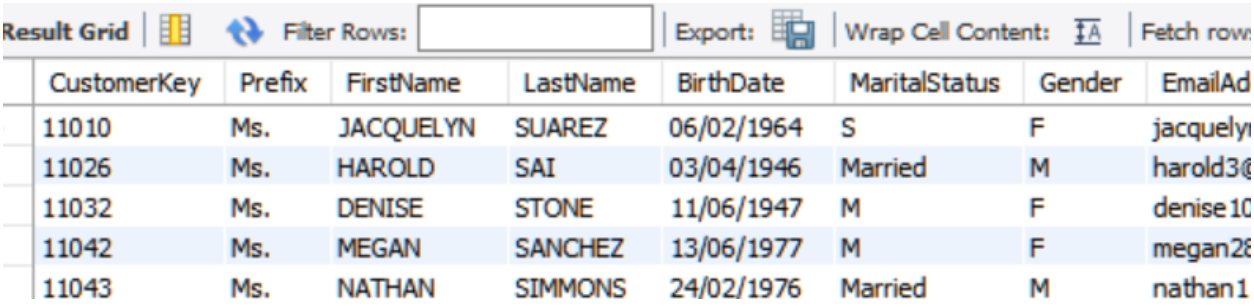
34. Create a query that counts the number of customers with each occupation within a specific annual income range (e.g., $50,000 - $75,000).

Result Grid | Filter Rows:

Occupation	CountofOccupation
Professional	2651
Skilled Manual	1934
Management	885

```
select  Occupation, count(occupation) as CountofOccupation
from adv_works.adventureworks_customers
where annualincome_clean BETWEEN 50000 AND 75000
Group by occupation;
```

35. Write a query to find customers whose last name starts with a specific letter (e.g., 'S').

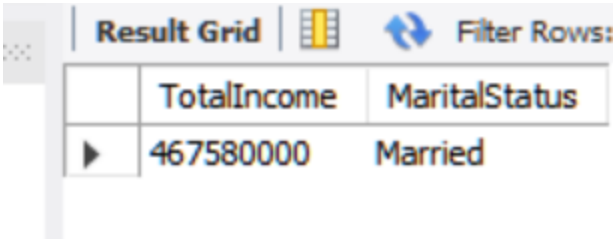


Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAd
11010	Ms.	JACQUELYN	SUAREZ	06/02/1964	S	F	jacquely
11026	Ms.	HAROLD	SAI	03/04/1946	Married	M	harold3@
11032	Ms.	DENISE	STONE	11/06/1947	M	F	denise10
11042	Ms.	MEGAN	SANCHEZ	13/06/1977	M	F	megan28
11043	Ms.	NATHAN	SIMMONS	24/02/1976	Married	M	nathan1

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE LastName LIKE 'S%'
```

36. Create a query to calculate the total annual income of customers with a specific marital status (e.g., Married).

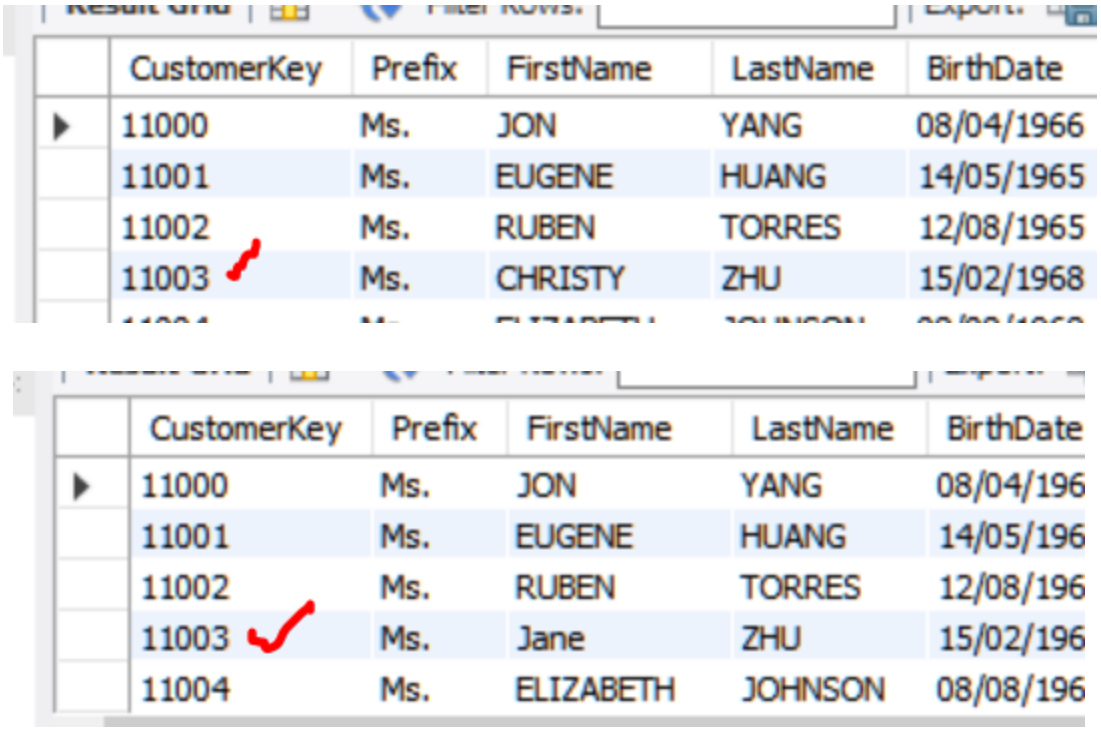


Result Grid | Filter Rows:

TotalIncome	MaritalStatus
467580000	Married

```
select  SUM(annualincome_clean) AS TotalIncome, MaritalStatus
from adv_works.adventureworks_customers
where MaritalStatus = 'Married'
```

37. Write a query that updates the first name of a specific customer to 'Jane'.



CustomerKey	Prefix	FirstName	LastName	BirthDate
11000	Ms.	JON	YANG	08/04/1966
11001	Ms.	EUGENE	HUANG	14/05/1965
11002	Ms.	RUBEN	TORRES	12/08/1965
11003	Ms.	CHRISTY	ZHU	15/02/1968

CustomerKey	Prefix	FirstName	LastName	BirthDate
11000	Ms.	JON	YANG	08/04/196
11001	Ms.	EUGENE	HUANG	14/05/196
11002	Ms.	RUBEN	TORRES	12/08/196
11003	Ms.	Jane	ZHU	15/02/196
11004	Ms.	ELIZABETH	JOHNSON	08/08/196

```
UPDATE adv_works.adventureworks_customers
SET FirstName = 'Jane'
WHERE CustomerKey = 11003;
```

38. Create a query to find customers who were born before a specific year (e.g., 1990).

CustomerKey	Prefix	FirstName	LastName	BirthDate
12725	Ms.	GABRIELLE	JAMES	13/08/1910
16455	Ms.	DEB	MORENO	13/08/1911
14841	Ms.	FRANKLIN	PAL	07/12/1911
18034	Ms.	ETHAN	ROBINSON	23/03/1912
14992	Ms.	DALE	ANDERSEN	14/08/1912

```
SELECT *
FROM adv_works.adventureworks_customers
```

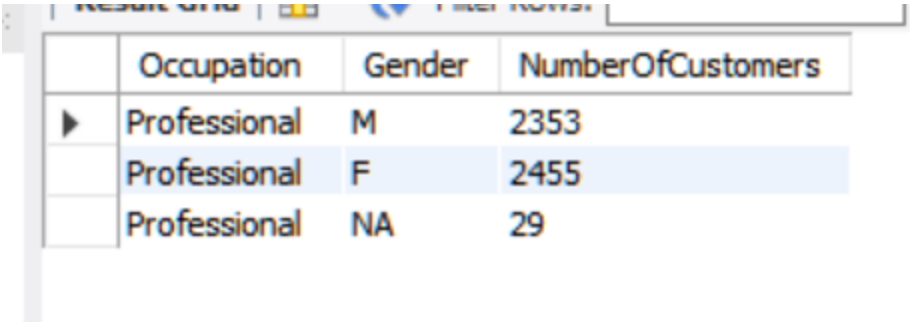
```
where Year(birthdate_1) < 1990
order by birthdate_1
```

39. Write a query to calculate the number of customers in each education level category.

EducationLevel	TotalCustomer
Bachelors	4713
Partial College	4439
High School	2888
Partial High School	1352
Graduate Degree	2850

```
SELECT EducationLevel, count(*) as TotalCustomer
FROM adv_works.adventureworks_customers
group by EducationLevel
```

40. Create a query that counts the number of customers with each gender within a specific occupation (e.g., Manager).

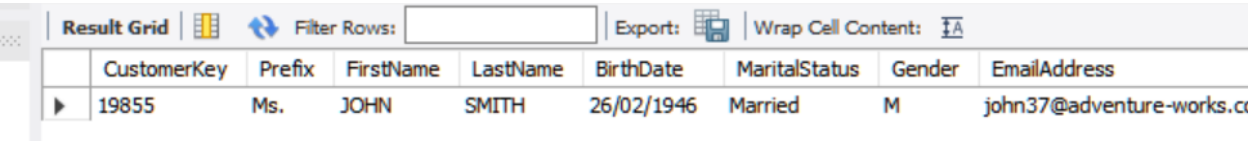


Occupation	Gender	NumberOfCustomers
Professional	M	2353
Professional	F	2455
Professional	NA	29

```
SELECT Occupation, Gender, COUNT(*) AS NumberOfCustomers
FROM adv_works.adventureworks_customers
```

```
WHERE Occupation = 'Professional'
GROUP BY Occupation, Gender;
```

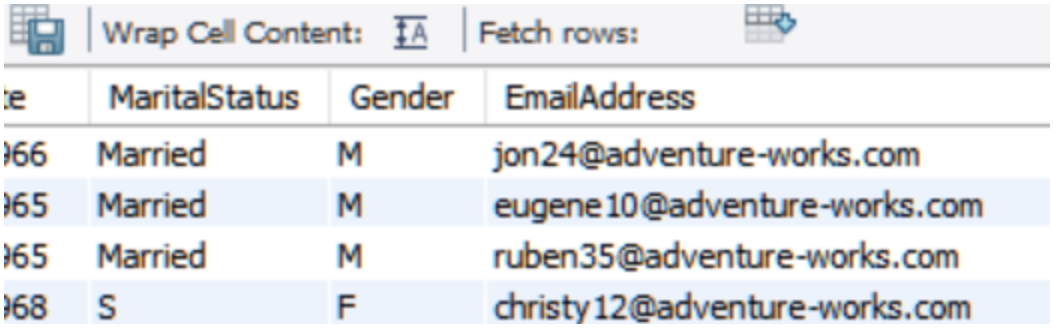
41. Write a query to find customers with a specific first name and last name combination (e.g., John Smith).



CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus	Gender	EmailAddress
19855	Ms.	JOHN	SMITH	26/02/1946	Married	M	john37@adventure-works.c

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE FirstName = 'John' AND LastName = 'Smith';
```

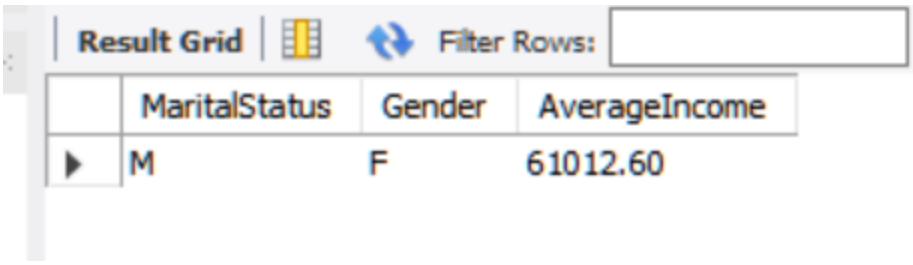
42. Create a query to identify customers who have provided their email address.



te	MaritalStatus	Gender	EmailAddress
966	Married	M	jon24@adventure-works.com
965	Married	M	eugene10@adventure-works.com
965	Married	M	ruben35@adventure-works.com
968	S	F	christy12@adventure-works.com

```
SELECT *
FROM adv_works.adventureworks_customers
where EmailAddress IS NOT NULL;
```

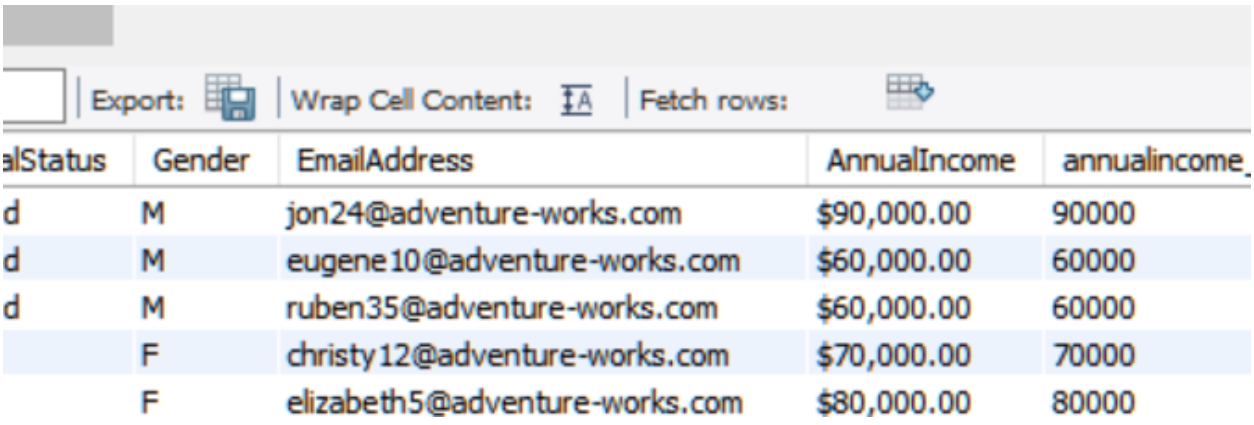
43. Write a query to calculate the average annual income of customers with a specific marital status and gender combination (e.g., Married and Female).



MaritalStatus	Gender	AverageIncome
M	F	61012.60

```
SELECT MaritalStatus, Gender, round(AVG(AnnualIncome_Clean),2) A
FROM adv_works.adventureworks_customers
WHERE MaritalStatus = 'M' AND Gender = 'F'
GROUP BY MaritalStatus, Gender;
```

44. Create a query to find customers with an annual income that is a multiple of 10,000.



alStatus	Gender	EmailAddress	AnnualIncome	annualincome_
d	M	jon24@adventure-works.com	$90,000.00	90000
d	M	eugene10@adventure-works.com	$60,000.00	60000
d	M	ruben35@adventure-works.com	$60,000.00	60000
	F	christy12@adventure-works.com	$70,000.00	70000
	F	elizabeth5@adventure-works.com	$80,000.00	80000

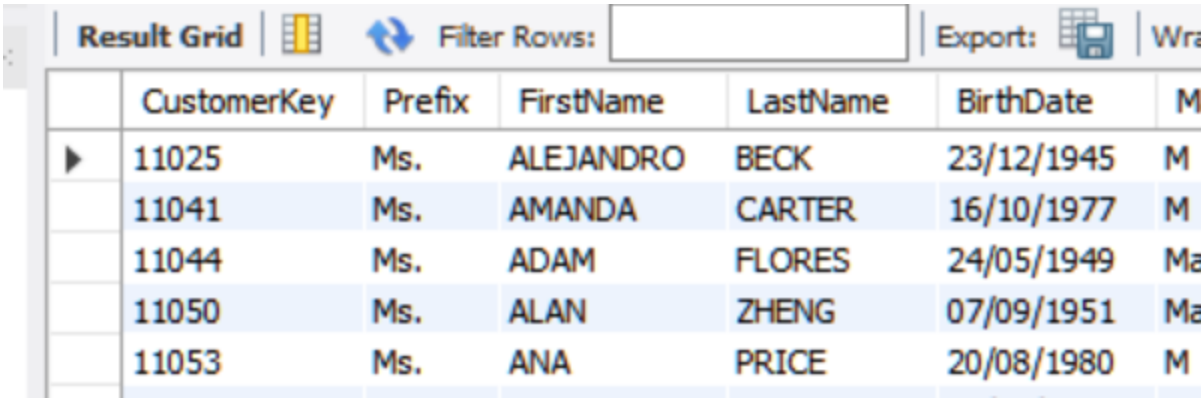
```
SELECT *
FROM adv_works.adventureworks_customers
WHERE AnnualIncome_Clean % 10000 = 0;
```

45. Write a query to sort customers by their total number of children in ascending order.

	AnnualIncome	annualincome_clean	TotalChildren	EducationLevel	Occupation
	$30,000.00	30000	0	Partial College	Clerical
	$30,000.00	30000	0	Partial College	Clerical
m	$30,000.00	30000	0	Partial College	Clerical
	$30,000.00	30000	0	Partial College	Clerical
m	$30,000.00	30000	0	Partial College	Clerical

```
SELECT *
FROM adv_works.adventureworks_customers
ORDER BY TotalChildren ASC
```

46. Create a query to find customers whose first name starts with a vowel.

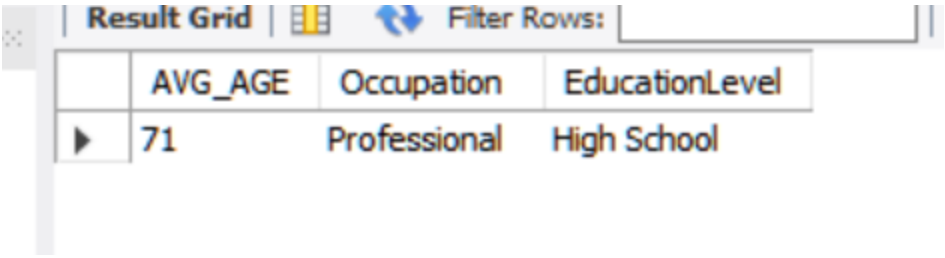


	CustomerKey	Prefix	FirstName	LastName	BirthDate	M
▶	11025	Ms.	ALEJANDRO	BECK	23/12/1945	M
	11041	Ms.	AMANDA	CARTER	16/10/1977	M
	11044	Ms.	ADAM	FLORES	24/05/1949	Ma
	11050	Ms.	ALAN	ZHENG	07/09/1951	Ma
	11053	Ms.	ANA	PRICE	20/08/1980	M

```
SELECT *
FROM adv_works.adventureworks_customers
wHERE firstname LIKE 'a%'
```

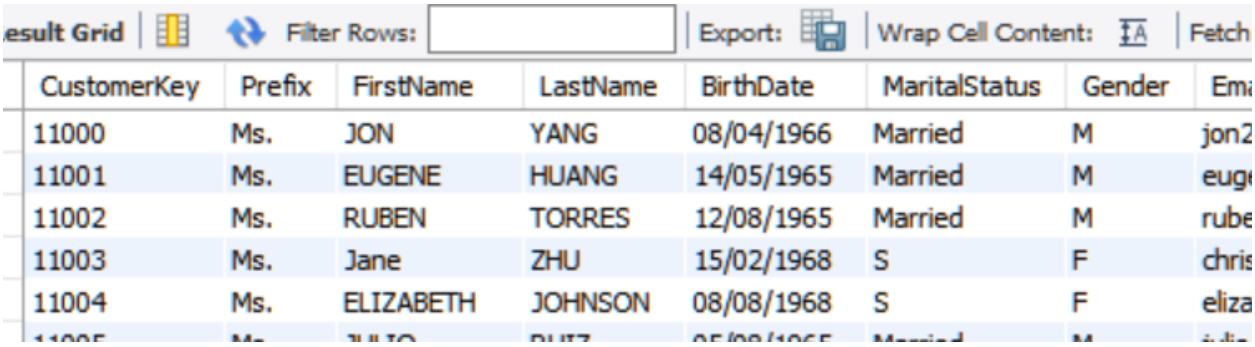
47. Write a query to calculate the average age of customers with a specific occupation and education level combination (e.g., Engineer and Bachelor's

degree).



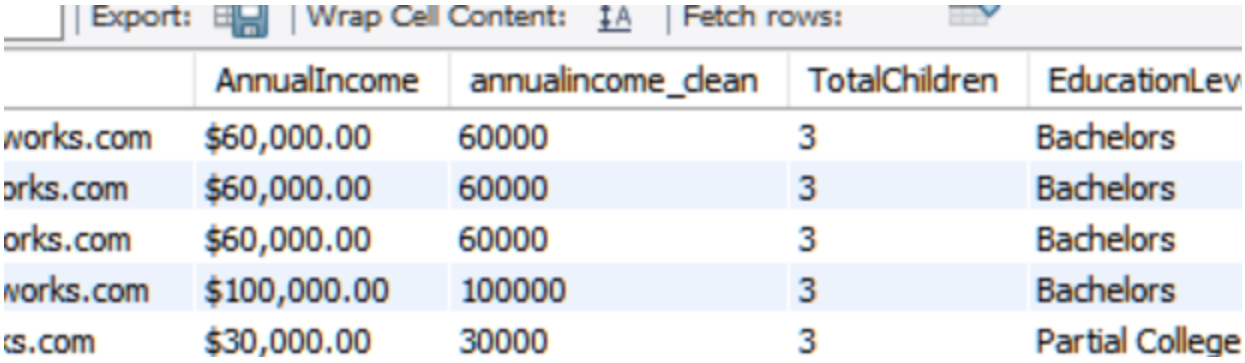

```
SELECT
        ROUND(AVG(YEAR(CURDATE()) - YEAR(BirthDate_1)),0) AS AV
    EducationLevel
FROM
        adv_works.adventureworks_customers
wHERE
        Occupation ='Professional' and EducationLevel= 'High Sc
```

48. Create a query to find customers who were born after a specific year (e.g., 2000).




```
SELECT *
FROM adv_works.adventureworks_customers
WHERE Birthdate_1 >2000;
```

49. Write a query to identify customers with a specific number of children (e.g., 3).

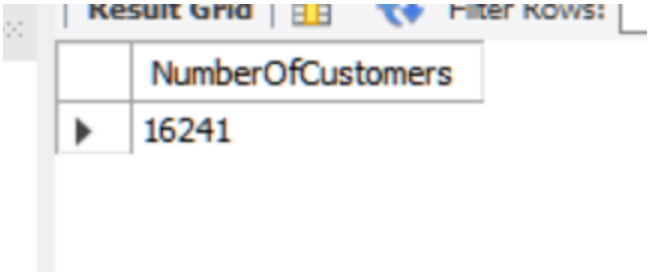


Export: | Wrap Cell Content: | Fetch rows:

	AnnualIncome	annualincome_clean	TotalChildren	EducationLev
works.com	$60,000.00	60000	3	Bachelors
orks.com	$60,000.00	60000	3	Bachelors
orks.com	$60,000.00	60000	3	Bachelors
works.com	$100,000.00	100000	3	Bachelors
s.com	$30,000.00	30000	3	Partial College

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE TotalChildren = '3'
```

50. Create a query to count the number of customers with a specific email domain (e.g., @yahoo.com).

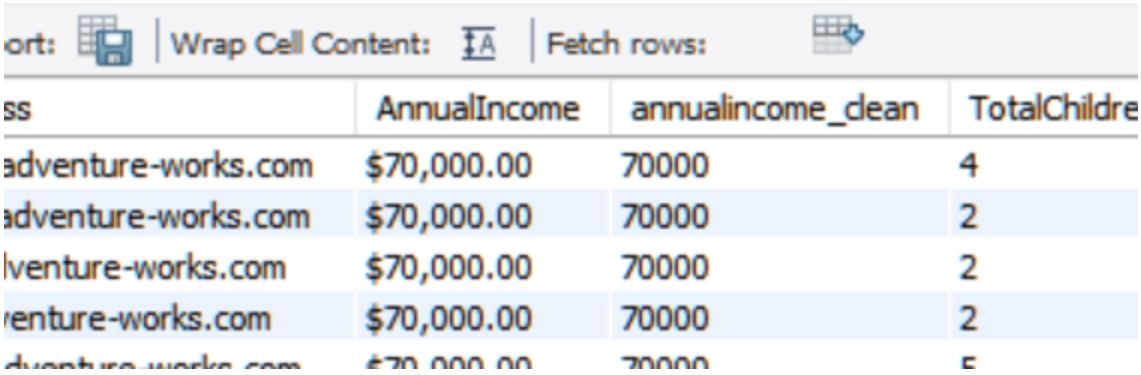


Result Grid | Filter Rows:

	NumberOfCustomers
▶	16241

```
SELECT COUNT(*) AS NumberOfCustomers
FROM adv_works.adventureworks_customers
WHERE SUBSTRING_INDEX(EmailAddress, '@', -1) = 'adventure-works
```

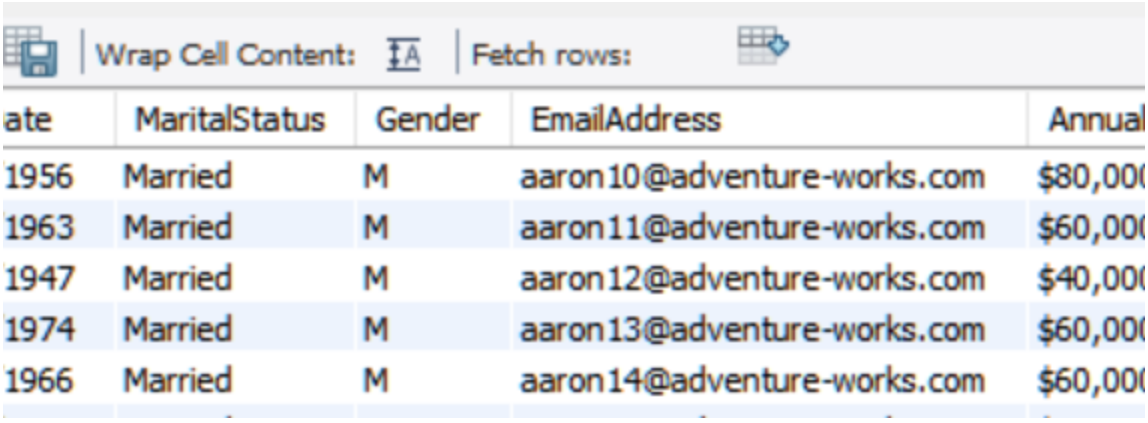
51. Write a query to find customers whose annual income is within a specific range (e.g., $50,000 - $75,000).



ss	AnnualIncome	annualincome_clean	TotalChildre
adventure-works.com	$70,000.00	70000	4
adventure-works.com	$70,000.00	70000	2
lventure-works.com	$70,000.00	70000	2
enture-works.com	$70,000.00	70000	2

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE AnnualIncome_Clean BETWEEN 50000 AND 75000
ORDER BY AnnualIncome_Clean DESC;
```

52. Create a query to sort customers by their email address in ascending order.

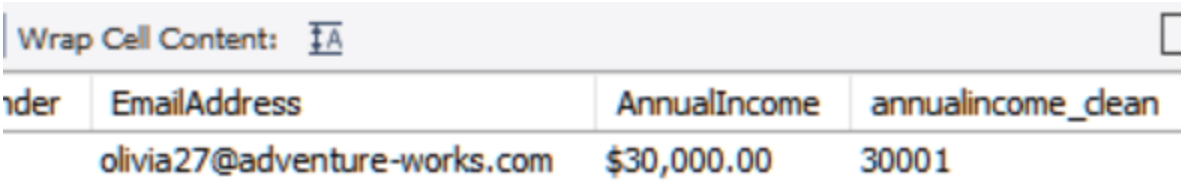


ate	MaritalStatus	Gender	EmailAddress	Annual
1956	Married	M	aaron10@adventure-works.com	$80,00
1963	Married	M	aaron11@adventure-works.com	$60,00
1947	Married	M	aaron12@adventure-works.com	$40,00
1974	Married	M	aaron13@adventure-works.com	$60,00
1966	Married	M	aaron14@adventure-works.com	$60,00

```
SELECT *
FROM adv_works.adventureworks_customers
```

```
order by emailaddress asc
```

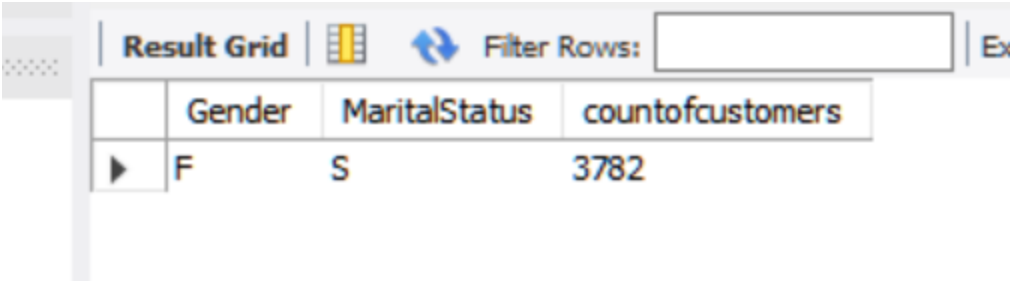
53. Write a query to find customers with an annual income that ends with a specific digit (e.g., 5).




```
UPDATE adv_works.adventureworks_customers
set AnnualIncome_Clean = 30001
where CustomerKey = 12020

SELECT *
FROM adv_works.adventureworks_customers
WHERE AnnualIncome_Clean LIKE '%1';
```

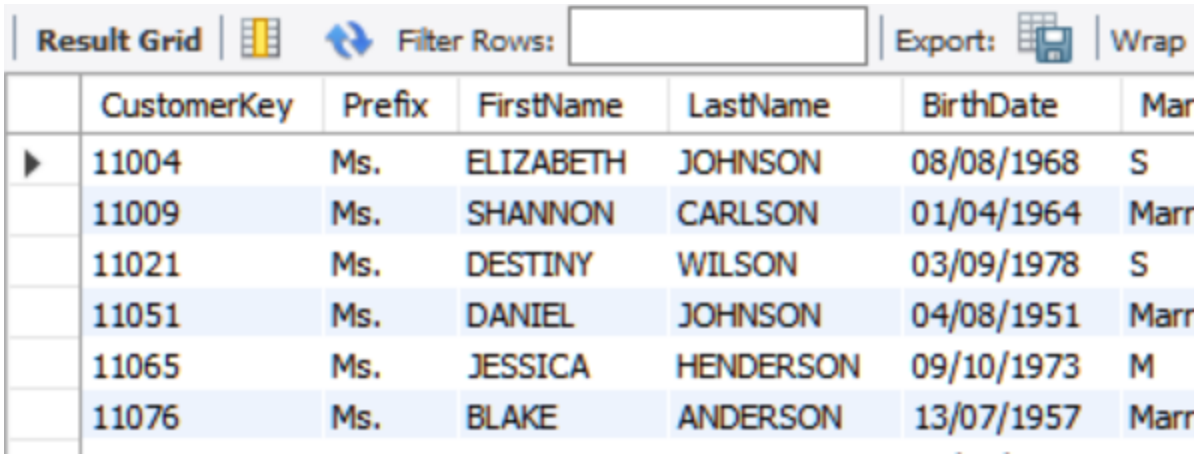
54. Create a query to calculate the total number of customers with a specific marital status and gender combination (e.g., Single and Male).




```
SELECT  Gender, MaritalStatus, COUNT(*) as countofcustomers
```

```
FROM adv_works.adventureworks_customers
where gender = 'F' and MaritalStatus = 'S'
```

55. Write a query to find customers whose last name contains a specific substring (e.g., 'son').

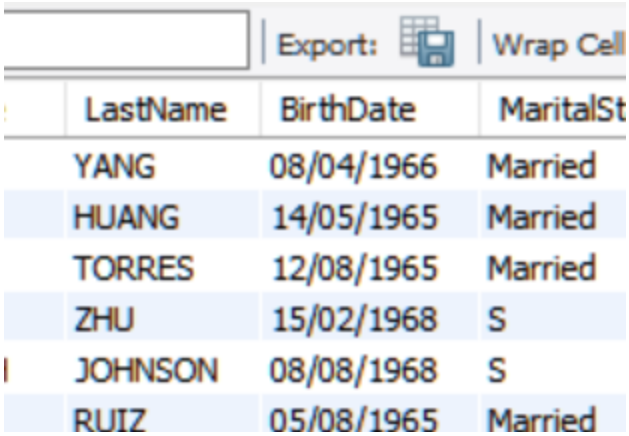


Result Grid | Filter Rows: | Export: | Wrap

CustomerKey	Prefix	FirstName	LastName	BirthDate	Mar
11004	Ms.	ELIZABETH	JOHNSON	08/08/1968	S
11009	Ms.	SHANNON	CARLSON	01/04/1964	Marr
11021	Ms.	DESTINY	WILSON	03/09/1978	S
11051	Ms.	DANIEL	JOHNSON	04/08/1951	Marr
11065	Ms.	JESSICA	HENDERSON	09/10/1973	M
11076	Ms.	BLAKE	ANDERSON	13/07/1957	Marr

```
SELECT *
FROM adv_works.adventureworks_customers
where lastname LIKE '%son%';
```

56. Create a query to identify customers who have provided their birthdate.

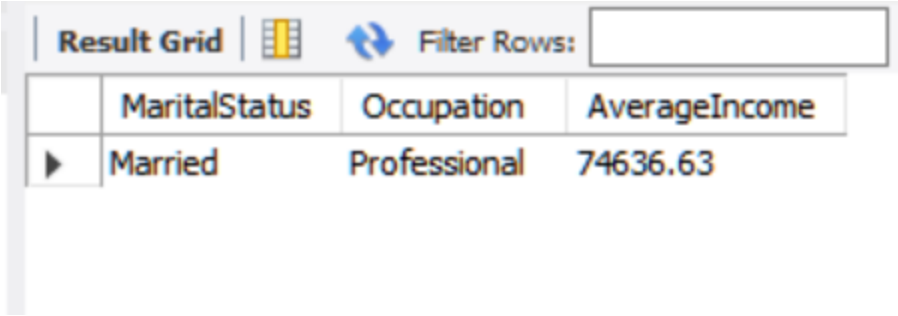


Export: | Wrap Cell

LastName	BirthDate	MaritalSt
YANG	08/04/1966	Married
HUANG	14/05/1965	Married
TORRES	12/08/1965	Married
ZHU	15/02/1968	S
JOHNSON	08/08/1968	S
RUIZ	05/08/1965	Married

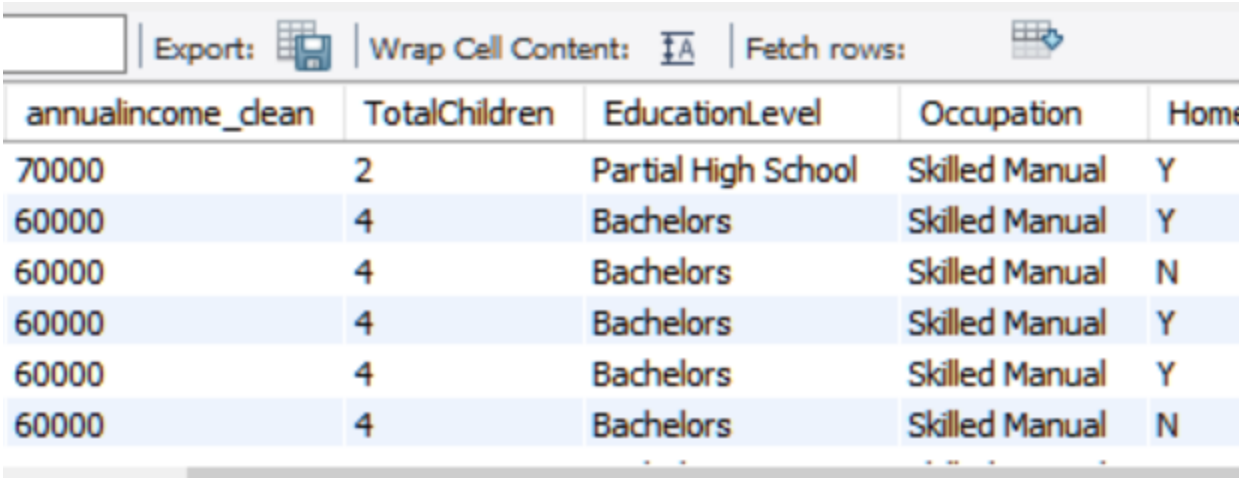
```
SELECT *
FROM adv_works.adventureworks_customers
where birthdate_1 IS NOT NULL;
```

57. Write a query to calculate the average annual income of customers with a specific marital status and occupation combination (e.g., Married and Manager).




```
SELECT MaritalStatus, Occupation, round(AVG(AnnualIncome_Clean),
FROM adv_works.adventureworks_customers
WHERE MaritalStatus = 'Married' AND Occupation= 'Professional'
GROUP BY MaritalStatus, Occupation;
```

58. Create a query to sort customers by their occupation in descending order.

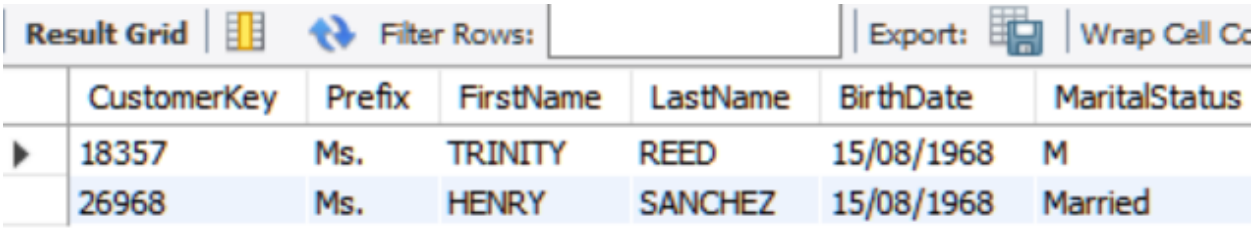


Export: | Wrap Cell Content: | Fetch rows:

annualincome_clean	TotalChildren	EducationLevel	Occupation	Home
70000	2	Partial High School	Skilled Manual	Y
60000	4	Bachelors	Skilled Manual	Y
60000	4	Bachelors	Skilled Manual	N
60000	4	Bachelors	Skilled Manual	Y
60000	4	Bachelors	Skilled Manual	Y
60000	4	Bachelors	Skilled Manual	N

```
SELECT *
FROM adv_works.adventureworks_customers
ORDER BY Occupation DESC;
```

59. Write a query to find customers who were born on a specific date (e.g., January 1, 1980).

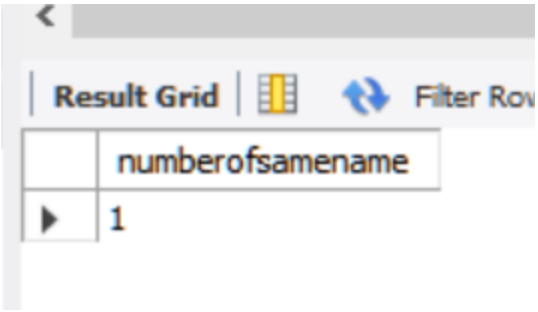


Result Grid | Filter Rows: | Export: | Wrap Cell Co

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalStatus
18357	Ms.	TRINITY	REED	15/08/1968	M
26968	Ms.	HENRY	SANCHEZ	15/08/1968	Married

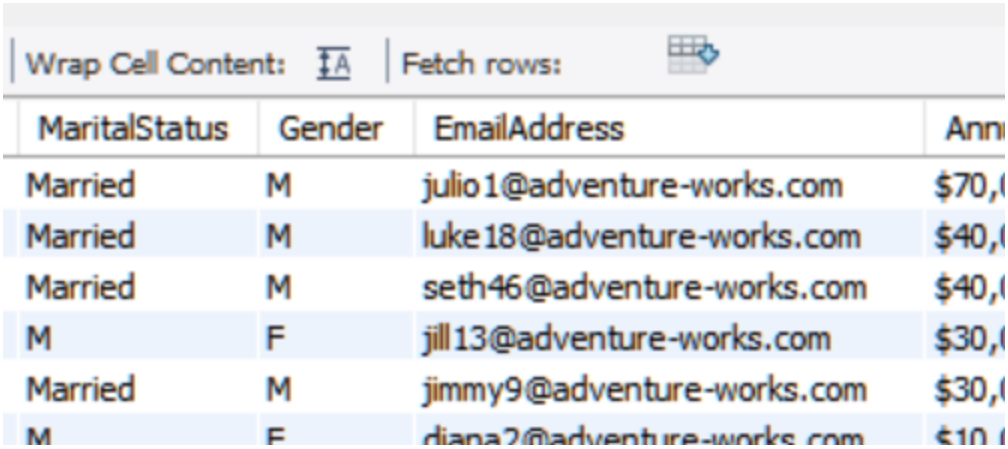
```
SELECT *
FROM adv_works.adventureworks_customers
    WHERE Birthdate = '15/08/1968';
```

30. Create a query to count the number of customers with a specific first name and last name combination (e.g., Mary Johnson).



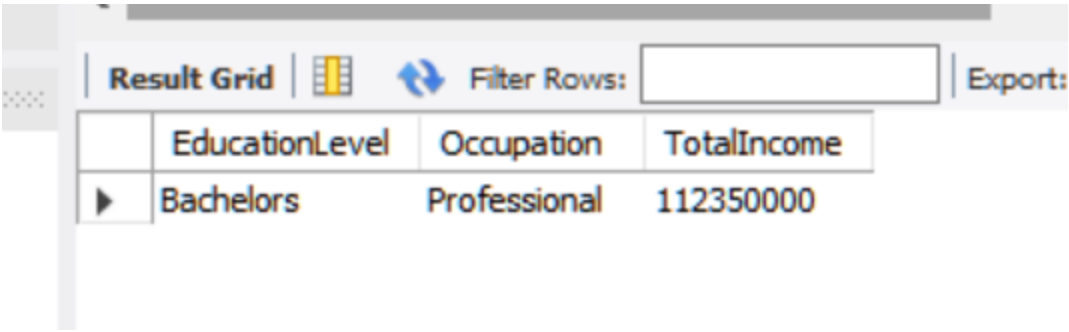

```
SELECT count(*) as numberofsamename
FROM adv_works.adventureworks_customers
WHERE FirstName = 'Cedric' and Lastname = 'Ma';
```

31. Write a query to find customers with a specific email address length (e.g., 10 characters).



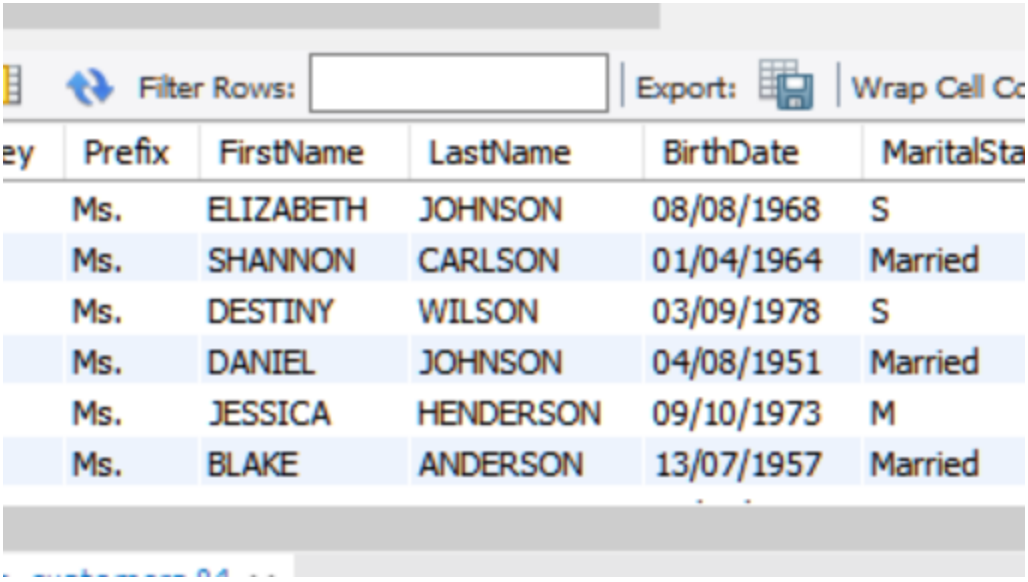

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE LENGTH(EmailAddress) = 26
```

52. Create a query to calculate the total annual income of customers with a specific education level and occupation combination (e.g., Master's degree and Engineer).



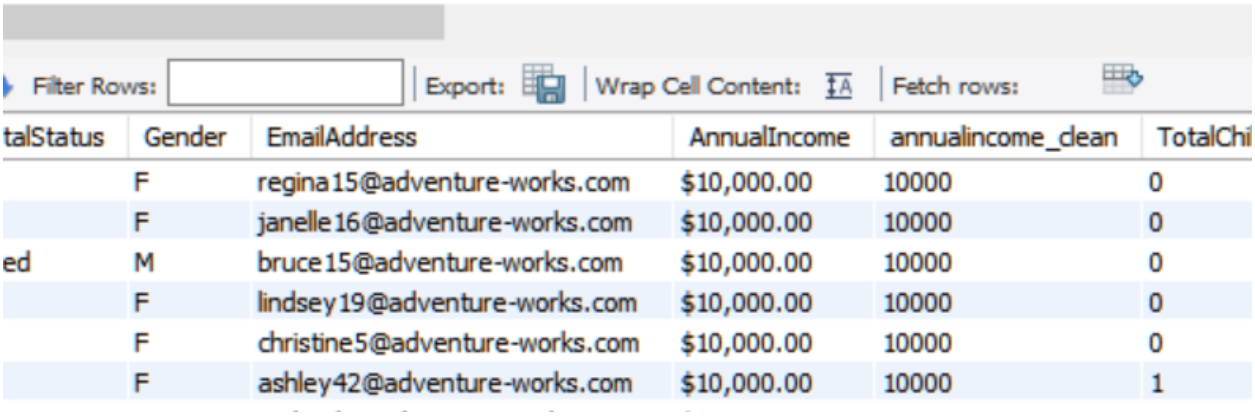

```
SELECT EducationLevel, Occupation, SUM(AnnualIncome_clean) AS To
FROM adv_works.adventureworks_customers
WHERE EducationLevel = 'Bachelors' AND Occupation = 'Professiona
GROUP BY EducationLevel, Occupation;
```

53. Write a query to find customers whose last name ends with a specific suffix (e.g., 'Jr.').



```
SELECT *
FROM adv_works.adventureworks_customers
WHERE LastName LIKE '%on';
```

34. Create a query to sort customers by their annual income in ascending order.

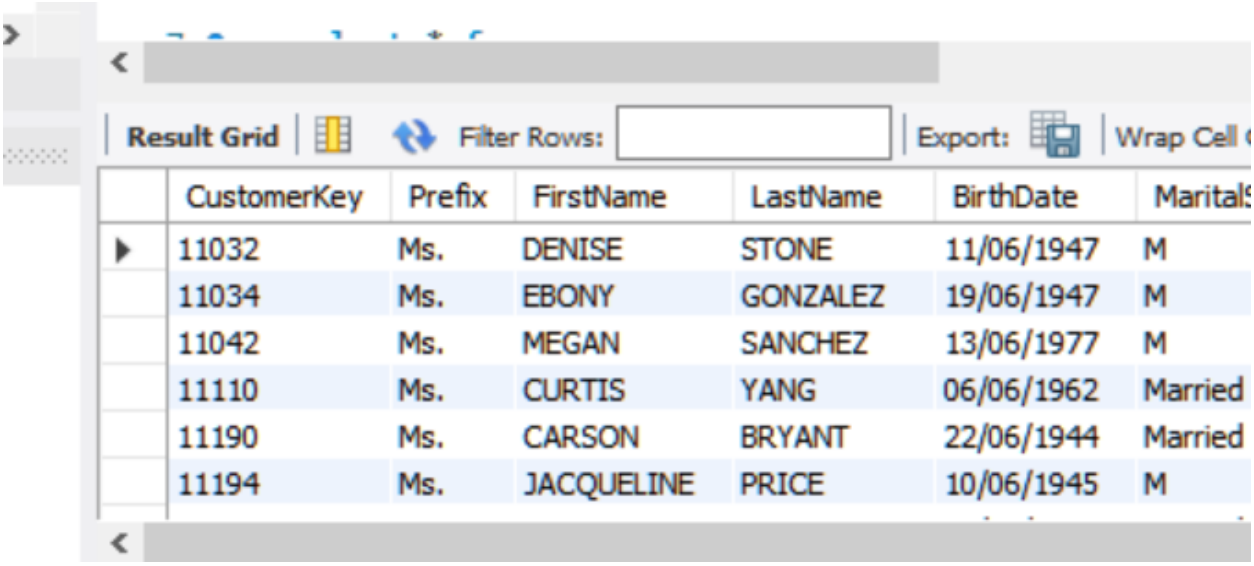


Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

talStatus	Gender	EmailAddress	AnnualIncome	annualincome_clean	TotalChi
	F	regina15@adventure-works.com	$10,000.00	10000	0
	F	janelle16@adventure-works.com	$10,000.00	10000	0
ed	M	bruce15@adventure-works.com	$10,000.00	10000	0
	F	lindsey19@adventure-works.com	$10,000.00	10000	0
	F	christine5@adventure-works.com	$10,000.00	10000	0
	F	ashley42@adventure-works.com	$10,000.00	10000	1

```
SELECT *
FROM adv_works.adventureworks_customers
ORDER BY annualincome_clean ASC;
```

35. Write a query to identify customers with an even-numbered CustomerKey who were born in a specific month (e.g., June).

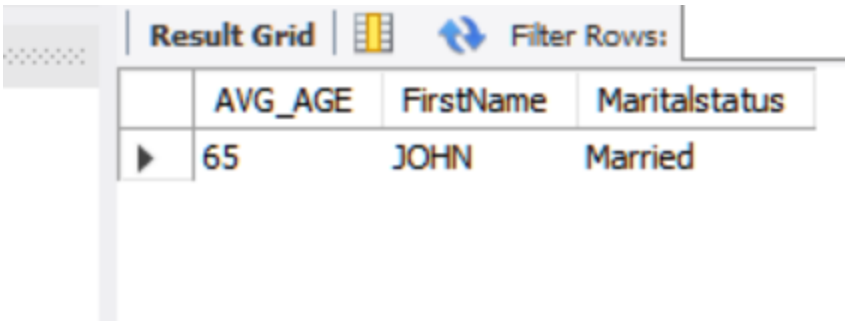


Result Grid | Filter Rows: | Export: | Wrap Cell

CustomerKey	Prefix	FirstName	LastName	BirthDate	MaritalS
11032	Ms.	DENISE	STONE	11/06/1947	M
11034	Ms.	EBONY	GONZALEZ	19/06/1947	M
11042	Ms.	MEGAN	SANCHEZ	13/06/1977	M
11110	Ms.	CURTIS	YANG	06/06/1962	Married
11190	Ms.	CARSON	BRYANT	22/06/1944	Married
11194	Ms.	JACQUELINE	PRICE	10/06/1945	M

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE CustomerKey % 2 = 0 AND MONTH(BirthDate_1) = 6;
```

66. Create a query to calculate the average age of customers with a specific first name and marital status combination (e.g., Mark and Single).



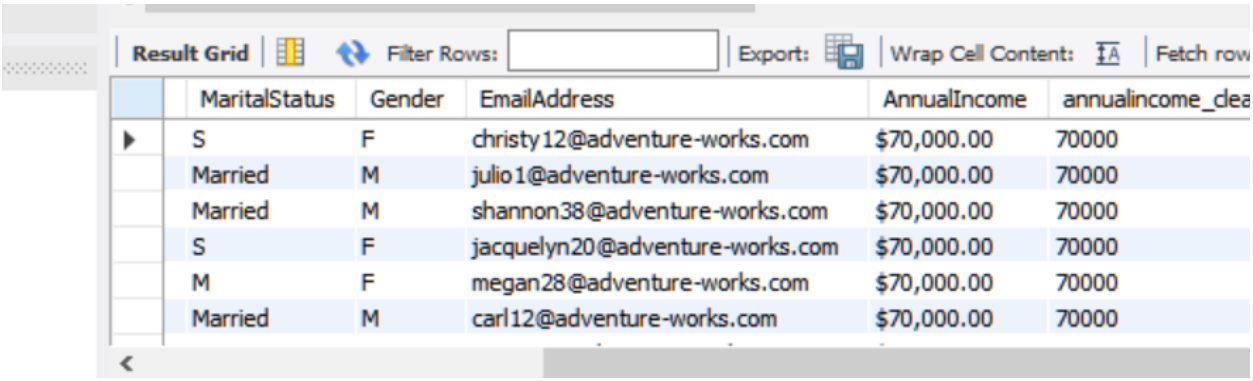
Result Grid | Filter Rows:

AVG_AGE	FirstName	Maritalstatus
65	JOHN	Married

```
SELECT
    ROUND(AVG(YEAR(CURDATE()) - YEAR(BirthDate_1)),0) AS AVG_AGE
    FirstName,
    Maritalstatus
```

```
from adv_works.adventureworks_customers
WHERE FirstName = 'John' and Maritalstatus ='Married';
```

67. Write a query to find customers whose annual income contains a specific number (e.g., 7).

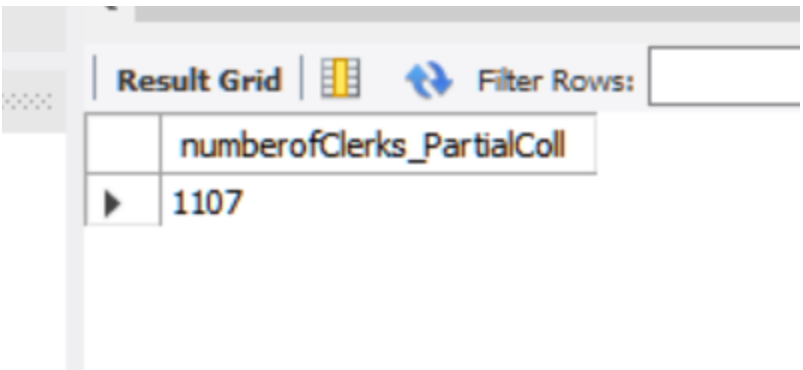


Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch row

MaritalStatus	Gender	EmailAddress	AnnualIncome	annualincome_clea
S	F	christy12@adventure-works.com	$70,000.00	70000
Married	M	julio1@adventure-works.com	$70,000.00	70000
Married	M	shannon38@adventure-works.com	$70,000.00	70000
S	F	jacquelyn20@adventure-works.com	$70,000.00	70000
M	F	megan28@adventure-works.com	$70,000.00	70000
Married	M	carl12@adventure-works.com	$70,000.00	70000

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE AnnualIncome_clean LIKE '%7%';
```

68. Create a query to count the number of customers with a specific occupation and education level combination (e.g., Sales Representative and Bachelor's degree).



Result Grid | Filter Rows:

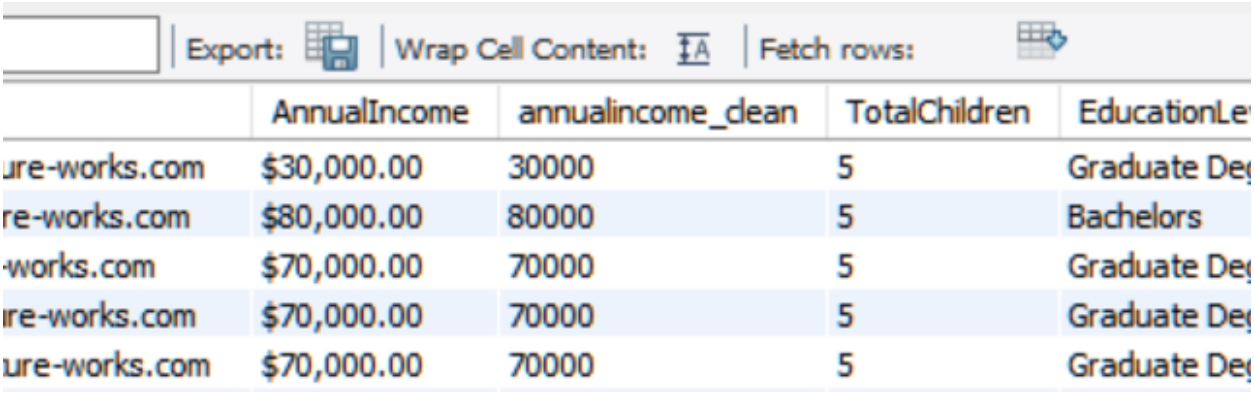
numberofClerks_PartialColl
1107

```
SELECT COUNT(*) numberofClerks_PartialColl
FROM adv_works.adventureworks_customers
WHERE occupation = 'Clerical' AND  educationlevel = 'Partial Col
```

69. Write a query to find customers who were born before a specific date (e.g., January 1, 1990).

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE Birthdate_1 < 01/01/1990;
```

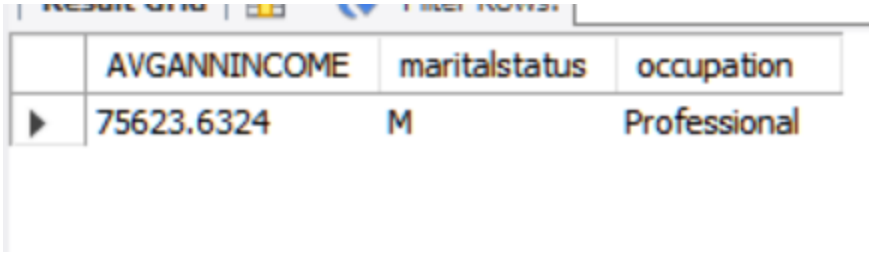
70. Create a query to sort customers by their total number of children in descending order.



	AnnualIncome	annualincome_clean	TotalChildren	EducationLe
ure-works.com	$30,000.00	30000	5	Graduate De
re-works.com	$80,000.00	80000	5	Bachelors
works.com	$70,000.00	70000	5	Graduate De
re-works.com	$70,000.00	70000	5	Graduate De
ure-works.com	$70,000.00	70000	5	Graduate De

```
SELECT *
FROM adv_works.adventureworks_customers
order by totalchildren DESC;
```

71. Write a query to calculate the average annual income of customers with a specific marital status and occupation combination (e.g., Married and Sales Representative).



	AVGANNINCOME	maritalstatus	occupation
▶	75623.6324	M	Professional

```
SELECT AVG(AnnualIncome_Clean) as AVGANNINCOME,maritalstatus, oc
FROM adv_works.adventureworks_customers
WHERE maritalstatus = 'M' and occupation = 'professional';
```

72. Create a query to identify customers who have made a purchase within a specific date range (e.g., January 1, 2020 - March 31, 2020).

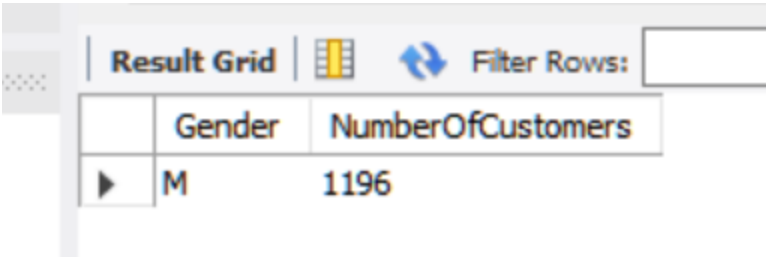
```
?????
```

73. Write a query to find customers whose first name contains a specific number of vowels (e.g., 2).

FirstName
SHANNON
CURTIS
IAN
CHLOE
SHANNON
LUKE

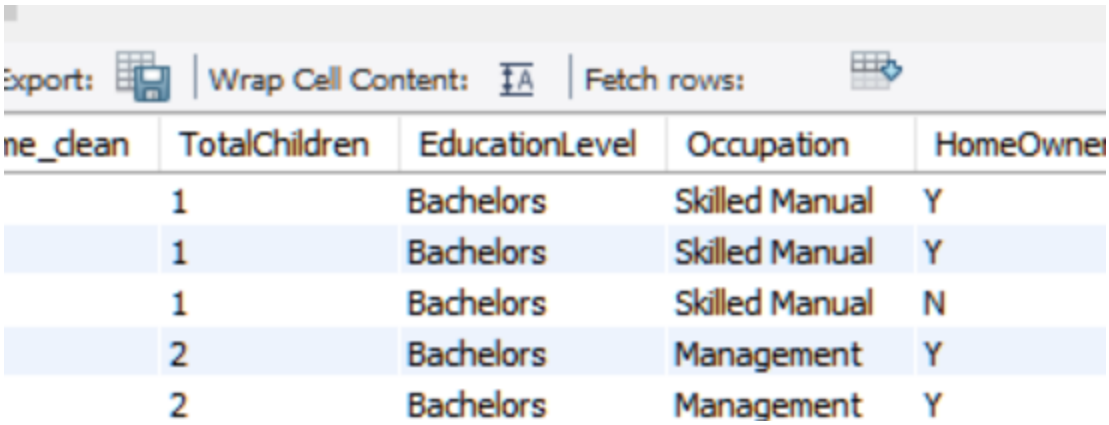
```
SELECT *
FROM adv_works.adventureworks_customers
WHERE LENGTH(FirstName) - LENGTH(REPLACE(LOWER(FirstName), 'a',
      LENGTH(FirstName) - LENGTH(REPLACE(LOWER(FirstName), 'e',
      LENGTH(FirstName) - LENGTH(REPLACE(LOWER(FirstName), 'i',
      LENGTH(FirstName) - LENGTH(REPLACE(LOWER(FirstName), 'o',
      LENGTH(FirstName) - LENGTH(REPLACE(LOWER(FirstName), 'u',
```

74. Create a query to count the number of customers with a specific gender and annual income range combination (e.g., Male and $75,000 - $100,000).




```
SELECT Gender, COUNT(*) AS NumberOfCustomers
FROM adv_works.adventureworks_customers
WHERE Gender = 'M'
  AND AnnualIncome_clean BETWEEN 75000 AND 100000
GROUP BY Gender;
```

75. Write a query to sort customers by their education level in ascending order.

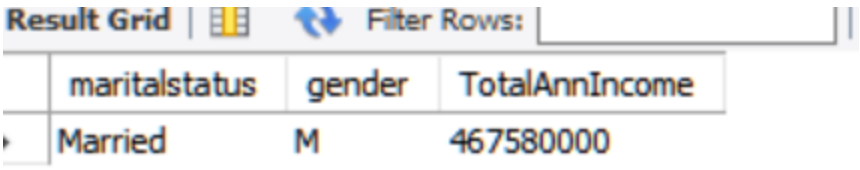


Export: | Wrap Cell Content: | Fetch rows:

ne_clean	TotalChildren	EducationLevel	Occupation	HomeOwner
	1	Bachelors	Skilled Manual	Y
	1	Bachelors	Skilled Manual	Y
	1	Bachelors	Skilled Manual	N
	2	Bachelors	Management	Y
	2	Bachelors	Management	Y

```
SELECT *
FROM adv_works.adventureworks_customers
ORDER BY educationlevel ASC;
```

76. Create a query to calculate the total annual income of customers with a specific marital status and gender combination (e.g., Married and Female).

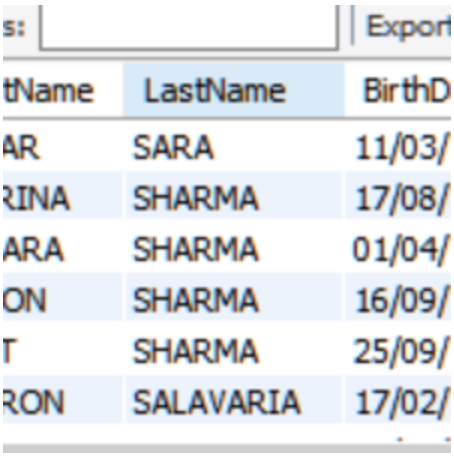


Result Grid | Filter Rows:

maritalstatus	gender	TotalAnnIncome
Married	M	467580000

```
SELECT maritalstatus, gender, SUM(annualincome_Clean) as TotalAn
FROM adv_works.adventureworks_customers
WHERE maritalstatus= 'Married' and gender='M';
```

77. Write a query to find customers whose last name starts with a specific letter and ends with a specific letter (e.g., starts with 'S' and ends with 'n').




```
SELECT *
FROM adv_works.adventureworks_customers
WHERE  lastname LIKE 'S%a';
```

78. Create a query to identify customers who have made purchases from a specific store location.

```
????
```

79. Write a query to find customers with a specific number of characters in their email address (e.g., 15 characters).

Content: | Fetch rows:

tatus	Gender	EmailAddress	Anr
	F	elizabeth5@adventure-works.com	$80,
	M	clarence32@adventure-works.com	$30,
	F	jennifer93@adventure-works.com	$60,
	F	christine4@adventure-works.com	$30,
	F	savannah39@adventure-works.com	$12(
	F	meredith34@adventure-works.com	$60,

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE LENGTH(emailaddress) = 30;
```

30. Create a query to calculate the average annual income of customers with a specific occupation and education level combination (e.g., Engineer and Master's degree).

	educationlevel	Occupation	TotalAnnIncome
▸	Bachelors	Professional	112350000

```
SELECT educationlevel, Occupation, SUM(annualincome_Clean) as To
FROM adv_works.adventureworks_customers
WHERE educationlevel= 'Bachelors' and Occupation='Professional'
```

31. Write a query to sort customers by their annual income in descending order within each occupation category.

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

AnnualIncome	annualincome_clean	TotalChildren	EducationLevel	Occupation	HomeOwner
$90,000.00	90000	4	Partial College	Skilled Manual	Y
$90,000.00	90000	4	Partial College	Skilled Manual	N
$90,000.00	90000	5	Partial High School	Skilled Manual	Y
$90,000.00	90000	5	Partial High School	Skilled Manual	Y
$90,000.00	90000	4	Partial High School	Skilled Manual	Y
$90,000.00	90000	5	Partial High School	Skilled Manual	N

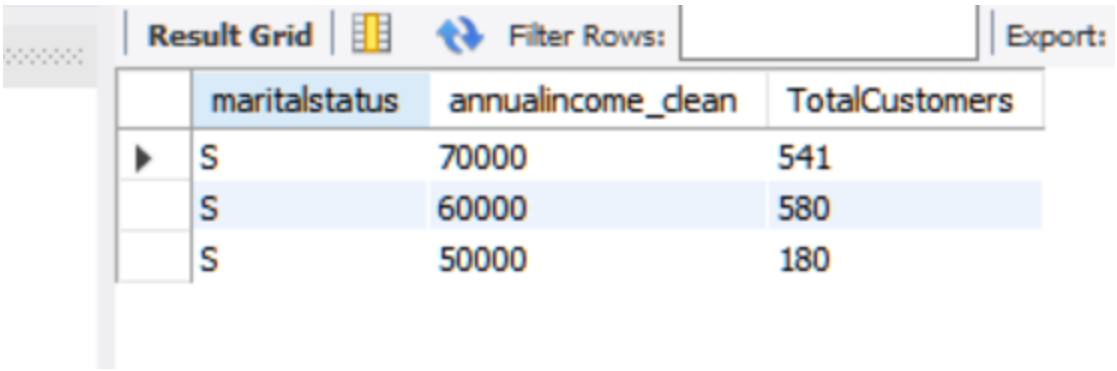
```
SELECT *
FROM adv_works.adventureworks_customers
WHERE occupation = 'Skilled Manual'
ORDER BY AnnualIncome_Clean DESC;
```

32. Create a query to find customers whose first name contains a specific consonant (e.g., 't').

ix	FirstName
	MARCO
	JACQUELYN
	CURTIS
	CHLOE
	CLARENCE
	CHLOE

```
SELECT *
FROM adv_works.adventureworks_customers
where  firstname LIKE '%C%';
```

33. Write a query to calculate the total number of customers with a specific marital status and annual income range combination (e.g., Single and $50,000 - $75,000).

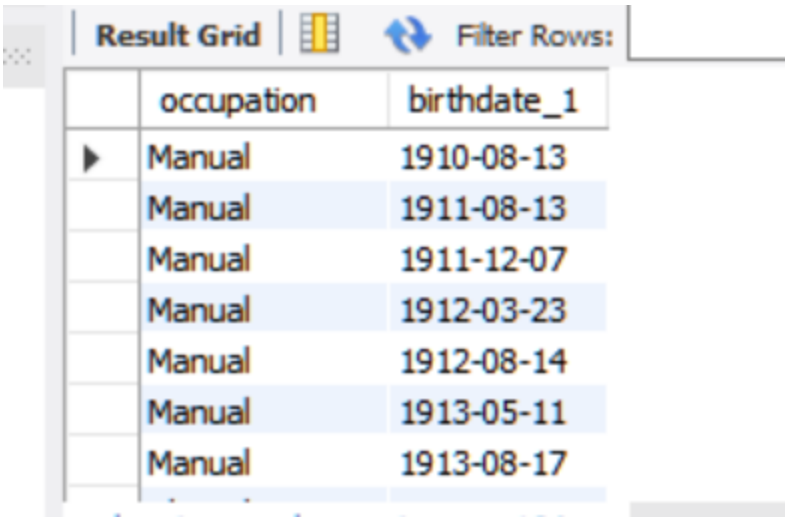



```
SELECT maritalstatus, annualincome_clean, COUNT(*) TotalCustome
FROM adv_works.adventureworks_customers
WHERE
maritalstatus ='s'
AND
annualincome_clean between 50000 and 75000
group by maritalstatus, annualincome_clean;
```

34. Create a query to find customers whose last name contains a specific number of syllables (e.g., 2 syllables).

```
?????
```

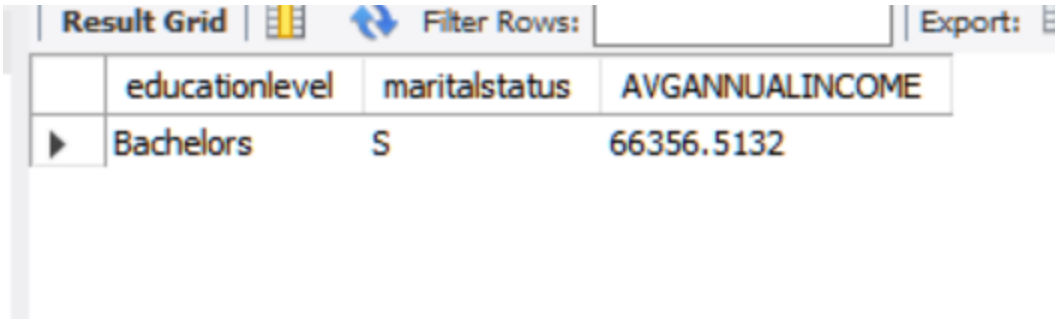
35. Write a query to sort customers by their birthdate in ascending order within each occupation category.



occupation	birthdate_1
Manual	1910-08-13
Manual	1911-08-13
Manual	1911-12-07
Manual	1912-03-23
Manual	1912-08-14
Manual	1913-05-11
Manual	1913-08-17

```
SELECT occupation, birthdate_1  FROM adv_works.adventureworks_cu
GROUP BY occupation, birthdate_1
order by birthdate_1 asc;
```

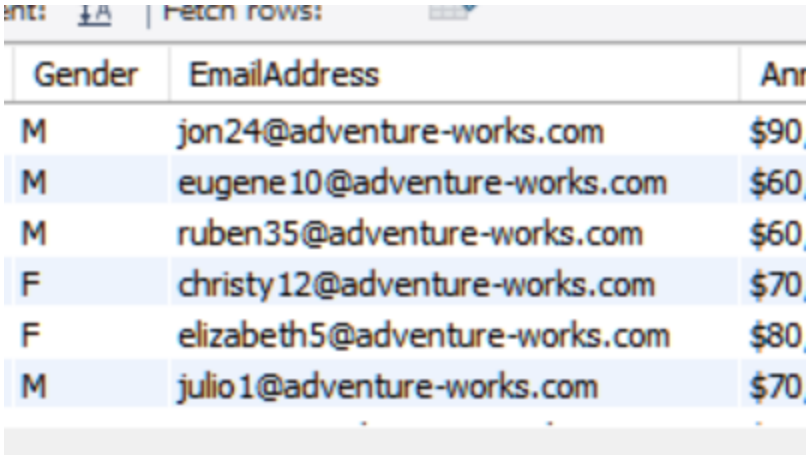
36. Create a query to calculate the average annual income of customers with a specific marital status and education level combination (e.g., Married and Bachelor's degree).



educationlevel	maritalstatus	AVGANNUALINCOME
Bachelors	S	66356.5132

```
SELECT  educationlevel, maritalstatus,AVG(annualincome_clean) as
FROM adv_works.adventureworks_customers
WHERE educationlevel= 'Bachelors' and maritalstatus= 'S';
```

37. Write a query to find customers whose email address contains a specific special character (e.g., '@').



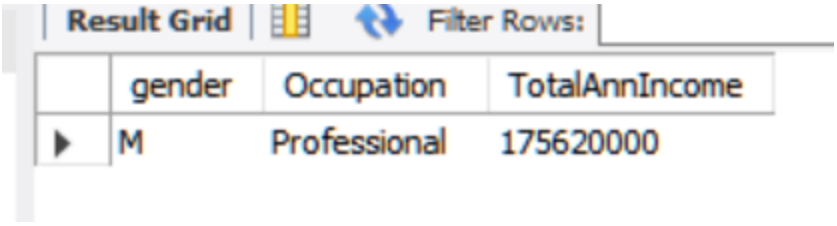
Gender	EmailAddress	Ann
M	jon24@adventure-works.com	$90
M	eugene10@adventure-works.com	$60
M	ruben35@adventure-works.com	$60
F	christy12@adventure-works.com	$70
F	elizabeth5@adventure-works.com	$80
M	julio1@adventure-works.com	$70

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE emailaddress LIKE '%-%'
```

38. Create a query to identify customers who have made purchases from multiple store locations.

```
?????
```

39. Write a query to calculate the total annual income of customers with a specific occupation and gender combination (e.g., Manager and Male).

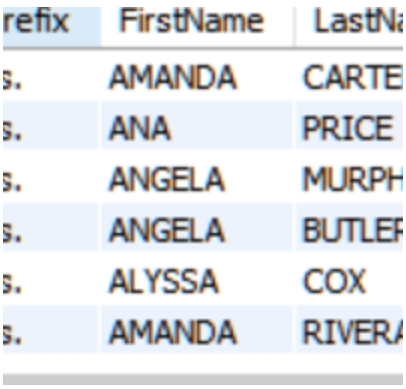


Result Grid | Filter Rows:

	gender	Occupation	TotalAnnIncome
▶	M	Professional	175620000

```
SELECT gender, Occupation, SUM(annualincome_Clean) as TotalAnnI
FROM adv_works.adventureworks_customers
WHERE gender= 'M' and Occupation='Professional';
```

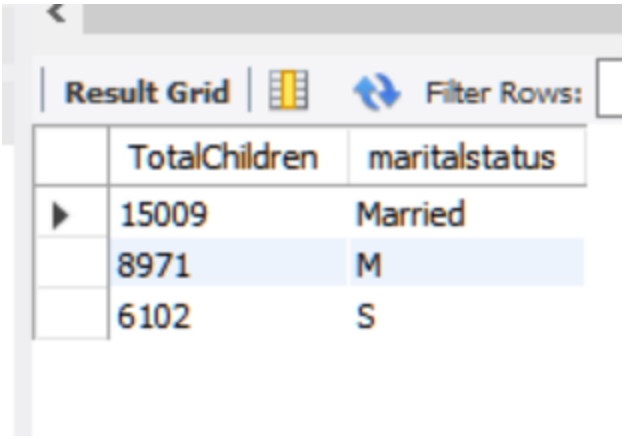
90. Create a query to find customers whose first name starts with a specific letter and ends with a specific letter (e.g., starts with 'A' and ends with 'a').



refix	FirstName	LastNa
s.	AMANDA	CARTE
s.	ANA	PRICE
s.	ANGELA	MURPH
s.	ANGELA	BUTLER
s.	ALYSSA	COX
s.	AMANDA	RIVERA

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE firstname LIKE 'a%_%a';
```

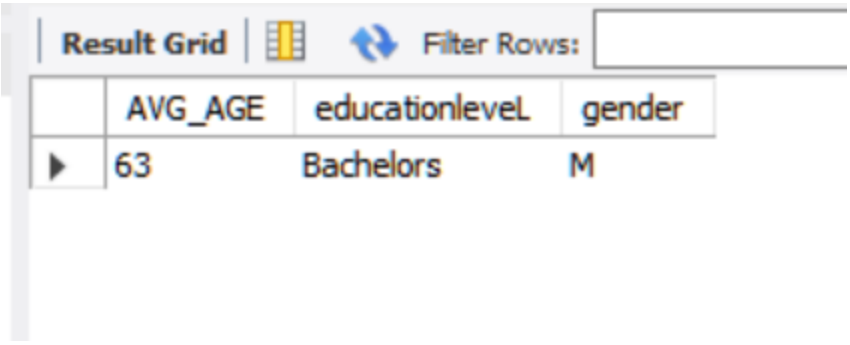
91. Write a query to sort customers by their total number of children in descending order within each marital status category.



TotalChildren	maritalstatus
15009	Married
8971	M
6102	S

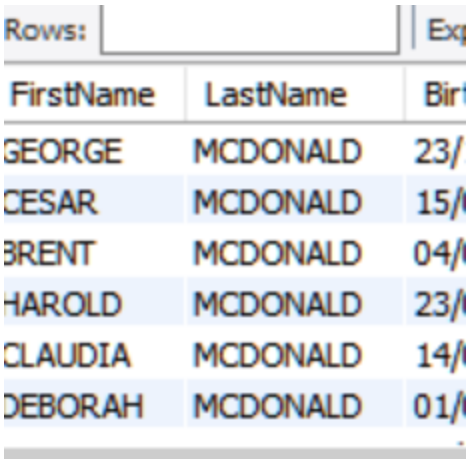
```
SELECT SUM(totalchildren) AS TotalChildren, maritalstatus
FROM adv_works.adventureworks_customers
GROUP BY maritalstatus
ORDER BY TotalChildren DESC;
```

92. Create a query to calculate the average age of customers with a specific education level and gender combination (e.g., Master's degree and Female).




```
SELECT
    ROUND(AVG(YEAR(CURDATE()) - YEAR(BirthDate_1)),0) AS AVG_AGE
    educationleveL,
    gender
from adv_works.adventureworks_customers
WHERE educationleveL= 'Bachelors' and gender ='m';
```

93. Write a query to find customers whose last name starts with a specific prefix (e.g., 'Mc').



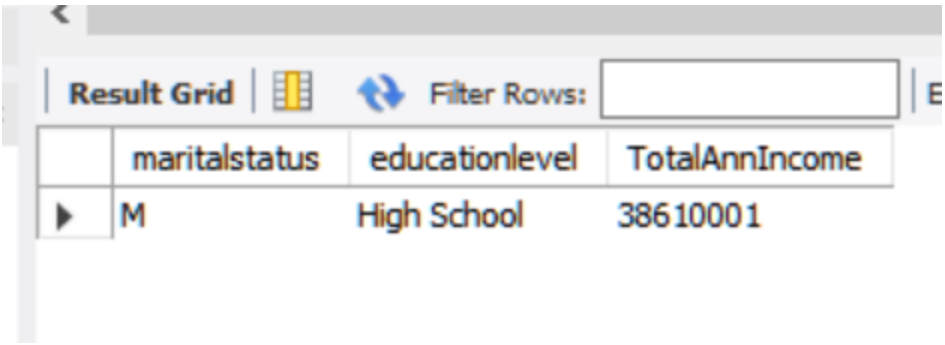

```
SELECT *
FROM adv_works.adventureworks_customers
```

```
WHERE lastname LIKE 'mc%';
```

94. Create a query to identify customers who have made purchases of a specific product category (e.g., electronics).

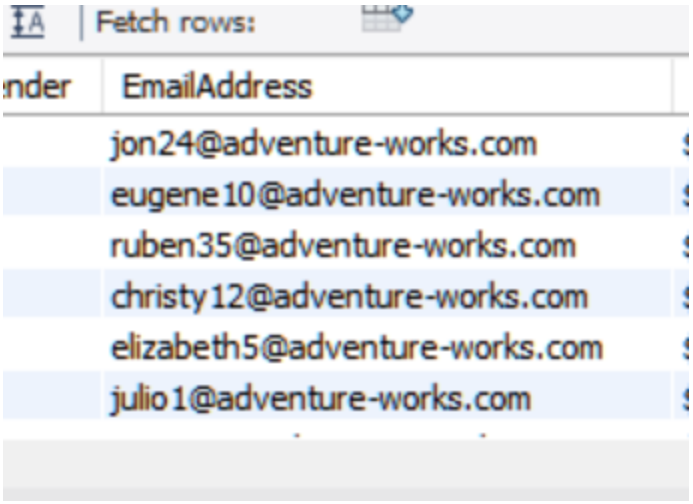
```
????
```

95. Write a query to calculate the total annual income of customers with a specific marital status and education level combination (e.g., Single and Bachelor's degree).



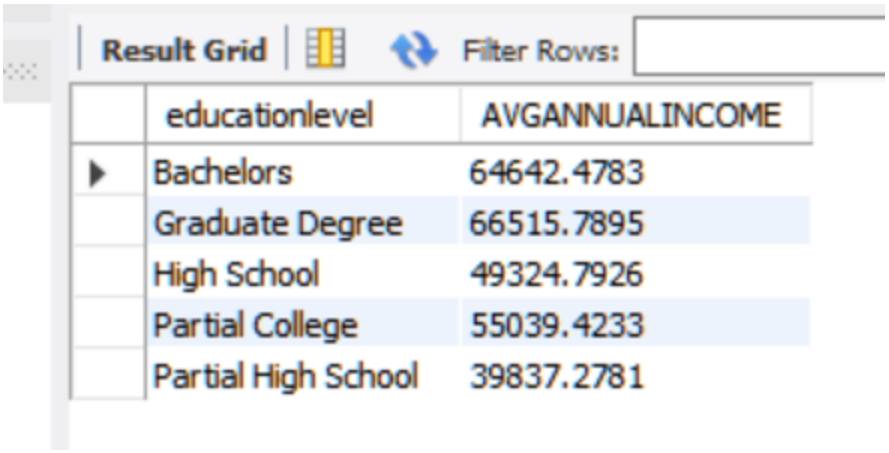

```
SELECT  maritalstatus , educationlevel, SUM(annualincome_Clean)
FROM adv_works.adventureworks_customers
WHERE maritalstatus= 'M' and educationlevel='High School';
```

96. Create a query to find customers whose email address domain is a specific number of characters long (e.g., 10 characters).



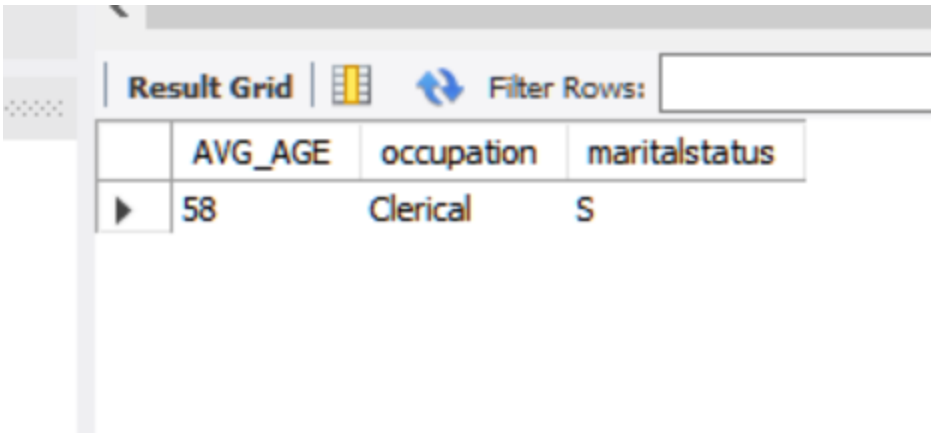

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE LENGTH(SUBSTRING_INDEX(Emailaddress, '@', -1)) = 19;
```

97. Write a query to sort customers by their annual income in ascending order within each education level category.




```
SELECT educationlevel, AVG(annualincome_clean) as AVGANNUALINCOM
FROM adv_works.adventureworks_customers
GROUP BY educationlevel
ORDER BY educationlevel  ASC;
```

98. Create a query to calculate the average age of customers with a specific occupation and marital status combination (e.g., Engineer and Married).




```
SELECT ROUND(AVG(YEAR(CURDATE())  - YEAR(BirthDate_1)),0)AS AVG_
             occupation, maritalstatus
FROM adv_works.adventureworks_customers
WHERE occupation = 'Clerical'  and maritalstatus = 's';
```

99. Write a query to find customers whose first name ends with a specific suffix (e.g., 'Jr.').

```
SELECT *
FROM adv_works.adventureworks_customers
WHERE  firstname LIKE '%Ms';
```

100. Create a query to identify customers who have made purchases on a specific day of the week (e.g., Sunday).

```
?????
```