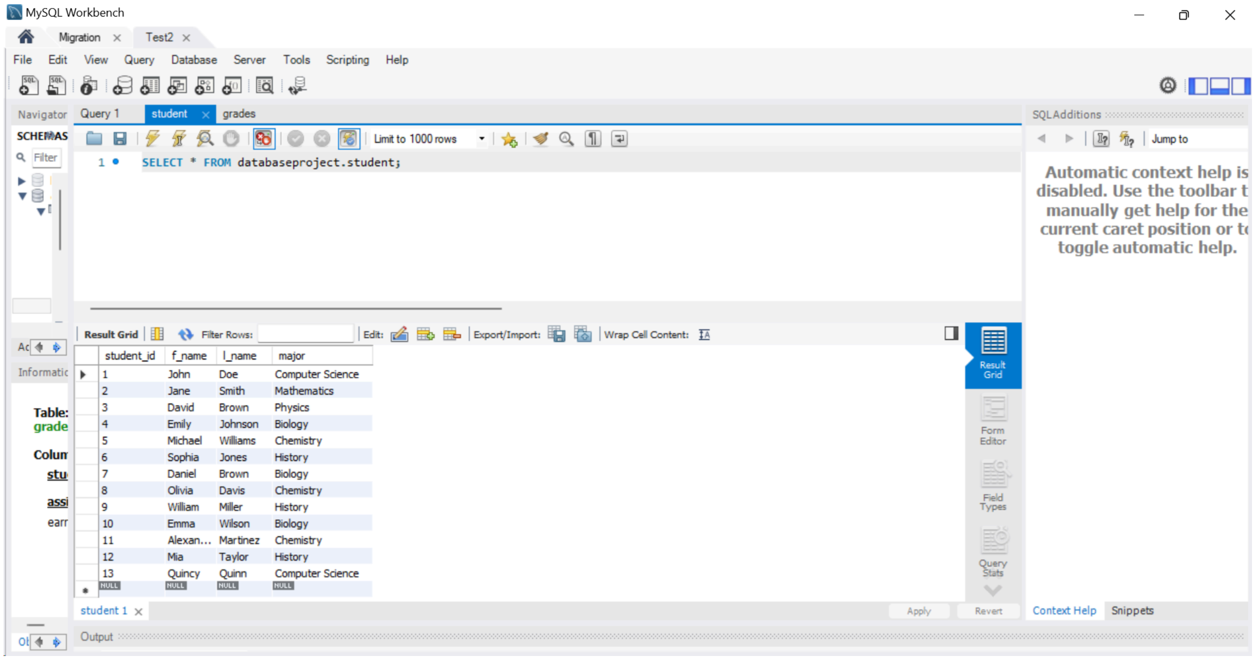
Student ID Reference

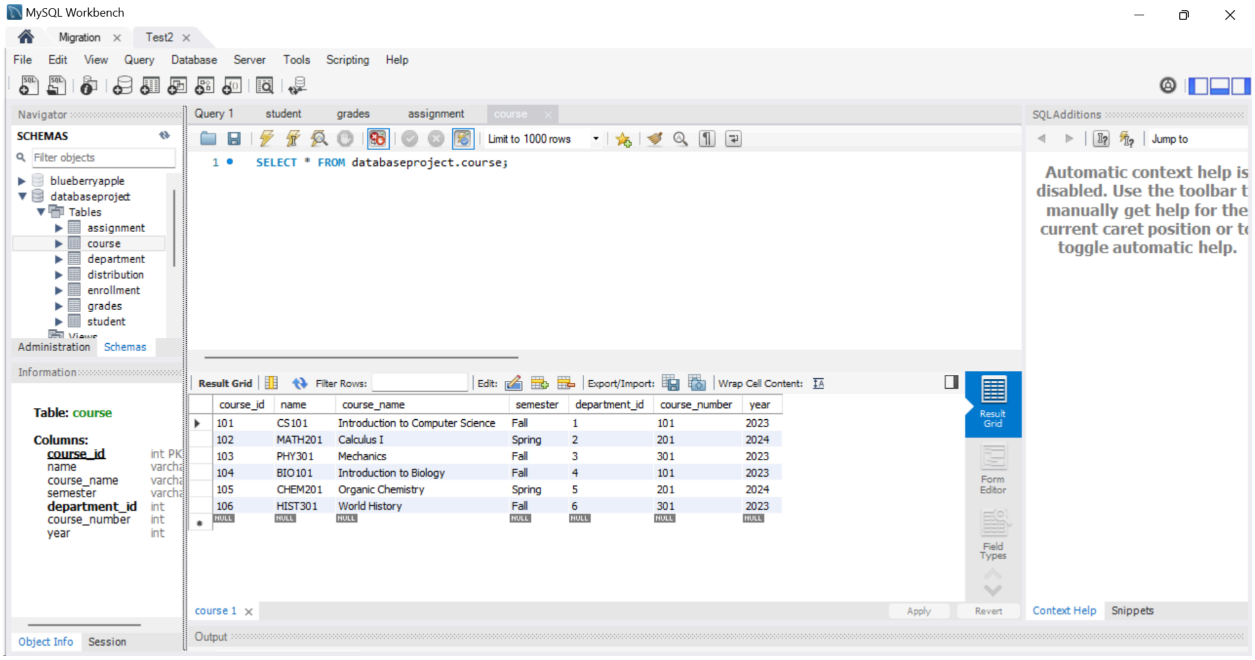


```
SELECT * FROM databaseproject.student;
```

student_id	f_name	l_name	major
1	John	Doe	Computer Science
2	Jane	Smith	Mathematics
3	David	Brown	Physics
4	Emily	Johnson	Biology
5	Michael	Williams	Chemistry
6	Sophia	Jones	History
7	Daniel	Brown	Biology
8	Olivia	Davis	Chemistry
9	William	Miller	History
10	Emma	Wilson	Biology
11	Alexan...	Martinez	Chemistry
12	Mia	Taylor	History
13	Quincy	Quinn	Computer Science
NULL	NULL	NULL	NULL

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or t toggle automatic help.

Course ID Reference



```
SELECT * FROM databaseproject.course;
```

Table: course

Columns:

course_id	int PK
name	varcha
course_name	varcha
semester	varcha
department_id	int
course_number	int
year	int

course_id	name	course_name	semester	department_id	course_number	year
101	CS101	Introduction to Computer Science	Fall	1	101	2023
102	MATH201	Calculus I	Spring	2	201	2024
103	PHY301	Mechanics	Fall	3	301	2023
104	BIO101	Introduction to Biology	Fall	4	101	2023
105	CHEM201	Organic Chemistry	Spring	5	201	2024
106	HIST301	World History	Fall	6	301	2023
NULL	NULL	NULL	NULL	NULL	NULL	NULL

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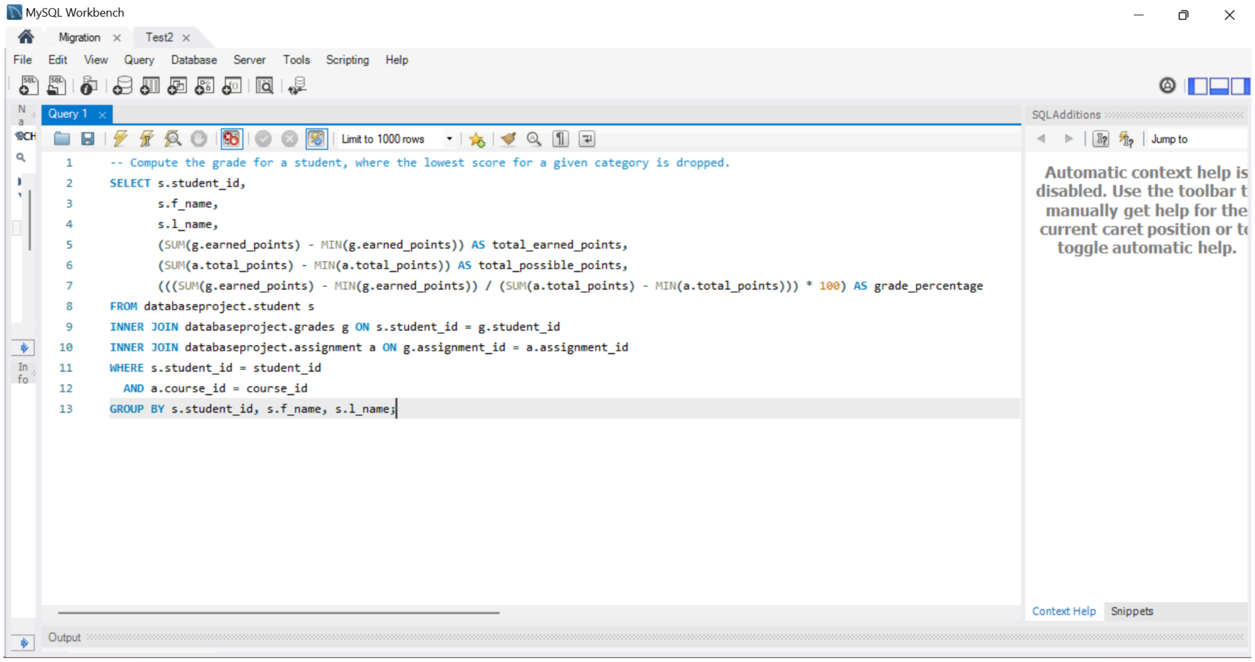
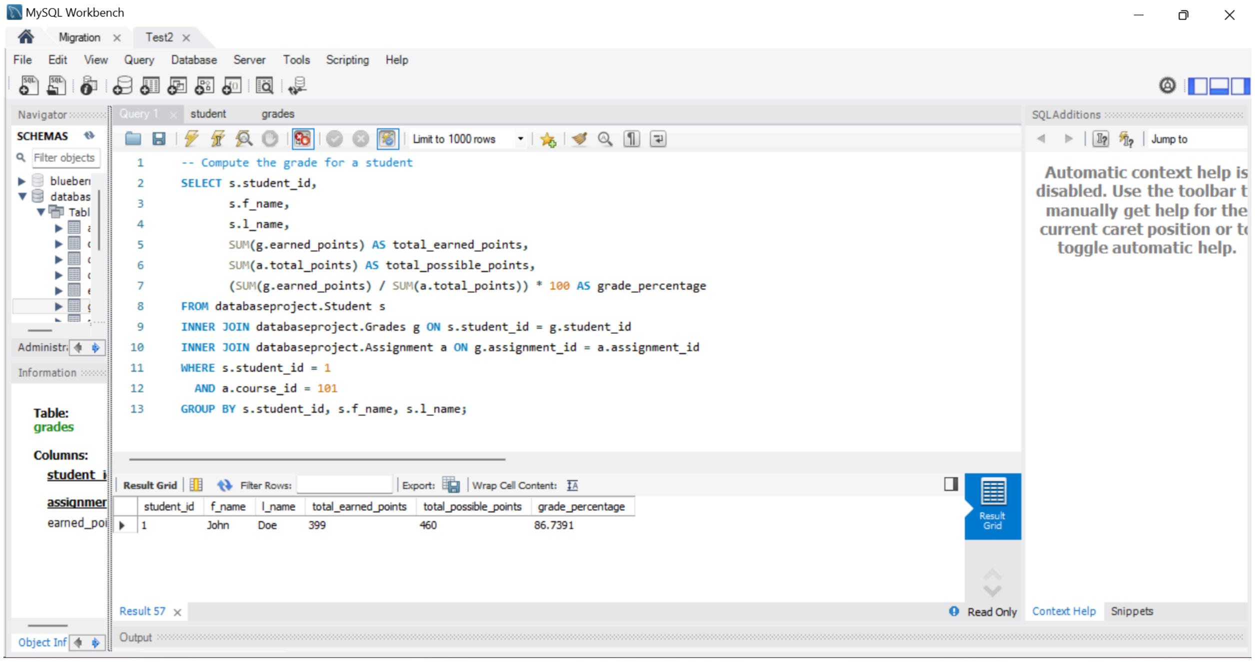
SQL CODE TO BE EXECUTED



```sql
-- Compute the grade for a student, where the lowest score for a given category is dropped.
SELECT s.student_id,
       s.f_name,
       s.l_name,
       (SUM(g.earned_points) - MIN(g.earned_points)) AS total_earned_points,
       (SUM(a.total_points) - MIN(a.total_points)) AS total_possible_points,
       (((SUM(g.earned_points) - MIN(g.earned_points)) / (SUM(a.total_points) - MIN(a.total_points))) * 100) AS grade_percentage
FROM databaseproject.student s
INNER JOIN databaseproject.grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = student_id
  AND a.course_id = course_id
GROUP BY s.student_id, s.f_name, s.l_name;
```

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or t toggle automatic help.

TEST CASE #1

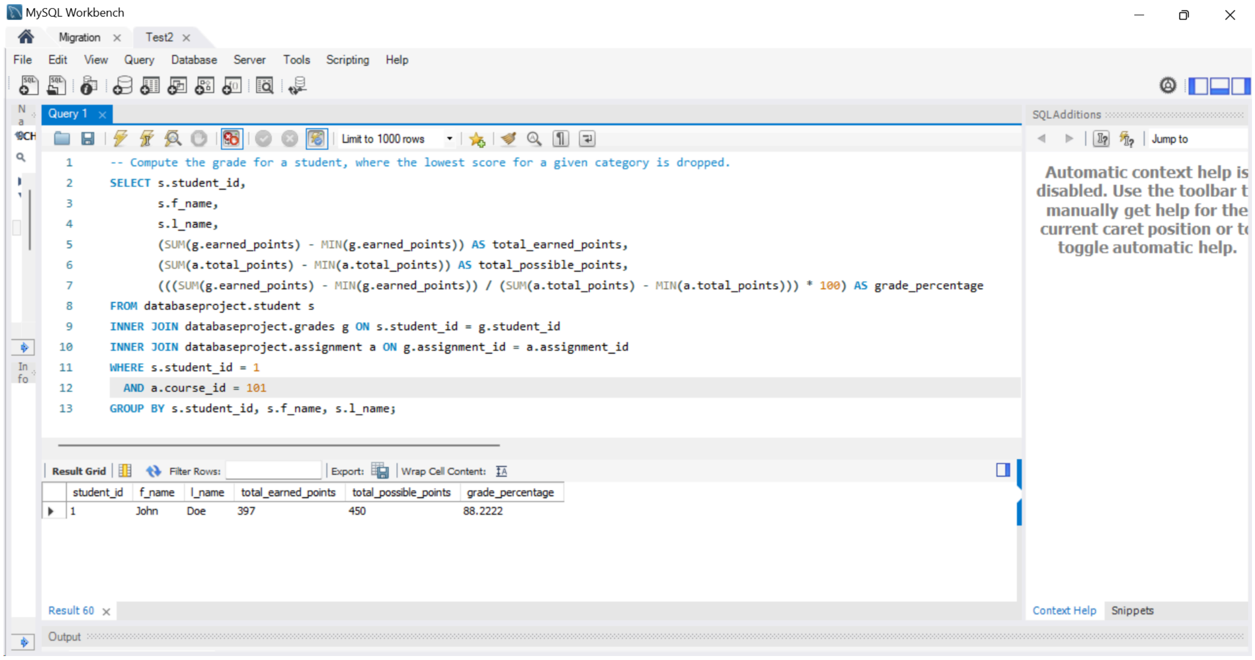


```sql
-- Compute the grade for a student
SELECT s.student_id,
       s.f_name,
       s.l_name,
       SUM(g.earned_points) AS total_earned_points,
       SUM(a.total_points) AS total_possible_points,
       (SUM(g.earned_points) / SUM(a.total_points)) * 100 AS grade_percentage
FROM databaseproject.Student s
INNER JOIN databaseproject.Grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.Assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = 1
  AND a.course_id = 101
GROUP BY s.student_id, s.f_name, s.l_name;
```

student_id	f_name	l_name	total_earned_points	total_possible_points	grade_percentage
1	John	Doe	399	460	86.7391

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or t toggle automatic help.

TEST CASE #1 RESULT (after SQL code execution)

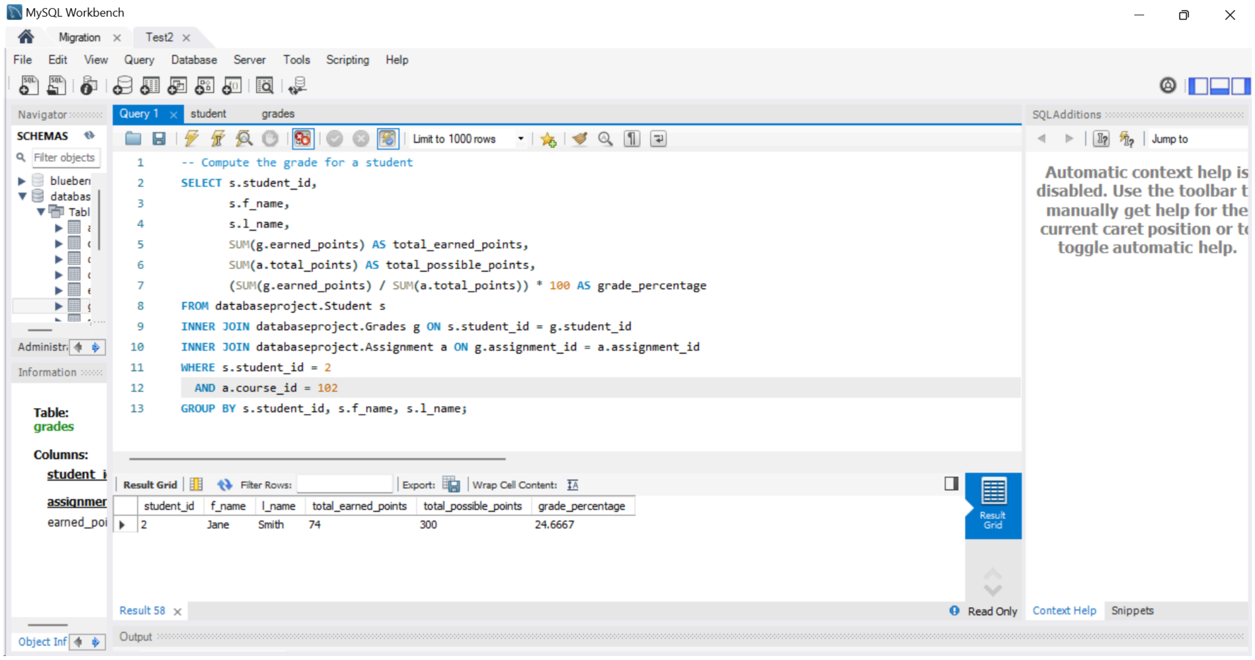


```sql
-- Compute the grade for a student, where the lowest score for a given category is dropped.
SELECT s.student_id,
       s.f_name,
       s.l_name,
       (SUM(g.earned_points) - MIN(g.earned_points)) AS total_earned_points,
       (SUM(a.total_points) - MIN(a.total_points)) AS total_possible_points,
       (((SUM(g.earned_points) - MIN(g.earned_points)) / (SUM(a.total_points) - MIN(a.total_points))) * 100) AS grade_percentage
FROM databaseproject.student s
INNER JOIN databaseproject.grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = 1
  AND a.course_id = 101
GROUP BY s.student_id, s.f_name, s.l_name;
```

student_id	f_name	l_name	total_earned_points	total_possible_points	grade_percentage
1	John	Doe	397	450	88.2222

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or t toggle automatic help.

TEST CASE #2

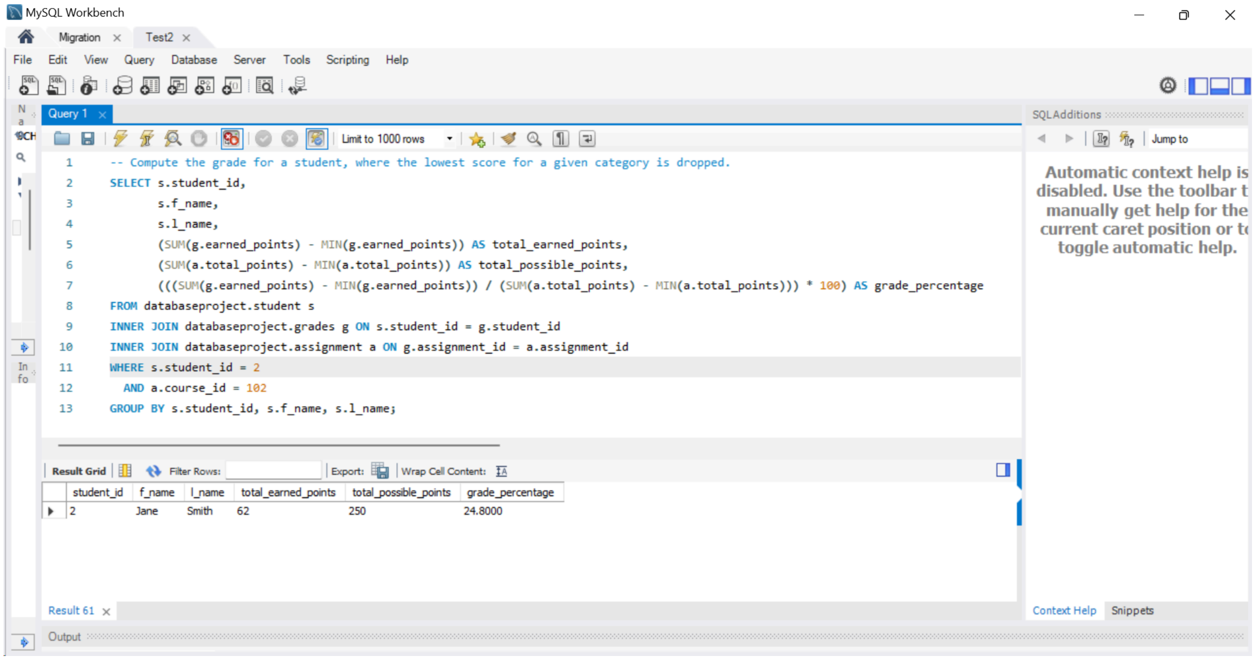


```sql
-- Compute the grade for a student
SELECT s.student_id,
       s.f_name,
       s.l_name,
       SUM(g.earned_points) AS total_earned_points,
       SUM(a.total_points) AS total_possible_points,
       (SUM(g.earned_points) / SUM(a.total_points)) * 100 AS grade_percentage
FROM databaseproject.Student s
INNER JOIN databaseproject.Grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.Assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = 2
  AND a.course_id = 102
GROUP BY s.student_id, s.f_name, s.l_name;
```

student_id	f_name	l_name	total_earned_points	total_possible_points	grade_percentage
2	Jane	Smith	74	300	24.6667

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or t toggle automatic help.

TEST CASE #2 RESULT (after SQL code execution)

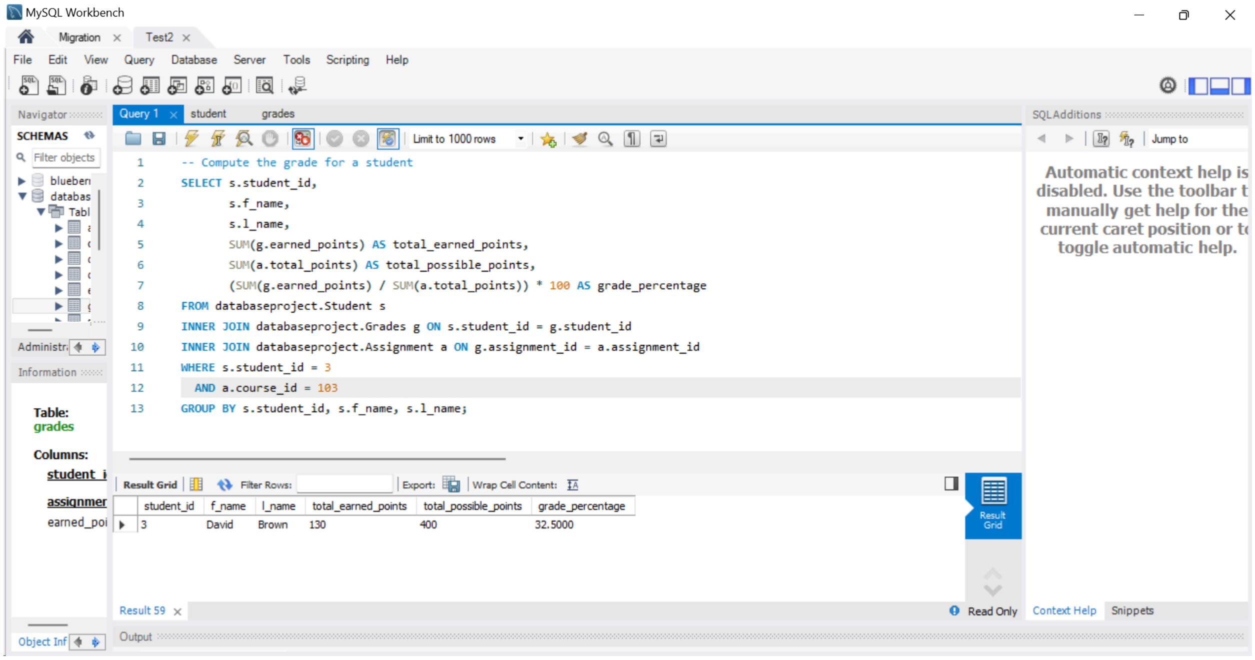


```sql
-- Compute the grade for a student, where the lowest score for a given category is dropped.
SELECT s.student_id,
       s.f_name,
       s.l_name,
       (SUM(g.earned_points) - MIN(g.earned_points)) AS total_earned_points,
       (SUM(a.total_points) - MIN(a.total_points)) AS total_possible_points,
       (((SUM(g.earned_points) - MIN(g.earned_points)) / (SUM(a.total_points) - MIN(a.total_points))) * 100) AS grade_percentage
FROM databaseproject.student s
INNER JOIN databaseproject.grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = 2
  AND a.course_id = 102
GROUP BY s.student_id, s.f_name, s.l_name;
```

student_id	f_name	l_name	total_earned_points	total_possible_points	grade_percentage
2	Jane	Smith	62	250	24.8000

Automatic context help is
disabled. Use the toolbar t
manually get help for the
current caret position or to
toggle automatic help.

TEST CASE #3

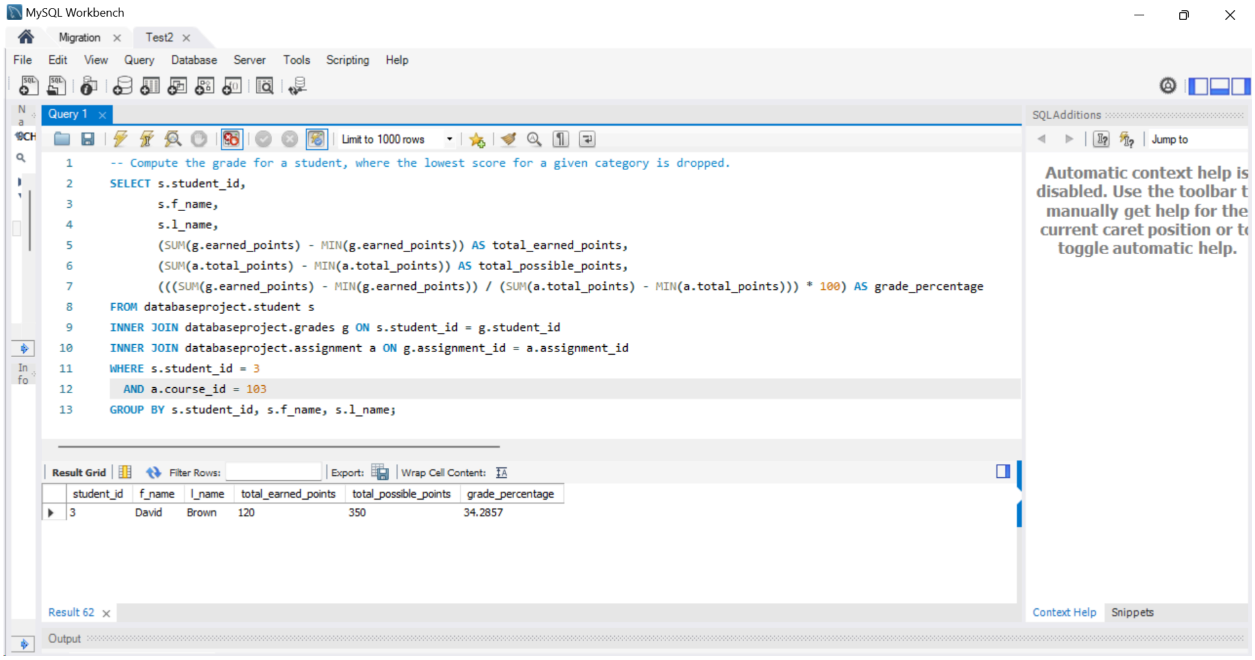


```sql
-- Compute the grade for a student
SELECT s.student_id,
       s.f_name,
       s.l_name,
       SUM(g.earned_points) AS total_earned_points,
       SUM(a.total_points) AS total_possible_points,
       (SUM(g.earned_points) / SUM(a.total_points)) * 100 AS grade_percentage
FROM databaseproject.Student s
INNER JOIN databaseproject.Grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.Assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = 3
  AND a.course_id = 103
GROUP BY s.student_id, s.f_name, s.l_name;
```

student_id	f_name	l_name	total_earned_points	total_possible_points	grade_percentage
3	David	Brown	130	400	32.5000

Automatic context help is
disabled. Use the toolbar t
manually get help for the
current caret position or to
toggle automatic help.

TEST CASE #3 RESULT (after SQL code execution)



```
-- Compute the grade for a student, where the lowest score for a given category is dropped.
SELECT s.student_id,
       s.f_name,
       s.l_name,
       (SUM(g.earned_points) - MIN(g.earned_points)) AS total_earned_points,
       (SUM(a.total_points) - MIN(a.total_points)) AS total_possible_points,
       (((SUM(g.earned_points) - MIN(g.earned_points)) / (SUM(a.total_points) - MIN(a.total_points))) * 100) AS grade_percentage
FROM databaseproject.student s
INNER JOIN databaseproject.grades g ON s.student_id = g.student_id
INNER JOIN databaseproject.assignment a ON g.assignment_id = a.assignment_id
WHERE s.student_id = 3
  AND a.course_id = 103
GROUP BY s.student_id, s.f_name, s.l_name;
```

student_id	f_name	l_name	total_earned_points	total_possible_points	grade_percentage
3	David	Brown	120	350	34.2857

Automatic context help is disabled. Use the toolbar t manually get help for the current caret position or t toggle automatic help.