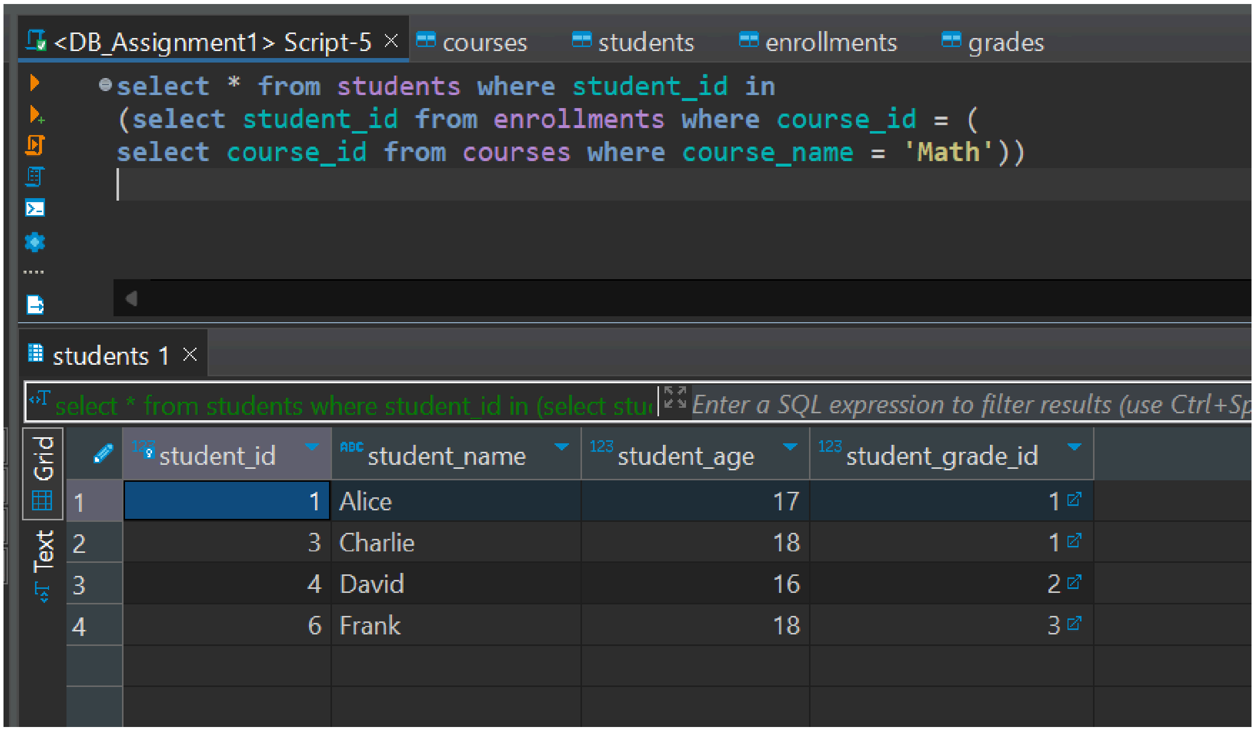
Q1. Find all students enrolled in the Math course.

```
select * from students where student_id in
(select student_id from enrollments where course_id =
( select course_id from courses where course_name = 'Math'))
```



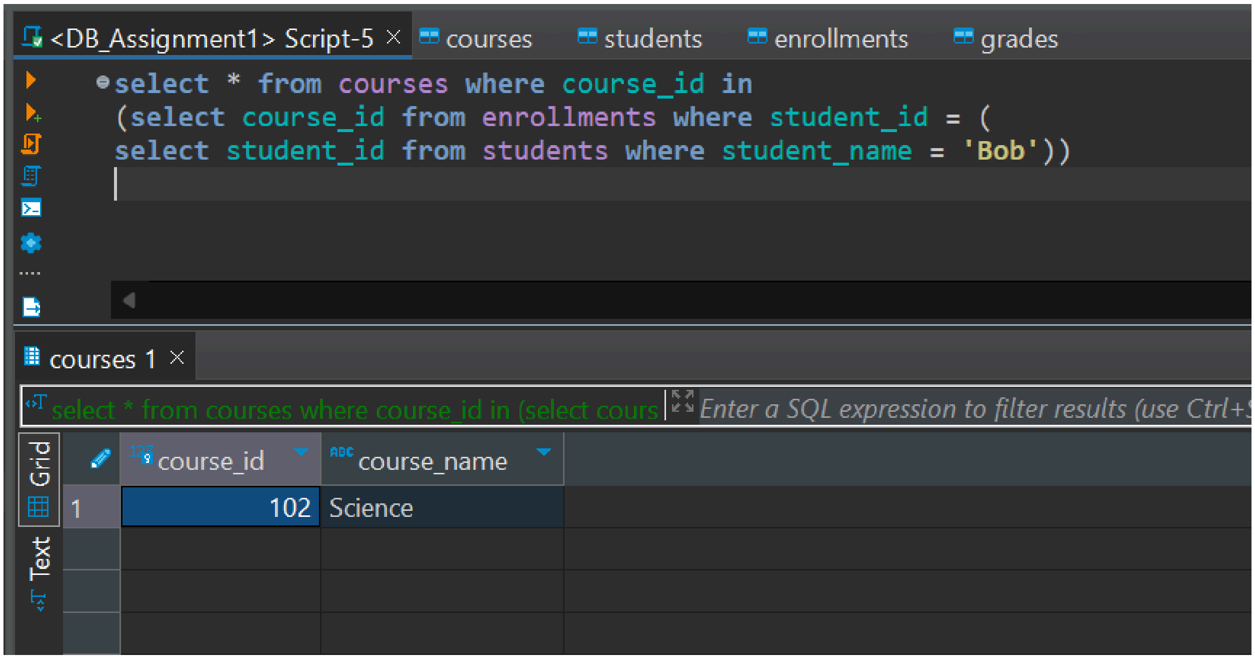
<DB_Assignment1> Script-5
courses
students
enrollments
grades
students 1
select * from students where student_id in (select stu
Enter a SQL expression to filter results (use Ctrl+Sp
Grid
Text

```
select * from students where student_id in
(select student_id from enrollments where course_id = (
select course_id from courses where course_name = 'Math'))
```

	student_id	student_name	student_age	student_grade_id
1	1	Alice	17	1
2	3	Charlie	18	1
3	4	David	16	2
4	6	Frank	18	3

Q2. List all courses taken by students named Bob.

```
select * from courses where course_id in
(select course_id from enrollments where student_id = (
select student_id from students where student_name = 'Bob'));
```

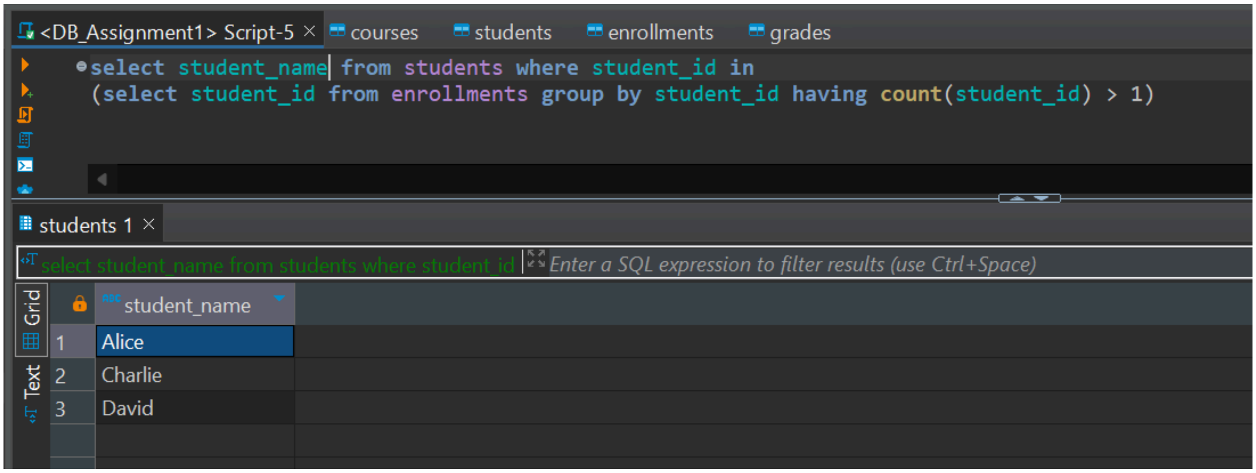

<DB_Assignment1> Script-5
courses
students
enrollments
grades
courses 1
select * from courses where course_id in (select cours
Enter a SQL expression to filter results (use Ctrl+
Grid
Text

```
select * from courses where course_id in
(select course_id from enrollments where student_id = (
select student_id from students where student_name = 'Bob'))
```

	course_id	course_name
1	102	Science

Q3. Find the names of students who are enrolled in more than one course.

```
select student_name from students where student_id in
(select student_id from enrollments group by student_id having count(student_id) > 1);
```

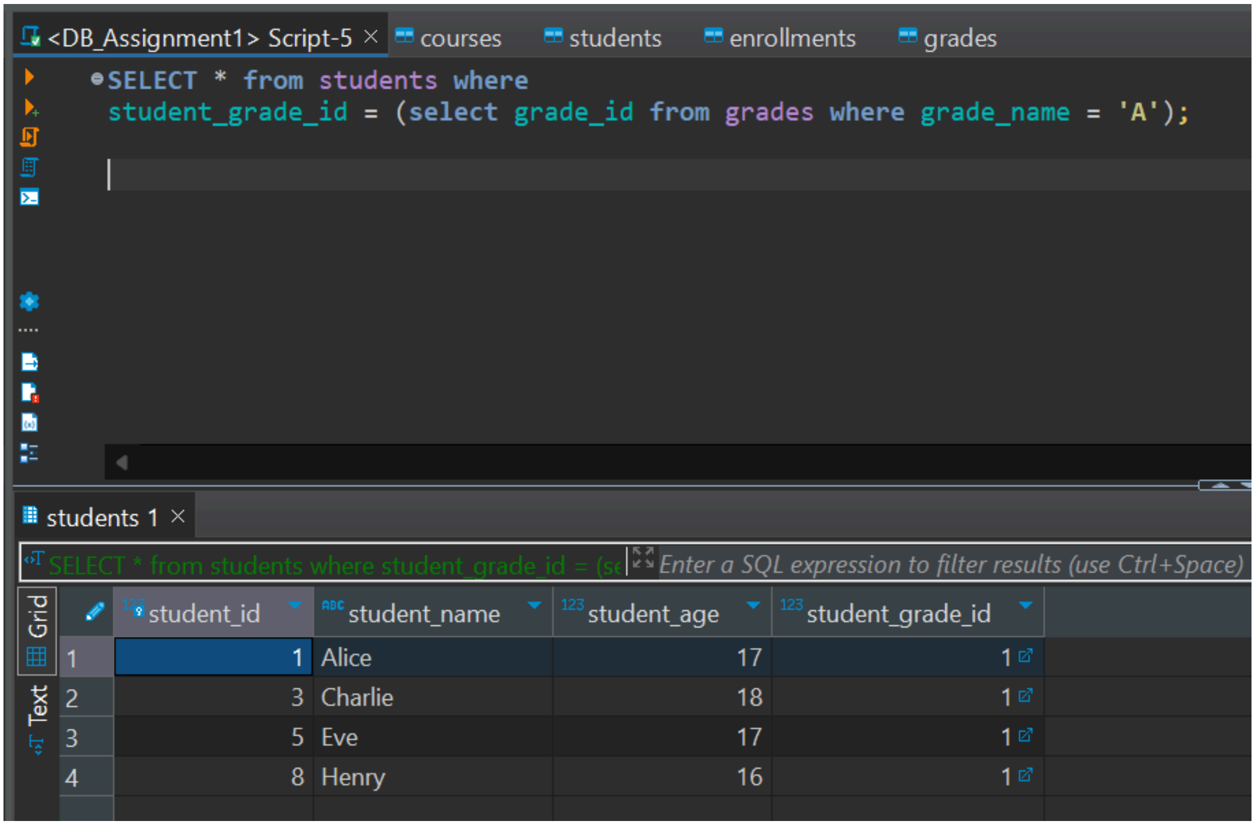

<DB_Assignment1> Script-5
courses
students
enrollments
grades
students 1
select student_name from students where student_id
Enter a SQL expression to filter results (use Ctrl+Space)
Grid
Text

```
select student_name from students where student_id in
(select student_id from enrollments group by student_id having count(student_id) > 1)
```

	student_name
1	Alice
2	Charlie
3	David

Q4. List all students who are in Grade A (grade_id = 1).

```
SELECT * from students where
student_grade_id = (select grade_id from grades where grade_name = 'A');
```



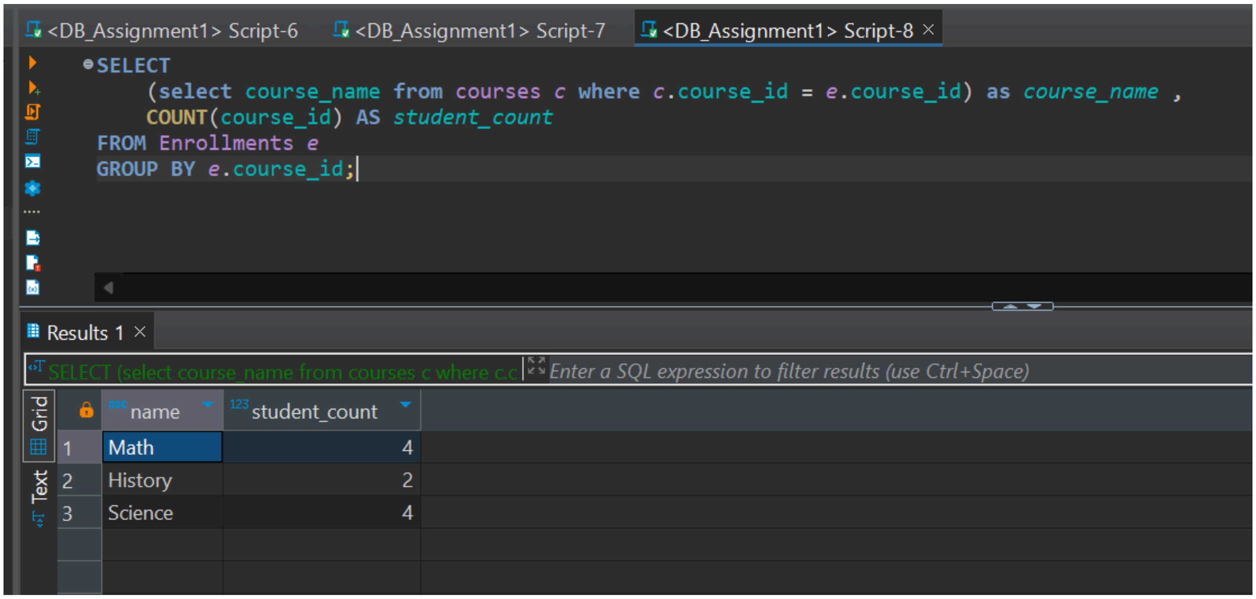
<DB_Assignment1> Script-5
courses
students
enrollments
grades
students 1
Grid
Text
SELECT * from students where student_grade_id = (se
Enter a SQL expression to filter results (use Ctrl+Space)

```
SELECT * from students where
student_grade_id = (select grade_id from grades where grade_name = 'A');
```

	student_id	student_name	student_age	student_grade_id
1	1	Alice	17	1
2	3	Charlie	18	1
3	5	Eve	17	1
4	8	Henry	16	1

Q5. Find the number of students enrolled in each course.

```
SELECT
        (select course_name from courses c where c.course_id = e.course_id) as course_name ,
        COUNT(course_id) AS student_count
FROM Enrollments e
GROUP BY e.course_id;
```



<DB_Assignment1> Script-6
<DB_Assignment1> Script-7
<DB_Assignment1> Script-8
Results 1
Grid
Text

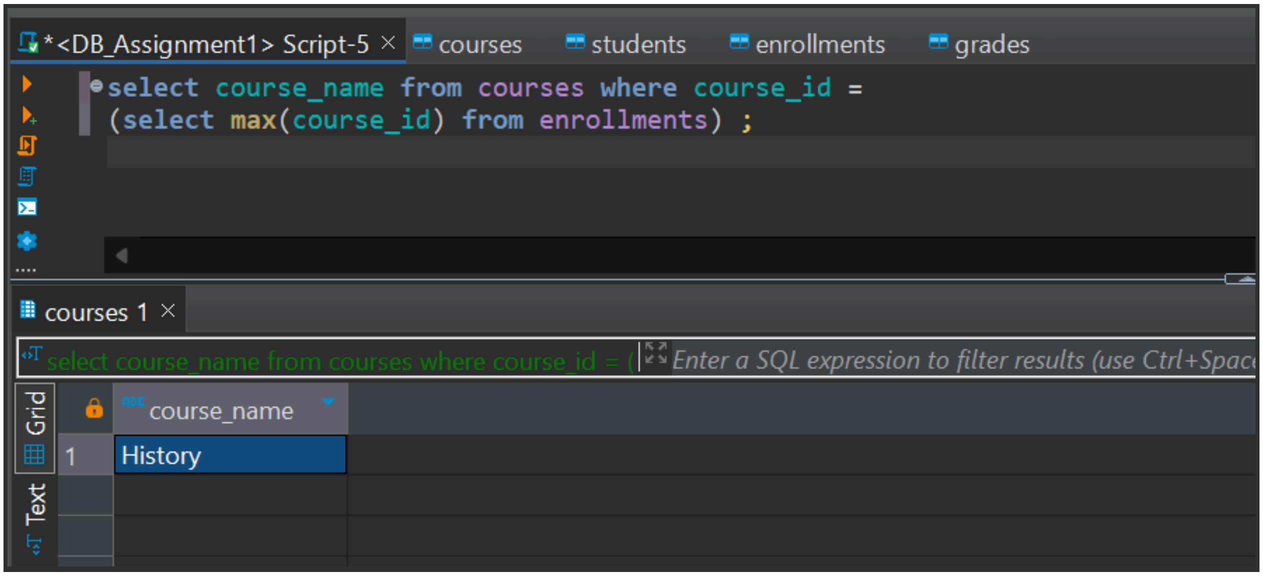
```
SELECT
    (select course_name from courses c where c.course_id = e.course_id) as course_name ,
    COUNT(course_id) AS student_count
FROM Enrollments e
GROUP BY e.course_id;
```

SELECT (select course_name from courses c where c.c | Enter a SQL expression to filter results (use Ctrl+Space)

	name	student_count
1	Math	4
2	History	2
3	Science	4

Q6. Retrieve the course with the highest number of enrollments.

```
select course_name from courses where course_id = (select max(course_id) from enrollments) ;
```



*<DB_Assignment1> Script-5
courses
students
enrollments
grades
courses 1
Grid
Text

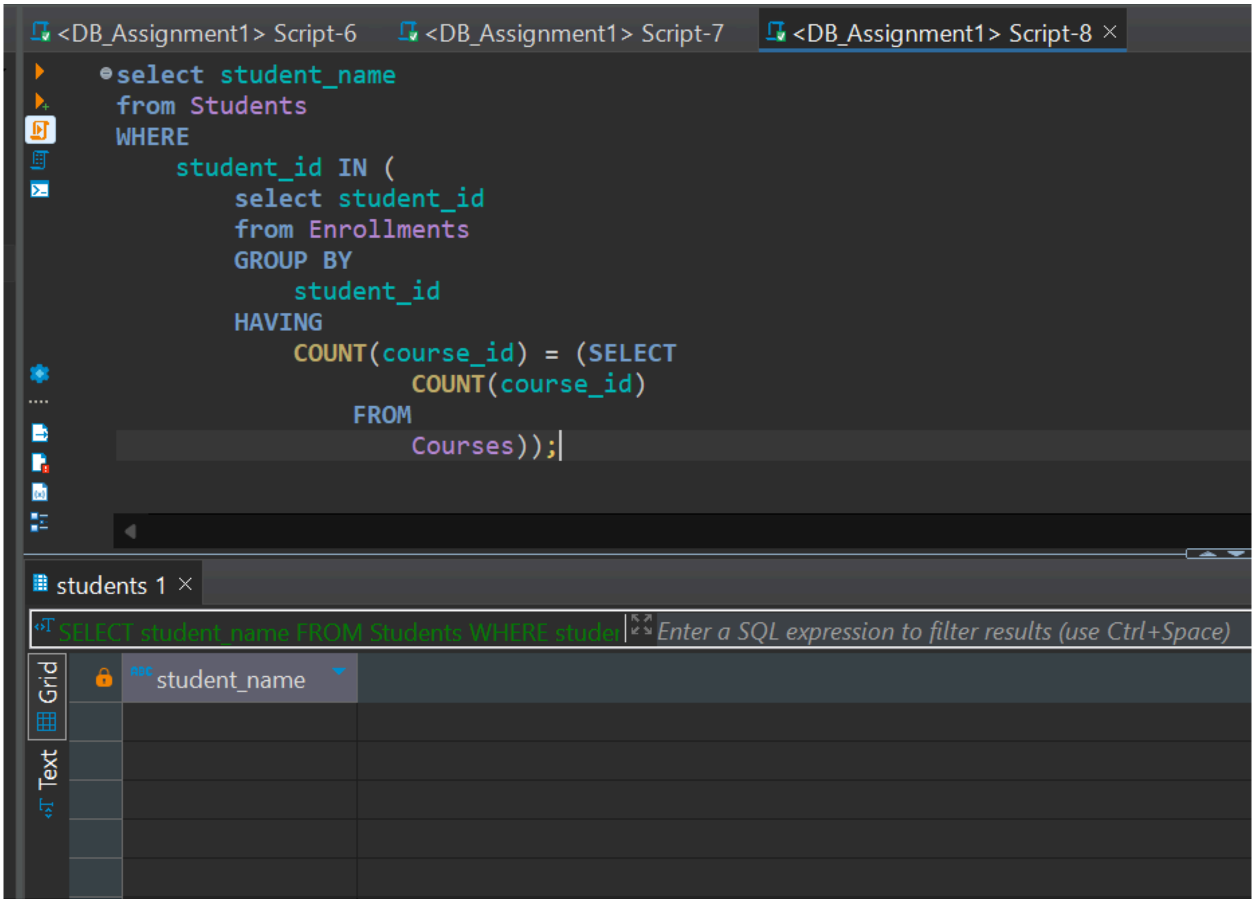
```
select course_name from courses where course_id =
(select max(course_id) from enrollments) ;
```

select course_name from courses where course_id = (
Enter a SQL expression to filter results (use Ctrl+Spac

	course_name
1	History

Q7. List students who are enrolled in all available courses.

```
select student_name
from Students
WHERE
  student_id IN (
      select student_id
      from Enrollments
      GROUP BY
          student_id
      HAVING
                              COUNT(course_id) = (SELECT
              COUNT(course_id)
          FROM
              Courses));
```



<DB_Assignment1> Script-6
<DB_Assignment1> Script-7
<DB_Assignment1> Script-8
students 1
Enter a SQL expression to filter results (use Ctrl+Space)
Grid
Text

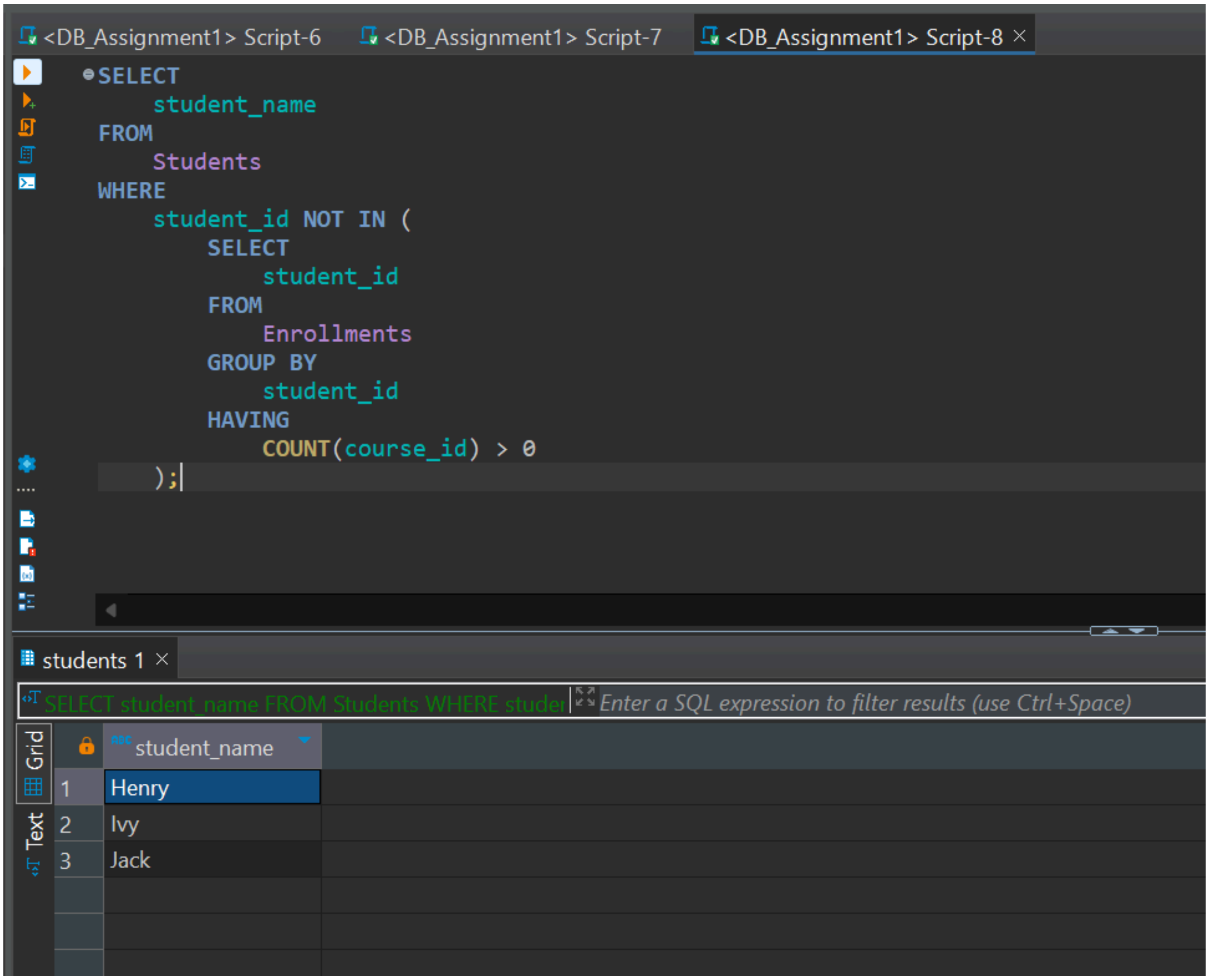
```
select student_name
from Students
WHERE
    student_id IN (
        select student_id
        from Enrollments
        GROUP BY
            student_id
        HAVING
            COUNT(course_id) = (SELECT
                COUNT(course_id)
            FROM
                Courses));
```

SELECT student_name FROM Students WHERE studer

student_name

Q8. Find students who are not enrolled in any courses.

```
SELECT
  student_name
FROM
  Students
WHERE
  student_id NOT IN (
     SELECT
        student_id
     FROM
        Enrollments
     GROUP BY
        student_id
     HAVING
        COUNT(course_id) > 0
  );
```

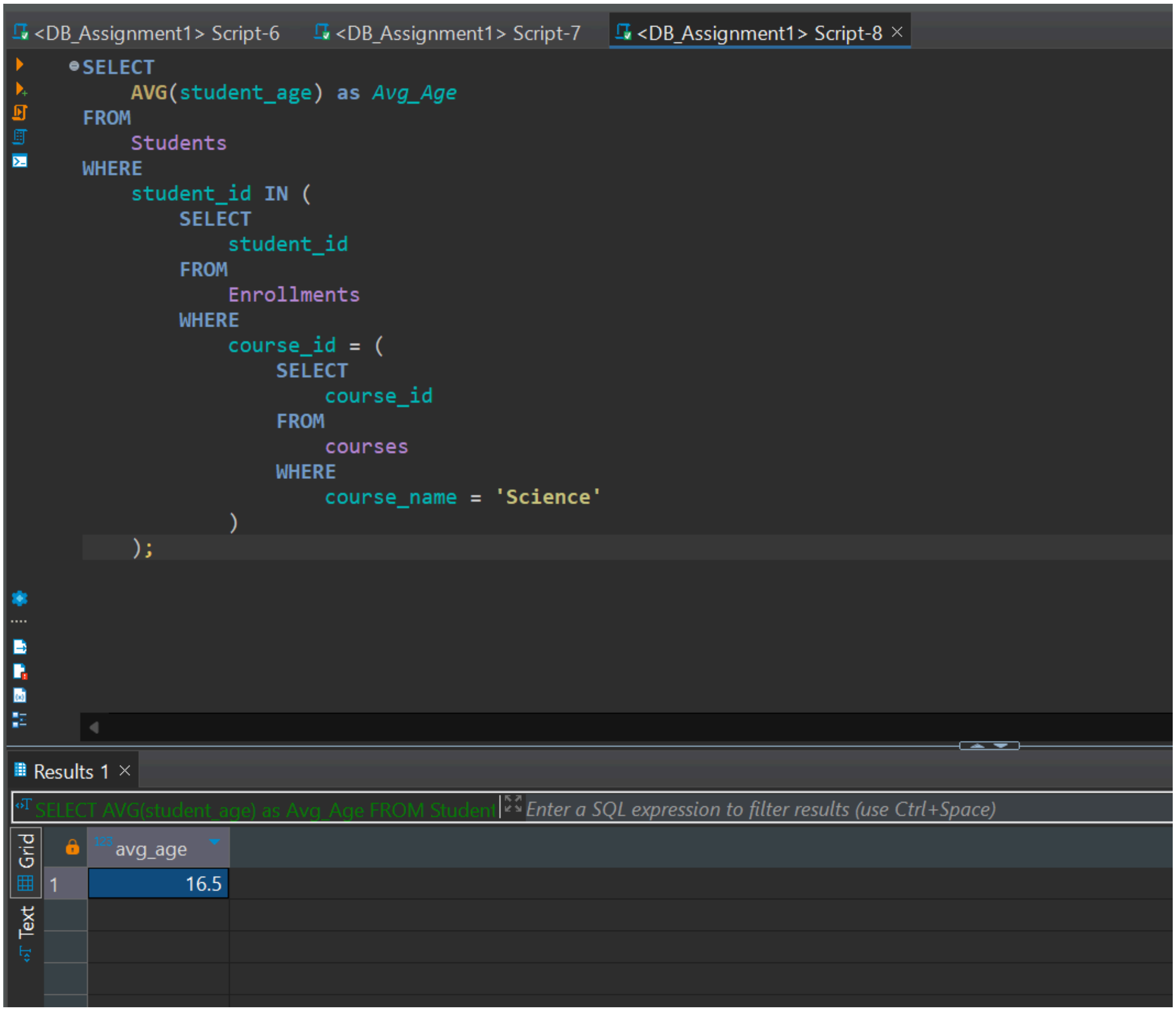

<DB_Assignment1> Script-6
<DB_Assignment1> Script-7
<DB_Assignment1> Script-8
students 1
SELECT student_name FROM Students WHERE studer
Enter a SQL expression to filter results (use Ctrl+Space)
Grid
Text

```
SELECT
    student_name
FROM
    Students
WHERE
    student_id NOT IN (
        SELECT
            student_id
        FROM
            Enrollments
        GROUP BY
            student_id
        HAVING
            COUNT(course_id) > 0
    );
```

	student_name
1	Henry
2	Ivy
3	Jack

Q9. Retrieve the average age of students enrolled in the Science course.

```sql
SELECT
  AVG(student_age) as Avg_Age
FROM
  Students
WHERE
  student_id IN (
     SELECT
        student_id
     FROM
        Enrollments
     WHERE
        course_id = (
           SELECT
              course_id
           FROM
              courses
           WHERE
              course_name = 'Science'
        )
  );
```


<DB_Assignment1> Script-6
<DB_Assignment1> Script-7
<DB_Assignment1> Script-8
Results 1
Grid
Text

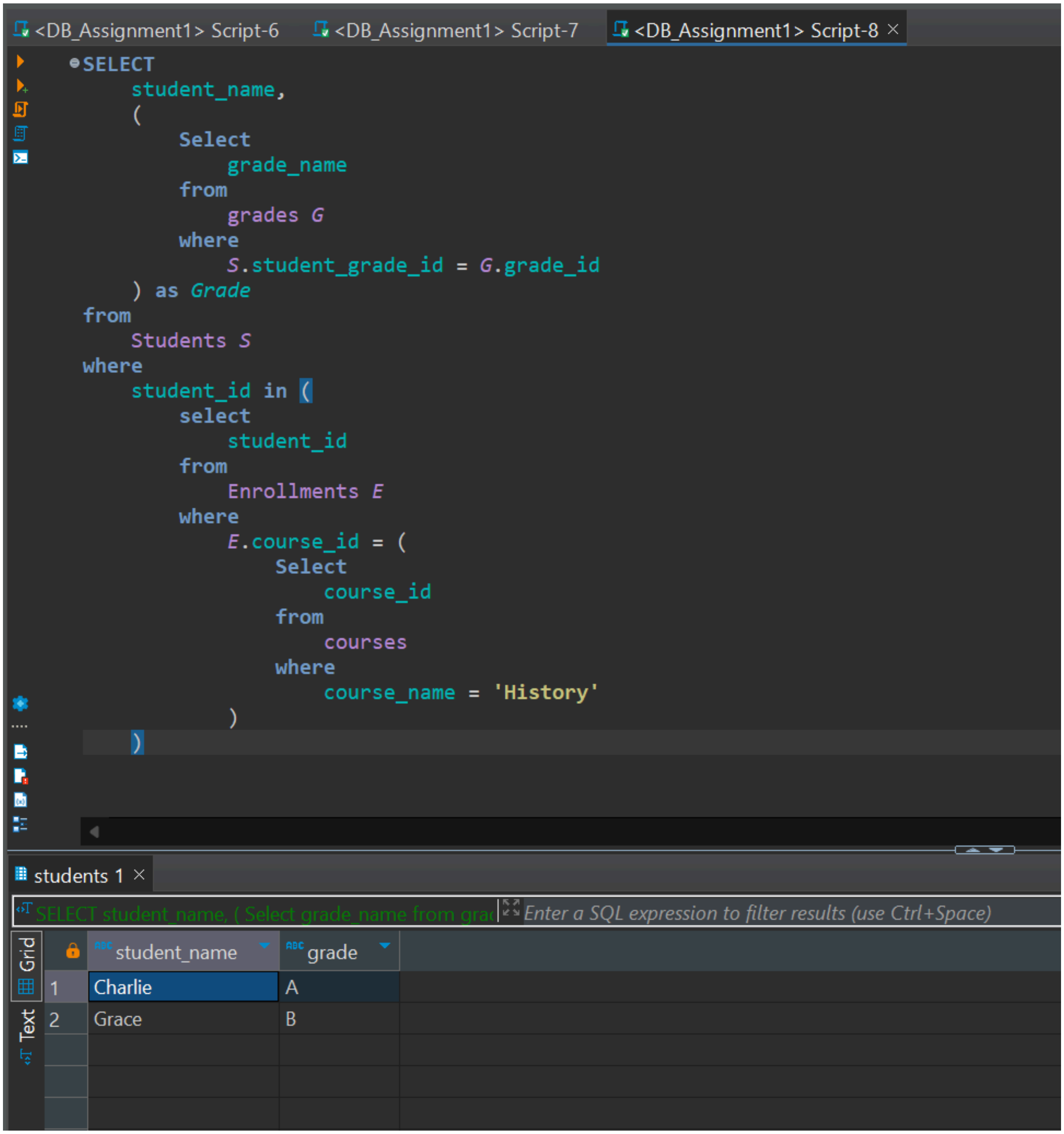
```sql
SELECT
    AVG(student_age) as Avg_Age
FROM
    Students
WHERE
    student_id IN (
        SELECT
            student_id
        FROM
            Enrollments
        WHERE
            course_id = (
                SELECT
                    course_id
                FROM
                    courses
                WHERE
                    course_name = 'Science'
            )
    );
```

```
SELECT AVG(student_age) as Avg_Age FROM Student | Enter a SQL expression to filter results (use Ctrl+Space)
```

	avg_age
1	16.5

Q10. Find the grade of students enrolled in the History course.

```sql
SELECT
  student_name,
  (
    Select
      grade_name
    from
      grades G
    where
      S.student_grade_id = G.grade_id
  ) as Grade
from
  Students S
where
  student_id in (
    select
      student_id
    from
      Enrollments E
    where
      E.course_id = (
        Select
          course_id
        from
          courses
        where
          course_name = 'History'
      )
  )
```



<DB_Assignment1> Script-6
<DB_Assignment1> Script-7
<DB_Assignment1> Script-8

```
SELECT
    student_name,
    (
        Select
            grade_name
        from
            grades G
        where
            S.student_grade_id = G.grade_id
    ) as Grade
from
    Students S
where
    student_id in (
        select
            student_id
        from
            Enrollments E
        where
            E.course_id = (
                Select
                    course_id
                from
                    courses
                where
                    course_name = 'History'
            )
    )
```

students 1
SELECT student_name, (Select grade_name from grad
Enter a SQL expression to filter results (use Ctrl+Space)
Grid
Text

	student_name	grade
1	Charlie	A
2	Grace	B

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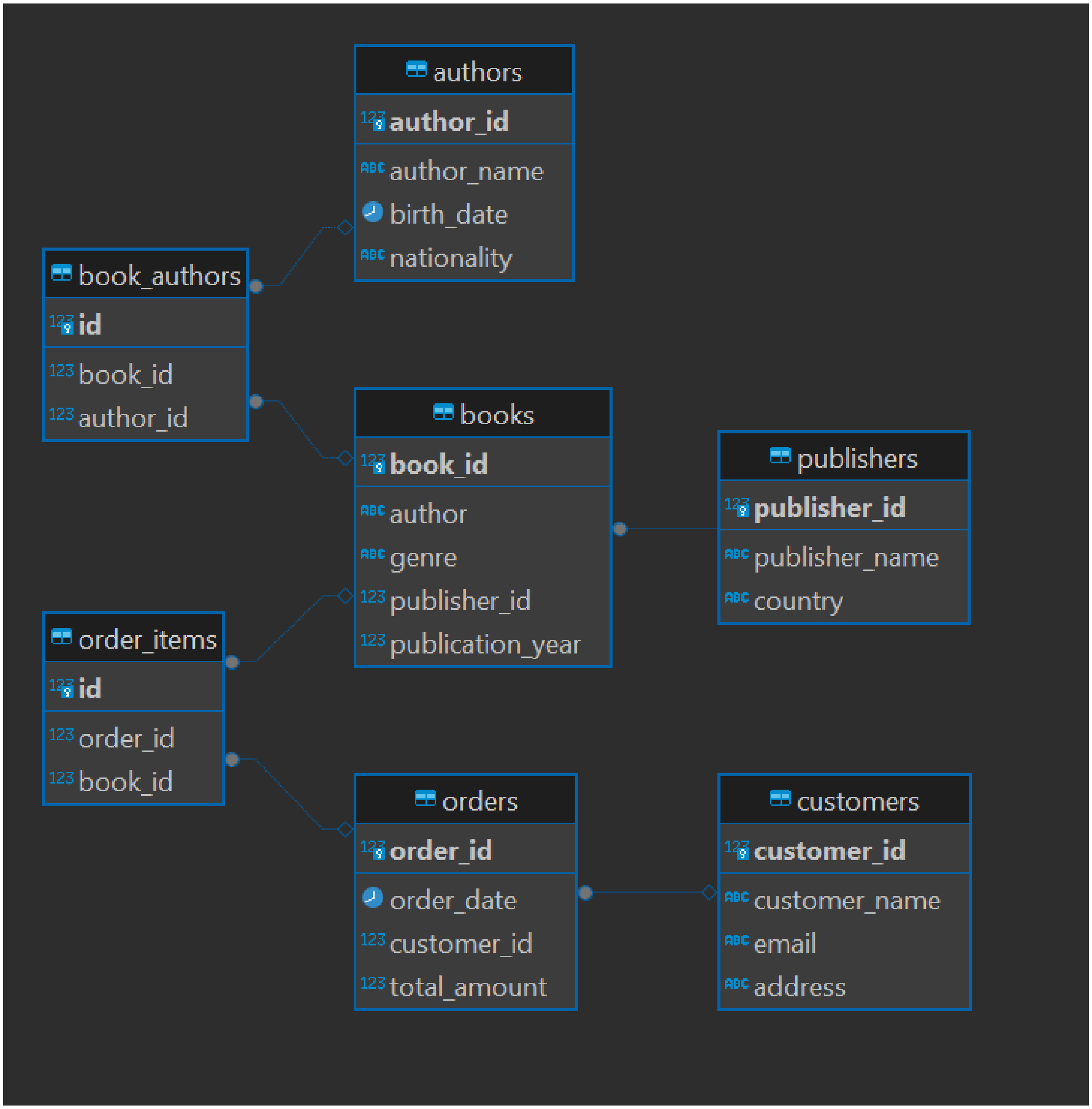
authors
author_id
author_name
birth_date
nationality
book_authors
id
book_id
author_id
books
book_id
author
genre
publisher_id
publication_year
publishers
publisher_id
publisher_name
country
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orders
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order_date
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total_amount
customers
customer_id
customer_name
email
address