

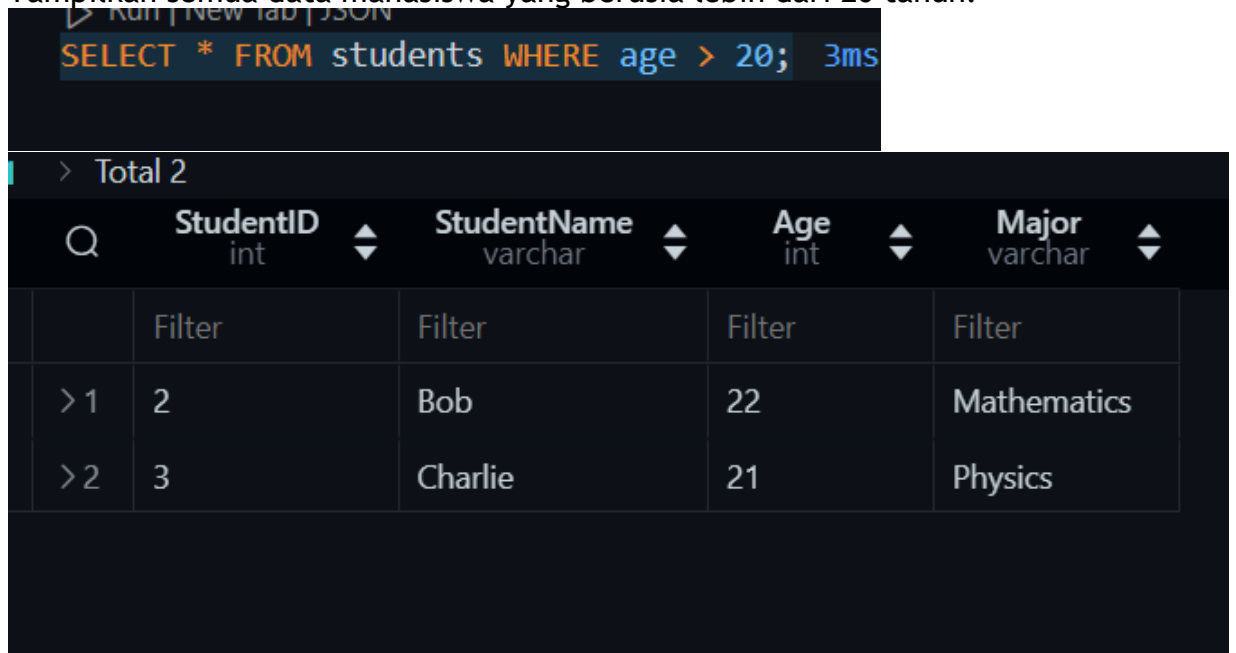
SOAL

Nama: Rizqi Bagus Andrean

Kelas: TI-1D

Absen: 25

1. Tampilkan semua data mahasiswa yang berusia lebih dari 20 tahun.

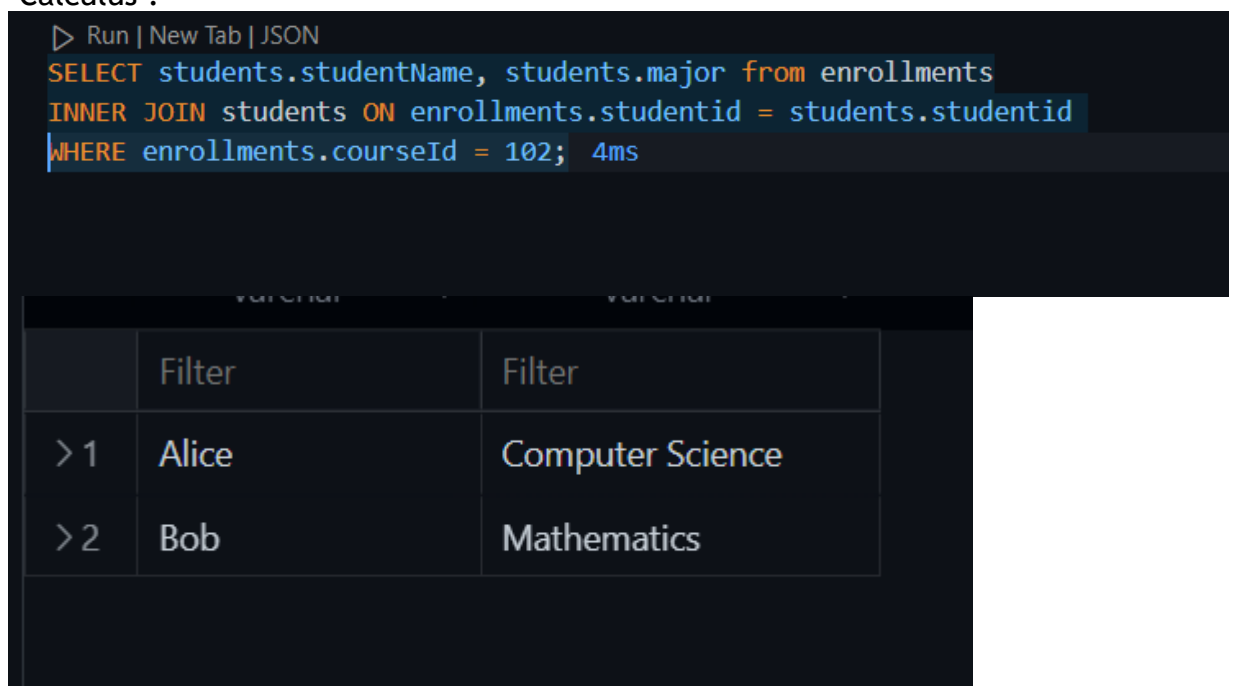


```
Run | New Tab | JSON
SELECT * FROM students WHERE age > 20; 3ms
```

> Total 2

	StudentID int	StudentName varchar	Age int	Major varchar
	Filter	Filter	Filter	Filter
> 1	2	Bob	22	Mathematics
> 2	3	Charlie	21	Physics

2. Tampilkan nama dan jurusan semua mahasiswa yang mengambil mata kuliah "Calculus".



```
Run | New Tab | JSON
SELECT students.studentName, students.major from enrollments
INNER JOIN students ON enrollments.studentid = students.studentid
WHERE enrollments.courseId = 102; 4ms
```

	Filter	Filter
> 1	Alice	Computer Science
> 2	Bob	Mathematics

3. Hitung jumlah mahasiswa di setiap jurusan.

```

8  -- Hitung jumlah mahasiswa disetiap jurusan
   Run | New Tab | JSON
9  SELECT major, COUNT(*) as jumlah_mahasiswa FROM students GROUP BY major; 3ms

```

	major varchar	jumlah mahasiswa bigint
	Filter	Filter
> 1	Computer Science	1
> 2	Mathematics	1
> 3	Physics	1

4. Tampilkan nama mahasiswa yang mendapatkan nilai 'A'.

```

   Run | New Tab | JSON
SELECT students.studentName FROM enrollments
INNER JOIN students ON enrollments.studentid = students.studentid
WHERE grade = 'A'; 2ms

```

	studentName varchar
	Filter
> 1	Alice
> 2	Bob

5. Tampilkan nama mata kuliah yang memiliki lebih dari 3 kredit.

```

   Run | New Tab | JSON
SELECT courseName FROM courses WHERE credits > 3; 2ms

```

1	>	Total 2
		courseName varchar
		Filter
	> 1	Calculus
	> 2	Physics 101

6. Tampilkan nama mahasiswa yang mengambil mata kuliah "Database Systems" atau "Physics 101".

Run New Tab JSON
<pre>SELECT students.studentName FROM enrollments INNER JOIN students ON enrollments.studentid = students.studentid INNER JOIN courses ON enrollments.courseid = courses.courseid WHERE courseName = 'Database Systems' OR courseName = 'Physics 101';</pre>
1 / Total 1
studentName varchar
Filter
Alice

7. Tampilkan jumlah mahasiswa yang mendapatkan nilai 'A' di setiap mata kuliah.

```
> Run | New Tab | JSON
SELECT courseName, COUNT(*) as jumlah_mahasiswa FROM enrollments
INNER JOIN courses ON enrollments.courseid = courses.courseid
WHERE grade = 'A' GROUP BY courseName; 3ms
```

Total 2	
courseName varchar	jumlah_mahasiswa bigint
Filter	Filter
Database Systems	1
Calculus	1

8. Tampilkan nama dan usia mahasiswa yang mengambil lebih dari satu mata kuliah.

Run | New Tab | JSON

```
SELECT studentName, Age, COUNT(*) as jml FROM students
INNER JOIN enrollments ON students.studentid = enrollments.studentid
INNER JOIN courses ON enrollments.courseid = courses.courseid
GROUP BY studentName, age HAVING COUNT(*) > 1;
```

1 > Total 1

studentName varchar	Age int	jml bigint
Filter	Filter	Filter
Alice	20	2

9. Tampilkan nama mahasiswa yang mengambil mata kuliah yang memiliki lebih dari 3 kredit, diurutkan berdasarkan nama mahasiswa.

Run | New Tab | JSON

```
SELECT students.studentName FROM enrollments
INNER JOIN students ON enrollments.studentid = students.studentid
INNER JOIN courses ON enrollments.courseid = courses.courseid
WHERE courses.credits > 3 ORDER BY students.studentName ASC; 13ms
```

1 > Total 3

studentName varchar
Filter
> 1 Alice
> 2 Bob
> 3 Charlie

10. Tampilkan nama mata kuliah beserta rata-rata nilai mahasiswa yang mengambil mata kuliah tersebut.

**** Tambahkan kolom grade number agar bisa dihitung rata-ratanya**

	EnrollmentID	StudentID	CourseID	Grade	GradeNumber
<input type="checkbox"/> Edit Copy Delete	1	1	101	A	4
<input type="checkbox"/> Edit Copy Delete	2	1	102	B	3
<input type="checkbox"/> Edit Copy Delete	3	2	102	A	4
<input type="checkbox"/> Edit Copy Delete	4	3	103	C	2

↑ ☐ Check all With selected: Edit Copy Delete Export

```
42 -- Tampilkan nama mata kuliah beserta rata-rata nilai mahasiswa yang mengambil mata  
43 > Run | New Tab | JSON  
44 SELECT courses.courseName, AVG(enrollments.gradeNumber) as avg from enrollments  
45 INNER JOIN courses ON enrollments.courseId = courses.courseId  
46 GROUP BY courses.courseName;| 42ms
```

Selamat mengerjakan