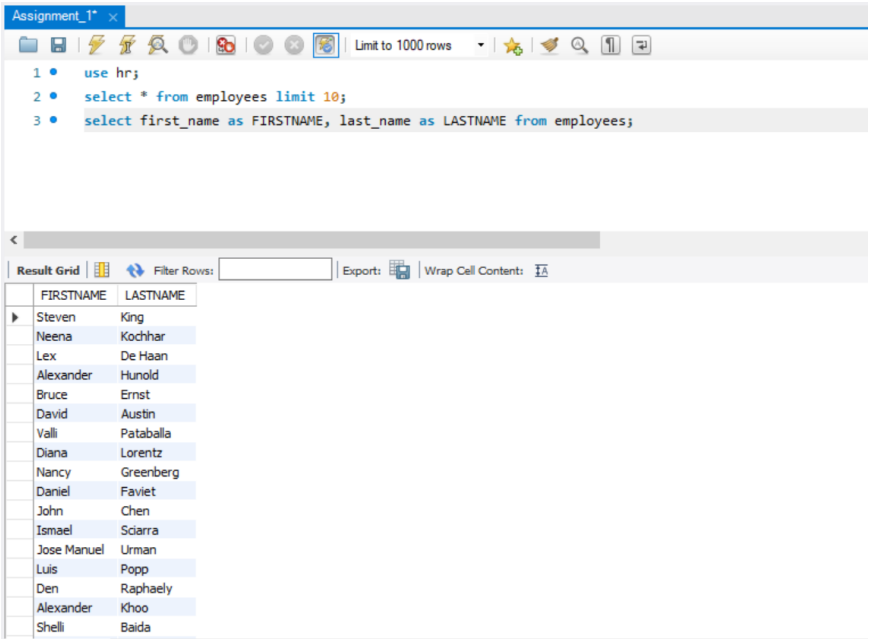
SQL Assignment

HR Database Exercises –

1. Write a query to display the names (first_name, last_name) using alias name “First Name", "Last Name"

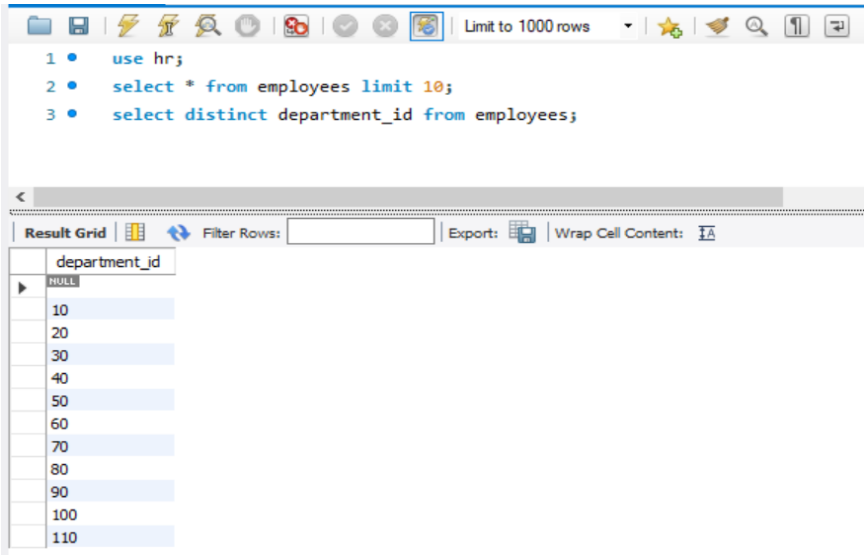
SYNTAX AND OUTPUT:



FIRSTNAME	LASTNAME
Steven	King
Neena	Kochhar
Lex	De Haan
Alexander	Hunold
Bruce	Ernst
David	Austin
Valli	Pataballa
Diana	Lorentz
Nancy	Greenberg
Daniel	Faviet
John	Chen
Ismael	Sciarra
Jose Manuel	Urman
Luis	Popp
Den	Raphaely
Alexander	Khoo
Shelli	Baida

2. Write a query to get unique department ID from employee table

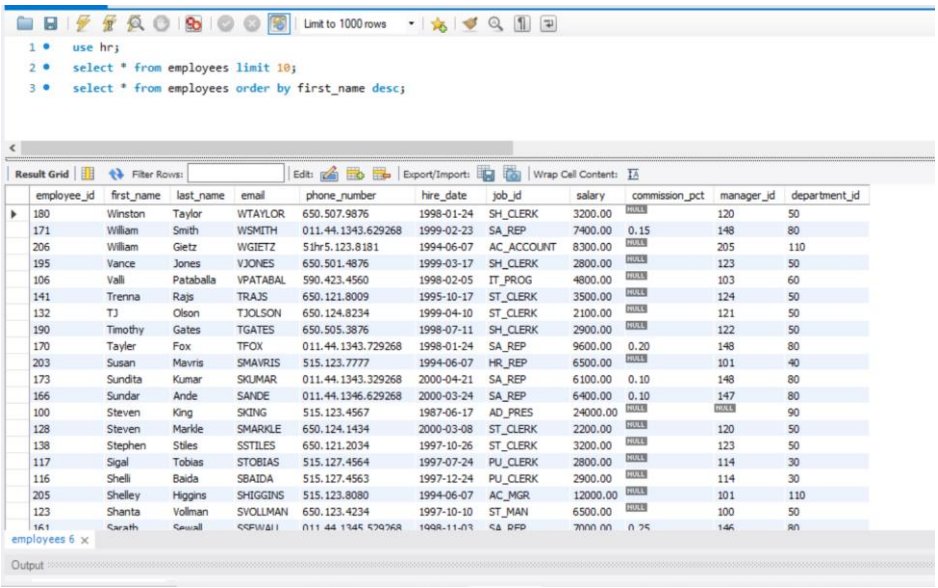
SYNTAX AND OUTPUT:



department_id
NULL
10
20
30
40
50
60
70
80
90
100
110

3. Write a query to get all employee details from the employee table order by first name, descending

Syntax and output:

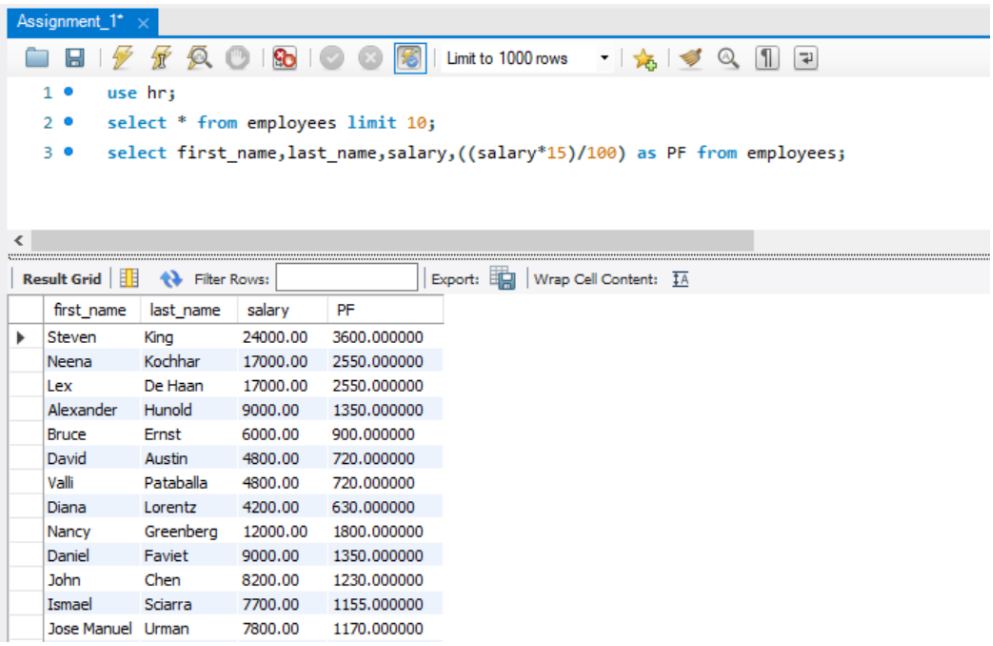


```
use hr;
select * from employees limit 10;
select * from employees order by first_name desc;
```

employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
180	Winston	Taylor	WTAYLOR	650.507.9876	1998-01-24	SH_CLERK	3200.00	NULL	120	50
171	William	Smith	WSMITH	011.44.1343.629268	1999-02-23	SA_REP	7400.00	0.15	148	80
206	William	Gietz	WGIETZ	515.123.8181	1994-06-07	AC_ACCOUNT	8300.00	NULL	205	110
195	Vance	Jones	VJONES	650.501.4876	1999-03-17	SH_CLERK	2800.00	NULL	123	50
106	Valli	Pataballa	VPATABAL	590.423.4560	1998-02-05	IT_PROG	4800.00	NULL	103	60
141	Trenna	Rajs	TRAJS	650.121.8009	1995-10-17	ST_CLERK	3500.00	NULL	124	50
132	TJ	Olson	TJOLSON	650.124.8234	1999-04-10	ST_CLERK	2100.00	NULL	121	50
190	Timothy	Gates	TGATES	650.505.3876	1998-07-11	SH_CLERK	2900.00	NULL	122	50
170	Tayler	Fox	TFOX	011.44.1343.729268	1998-01-24	SA_REP	9600.00	0.20	148	80
203	Susan	Mavris	SMAVRIS	515.123.7777	1994-06-07	HR_REP	6500.00	NULL	101	40
173	Sundita	Kumar	SKUMAR	011.44.1343.329268	2000-04-21	SA_REP	6100.00	0.10	148	80
166	Sundar	Ande	SANDE	011.44.1346.629268	2000-03-24	SA_REP	6400.00	0.10	147	80
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	NULL	NULL	90
128	Steven	Markle	SMARKLE	650.124.1434	2000-03-08	ST_CLERK	2200.00	NULL	120	50
138	Stephen	Stiles	SSTILES	650.121.2034	1997-10-26	ST_CLERK	3200.00	NULL	123	50
117	Sigal	Tobias	STOBIAS	515.127.4564	1997-07-24	PU_CLERK	2800.00	NULL	114	30
116	Shelli	Baida	SBAIDA	515.127.4563	1997-12-24	PU_CLERK	2900.00	NULL	114	30
205	Shelley	Higgins	SHIGGINS	515.123.8080	1994-06-07	AC_MGR	12000.00	NULL	101	110
123	Shanta	Vollman	SVOLLMAN	650.123.4234	1997-10-10	ST_MAN	6500.00	NULL	100	50
161	Sarath	Sewall	SSEWALL	011.44.1345.529268	1998-11-03	SA_REP	7000.00	0.25	146	80

4. Write a query to get the names (first_name, last_name), salary, PF of all the employees (PF is calculated as 15% of salary)

SYNTAX AND OUTPUT:

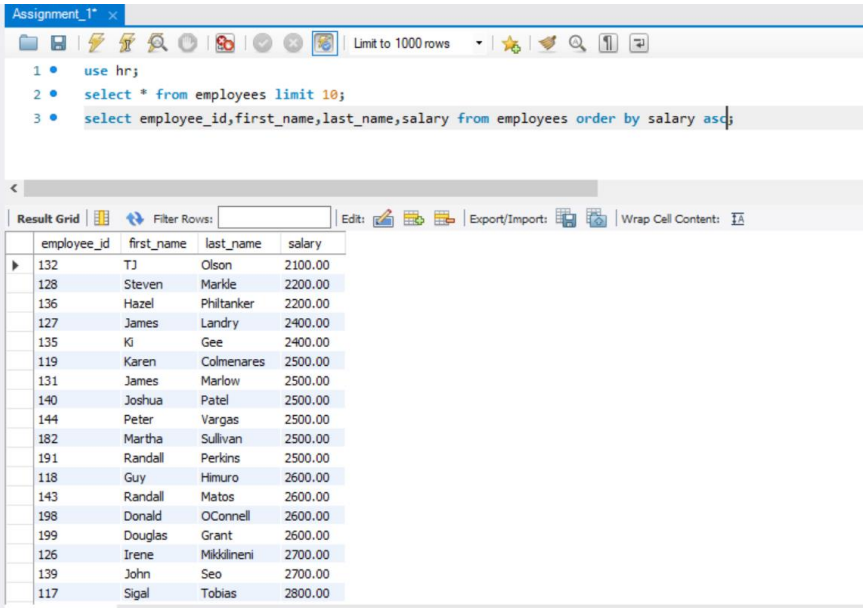


```
use hr;
select * from employees limit 10;
select first_name,last_name,salary,((salary*15)/100) as PF from employees;
```

first_name	last_name	salary	PF
Steven	King	24000.00	3600.000000
Neena	Kochhar	17000.00	2550.000000
Lex	De Haan	17000.00	2550.000000
Alexander	Hunold	9000.00	1350.000000
Bruce	Ernst	6000.00	900.000000
David	Austin	4800.00	720.000000
Valli	Pataballa	4800.00	720.000000
Diana	Lorentz	4200.00	630.000000
Nancy	Greenberg	12000.00	1800.000000
Daniel	Faviet	9000.00	1350.000000
John	Chen	8200.00	1230.000000
Ismael	Sciarra	7700.00	1155.000000
Jose Manuel	Urman	7800.00	1170.000000

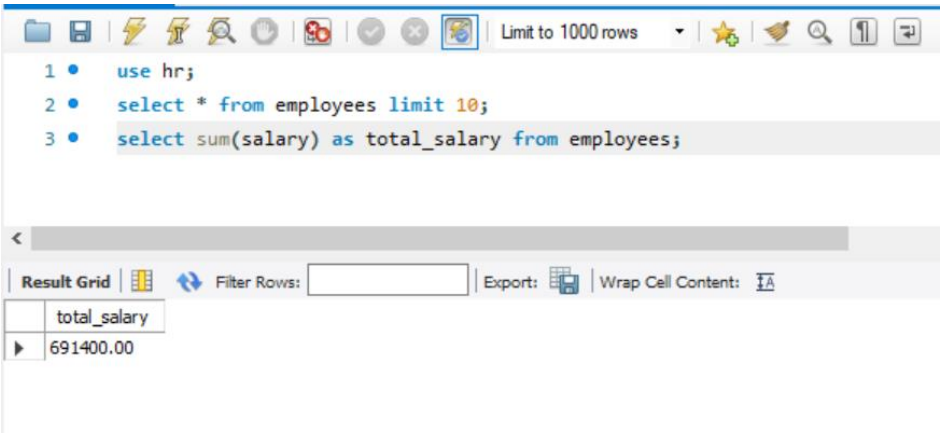
5. Write a query to get the employee ID, names (first_name, last_name), salary in ascending order of salary

SYNTAX AND CODE:



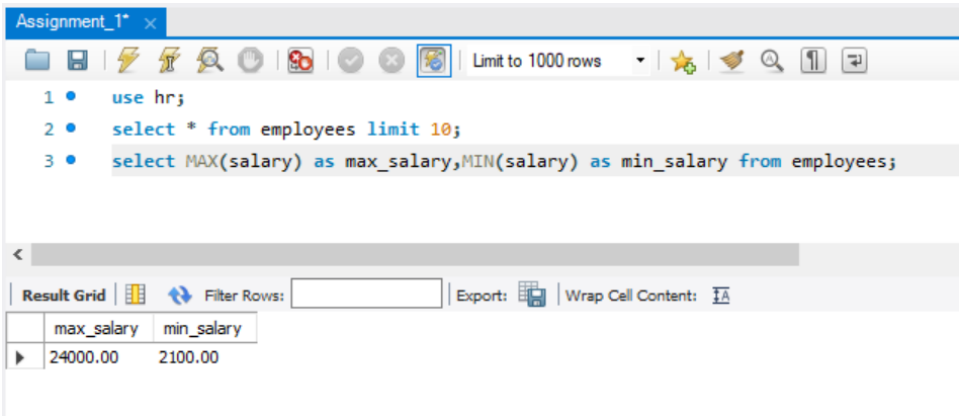
6. Write a query to get the total salaries payable to employees

SYNTAX AND CODE:



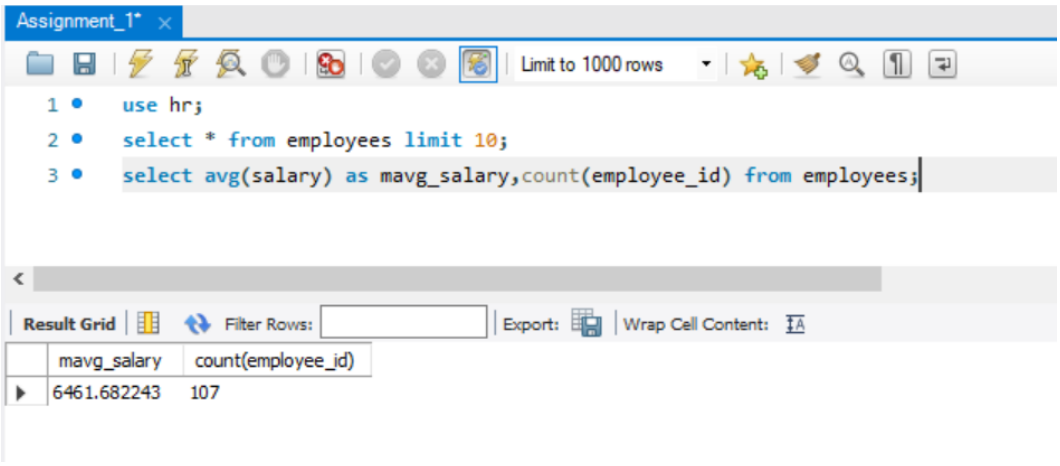
7. Write a query to get the maximum and minimum salary from employees table

SYNTAX AND CODE:



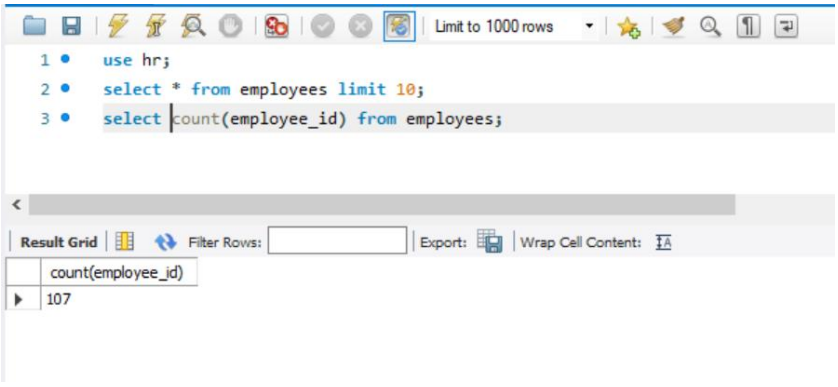
8. Write a query to get the average salary and number of employees in the employees table

SYNTAX AND CODE:



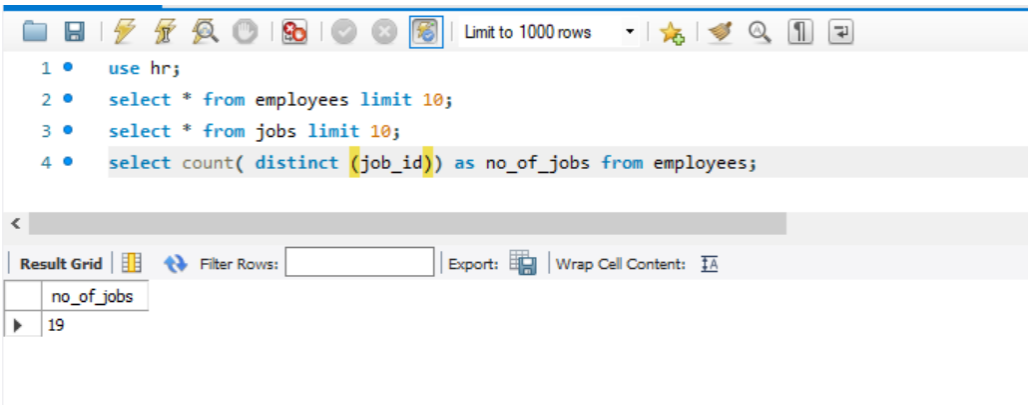
9. Write a query to get the number of employees working with the company

SYNTAX AND CODE:



10. Write a query to get the number of jobs available in the employees table

SYNTAX AND CODE:



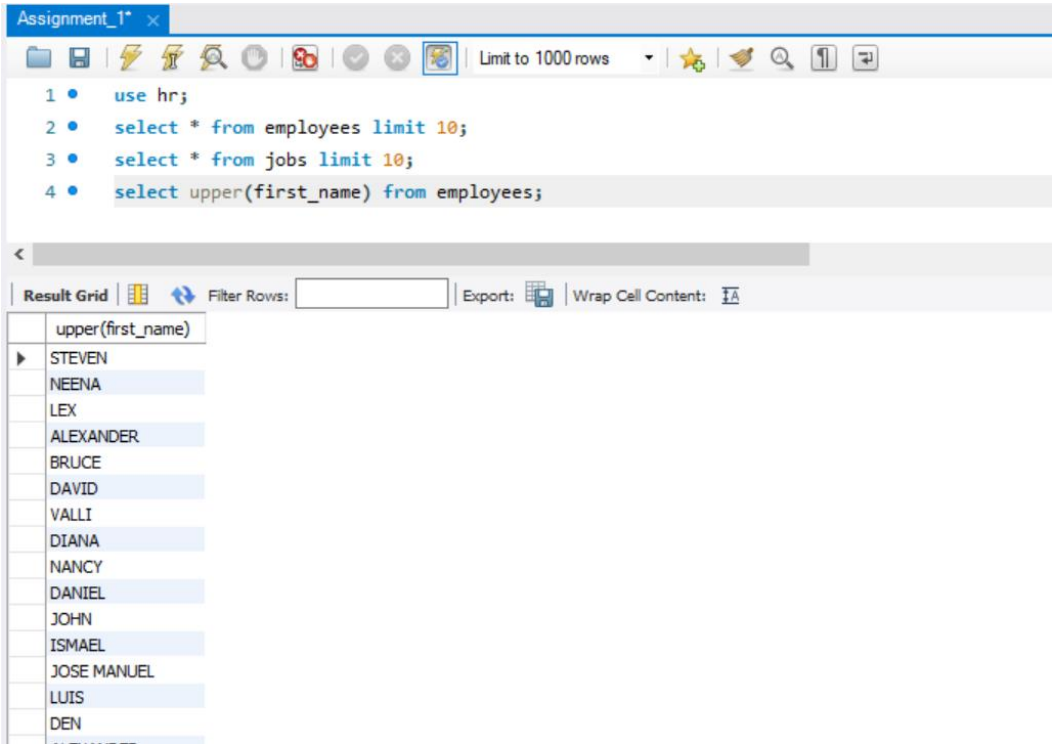
```
use hr;
select * from employees limit 10;
select * from jobs limit 10;
select count( distinct (job_id)) as no_of_jobs from employees;
```

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

no_of_jobs
19

11. Write a query get all first name from employees table in upper case

SYNTAX AND CODE:



Assignment_1*

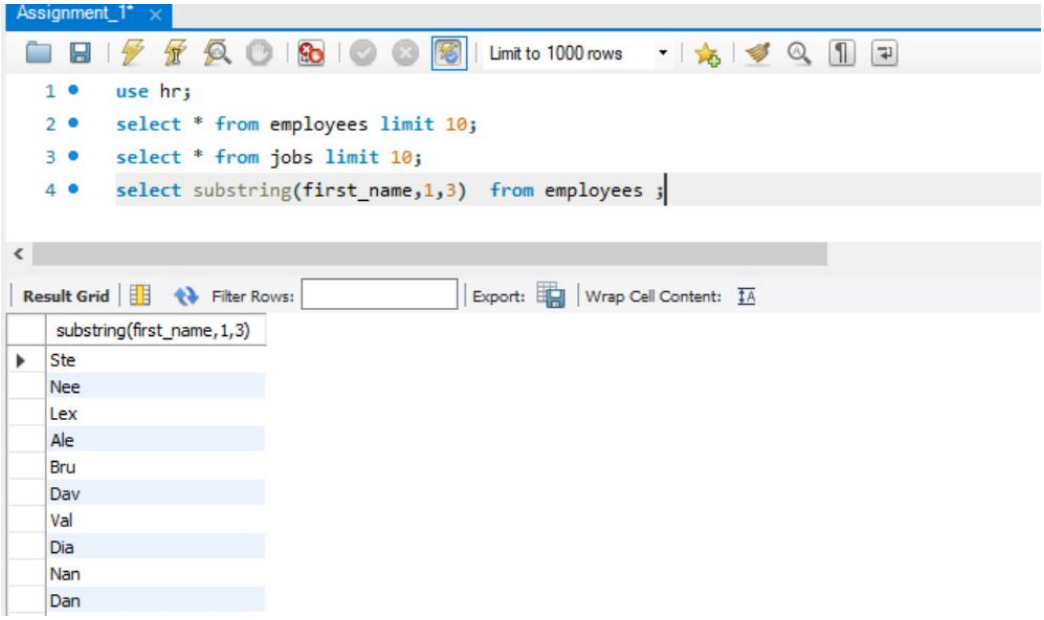
```
use hr;
select * from employees limit 10;
select * from jobs limit 10;
select upper(first_name) from employees;
```

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

upper(first_name)
STEVEN
NEENA
LEX
ALEXANDER
BRUCE
DAVID
VALLI
DIANA
NANCY
DANIEL
JOHN
ISMAEL
JOSE MANUEL
LUIS
DEN

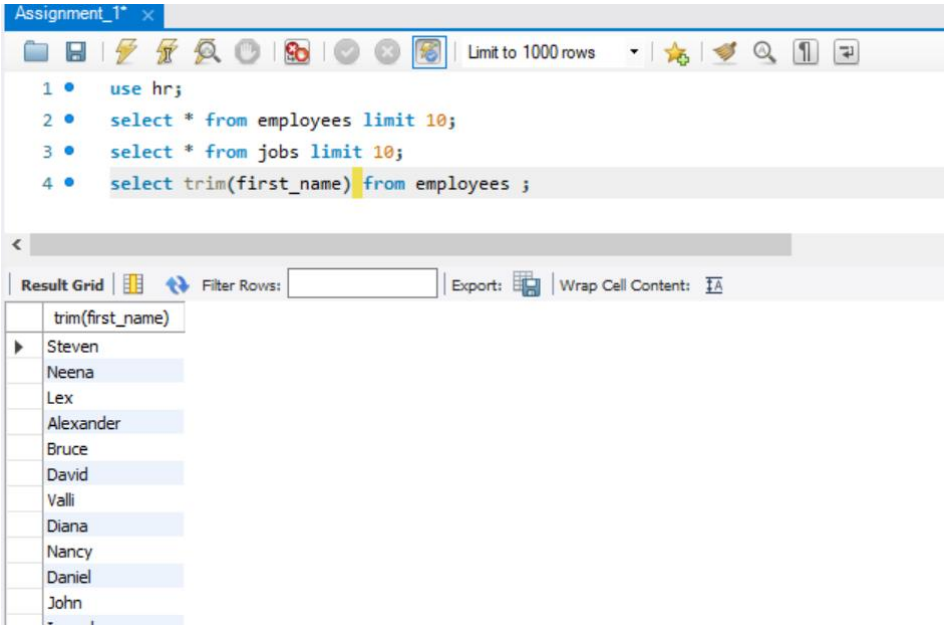
12. Write a query to get the first 3 characters of first name from employees table

SYNTAX AND CODE:



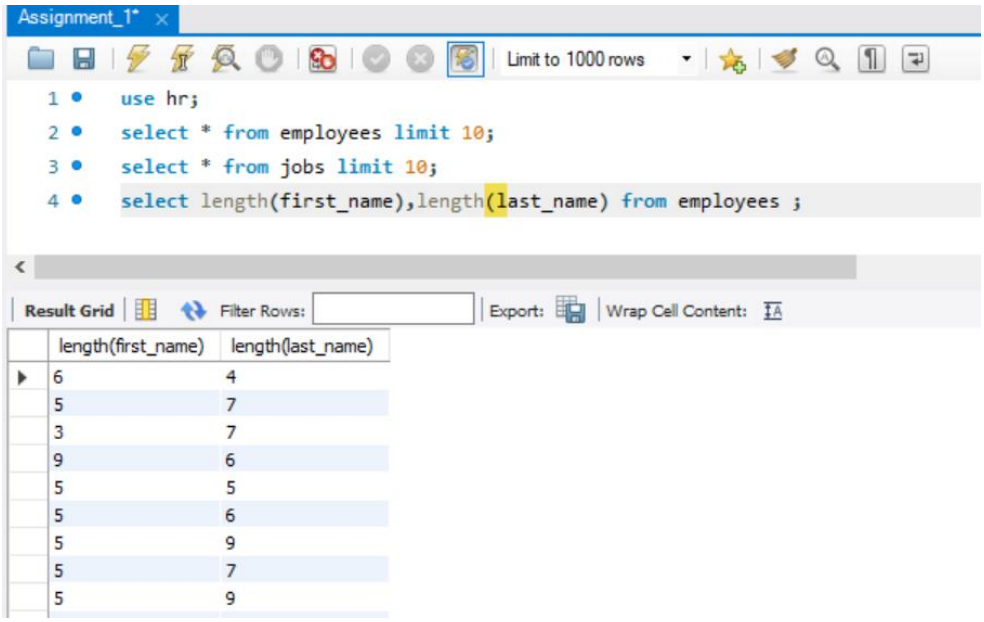
13. Write a query to get first name from employees table after removing white spaces from both side

SYNTAX AND CODE:



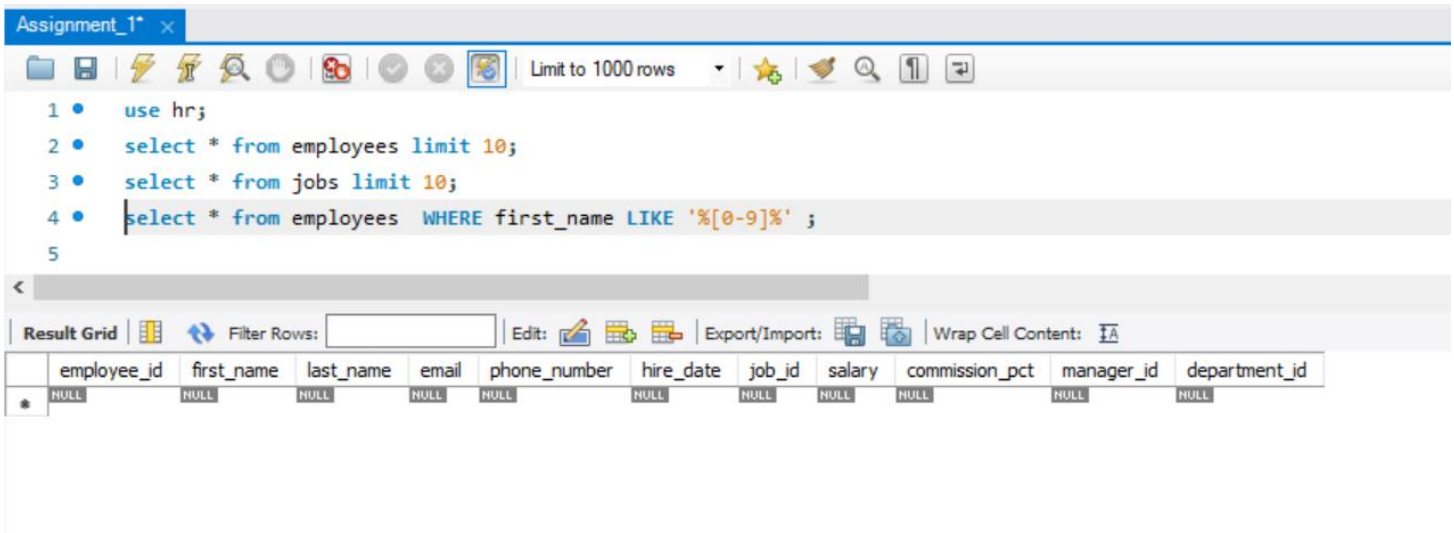
14. Write a query to get the length of the employee names (first_name, last_name) from employees table

SYNTAX AND CODE:



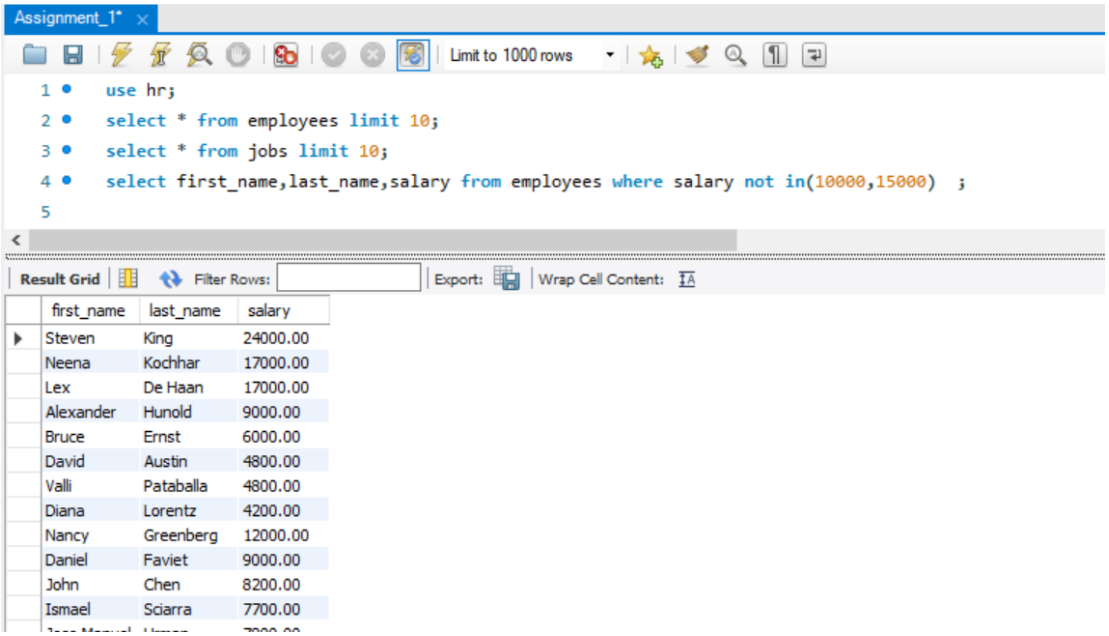
15. Write a query to check if the first_name fields of the employees table contains numbers

SYNTAX AND CODE:



16. Write a query to display the name (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000

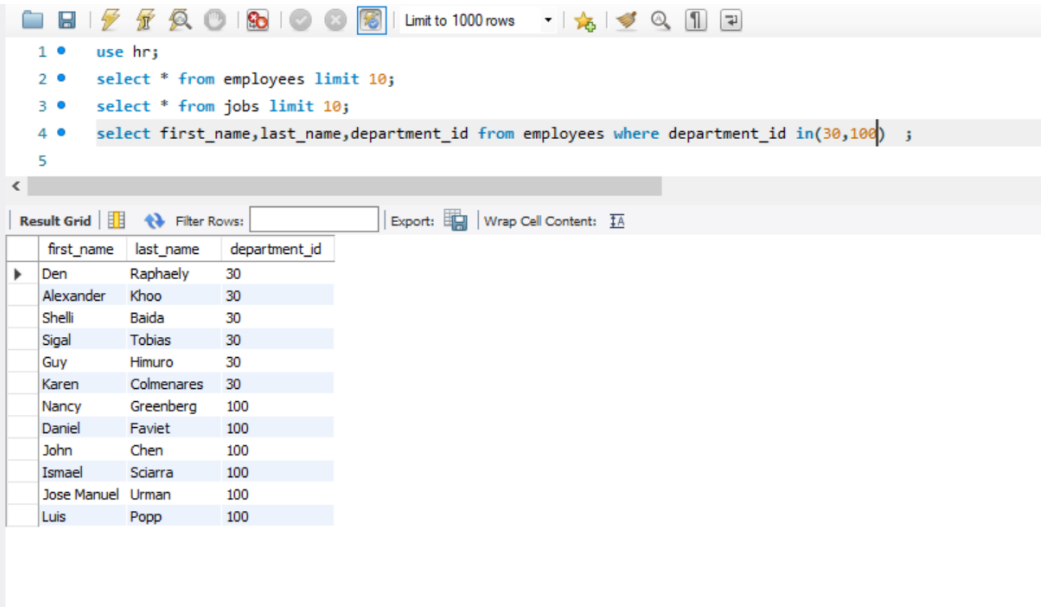
SYNTAX AND CODE:



first_name	last_name	salary
Steven	King	24000.00
Neena	Kochhar	17000.00
Lex	De Haan	17000.00
Alexander	Hunold	9000.00
Bruce	Ernst	6000.00
David	Austin	4800.00
Valli	Pataballa	4800.00
Diana	Lorentz	4200.00
Nancy	Greenberg	12000.00
Daniel	Faviet	9000.00
John	Chen	8200.00
Ismael	Sciarra	7700.00

17. Write a query to display the name (first_name, last_name) and department ID of all employees in departments 30 or 100 in ascending order

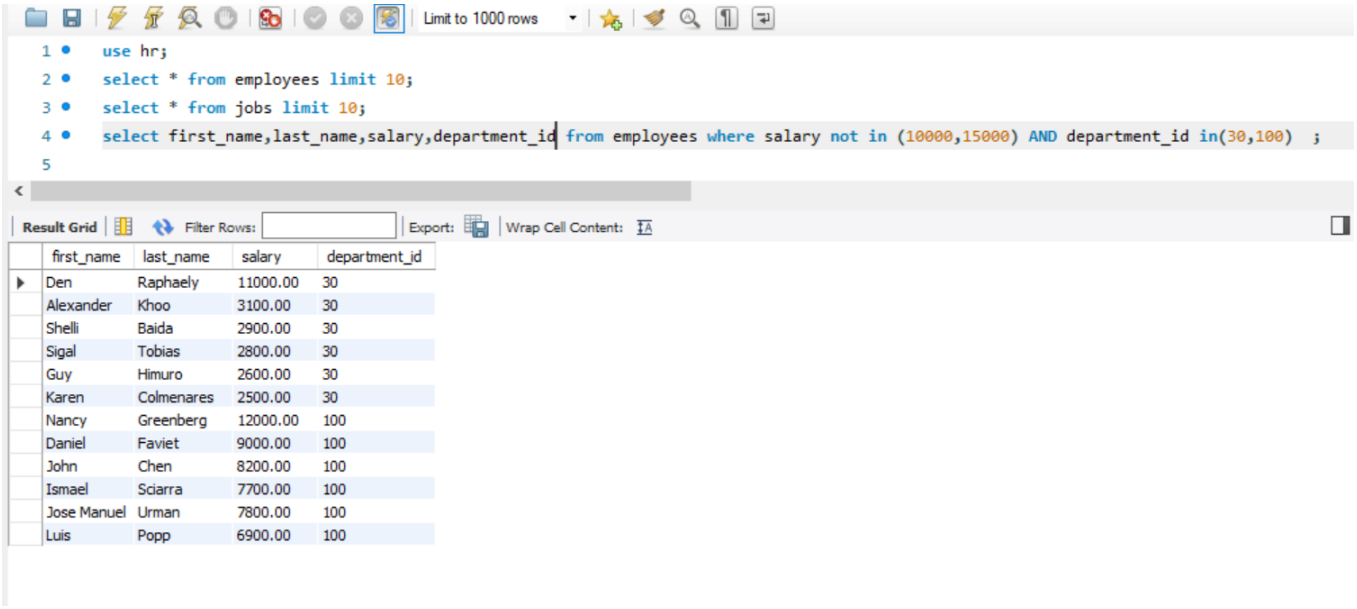
SYNTAX AND CODE:



first_name	last_name	department_id
Den	Raphaely	30
Alexander	Khoo	30
Shelli	Baida	30
Sigal	Tobias	30
Guy	Himuro	30
Karen	Colmenares	30
Nancy	Greenberg	100
Daniel	Faviet	100
John	Chen	100
Ismael	Sciarra	100
Jose Manuel	Urman	100
Luis	Popp	100

18. Write a query to display the name (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000 and are in department 30 or 100

Syntax and code:

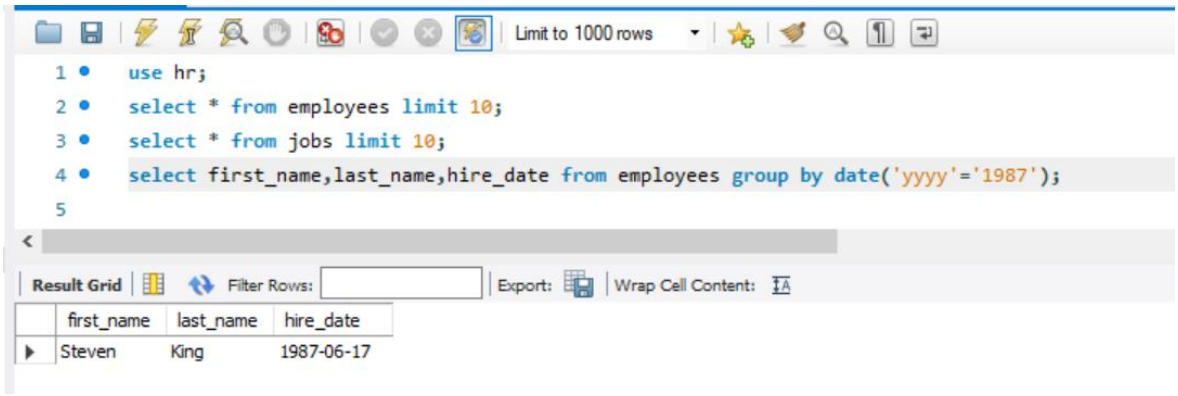


```
use hr;
select * from employees limit 10;
select * from jobs limit 10;
select first_name,last_name,salary,department_id from employees where salary not in (10000,15000) AND department_id in(30,100)  ;
```

first_name	last_name	salary	department_id
Den	Raphaely	11000.00	30
Alexander	Khoo	3100.00	30
Shelli	Baida	2900.00	30
Sigal	Tobias	2800.00	30
Guy	Himuro	2600.00	30
Karen	Colmenares	2500.00	30
Nancy	Greenberg	12000.00	100
Daniel	Faviet	9000.00	100
John	Chen	8200.00	100
Ismael	Sciarra	7700.00	100
Jose Manuel	Urman	7800.00	100
Luis	Popp	6900.00	100

19. Write a query to display the name (first_name, last_name) and hire date for all employees who were hired in 1987

Syntax and code:

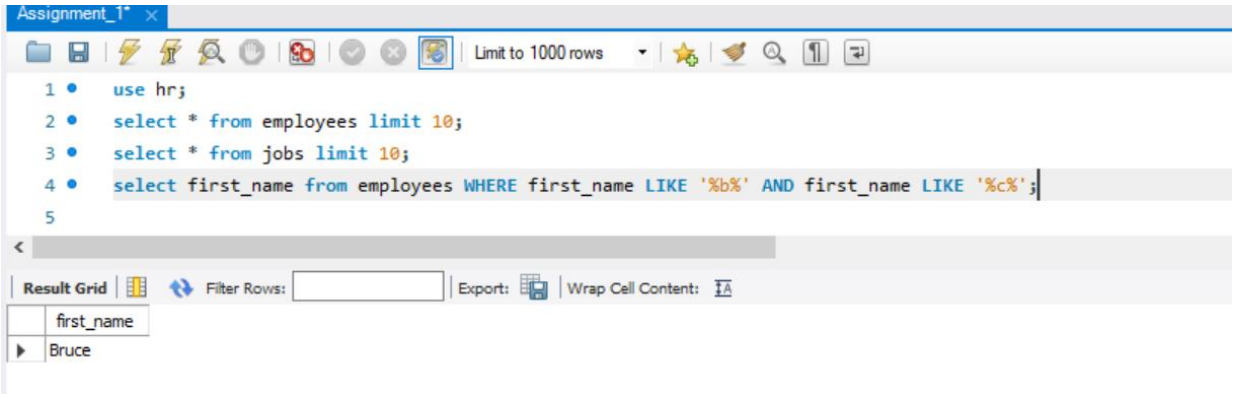


```
use hr;
select * from employees limit 10;
select * from jobs limit 10;
select first_name,last_name,hire_date from employees group by date('yyyy'='1987');
```

first_name	last_name	hire_date
Steven	King	1987-06-17

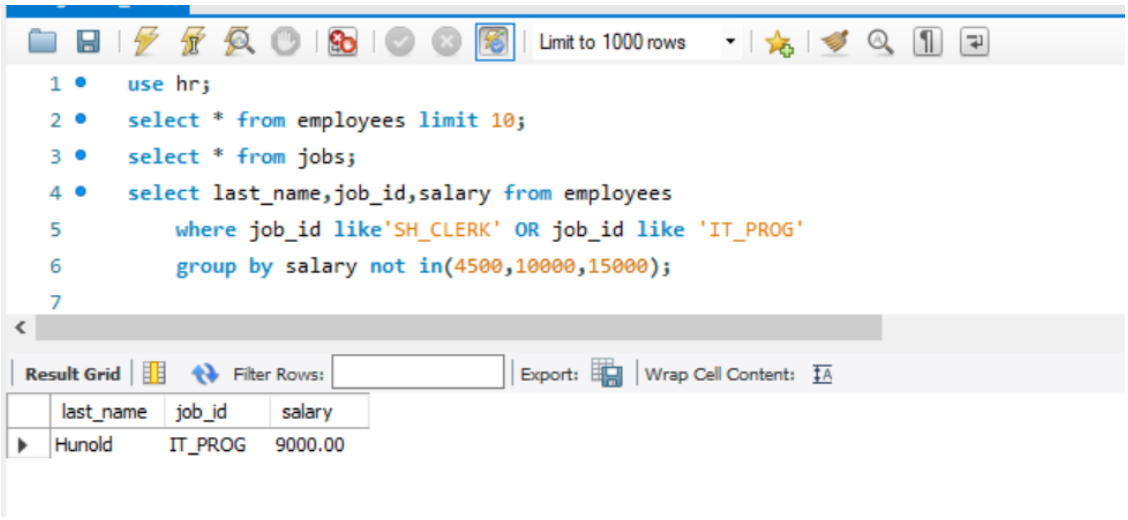
20. Write a query to display the first_name of all employees who have both "b" and "c" in their first name

SYNTAX AND CODE:



21. Write a query to display the last name, job, and salary for all employees whose job is that of a Programmer or a Shipping Clerk, and whose salary is not equal to $4,500, $10,000, or $15,000

Syntax and code:



22. Write a query to display the last name of employees whose names have exactly 6 characters

Syntax and code:

```
use hr;
select * from employees limit 10;
select * from jobs;
select last_name from employees where last_name like'_____';
```

last_name
Hunold
Austin
Faviet
Tobias
Himuro
Landry
Markle
Bissot
Marlow
Mallin
Rogers
Ladwig

23. Write a query to display the last name of employees having 'e' as the third character

Syntax and code:

```
use hr;
select * from employees limit 10;
select * from jobs;
select last_name from employees where last_name like'__e%';
```

last_name
Greenberg
Chen
Gee
McEwen
Greene
Lee
Ozer
Abel
Fleaur
Everett
Feeney
Baer
Gietz

24. Write a query to get the job_id and related employee's id Partial output of the query :

job_id	Employees ID
AC_ACCOUNT	206
AC_MGR	205
AD_ASST	200
AD_PRES	100
AD_VP	101 ,102
FI_ACCOUNT	110 ,113 ,111 ,109 ,112

Syntax and code:

25. Write a query to update the portion of the phone_number in the employees table, within the phone number the substring '124' will be replaced by '999'

Syntax:

```
use hr;
select * from employees limit 10;
select * from jobs;
update employees SET phone_number = REPLACE(phone_number, '124', '999')
WHERE phone_number LIKE '%124%';
```

26. Write a query to get the details of the employees where the length of the first name greater than or equal to 8

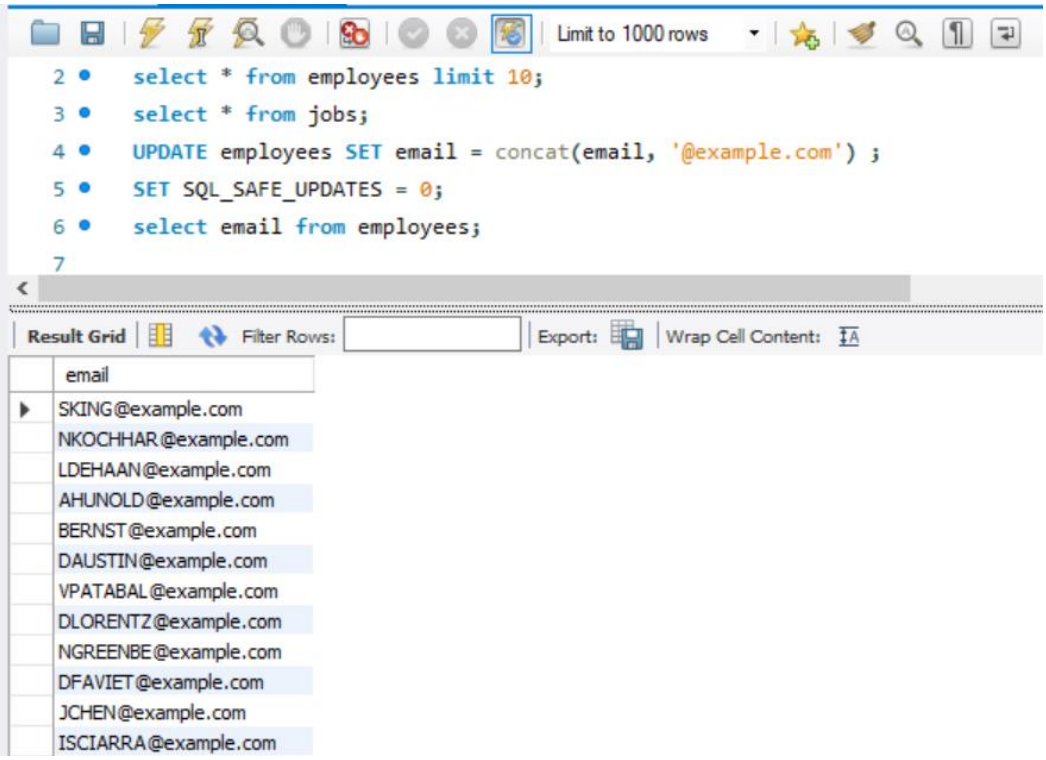
Syntax:

```
use hr;
select * from employees limit 10;
select * from jobs;
select first_name from employees where length(first_name )>=8;
```

first_name
Alexander
Jose Manuel
Alexander
Christopher
Danielle
Harrison
Elizabeth
Jonathon
Kimberely
Jennifer
Jennifer

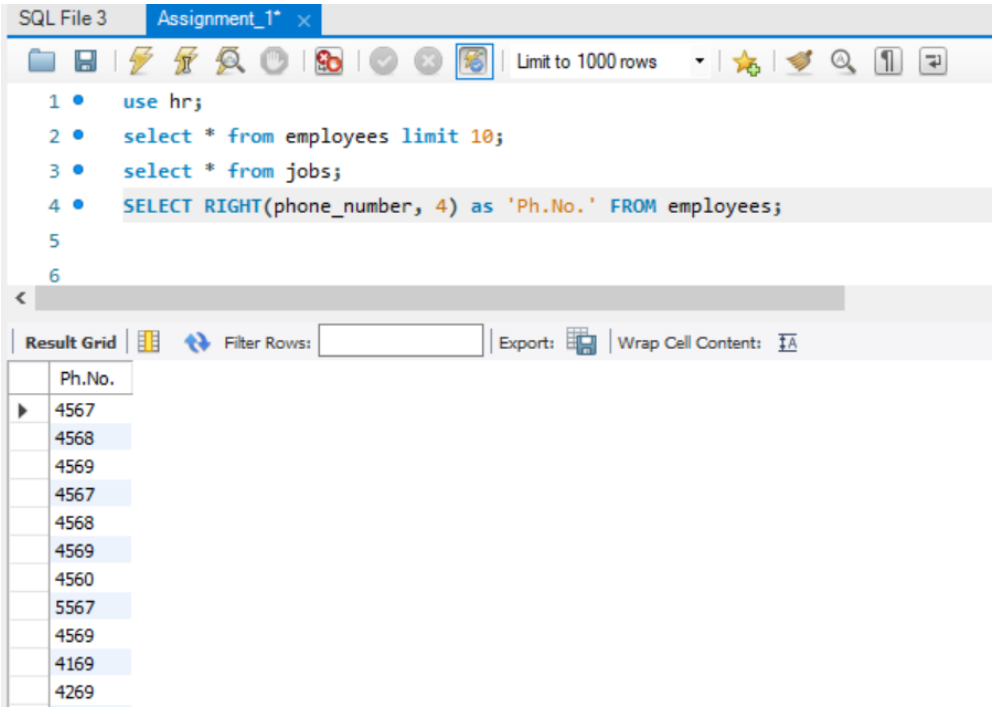
27. Write a query to append '@example.com' to email field

SYNTAX AND CODE:



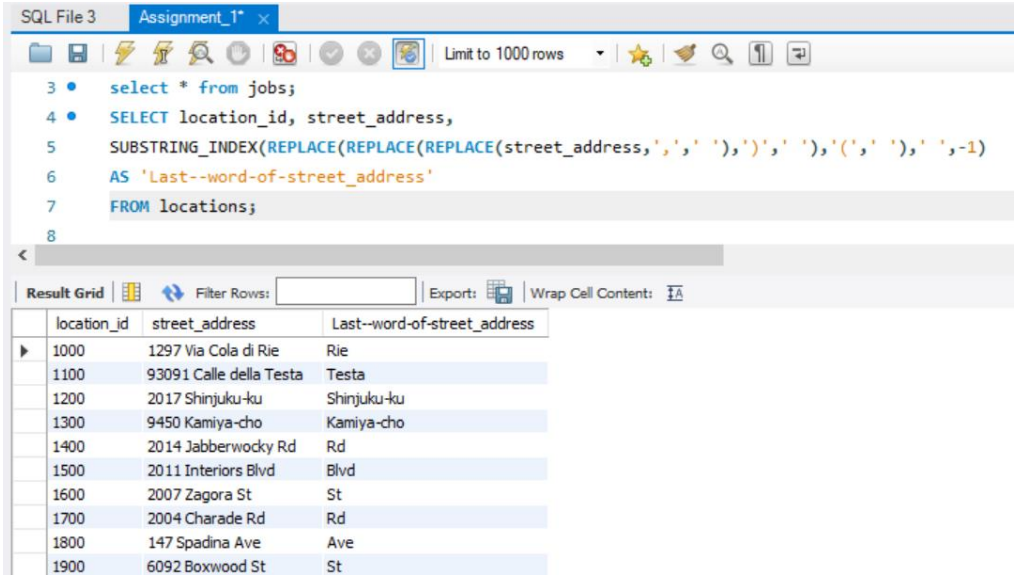
28. Write a query to extract the last 4 character of phone numbers

SYNTAX AND CODE:



29. Write a query to get the last word of the street address

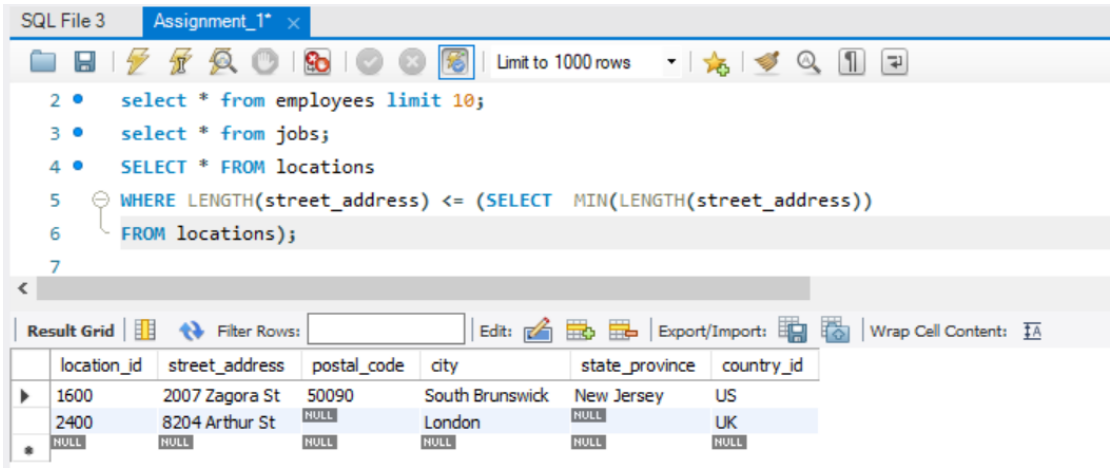
SYNTAX AND CODE:



location_id	street_address	Last--word-of-street_address
1000	1297 Via Cola di Rie	Rie
1100	93091 Calle della Testa	Testa
1200	2017 Shinjuku-ku	Shinjuku-ku
1300	9450 Kamiya-cho	Kamiya-cho
1400	2014 Jabberwocky Rd	Rd
1500	2011 Interiors Blvd	Blvd
1600	2007 Zagora St	St
1700	2004 Charade Rd	Rd
1800	147 Spadina Ave	Ave
1900	6092 Boxwood St	St

30. Write a query to get the locations that have minimum street length

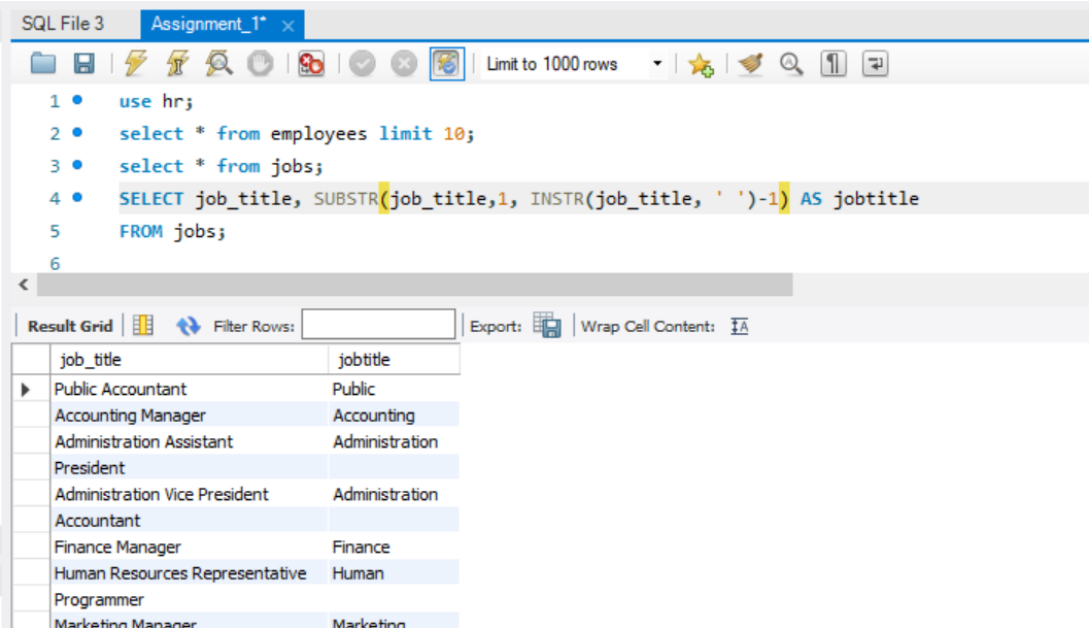
SYNTAX AND CODE:



location_id	street_address	postal_code	city	state_province	country_id
1600	2007 Zagora St	50090	South Brunswick	New Jersey	US
2400	8204 Arthur St	NULL	London	NULL	UK
NULL	NULL	NULL	NULL	NULL	NULL

31. Write a query to display the first word from those job titles which contains more than one words

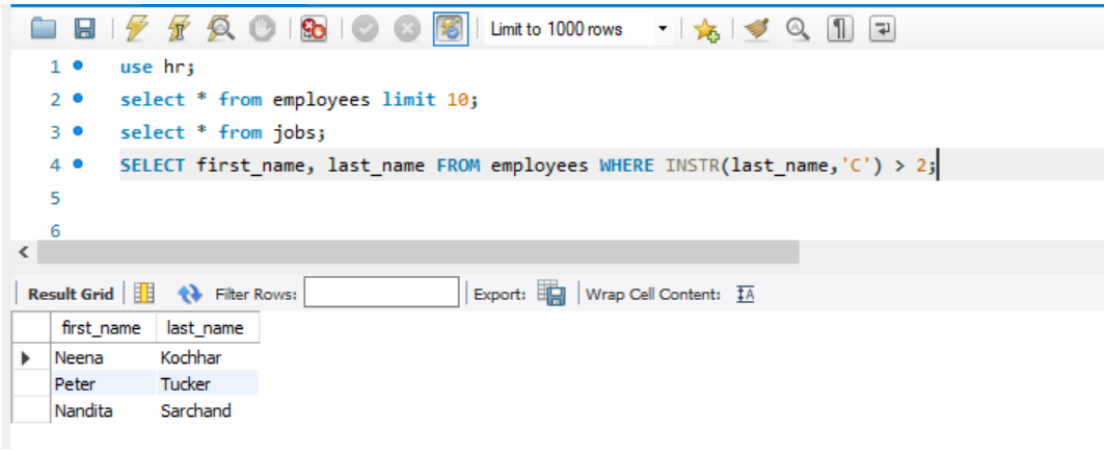
SYNTAX AND CODE:



job_title	jobtitle
Public Accountant	Public
Accounting Manager	Accounting
Administration Assistant	Administration
President	
Administration Vice President	Administration
Accountant	
Finance Manager	Finance
Human Resources Representative	Human
Programmer	
Marketing Manager	Marketing

32. Write a query to display the length of first name for employees where last name contain character 'c' after 2nd position

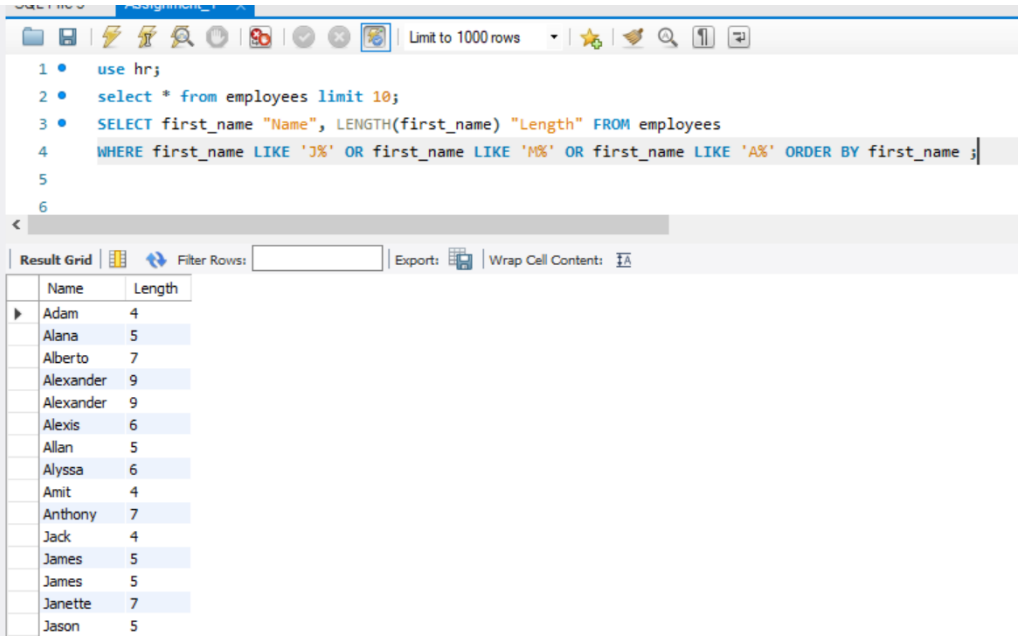
SYNTAX AND CODE:



first_name	last_name
Neena	Kochhar
Peter	Tucker
Nandita	Sarchand

33. Write a query that displays the first name and the length of the first name for all employees whose name starts with the letters 'A', 'J' or 'M'. Give each column an appropriate label. Sort the results by the employees' first names

SYNTAX AND CODE:

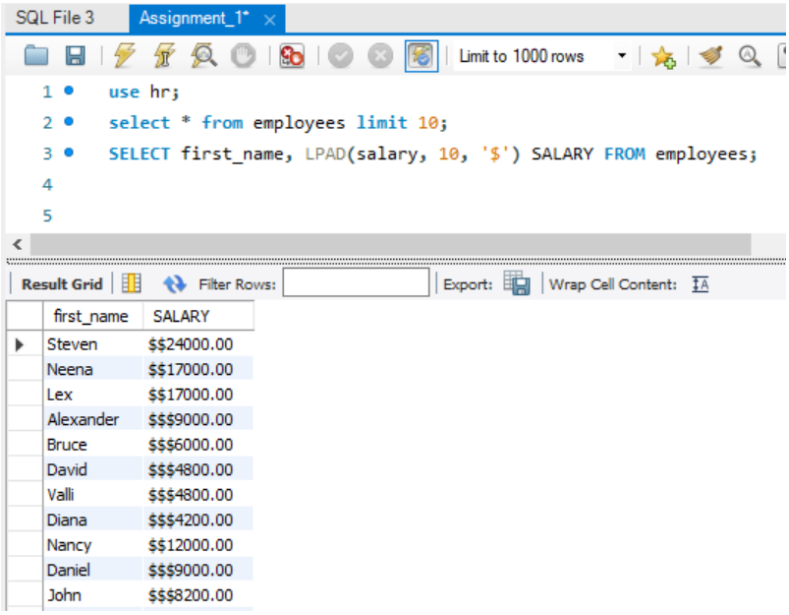


```
use hr;
select * from employees limit 10;
SELECT first_name "Name", LENGTH(first_name) "Length" FROM employees
WHERE first_name LIKE 'J%' OR first_name LIKE 'M%' OR first_name LIKE 'A%' ORDER BY first_name ;
```

Name	Length
Adam	4
Alana	5
Alberto	7
Alexander	9
Alexander	9
Alexis	6
Allan	5
Alyssa	6
Amit	4
Anthony	7
Jack	4
James	5
James	5
Janette	7
Jason	5

34. Write a query to display the first name and salary for all employees. Format the salary to be 10 characters long, left-padded with the $ symbol. Label the column SALARY

SYNTAX AND CODE:

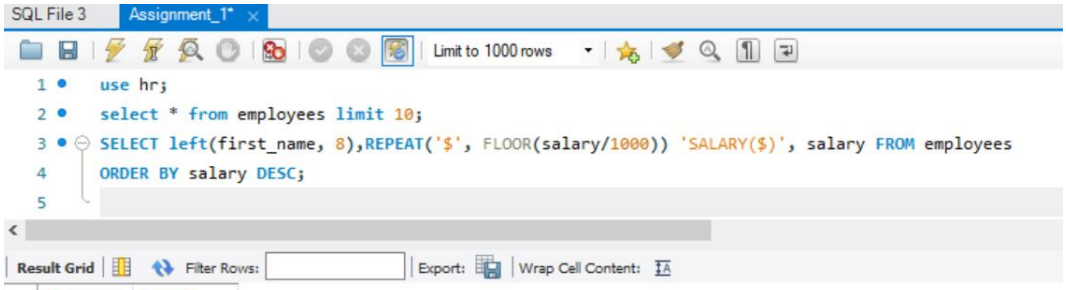


```
use hr;
select * from employees limit 10;
SELECT first_name, LPAD(salary, 10, '$') SALARY FROM employees;
```

first_name	SALARY
Steven	$$24000.00
Neena	$$17000.00
Lex	$$17000.00
Alexander	$$$9000.00
Bruce	$$$6000.00
David	$$$4800.00
Valli	$$$4800.00
Diana	$$$4200.00
Nancy	$$12000.00
Daniel	$$$9000.00
John	$$$8200.00

35. Write a query to display the first eight characters of the employees' first names and indicates the amounts of their salaries with '$' sign. Each '$' sign signifies a thousand dollars. Sort the data in descending order of salary

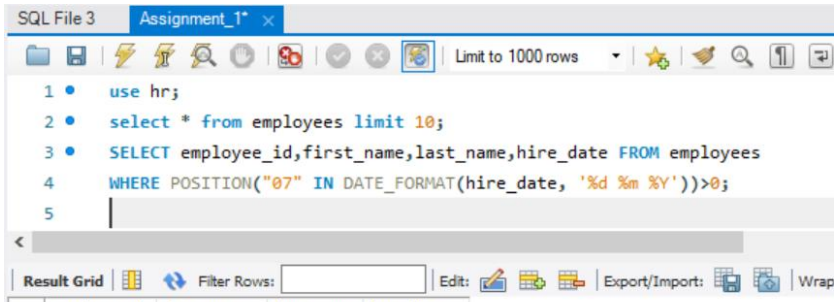
SYNTAX AND CODE:



first_name	SALARY
Steven	$$24000.00
Neena	$$17000.00
Lex	$$17000.00
Alexander	$$$9000.00
Bruce	$$$6000.00
David	$$$4800.00
Valli	$$$4800.00
Diana	$$$4200.00
Nancy	$$12000.00
Daniel	$$$9000.00

36. Write a query to display the employees with their code, first name, last name and hire date who hired either on seventh day of any month or seventh month in any year

SYNTAX AND CODE:

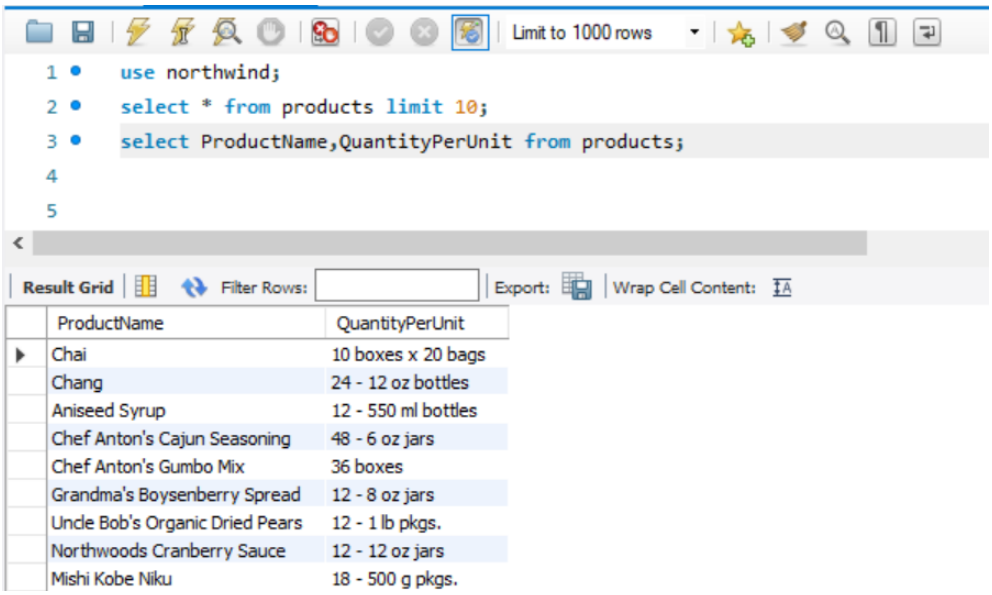


employee_id	first_name	last_name	hire_date
107	Diana	Lorentz	1999-02-07
112	Jose Manuel	Urman	1998-03-07
113	Luis	Popp	1999-12-07
114	Den	Raphaely	1994-12-07
117	Sigal	Tobias	1997-07-24
120	Matthew	Weiss	1996-07-18
125	Julia	Nayer	1997-07-16
137	Renske	Ladwig	1995-07-14
144	Peter	Vargas	1998-07-09
187	Anthony	Cabrio	1999-02-07
190	Timothy	Gates	1998-07-11
194	Samuel	McCain	1998-07-01
203	Susan	Mavris	1994-06-07
204	Hermann	Baer	1994-06-07

Northwind Database Exercises-

1. Write a query to get Product name and quantity/unit

SYNTAX AND CODE:



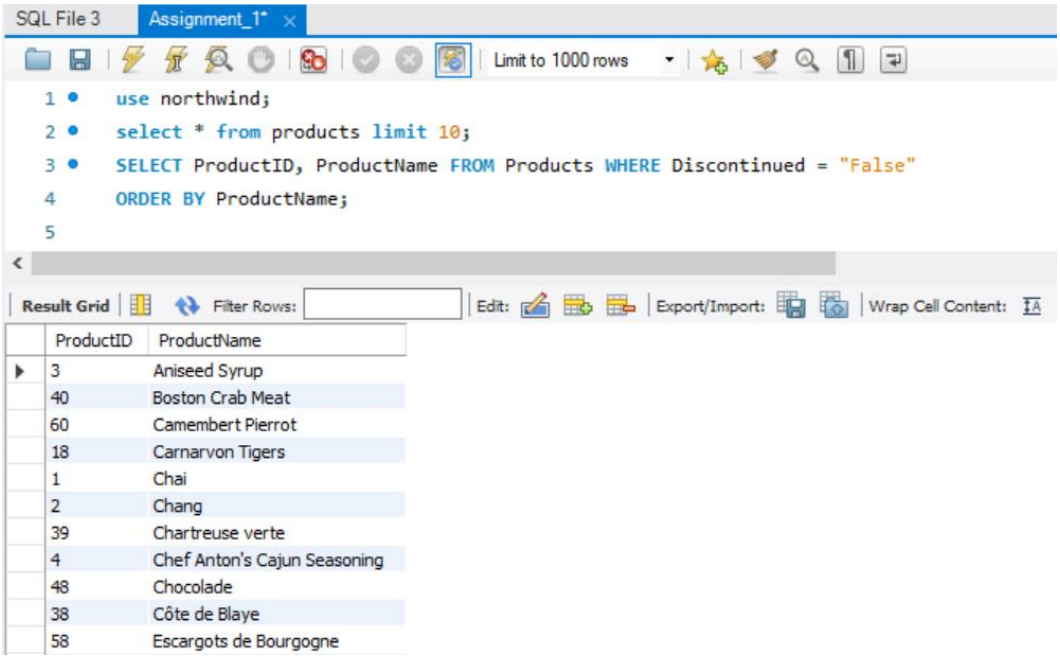
```
use northwind;
select * from products limit 10;
select ProductName,QuantityPerUnit from products;
```

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

ProductName	QuantityPerUnit
Chai	10 boxes x 20 bags
Chang	24 - 12 oz bottles
Aniseed Syrup	12 - 550 ml bottles
Chef Anton's Cajun Seasoning	48 - 6 oz jars
Chef Anton's Gumbo Mix	36 boxes
Grandma's Boysenberry Spread	12 - 8 oz jars
Uncle Bob's Organic Dried Pears	12 - 1 lb pkgs.
Northwoods Cranberry Sauce	12 - 12 oz jars
Mishi Kobe Niku	18 - 500 g pkgs.

2. Write a query to get current Product list (Product ID and name)

SYNTAX AND CODE:



SQL File 3 | Assignment_1*

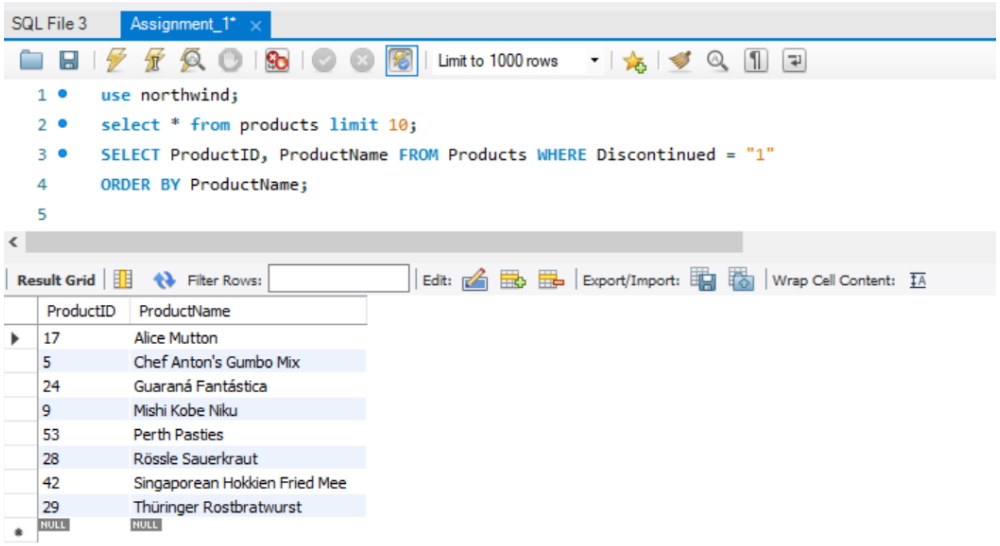
```
use northwind;
select * from products limit 10;
SELECT ProductID, ProductName FROM Products WHERE Discontinued = "False"
ORDER BY ProductName;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

ProductID	ProductName
3	Aniseed Syrup
40	Boston Crab Meat
60	Camembert Pierrot
18	Carnarvon Tigers
1	Chai
2	Chang
39	Chartreuse verte
4	Chef Anton's Cajun Seasoning
48	Chocolade
38	Côte de Blaye
58	Escargots de Bourgogne

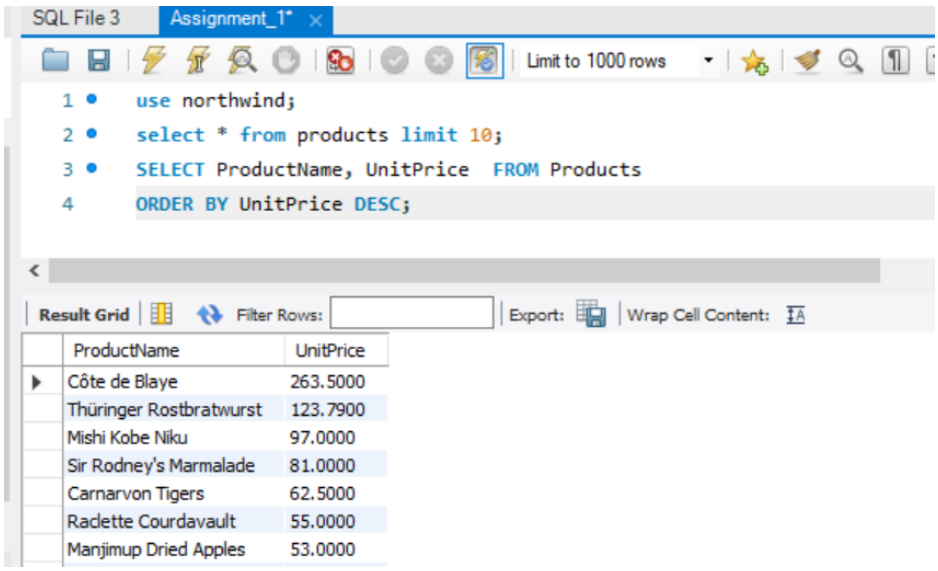
3. Write a query to get discontinued Product list (Product ID and name)

SYNTAX AND CODE:



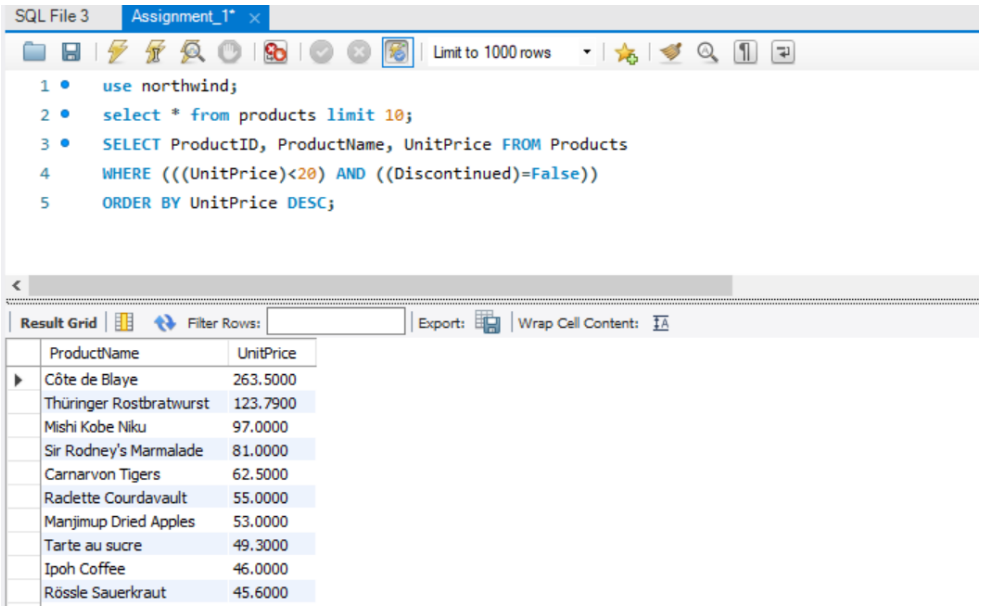
4. Write a query to get most expense and least expensive Product list (name and unit price)

SYNTAX AND CODE:



5. Write a query to get Product list (id, name, unit price) where current products cost less than $20

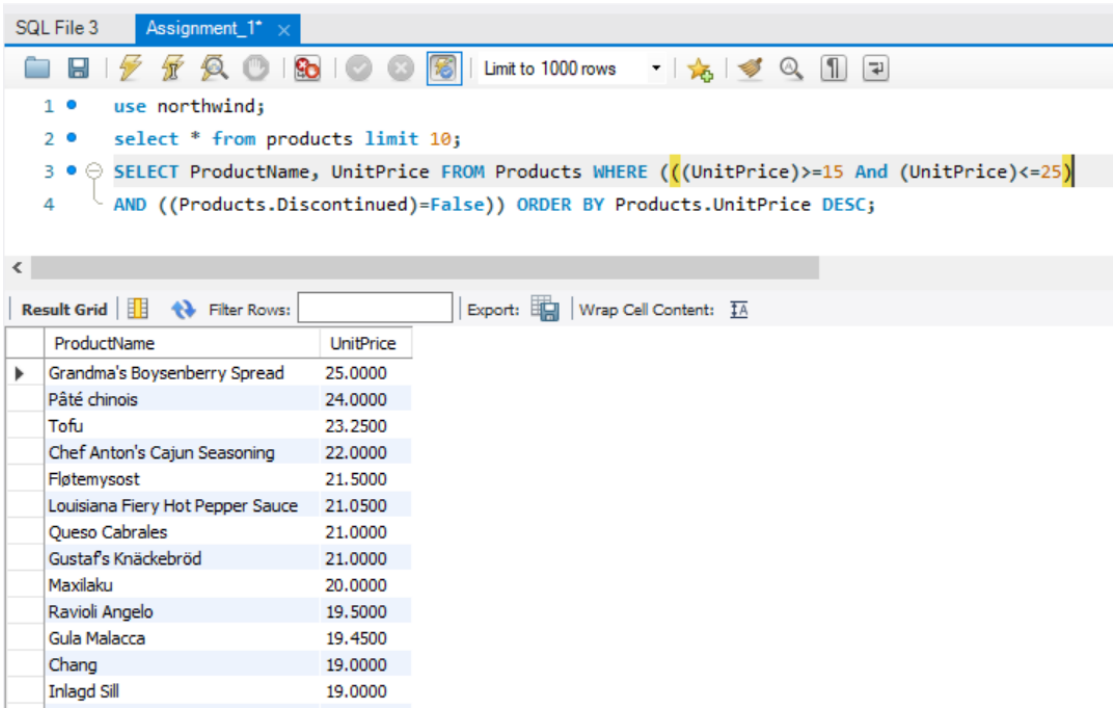
SYNTAX AND CODE:



ProductName	UnitPrice
Côte de Blaye	263.5000
Thüringer Rostbratwurst	123.7900
Mishi Kobe Niku	97.0000
Sir Rodney's Marmalade	81.0000
Carnarvon Tigers	62.5000
Raclette Courdavault	55.0000
Manjimup Dried Apples	53.0000
Tarte au sucre	49.3000
Ipoh Coffee	46.0000
Rössle Sauerkraut	45.6000

6. Write a query to get Product list (id, name, unit price) where products cost between $15 and $25

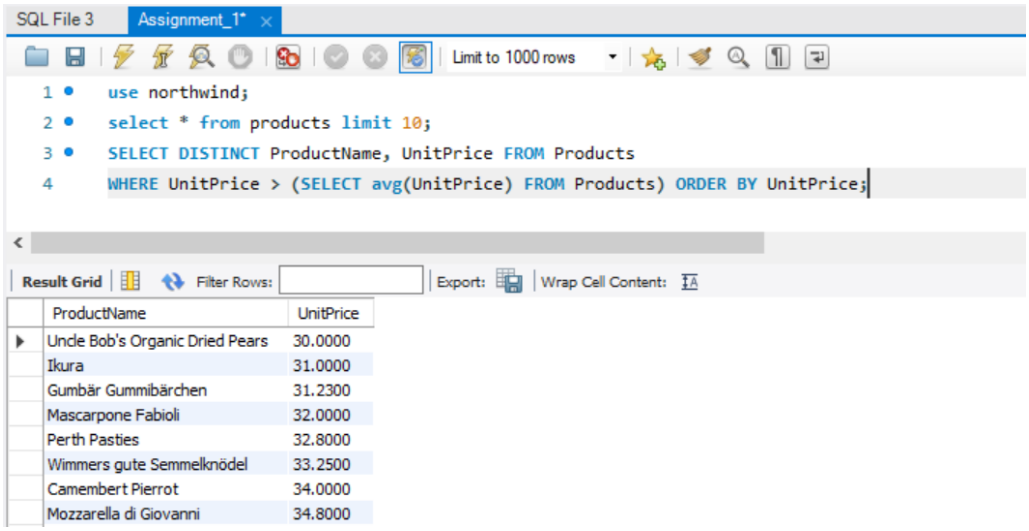
SYNTAX AND CODE:



ProductName	UnitPrice
Grandma's Boysenberry Spread	25.0000
Pâté chinois	24.0000
Tofu	23.2500
Chef Anton's Cajun Seasoning	22.0000
Fløtemysost	21.5000
Louisiana Fiery Hot Pepper Sauce	21.0500
Queso Cabrales	21.0000
Gustaf's Knäckebröd	21.0000
Maxilaku	20.0000
Ravioli Angelo	19.5000
Gula Malacca	19.4500
Chang	19.0000
Inlagd Sill	19.0000

7. Write a query to get Product list (name, unit price) of above average price

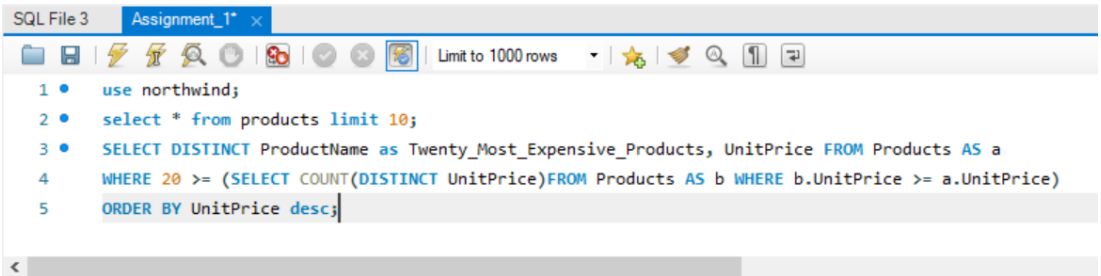
SYNTAX AND CODE:



ProductName	UnitPrice
Uncle Bob's Organic Dried Pears	30.0000
Ikura	31.0000
Gumbär Gummibärchen	31.2300
Mascarpone Fabioli	32.0000
Perth Pasties	32.8000
Wimmers gute Semmelknödel	33.2500
Camembert Pierrot	34.0000
Mozzarella di Giovanni	34.8000

8. Write a query to get Product list (name, unit price) of ten most expensive products

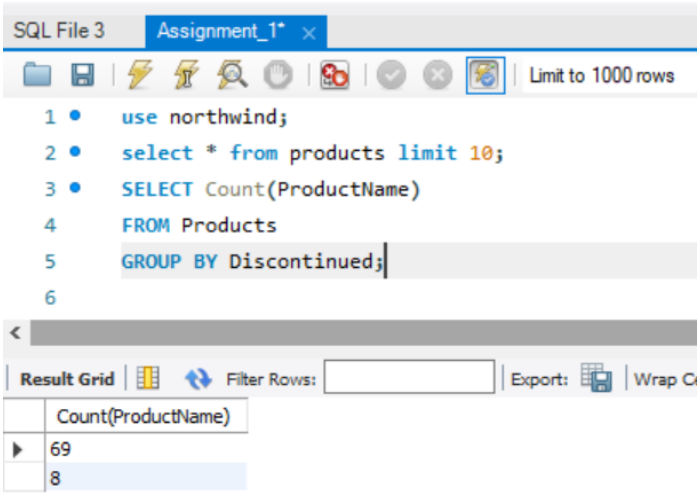
SYNTAX AND CODE:



Twenty_Most_Expensive_Products	UnitPrice
Côte de Blaye	263.5000
Thüringer Rostbratwurst	123.7900
Mishi Kobe Niku	97.0000
Sir Rodney's Marmalade	81.0000
Carnarvon Tigers	62.5000
Raclette Courdavault	55.0000
Manjimup Dried Apples	53.0000
Tarte au sucre	49.3000
Ipoh Coffee	46.0000
Rössle Sauerkraut	45.6000
Schoggi Schokolade	43.9000

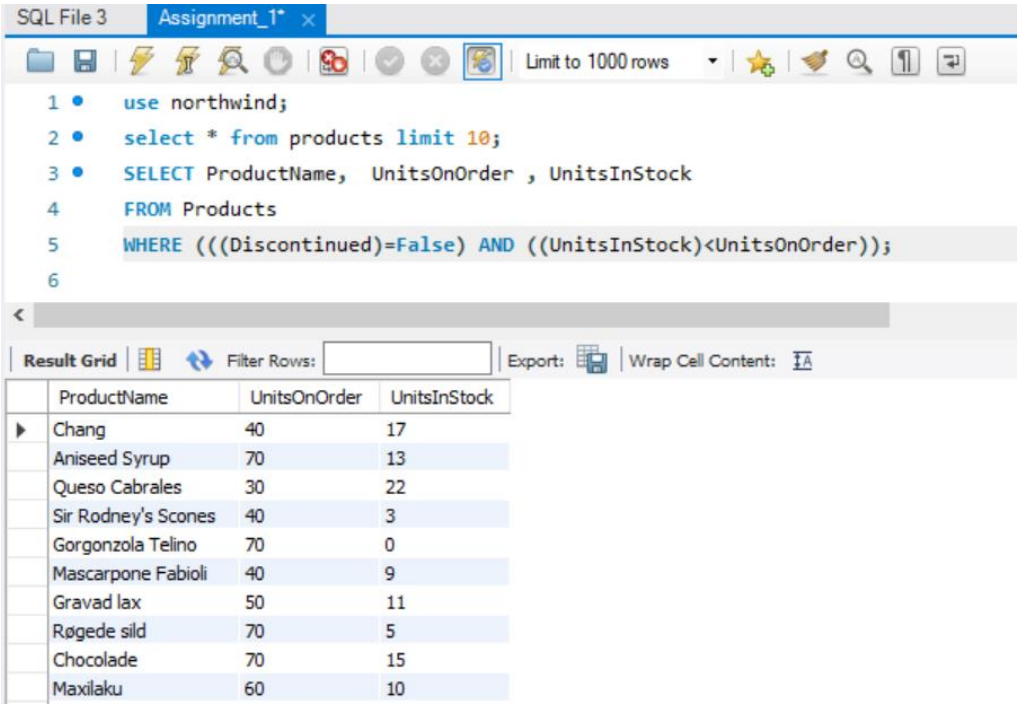
9. Write a query to count current and discontinued products

SYNTAX AND CODE:



10. Write a query to get Product list (name, units on order , units in stock) of stock is less than the quantity on order

SYNTAX AND CODE:



ProductName	UnitsOnOrder	UnitsInStock
Chang	40	17
Aniseed Syrup	70	13
Queso Cabrales	30	22
Sir Rodney's Scones	40	3
Gorgonzola Telino	70	0
Mascarpone Fabioli	40	9
Gravad lax	50	11
Røgede sild	70	5
Chocolade	70	15
Maxilaku	60	10