

\*SMS\_AZIZ> Script x SMS\_AZIZ.erd

```
SELECT
  COUNT(student) AS total_students
FROM
  Students;
```

Results 1 x

total\_students

1	20
---	----

\*SMS\_AZIZ> Script x SMS\_AZIZ.erd

```
SELECT
  CONCAT(students.first_name, ' ', students.last_name) AS full_name,
  departments.department_name,
  students.admission_year
FROM
  students
JOIN
  departments ON students.department_id = departments.department_id;
```

departments(+) 1 x

	full_name	department_name	admission_year
1	John Smith	Computer Science	2022
2	Emily Davis	Computer Science	2024
3	David Martinez	Computer Science	2022
4	Olivia Taylor	Computer Science	2022
5	Alexander Harris	Computer Science	2023
6	Sophia Rodriguez	Computer Science	2023
7	Jacob Hall	Computer Science	2023
8	Alice Turner	Electrical Engineering	2024
9	Sarah Wilson	Electrical Engineering	2023
10	Ryan Thomas	Electrical Engineering	2023
11	Emma Lee	Electrical Engineering	2022
12	Madison Clark	Electrical Engineering	2024
13	Ethan Scott	Electrical Engineering	2024
14	Ava Hernandez	Electrical Engineering	2024
15	Michael Brown	Mathematics	2022
16	Jessica Anderson	Mathematics	2024
17	Ethan White	Mathematics	2024
18	Benjamin King	Mathematics	2022
19	Mia Young	Mathematics	2022
20	William Adams	Mathematics	2022

Value x

John Smith

Refresh Save Cancel Export data 200 20 20 row(s) fetched - 0.003s (0.001s fetch) on 2024-11-14 at 19:58:43

\*<SMS\_AZIZ> Script x SMS\_AZIZ.erd

```
SELECT
    d.department_name,
    s.department_id,
    COUNT(s.student) AS total_students
FROM
    Students s
JOIN
    Departments d ON s.department_id = d.department_id
GROUP BY
    s.department_id, d.department_name;
```

departments(+) 1 x

Enter a SQL expression to filter results (use Ctrl+S)

	department_name	department_id	total_students
1	Computer Science	1	7
2	Electrical Engineering	2	7
3	Mathematics	3	6

\*<SMS\_AZIZ> Script x SMS\_AZIZ.erd

```
SELECT s.student, s.first_name, s.last_name, s.date_of_birth, s.gender, s.contact_number, s.email_address, s.admission_year, s.department_id, e.course_id, e.course_name,
       e.course_code, e.semester, e.year, e.grade
FROM
    Students s
LEFT JOIN
    Enrollments e ON s.student = e.student_id
LEFT JOIN
    Courses c ON e.course_id = c.course_id
ORDER BY
    s.student;
```

students(+) 1 x

Enter a SQL expression to filter results (use Ctrl+S)

	first_name	last_name	date_of_birth	gender	contact_number	email_address	admission_year	department_id	course_id	course_name	course_code	semester	year	grade
1	John	Smith	1998-05-15 00:00:00	M	1234567890	john.smith@example.com	2022	1	101	Introduction to Programming	CS101	1	2023	A
2	Alice	Tuner	2001-03-10 00:00:00	F	9876543210	alice.tuner@example.com	2024	2	102	Digital Logic Design	EE102	2	2022	B
3	Emily	Davis	2000-11-20 00:00:00	F	5555555555	emily.davis@example.com	2024	1	103	Calculus I	MATH101	1	2024	A
4	Michael	Brown	1999-09-05 00:00:00	M	9998887777	michael.brown@example.com	2022	3	104	Shakespearean Tragedies	ENGL201	2	2022	C
5	Sarah	Wilson	2002-02-28 00:00:00	F	4443332222	sarah.wilson@example.com	2023	2	105	American Revolution	HIST202	1	2023	B
6	David	Martinez	2000-07-12 00:00:00	M	7777777777	david.martinez@example.com	2022	1	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
7	Jessica	Anderson	2001-06-18 00:00:00	F	6666666666	jessica.anderson@example.com	2024	3	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
8	Ryan	Thomas	1999-04-25 00:00:00	M	3333333333	ryan.thomas@example.com	2023	2	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
9	Olivia	Taylor	2002-10-08 00:00:00	F	2222222222	olivia.taylor@example.com	2022	1	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
10	Ethan	White	2001-08-15 00:00:00	M	1111111111	ethan.white@example.com	2024	3	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
11	Emma	Lee	2000-12-30 00:00:00	F	7777777777	emma.lee@example.com	2022	2	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
12	Alexander	Harris	1998-07-05 00:00:00	M	9999999999	alexander.harris@example.com	2023	1	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
13	Madison	Clark	2002-05-20 00:00:00	F	8888888888	madison.clark@example.com	2024	2	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
14	Benjamin	King	1999-01-12 00:00:00	M	6667778888	benjamin.king@example.com	2022	3	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
15	Sophia	Rodriguez	2001-09-18 00:00:00	F	4444444444	sophia.rodriguez@example.com	2023	1	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
16	Ethan	Scott	2000-04-03 00:00:00	M	3334445555	ethan.scott@example.com	2024	2	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
17	Mia	Young	2002-11-22 00:00:00	F	2225556666	mia.young@example.com	2022	3	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
18	Jacob	Hall	1998-08-30 00:00:00	M	1115558888	jacob.hall@example.com	2023	1	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
19	Ava	Hernandez	2001-01-05 00:00:00	F	9995558888	ava.hernandez@example.com	2024	2	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]
20	William	Adams	2000-06-10 00:00:00	M	8885558888	william.adams@example.com	2022	3	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]

20 row(s) fetched - 0.004s (0.002s fetch), on 2024-11-14 at 20:07:31



\*<SMS\_AZIZ> Script x SMS\_AZIZ.erd

```

SELECT
  student,
  first_name,
  last_name,
  admission_year
FROM
  Students
ORDER BY
  admission_year ASC
LIMIT 1;

```

Results 1 students 2 students 3 x Execution plan - 1

SELECT student, first\_name, last\_name, admission\_year FROM Students ORDER BY admission\_year ASC LIMIT 1

	student	first_name	last_name	admission_year
1	1	John	Smith	2,022

\*<SMS\_AZIZ> Script x SMS\_AZIZ.erd

```

SELECT
  s.student,
  s.first_name,
  s.last_name,
  s.admission_year,
  s.department_id
FROM
  Students s
JOIN
  Departments d ON s.department_id = d.department_id
WHERE
  d.department_name LIKE '%Science%';

```

Results 1 students 2 students 3 students 4 students 5 students 6 x Execution plan - 1

SELECT s.student, s.first\_name, s.last\_name, s.admission\_year, s.department\_id FROM Students s JOIN Departments d ON s.department\_id = d.department\_id WHERE d.department\_name LIKE '%Science%'

	student	first_name	last_name	admission_year	department_id
1	1	John	Smith	2,022	1
2	3	Emily	Davis	2,024	1
3	6	David	Martinez	2,022	1
4	9	Olivia	Taylor	2,022	1
5	12	Alexander	Harris	2,023	1
6	15	Sophia	Rodriguez	2,023	1
7	18	Jacob	Hall	2,023	1

**\*<SMS\_AZIZ> Script** x SMS\_AZIZ.erd

```
SELECT
    student,
    first_name,
    last_name,
    admission_year,
    CASE
        WHEN admission_year >= 2024 THEN 'New'
        WHEN admission_year BETWEEN 2020 AND 2023 THEN 'Current'
        WHEN admission_year < 2020 THEN 'Alumni'
    END AS AdmissionStatus
FROM
    Students;
```

Results 1 students 2 students 3 students 4 students 5 students 6 students 7 × Execution

Enter a SQL expression to filter results (use Ctrl+Space)

	student	Az first_name	Az last_name	I23 admission_year	AdmissionStatus
1	1	John	Smith	2,022	Current
2	2	Alice	Turner	2,024	New
3	3	Emily	Davis	2,024	New
4	4	Michael	Brown	2,022	Current
5	5	Sarah	Wilson	2,023	Current
6	6	David	Martinez	2,022	Current
7	7	Jessica	Anderson	2,024	New
8	8	Ryan	Thomas	2,023	Current
9	9	Olivia	Taylor	2,022	Current
10	10	Ethan	White	2,024	New
11	11	Emma	Lee	2,022	Current
12	12	Alexander	Harris	2,023	Current
13	13	Madison	Clark	2,024	New
14	14	Benjamin	King	2,022	Current
15	15	Sophia	Rodriguez	2,023	Current
16	16	Ethan	Scott	2,024	New
17	17	Mia	Young	2,022	Current
18	18	Jacob	Hall	2,023	Current
19	19	Ava	Hernandez	2,024	New
20	20	William	Adams	2,022	Current

record



Commit Rollback Auto SMS\_AZIZ sms\_aziz

\*-<SMS\_AZIZ> Script SMS\_AZIZ.erd

DELETE FROM  
Students  
WHERE  
admission\_year < 1995;

Statistics 2

Name	Value
Updated Rows	0
Query	DELETE FROM Students WHERE admission_year < 1995
Start time	Thu Nov 14 20:36:47 BDT 2024
Finish time	Thu Nov 14 20:36:47 BDT 2024

```
SELECT student, first_name, last_name, admission_year FROM Students WHERE
```

[illegible]





SQL Script: SMS\_AZIZ.erd

```

SELECT s1.student AS student_id_1, s1.first_name AS first_name_1, s1.last_name AS last_name_1, s2.student AS student_id_2, s2.first_name AS first_name_2, s2.last_name AS last_name_2
FROM Students s1
JOIN Students s2 ON s1.admission_year = s2.admission_year
WHERE s1.student < s2.student
ORDER BY s1.admission_year, s1.student, s2.student;

```

students 1

student_id_1	first_name_1	last_name_1	student_id_2	first_name_2	last_name_2
1	John	Smith	4	Michael	Brown
1	John	Smith	6	David	Martinez
1	John	Smith	9	Olivia	Taylor
1	John	Smith	11	Emma	Lee
1	John	Smith	14	Benjamin	King
1	John	Smith	17	Mia	Young
1	John	Smith	20	William	Adams
4	Michael	Brown	6	David	Martinez
4	Michael	Brown	9	Olivia	Taylor
4	Michael	Brown	11	Emma	Lee
4	Michael	Brown	14	Benjamin	King
4	Michael	Brown	17	Mia	Young
4	Michael	Brown	20	William	Adams
6	David	Martinez	9	Olivia	Taylor
6	David	Martinez	11	Emma	Lee
6	David	Martinez	14	Benjamin	King
6	David	Martinez	17	Mia	Young
6	David	Martinez	20	William	Adams
9	Olivia	Taylor	11	Emma	Lee
9	Olivia	Taylor	14	Benjamin	King
9	Olivia	Taylor	17	Mia	Young
9	Olivia	Taylor	20	William	Adams
11	Emma	Lee	14	Benjamin	King
11	Emma	Lee	17	Mia	Young
11	Emma	Lee	20	William	Adams
14	Benjamin	King	17	Mia	Young
14	Benjamin	King	20	William	Adams
17	Mia	Young	20	William	Adams
5	Sarah	Wilson	8	Ryan	Thomas
5	Sarah	Wilson	12	Alexander	Harris
5	Sarah	Wilson	15	Sophia	Rodriguez
5	Sarah	Wilson	18	Jacob	Hall
8	Ryan	Thomas	12	Alexander	Harris
8	Ryan	Thomas	15	Sophia	Rodriguez
8	Ryan	Thomas	18	Jacob	Hall
12	Alexander	Harris	15	Sophia	Rodriguez
12	Alexander	Harris	18	Jacob	Hall

59 rows fetched - 0.003s (0.001s fetch), on 2024-11-14 at 20:39:02

SQL Script: SMS\_AZIZ.erd

```

SELECT s1.student AS student_id_1, s1.first_name AS first_name_1, s1.last_name AS last_name_1, s2.student AS student_id_2, s2.first_name AS first_name_2, s2.last_name AS last_name_2
FROM Students s1
JOIN Students s2 ON s1.admission_year = s2.admission_year
WHERE s1.student < s2.student
ORDER BY s1.admission_year, s1.student, s2.student;

```

students 1

student_id_1	first_name_1	last_name_1	student_id_2	first_name_2	last_name_2
11	Emma	Lee	20	William	Adams
14	Benjamin	King	17	Mia	Young
14	Benjamin	King	20	William	Adams
17	Mia	Young	20	William	Adams
5	Sarah	Wilson	8	Ryan	Thomas
5	Sarah	Wilson	12	Alexander	Harris
5	Sarah	Wilson	15	Sophia	Rodriguez
5	Sarah	Wilson	18	Jacob	Hall
8	Ryan	Thomas	12	Alexander	Harris
8	Ryan	Thomas	15	Sophia	Rodriguez
8	Ryan	Thomas	18	Jacob	Hall
12	Alexander	Harris	15	Sophia	Rodriguez
12	Alexander	Harris	18	Jacob	Hall
15	Sophia	Rodriguez	18	Jacob	Hall
2	Alice	Turner	3	Emily	Davis
2	Alice	Turner	7	Jessica	Anderson
2	Alice	Turner	10	Ethan	White
2	Alice	Turner	13	Madison	Clark
2	Alice	Turner	16	Ethan	Scott
2	Alice	Turner	19	Ava	Hernandez
3	Emily	Davis	7	Jessica	Anderson
3	Emily	Davis	10	Ethan	White
3	Emily	Davis	13	Madison	Clark
3	Emily	Davis	16	Ethan	Scott
3	Emily	Davis	19	Ava	Hernandez
7	Jessica	Anderson	10	Ethan	White
7	Jessica	Anderson	13	Madison	Clark
7	Jessica	Anderson	16	Ethan	Scott
7	Jessica	Anderson	19	Ava	Hernandez
10	Ethan	White	13	Madison	Clark
10	Ethan	White	16	Ethan	Scott
10	Ethan	White	19	Ava	Hernandez
13	Madison	Clark	16	Ethan	Scott
13	Madison	Clark	19	Ava	Hernandez
16	Ethan	Scott	19	Ava	Hernandez

59 rows fetched - 0.003s (0.001s fetch), on 2024-11-14 at 20:39:02

SMS\_AZ12> script x SMS\_AZ12.eto

```
• SELECT
  SUM(d.budget) AS total_budget
FROM
  Departments d
JOIN
  Students s ON d.department_id = s.department_id
GROUP BY
  d.department_id
HAVING
  COUNT(s.student) > 5;
|
```