

## 5.1P: Basic SQL – SELECT Queries

### Task to do

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

✓ Showing rows 0 - 7 (8 total, Query took 0.0004 seconds.)

```
SELECT EmployeeName AS "Employee Name", Salary FROM Works;
```

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☐ Show all | Number of rows: 25 ▼ Filter rows:  Sort by key:

Extra options

				Employee Name	Salary
<input type="checkbox"/>	Edit	Copy	Delete	Adams	22000
<input type="checkbox"/>	Edit	Copy	Delete	Curry	25000
<input type="checkbox"/>	Edit	Copy	Delete	Hayes	19000
<input type="checkbox"/>	Edit	Copy	Delete	Jones	21000
<input type="checkbox"/>	Edit	Copy	Delete	Lindsay	9000
<input type="checkbox"/>	Edit	Copy	Delete	Smith	22000
<input type="checkbox"/>	Edit	Copy	Delete	Turner	20000
<input type="checkbox"/>	Edit	Copy	Delete	Williams	18000

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

✓ Showing rows 0 - 7 (8 total, Query took 0.0005 seconds.) [employeeName: WILLIAMS... - ADAMS...]

```
SELECT employeeName, street, city FROM employee ORDER BY employeeName DESC;
```

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☐ Show all | Number of rows: 25 | Filter rows:  | Sort by key: No

Extra options

	employeeName	street	city
<input type="checkbox"/> Edit Copy Delete	Williams	Nassus	Princeton
<input type="checkbox"/> Edit Copy Delete	Turner	Putname	Stamford
<input type="checkbox"/> Edit Copy Delete	Smith	North	Rye
<input type="checkbox"/> Edit Copy Delete	Lindsay	Park	Pittsfield
<input type="checkbox"/> Edit Copy Delete	Jones	Main	Harrison
<input type="checkbox"/> Edit Copy Delete	Hayes	Main	Harrison
<input type="checkbox"/> Edit Copy Delete	Curry	North	Rye
<input type="checkbox"/> Edit Copy Delete	Adams	Spring	Pittsfield

☐ Check all
 With selected:
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 ☐ Copy
 ☐ Delete
 ☐ Export

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

✓ Showing rows 0 - 5 (6 total, Query took 0.0005 seconds.)

```
SELECT DISTINCT Street FROM Employee;
```

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☐ Show all | Number of rows: 25 ▼ | Filter rows:  | Sort by key:

Extra options

	Street
<input type="checkbox"/> Edit  Copy  Delete	Spring
<input type="checkbox"/> Edit  Copy  Delete	North
<input type="checkbox"/> Edit  Copy  Delete	Main
<input type="checkbox"/> Edit  Copy  Delete	Park
<input type="checkbox"/> Edit  Copy  Delete	Putname
<input type="checkbox"/> Edit  Copy  Delete	Nassus

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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]

✓ Showing rows 0 - 7 (8 total, Query took 0.0006 seconds.)

```
SELECT * FROM Works ORDER BY CompanyName DESC, EmployeeName ASC;
```

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☐ Show all | Number of rows:  | Filter rows:  | Sort by key:

Extra options

	employeeName	companyName	salary
<input type="checkbox"/> Edit  Copy  Delete	Hayes	Woolworths	19000
<input type="checkbox"/> Edit  Copy  Delete	Smith	Waltons	22000
<input type="checkbox"/> Edit  Copy  Delete	Jones	Tweeties	21000
<input type="checkbox"/> Edit  Copy  Delete	Williams	Tweeties	18000
<input type="checkbox"/> Edit  Copy  Delete	Adams	Meyer	22000
<input type="checkbox"/> Edit  Copy  Delete	Curry	Meyer	25000
<input type="checkbox"/> Edit  Copy  Delete	Lindsay	Meyer	9000
<input type="checkbox"/> Edit  Copy  Delete	Turner	Firebrand	20000

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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]

✓ Showing rows 0 - 2 (3 total, Query took 0.0006 seconds.) [Salary: 9000... - 25000...]

```
SELECT EmployeeName AS "Name", Salary FROM Works WHERE CompanyName = 'Meyer' ORDER BY Salary ASC;
```

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☐ Show all | Number of rows: 25 ▼ | Filter rows:  | Sort by key: None

Extra options

	Name	Salary
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Lindsay	9000
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Adams	22000
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Curry	25000

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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]

✓ Showing rows 0 - 7 (8 total, Query took 0.0004 seconds.)

```
SELECT EmployeeName AS "Employee Name", Salary / 12 AS "Monthly Salary" FROM Works;
```

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☐ Show all | Number of rows: 25 | Filter rows:  | Sort by key:

Extra options

	Employee Name	Monthly Salary
<input type="checkbox"/> Edit  Copy  Delete	Adams	1833.3333
<input type="checkbox"/> Edit  Copy  Delete	Curry	2083.3333
<input type="checkbox"/> Edit  Copy  Delete	Hayes	1583.3333
<input type="checkbox"/> Edit  Copy  Delete	Jones	1750.0000
<input type="checkbox"/> Edit  Copy  Delete	Lindsay	750.0000
<input type="checkbox"/> Edit  Copy  Delete	Smith	1833.3333
<input type="checkbox"/> Edit  Copy  Delete	Turner	1666.6667
<input type="checkbox"/> Edit  Copy  Delete	Williams	1500.0000

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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]

✓ Showing rows 0 - 1 (2 total, Query took 0.0006 seconds.)

```
SELECT EmployeeName AS "Name", Salary FROM Works WHERE CompanyName = 'Meyer' AND Salary > 20000;
```

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☐ Show all | Number of rows: 25 | Filter rows:  | Sort by key:

Extra options

					Name	Salary
<input type="checkbox"/>					Adams	22000
<input type="checkbox"/>					Curry	25000

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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]

✓ Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)

```
SELECT EmployeeName AS "Name", CompanyName AS "Company" FROM Works WHERE Salary BETWEEN 20000 AND 25000;
```

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☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

	Name	Company
<input type="checkbox"/> Edit  Copy  Delete	Adams	Meyer
<input type="checkbox"/> Edit  Copy  Delete	Curry	Meyer
<input type="checkbox"/> Edit  Copy  Delete	Jones	Tweeties
<input type="checkbox"/> Edit  Copy  Delete	Smith	Waltons
<input type="checkbox"/> Edit  Copy  Delete	Turner	Firebrand

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

✓ Showing rows 0 - 3 (4 total, Query took 0.0006 seconds.)

```
SELECT employeeName FROM manages WHERE managerName LIKE "%ll%";
```

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☐ Show all | Number of rows: 25 ▼ Filter rows:  Sort by key:

Extra options

	employeeName
<input type="checkbox"/> Edit  Copy  Delete	Curry
<input type="checkbox"/> Edit  Copy  Delete	Hayes
<input type="checkbox"/> Edit  Copy  Delete	Jones
<input type="checkbox"/> Edit  Copy  Delete	Smith

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

✓ Showing rows 0 - 4 (5 total, Query took 0.0006 seconds.)

```
SELECT CompanyName AS "Company Name", AVG(Salary) AS "Average Salary" FROM Works GROUP BY CompanyName;
```

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☐ Show all | Number of rows: 25 | Filter rows:

Extra options

				Company Name	Average Salary
<input type="checkbox"/>	Edit	Copy	Delete	Firebrand	20000.0000
<input type="checkbox"/>	Edit	Copy	Delete	Meyer	18666.6667
<input type="checkbox"/>	Edit	Copy	Delete	Tweeties	19500.0000
<input type="checkbox"/>	Edit	Copy	Delete	Waltons	22000.0000
<input type="checkbox"/>	Edit	Copy	Delete	Woolworths	19000.0000

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 Copy
 Delete
 Export

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]

✓ Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

```
SELECT CompanyName FROM Works GROUP BY CompanyName HAVING AVG(Salary) >= 20000;
```

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☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

	CompanyName
<input type="checkbox"/> Edit Copy Delete	Firebrand
<input type="checkbox"/> Edit Copy Delete	Waltons

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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]

✓ Showing rows 0 - 3 (4 total, Query took 0.0004 seconds)

```
SELECT W.EmployeeName, W.Salary, W.CompanyName FROM Works AS W WHERE W.CompanyName IN ( SELECT C.CompanyName FROM Company AS C WHERE C.City = 'Rye' );
```

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☐ Show all | Number of rows: 25 | Filter rows:  | Sort by key: None

Extra options

	EmployeeName	Salary	CompanyName
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Adams	22000	Meyer
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Curry	25000	Meyer
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Lindsay	9000	Meyer
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Smith	22000	Wallons

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

Your SQL query has been executed successfully.

```
SELECT COUNT(*) AS "Number of Rows" FROM Manages;
```

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Extra options

Number of Rows
8

14. 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 if there are millions of records. We want you to learn how to find it with a query.]

✓ Showing rows 0 - 0 (1 total, Query took 0.0012 seconds.)

```
SELECT W.EmployeeName AS "Employee Name", W.CompanyName AS "Company" FROM Works AS W WHERE W.Salary = ( SELECT MAX(Salary) FROM Works );
```

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☐ Show all | Number of rows: 25 | Filter rows:

Extra options

	Employee Name	Company
<input type="checkbox"/> <a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a> Curry	Meyer	

☐ Check all    With selected: [Edit](#) [Copy](#) [Delete](#) [Export](#)