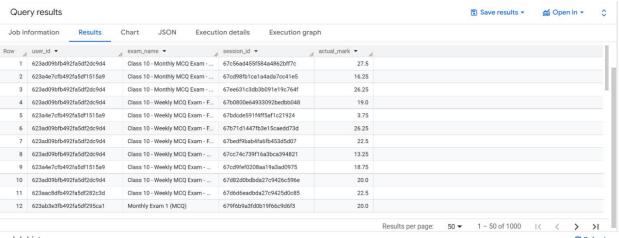## Answer 1

```
SELECT

es.user_id,

e.exam_name,

es.session_id,

(es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *

e.per_ques_negative_marking) AS actual_mark

FROM

`ms-464509.10ms.exam` AS e

JOIN

  `ms-464509.10ms.exam_session` AS es

ON

 es.exam_id = e.exam_id

LIMIT

1000
```
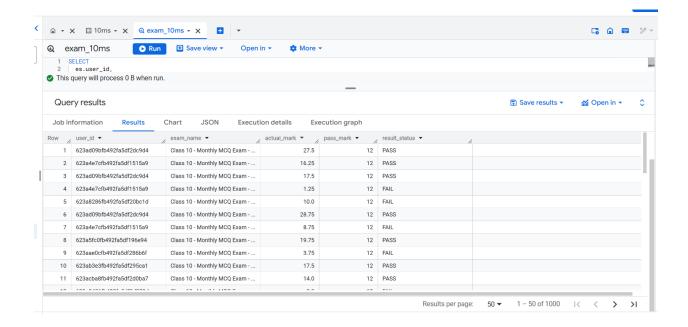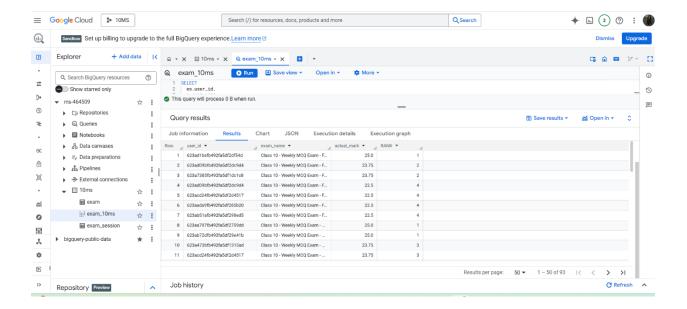

Query results

Job information | Results | Chart | JSON | Execution details | Execution graph

Row	user_id ▼	exam_name ▼	session_id ▼	actual_mark ▼
1	623ad09bfb492fa5df2dc9d4	Class 10 - Monthly MCQ Exam - ...	67c56ad455f584a4862bff7c	27.5
2	623a4e7cfb492fa5df1515a9	Class 10 - Monthly MCQ Exam - ...	67cd98fb1ca1a4ada7cc41e5	16.25
3	623ad09bfb492fa5df2dc9d4	Class 10 - Monthly MCQ Exam - ...	67ee631c3db3b091e19c764f	26.25
4	623ad09bfb492fa5df2dc9d4	Class 10 - Weekly MCQ Exam - F...	67b0800e64933092bedbb048	19.0
5	623a4e7cfb492fa5df1515a9	Class 10 - Weekly MCQ Exam - F...	67bdcde591f4ff5af1c21924	3.75
6	623ad09bfb492fa5df2dc9d4	Class 10 - Weekly MCQ Exam - F...	67b71d1447fb3e15caedd73d	26.25
7	623ad09bfb492fa5df2dc9d4	Class 10 - Weekly MCQ Exam - F...	67bedf9bab4fa6fb453d5d07	22.5
8	623ad09bfb492fa5df2dc9d4	Class 10 - Weekly MCQ Exam - ...	67cc74c739f16a3bca394821	13.25
9	623a4e7cfb492fa5df1515a9	Class 10 - Weekly MCQ Exam - ...	67cd9fef0208aa19a3ad0975	18.75
10	623ad09bfb492fa5df2dc9d4	Class 10 - Weekly MCQ Exam - ...	67d82d0bdbda27c9426c596e	20.0
11	623aac8dfb492fa5df282c3d	Class 10 - Weekly MCQ Exam - ...	67d6d6eadbda27c9425d0c85	22.5
12	623ab3e3fb492fa5df295ca1	Monthly Exam 1 (MCQ)	679f6b9a3fd0b19f66c9d6f3	20.0

Results per page: 50 ▼   1 – 50 of 1000 |< < > >|

Answer 2

```sql
SELECT
 es.user_id,
 e.exam_name,
 (es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *
e.per_ques_negative_marking) AS actual_mark,
 e.pass_mark,
 CASE
 WHEN ((es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *
e.per_ques_negative_marking)) >= e.pass_mark THEN 'PASS'
 ELSE 'FAIL'
 END
 AS result_status
FROM
 `ms-464509.10ms.exam` AS e
JOIN
 `ms-464509.10ms.exam_session` AS es
ON
 es.exam_id = e.exam_id
LIMIT
 1000;
```

Answer 3

```
SELECT

es.user_id,

e.exam_name,

(es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *
e.per_ques_negative_marking) AS actual_mark,

 RANK() OVER (PARTITION BY es.exam_id ORDER BY (es.total_correct_answers * e.each_ques_mark) -
(es.total_false_answers * e.per_ques_negative_marking) DESC) AS RANK

FROM

 `ms-464509.10ms.exam` AS e

JOIN

 `ms-464509.10ms.exam_session` AS es

ON

 es.exam_id = e.exam_id

QUALIFY

 RANK <= 5;
```

Answer 4

SELECT

es.user_id,

e.exam_name,

(es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *

 e.per_ques_negative_marking) AS actual_mark,

es.user_exam_ends_at,

LAG(((es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *

 e.per_ques_negative_marking))) OVER (PARTITION BY es.user_id ORDER BY es.user_exam_starts_at)

 AS previous_actual_mark,

CASE

 WHEN LAG(((es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *

 e.per_ques_negative_marking))) OVER (PARTITION BY es.user_id ORDER BY es.user_exam_starts_at) IS

 NULL THEN NULL

    WHEN   ((es.total_correct_answers   *   e.each_ques_mark)   -   (es.total_false_answers   *

 e.per_ques_negative_marking))   >   LAG(((es.total_correct_answers   *   e.each_ques_mark)   -

 (es.total_false_answers * e.per_ques_negative_marking))) OVER (PARTITION BY es.user_id ORDER BY

 es.user_exam_starts_at) THEN 'Improved'

```sql
 WHEN ((es.total_correct_answers * e.each_ques_mark) - (es.total_false_answers *

e.per_ques_negative_marking)) < LAG(((es.total_correct_answers * e.each_ques_mark) -

(es.total_false_answers * e.per_ques_negative_marking))) OVER (PARTITION BY es.user_id ORDER BY

es.user_exam_starts_at) THEN 'Declined'

     ELSE 'Same'

END

 AS performance_trend

FROM

 `ms-464509.10ms.exam` AS e

JOIN

 `ms-464509.10ms.exam_session` AS es

ON

 es.exam_id = e.exam_id;
```