

1. How many students are enrolled in a course on a specific day?

```
SELECT COUNT(ds.Number_of_Students, e.Enrolled as Enroll, c.Course_Title as CourseCat, c.Days_Meeting as MeetingCat)
FROM Daily_Snapshot as ds
INNER JOIN Enrollments As e ON ds.Enrollment_ID = e.Enrollment_ID
INNER JOIN Courses As c ON e.Courses_ID = c.Courses_ID
INNER JOIN Courses As c ON c.Courses_ID = c.Courses_ID
WHERE Course_Title = "Math 101" AND Days_Meeting = "Monday"
```

2. How many grades does a given instructor need to turn in?

```
SELECT COUNT(g.Grade, c.Course_Title as Course, c.Instructor_Name_1 as Instructor, s.Student_ID)
FROM Grades as g
INNER JOIN Courses As c ON g.Courses_ID = c.Courses_ID
INNER JOIN Courses As c ON C.Courses_ID = c.Courses_ID
INNER JOIN Students As s ON c.Student_ID = s.Student_ID
```

3. What is the GPA of an individual student for a given semester?

```
SELECT g.GPA_Equivalent, s.Student_ID as Student, c.Semester as Semester
FROM Grades as g
INNER JOIN Students As s ON g.Student_ID = s.Student_ID
INNER JOIN Semester As c ON s.Course_ID = c.Course_ID
WHERE Student_ID = 1000 AND Semester = "Fall 2020"
```

4. What is the cumulative GPA of an individual student?

```
SELECT g.GPA_Equivalent, s.Student_ID as Student, c.Semester as Semester
FROM Grades as g
INNER JOIN Students As s ON g.Student_ID = s.Student_ID
INNER JOIN Semester As c ON s.Course_ID = c.Course_ID
WHERE Student_ID = 1000
```

5. How many students passed their courses each semester?

```
SELECT COUNT(ds.Number_of_Students, g.Considered_Passing as Passing, c.Semester as Semester)
FROM Daily_Snapshot as ds
INNER JOIN Grades As g ON ds.Grade_ID = g.Grade_ID
INNER JOIN Courses As c ON g.Courses_ID = c.Courses_ID
WHERE Considered_Passing = "Passing"
```

6. How does daily enrollment activity during last semester's open enrollment period compare to the same period the year prior?

```
SELECT
    CASE WHEN Enrollment_Start_Date BETWEEN date_trunc('year', current_date)
        - INTERVAL '1 year'
        AND current_date - INTERVAL '1 year' THEN 'ytd_2020'
        WHEN Enrollment_Start_Date BETWEEN date_trunc('year', current_date) -
        INTERVAL '1 year'
        AND current_date - INTERVAL '1 year' THEN 'ytd_2021'
        END AS Year_Comparison
FROM Enrollments
WHERE date_part('year', Enrollment_Start_Date) >= date_part('year', current_date) -1
GROUP BY Year_Comparison
```