

Sql Queries

1. Average Attendance by Risk Level (ordered High → Medium → Low)

```
SELECT
    risk_level,
    AVG(attendance_rate) AS avg_attendance
FROM students
GROUP BY risk_level
ORDER BY CASE
    WHEN risk_level = 'High' THEN 1
    WHEN risk_level = 'Medium' THEN 2
    ELSE 3
END;
```

2. Average GPA per Major (ascending)

```
SELECT major, AVG(GPA) AS avg_gpa
FROM students
GROUP BY major
ORDER BY avg_gpa ASC;
```

3. Participation Level & Risk Level Grouping

```
SELECT
    CASE
        WHEN forum_participation_count < 3 THEN 'Low Participation'
        ELSE 'Active Participation'
    END AS participation_group,
    risk_level,
    COUNT(*) AS student_count
FROM students
GROUP BY
    CASE
        WHEN forum_participation_count < 3 THEN 'Low Participation'
        ELSE 'Active Participation'
    END,
    risk_level;
```

4. GPA and Course Grade by Enrollment Status

```
SELECT enrollment_status, AVG(GPA) AS avg_gpa, AVG(avg_course_grade) AS
avg_grade
FROM students
```

```
GROUP BY enrollment_status;
```

5. Average Assignment Submission Rate by Risk Level

```
SELECT risk_level, AVG(assignment_submission_rate) AS avg_submission
FROM students
GROUP BY risk_level
ORDER BY risk_level;
```

6. Averages of LMS Metrics for Students with GPA > 3.5

```
SELECT
    AVG(lms_logins_past_month) AS avg_logins,
    AVG(avg_session_duration_minutes) AS avg_session,
    AVG(video_completion_rate) AS avg_video_rate
FROM students
WHERE GPA > 3.5;
```

7. Student Count by Age Group and Risk Level

```
SELECT
    CASE
        WHEN age < 20 THEN 'Below 20'
        WHEN age BETWEEN 20 AND 22 THEN '20-22'
        ELSE 'Above 22'
    END AS age_group,
    risk_level,
    COUNT(*) AS count
FROM students
GROUP BY
    CASE
        WHEN age < 20 THEN 'Below 20'
        WHEN age BETWEEN 20 AND 22 THEN '20-22'
        ELSE 'Above 22'
    END,
    risk_level
ORDER BY age_group, risk_level;
```

8. Students with High GPA but Low Engagement

```
SELECT student_id, GPA, lms_logins_past_month, assignment_submission_rate
FROM students
WHERE GPA > 3.5
    AND (lms_logins_past_month < 5 OR assignment_submission_rate < 0.5);
```

9. Count of Students Who Left or Graduated by Major

```
SELECT major, enrollment_status, COUNT(*) AS count
FROM students
WHERE enrollment_status IN ('Leave', 'Graduated')
GROUP BY major, enrollment_status
ORDER BY count DESC;
```

10. Average Engagement Metrics for High-Risk Students

```
SELECT
    AVG(lms_logins_past_month) AS avg_logins,
    AVG(video_completion_rate) AS avg_video,
    AVG(assignment_submission_rate) AS avg_submission,
    AVG(forum_participation_count) AS avg_forum
FROM students
WHERE risk_level = 'High';
```