

```
18 • Select * from students;
```

```
19
```

	StudentID	FirstName	LastName	Email	BirthDate	EnrollmentDate
▶	1	John	Doe	john.doe@email.com	2000-01-15	2022-08-01
▶	2	Jane	Smith	jane.smith@email.com	1999-05-25	2021-08-01
*	HULL	HULL	HULL	HULL	HULL	HULL

```
32 • select * from Courses;
```

```
33
```

	CourseID	CourseName	DepartmentID	Credits
▶	101	Introduction to SQL	1	3
▶	102	Data Structures	2	4
*	HULL	HULL	HULL	HULL

```
47 • select * from emp;
```

```
48
```

	EnrolmentID	StudentID	CourseID	EnrollmentDate
▶	1	1	101	2022-08-01
▶	2	2	102	2021-08-01
*	HULL	HULL	HULL	HULL

```
60  
61 • Select * from departments;  
62
```

	DepartmentID	DepartmentName
▶	1	Computer Science
▶	2	Mathematics
*	HULL	HULL

```
68 • UPDATE Students  
69     SET Email = 'john.new@email.com'  
70     WHERE StudentID = 1;  
71 • Select * from students;
```

	StudentID	FirstName	LastName	Email	BirthDate	EnrollmentDate
▶	1	John	Doe	john.new@email.com	2000-01-15	2022-08-01
▶	2	Jane	Smith	jane.smith@email.com	1999-05-25	2021-08-01
*	HULL	HULL	HULL	HULL	HULL	HULL

```
72 ~  
73 • DELETE FROM emp  
74     WHERE EnrolmentID = 2;  
75 • Select * from emp;
```

	EnrolmentID	StudentID	CourseID	EnrollmentDate
▶	1	1	101	2022-08-01
*	HULL	HULL	HULL	HULL

```
--  
76  
77 •   SELECT *  
78     FROM Students  
79      WHERE EnrollmentDate > '2022-01-01';  
80
```

Result Grid | Filter Rows: Edit: Export/Import:

	StudentID	FirstName	LastName	Email	BirthDate	EnrollmentDate
▶	1	John	Doe	john.new@email.com	2000-01-15	2022-08-01
*	NULL	NULL	NULL	NULL	NULL	NULL

ov

```
81  
82 •   SELECT c.CourseID, c.CourseName  
83     FROM Courses c  
84     JOIN Departments d ON c.DepartmentID = d.DepartmentID  
85      WHERE d.DepartmentName = 'Mathematics'  
86      LIMIT 5;
```

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

CourseID	CourseName
102	Data Structures

87

```
88 •   SELECT
89       c.CourseName,
90       COUNT(e.StudentID) AS TotalStudents
91   FROM emp e
92   JOIN Courses c ON e.CourseID = c.CourseID
93   GROUP BY c.CourseName
94   HAVING COUNT(e.StudentID) > 0;
```

95

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	CourseName	TotalStudents		
▶	Introduction to SQL	1		

```
102      HAVING COUNT(DISTINCT c.CourseName) = 2;
103
104 •   SELECT DISTINCT s.StudentID, s.FirstName, s.LastName
105   FROM Students s
106   JOIN emp e ON s.StudentID = e.StudentID
107   JOIN Courses c ON e.CourseID = c.CourseID
108   WHERE c.CourseName IN ('Introduction to SQL', 'Data Structures');
109
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	StudentID	FirstName	LastName		
▶	1	John	Doe		

```
102      HAVING COUNT(DISTINCT c.CourseName) = 2;
103
104 •   SELECT DISTINCT s.StudentID, s.FirstName, s.LastName
105   FROM Students s
106   JOIN emp e ON s.StudentID = e.StudentID
107   JOIN Courses c ON e.CourseID = c.CourseID
108   WHERE c.CourseName IN ('Introduction to SQL', 'Data Structures');
109
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	StudentID	FirstName	LastName		
▶	1	John	Doe		

```
102      HAVING COUNT(DISTINCT c.CourseName) = 2;
```

```
103
```

```
104 •  SELECT DISTINCT s.StudentID, s.FirstName, s.LastName
```

```
105     FROM Students s
```

```
106     JOIN emp e ON s.StudentID = e.StudentID
```

```
107     JOIN Courses c ON e.CourseID = c.CourseID
```

```
108     WHERE c.CourseName IN ('Introduction to SQL', 'Data Structures');
```

```
109
```

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

	StudentID	FirstName	LastName
▶	1	John	Doe

```
109
```

```
110 •  SELECT AVG(Credits) AS AverageCredits
```

```
111     FROM Courses;
```

```
112
```

Result Grid | Filter Rows: Export: Wrap Ce

AverageCredits
3.5000

```
109
```

```
110 •  SELECT AVG(Credits) AS AverageCredits
```

```
111     FROM Courses;
```

```
112
```

Result Grid | Filter Rows: Export: Wrap Ce

AverageCredits
3.5000

```
109  
110 •   SELECT AVG(Credits) AS AverageCredits  
111     FROM Courses;  
112
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
AverageCredits				
3.5000				

```
18  
19 •   SELECT  
20       d.DepartmentName,  
21       COUNT(DISTINCT e.StudentID) AS TotalStudents  
22   FROM emp e  
23   JOIN Courses c ON e.CourseID = c.CourseID  
24   JOIN Departments d ON c.DepartmentID = d.DepartmentID  
25   GROUP BY d.DepartmentName;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
DepartmentName				
Computer Science				

```
18  
19 •   SELECT  
20       d.DepartmentName,  
21       COUNT(DISTINCT e.StudentID) AS TotalStudents  
22   FROM emp e  
23   JOIN Courses c ON e.CourseID = c.CourseID  
24   JOIN Departments d ON c.DepartmentID = d.DepartmentID  
25   GROUP BY d.DepartmentName;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
DepartmentName				
Computer Science				

18

```
19 •   SELECT
20       d.DepartmentName,
21       COUNT(DISTINCT e.StudentID) AS TotalStudents
22   FROM emp e
23   JOIN Courses c ON e.CourseID = c.CourseID
24   JOIN Departments d ON c.DepartmentID = d.DepartmentID
25   GROUP BY d.DepartmentName;
```

result Grid | Filter Rows: _____ | Export: Wrap Cell Content:

DepartmentName	TotalStudents
Computer Science	1

18

```
19 •   SELECT
20       d.DepartmentName,
21       COUNT(DISTINCT e.StudentID) AS TotalStudents
22   FROM emp e
23   JOIN Courses c ON e.CourseID = c.CourseID
24   JOIN Departments d ON c.DepartmentID = d.DepartmentID
25   GROUP BY d.DepartmentName;
```

result Grid | Filter Rows: _____ | Export: Wrap Cell Content:

DepartmentName	TotalStudents
Computer Science	1

```
126
127 •   SELECT
128     s.FirstName,
129     s.LastName,
130     c.CourseName
131   FROM emp e
132     INNER JOIN Students s ON e.StudentID = s.StudentID
133     INNER JOIN Courses c ON e.CourseID = c.CourseID;
134
```

Result Grid			
	FirstName	LastName	CourseName
▶	John	Doe	Introduction to SQL

```
126
127 •   SELECT
128     s.FirstName,
129     s.LastName,
130     c.CourseName
131   FROM emp e
132     INNER JOIN Students s ON e.StudentID = s.StudentID
133     INNER JOIN Courses c ON e.CourseID = c.CourseID;
134
```

Result Grid			
	FirstName	LastName	CourseName
▶	John	Doe	Introduction to SQL

```
126  
127 •   SELECT  
128     s.FirstName,  
129     s.LastName,  
130     c.CourseName  
131   FROM emp e  
132     INNER JOIN Students s ON e.StudentID = s.StudentID  
133     INNER JOIN Courses c ON e.CourseID = c.CourseID;  
134
```

	FirstName	LastName	CourseName
▶	John	Doe	Introduction to SQL

```
134  
135 •   SELECT  
136     s.FirstName,  
137     s.LastName,  
138     c.CourseName  
139   FROM Students s  
140     LEFT JOIN emp e ON s.StudentID = e.StudentID  
141     LEFT JOIN Courses c ON e.CourseID = c.CourseID;
```

	FirstName	LastName	CourseName
▶	John	Doe	Introduction to SQL
	Jane	Smith	NULL

```
134
135 •   SELECT
136     s.FirstName,
137     s.LastName,
138     c.CourseName
139   FROM Students s
140   LEFT JOIN emp e ON s.StudentID = e.StudentID
141   LEFT JOIN Courses c ON e.CourseID = c.CourseID;
```

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

	FirstName	LastName	CourseName
▶	John	Doe	Introduction to SQL
	Jane	Smith	NULL

```
134
135 •   SELECT
136     s.FirstName,
137     s.LastName,
138     c.CourseName
139   FROM Students s
140   LEFT JOIN emp e ON s.StudentID = e.StudentID
141   LEFT JOIN Courses c ON e.CourseID = c.CourseID;
```

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

	FirstName	LastName	CourseName
▶	John	Doe	Introduction to SQL
	Jane	Smith	NULL

```
152
153 •   SELECT
154     StudentID,
155     FirstName,
156     LastName,
157     YEAR(EnrollmentDate) AS EnrollmentYear
158   FROM Students;
```

Result Grid | Filter Rows: Export: Wrap Cell

	StudentID	FirstName	LastName	EnrollmentYear
1	1	John	Doe	2022
2	2	Jane	Smith	2021

```
152
153 •   SELECT
154     StudentID,
155     FirstName,
156     LastName,
157     YEAR(EnrollmentDate) AS EnrollmentYear
158   FROM Students;
```

Result Grid | Filter Rows: Export: Wrap Cell

	StudentID	FirstName	LastName	EnrollmentYear
1	1	John	Doe	2022
2	2	Jane	Smith	2021

```
152
153 •   SELECT
154     StudentID,
155     FirstName,
156     LastName,
157     YEAR(EnrollmentDate) AS EnrollmentYear
158   FROM Students;
```

Result Grid | Filter Rows: Export: Wrap Cell

	StudentID	FirstName	LastName	EnrollmentYear
1	1	John	Doe	2022
2	2	Jane	Smith	2021

```
160 •   SELECT
161     CourseID,
162     COUNT(StudentID) AS StudentsPerCourse,
163     SUM(COUNT(StudentID)) OVER (ORDER BY CourseID) AS RunningTotalStudents
164   FROM emp
165   GROUP BY CourseID;
```

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

	CourseID	StudentsPerCourse	RunningTotalStudents
	101	1	1

```

57 •   SELECT
58     StudentID,
59     FirstName,
60     LastName,
61     EnrollmentDate,
62     CASE
63         WHEN EnrollmentDate <= CURDATE() - INTERVAL 4 YEAR
64             THEN 'Senior'
65             ELSE 'Junior'
66         END AS StudentLevel
67     FROM Students;
68

```

Result Grid				
StudentID	FirstName	LastName	EnrollmentDate	StudentLevel
1	John	Doe	2022-08-01	Junior
2	Jane	Smith	2021-08-01	Senior

```

57 •   SELECT
58     StudentID,
59     FirstName,
60     LastName,
61     EnrollmentDate,
62     CASE
63         WHEN EnrollmentDate <= CURDATE() - INTERVAL 4 YEAR
64             THEN 'Senior'
65             ELSE 'Junior'
66         END AS StudentLevel
67     FROM Students;
68

```

Result Grid				
StudentID	FirstName	LastName	EnrollmentDate	StudentLevel
1	John	Doe	2022-08-01	Junior
2	Jane	Smith	2021-08-01	Senior

```
57 •   SELECT
58     StudentID,
59     FirstName,
60     LastName,
61     EnrollmentDate,
62     CASE
63         WHEN EnrollmentDate <= CURDATE() - INTERVAL 4 YEAR
64             THEN 'Senior'
65             ELSE 'Junior'
66         END AS StudentLevel
67     FROM Students;
68
```

Result Grid				
StudentID	FirstName	LastName	EnrollmentDate	StudentLevel
1	John	Doe	2022-08-01	Junior
2	Jane	Smith	2021-08-01	Senior