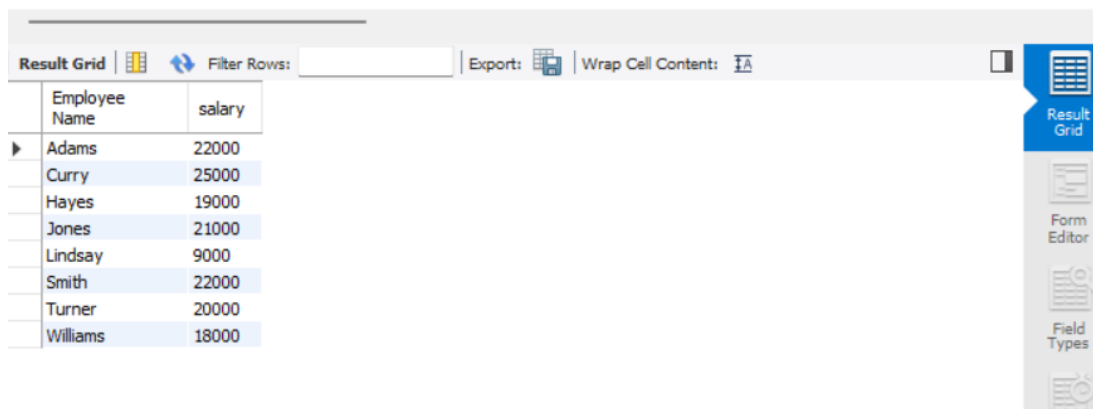


Task to do

1. Write a SQL query to retrieve names (displayed as “Employee Name”) and salary of employees. [Relevant table: Works]

```
select employeeName as 'Employee Name', salary from SIT772.works;
```

```
1 • select employeeName as 'Employee Name', salary from sit103.works;  
2 • select * from sit103.employee order by employeeName desc;  
3 • select distinct street from sit103.employee;
```



Employee Name	salary
Adams	22000
Curry	25000
Hayes	19000
Jones	21000
Lindsay	9000
Smith	22000
Turner	20000
Williams	18000

2. Write a SQL query to list name, street, and city of employees in descending order by their names. [Relevant table: Employee]

```
select * from SIT772.employee order by employeeName desc;
```

- 2 • `select * from sit103.employee order by employeeName desc;`
- 3 • `select distinct street from sit103.employee;`

employeeName	street	city
Williams	Nassus	Princeton
Turner	Putname	Stamford
Smith	North	Rye
Lindsay	Park	Pittsfield
Jones	Main	Harrison
Hayes	Main	Harrison
Curry	North	Rye
Adams	Spring	Pittsfield
* NULL	NULL	NULL

3. Write a SQL query to get a list of unique streets from the Employee table. [Relevant table: Employee]

`select distinct street from sit103.employee;`

- 3 • `select distinct street from sit103.employee;`

street
Spring
North
Main
Park
Putname
Nassus

4. Write a SQL query to list all records in the works table in descending order of company names and within a company in ascending order by employee name. [Relevant table: Works]

`select companyName,employeeName,salary from sit103.works order by companyName desc, employeeName asc;`

4

5 • companyName,employeeName,salary from sit103.works order by companyName desc, employeeName asc;

Result Grid

	companyName	employeeName	salary
▶	Woolworths	Hayes	19000
	Waltons	Smith	22000
	Tweeties	Jones	21000
	Tweeties	Williams	18000
	Meyer	Adams	22000
	Meyer	Curry	25000
	Meyer	Lindsay	9000
	Firebrand	Turner	20000
*	NULL	NULL	NULL

Result Grid
Form Editor
Field Types

5. Write a SQL query to list name and salary of all employees who work in Meyer and sort the records in ascending order by their incomes. [Relevant table: Works]

select employeeName,salary from sit103.works where companyName = 'Meyer' order by salary ;

4

5 • select employeeName,salary from sit103.works where companyName = 'Meyer' order by salary

6 • select * from sit103.employee;

Result Grid

	employeeName	salary
▶	Lindsay	9000
	Adams	22000
	Curry	25000

Result Grid
Form

6. Assuming that the salary in the Works table is annual salary, write a SQL query to retrieve names (displayed as “Employee Name”) and monthly salary as “Monthly Salary” of employees. [Relevant table: Works]

select employeeName as 'Employee Name', salary/12 as 'Monthly Salary' from sit103.works;

```

5 • select employeeName,salary from sit103.works where companyName = 'Meyer' order by salary ;
6 • select employeeName as 'Employee Name', salary/12 as 'Monthly Salary' from sit103.works;
7

```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
Employee Name	Monthly Salary		
Adams	1833.3333		
Curry	2083.3333		
Hayes	1583.3333		
Jones	1750.0000		
Lindsay	750.0000		
Smith	1833.3333		
Turner	1666.6667		
Williams	1500.0000		

7. Write a SQL query to list names and salaries of all employees who work in Meyer and earn more than 20000.

[Relevant table: Works]

```
select employeeName,salary from sit103.works where companyName ='Meyer' and salary>20000;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
employeeName	salary		
Adams	22000		
Curry	25000		

8. Write a SQL query to list names and companies of the employees who earn in the range of 20000 to 25000 (inclusive). [Relevant table: Works]

```
select employeeName,companyName from sit103.works where salary>=20000 and salary<=25000;
```

Result Grid			Filter Rows:	Edit:
	employeeName	companyName		
▶	Adams	Meyer		
	Curry	Meyer		
	Jones	Tweeties		
	Smith	Waltons		
	Turner	Firebrand		
•	HULL	HULL		

9. Write a SQL query to list names of employees whose managers have “ll” (double ls) in their names. [Relevant table: Manages]

`select employeeName from sit103.manages where managerName like '%ll%';`

Result Grid		Filter Rows
	employeeName	
▶	Curry	
	Hayes	
	Jones	
	Smith	
•	HULL	

10. Write a SQL query to list company names and the average salary of their employees. [Relevant table: Works]

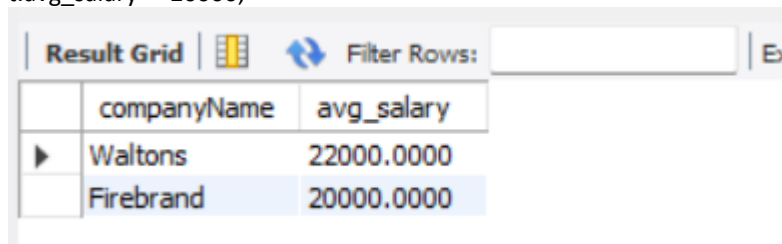
`select companyName,avg(salary) from sit103.works group by companyName;`

Result Grid			Filter Rows:
	companyName	avg(salary)	
▶	Meyer	18666.6667	
	Woolworths	19000.0000	
	Tweeties	19500.0000	
	Waltons	22000.0000	
	Firebrand	20000.0000	

11. Write a SQL query to list the name of the companies with average salary of employees more than or equal to 20000.

[Relevant table: Works]

```
select * from (
select companyName,avg(salary) as avg_salary from sit103.works group by companyName) t where
t.avg_salary >=20000;
```

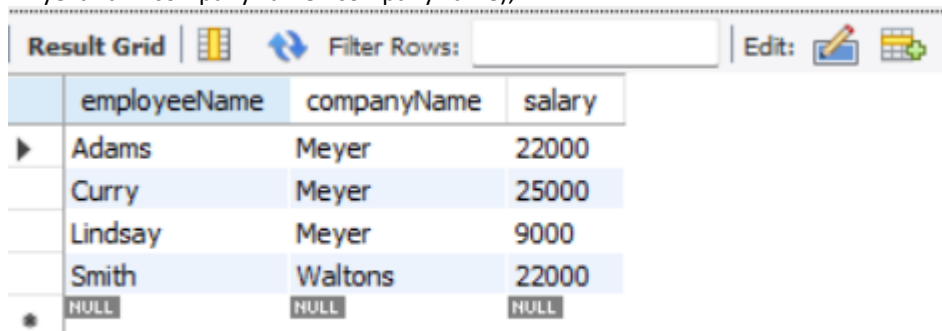


The screenshot shows a database interface with a 'Result Grid' tab. The grid displays the results of the SQL query, showing two rows of data. The first row is for 'Waltons' with an average salary of 22000.0000. The second row is for 'Firebrand' with an average salary of 20000.0000. The columns are labeled 'companyName' and 'avg_salary'.

	companyName	avg_salary
▶	Waltons	22000.0000
	Firebrand	20000.0000

12. Write a SQL query to select details of the employees who works in companies located in Rye. [Relevant tables: Works and Company; Hint: use a subquery]

```
select * from sit103.works w where companyName =any(select companyName from sit103.company
c where city ='Rye' );
select * from sit103.works w where exists (select companyName from sit103.company c where city
='Rye' and w.companyName =companyName);
```

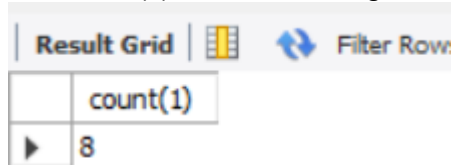


The screenshot shows a database interface with a 'Result Grid' tab. The grid displays the results of the SQL query, showing five rows of data. The first row is for 'Adams' at 'Meyer' with a salary of 22000. The second row is for 'Curry' at 'Meyer' with a salary of 25000. The third row is for 'Lindsay' at 'Meyer' with a salary of 9000. The fourth row is for 'Smith' at 'Waltons' with a salary of 22000. The fifth row is a summary row with 'NULL' for employeeName, 'NULL' for companyName, and 'NULL' for salary. The columns are labeled 'employeeName', 'companyName', and 'salary'.

	employeeName	companyName	salary
▶	Adams	Meyer	22000
	Curry	Meyer	25000
	Lindsay	Meyer	9000
	Smith	Waltons	22000
*	NULL	NULL	NULL

13. Write a SQL query find the number of rows in the Manages table. [Relevant tables: Manages; Hint: use COUNT()]

```
select count(1) from sit103.manages;
```

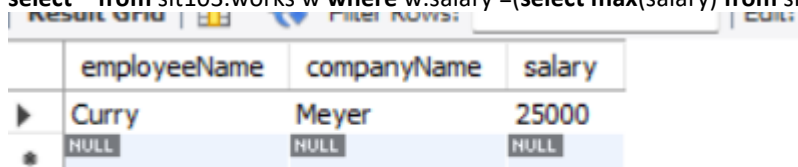


The screenshot shows a database interface with a toolbar containing 'Result Grid', a grid icon, and a 'Filter Rows' button. Below the toolbar is a table with one column labeled 'count(1)' and one row containing the value '8'.

count(1)
8

13. Write a SQL query to find the name and company of the employee earning the highest salary. [Relevant tables: Works; Hint: use a subquery using max() to find the highest salary. Please do not use 'WHERE salary=25000' as it is the highest salary in this case. Hope you can understand that it is not possible to know the highest value easily if there are millions of records. We want you to learn how to find it with a query.]

```
select * from sit103.works w where w.salary =(select max(salary) from sit103.works w2 ) ;
```



The screenshot shows a database interface with a toolbar containing 'Result Grid', a grid icon, and a 'Filter Rows' button. Below the toolbar is a table with three columns: 'employeeName', 'companyName', and 'salary'. The first row contains the values 'Curry', 'Meyer', and '25000'. The second row contains 'NULL', 'NULL', and 'NULL'.

employeeName	companyName	salary
Curry	Meyer	25000
NULL	NULL	NULL