

PROBLEM STATEMENT

Given –

A table having the marks of one student in every test.

To Do –

Output the tests in which the student has improved his performance.

For a student to improve his performance he has to score more than the previous test.

Provide 2 solutions, one including the first test score and second excluding it.

Input Table:

INPUT	
TEST_ID	MARKS
100	55
101	55
102	60
103	58
104	40
105	50

Output Tables:

OUTPUT - 1	
TEST_ID	MARKS
100	55
102	60
105	50

OUTPUT - 2	
TEST_ID	MARKS
102	60
105	50

SOLUTION

```
--Output 1  
-- Using CTE
```

```
With cte as(  
  select test_id, marks,  
         lag(marks,1,0) over(order by test_id) as prev_marks  
  from student_tests  
)  
select test_id,marks  
from cte  
where marks > prev_marks
```

8 %

Results Messages

	test_id	marks
1	100	55
2	102	60
3	105	50

```
--Output 2  
-- Using subquery
```

```
select test_id, marks  
from (  
  select test_id, marks,  
         lag(marks,1,marks) over(order by test_id) as prev_marks  
  from student_tests  
) sq  
where sq.marks > sq.prev_marks
```

8 %

Results Messages

	test_id	marks
1	102	60
2	105	50