

We looked for similarities between the different queries. Both Q2 and Q3 make use of 'completed degrees'. A materialized view is useful here, because we will only have to run the query for finding completed degrees only once now instead of twice.

Then, we wanted to optimize Q1. Our old query took roughly three seconds to complete, and since it will be executed 100 times, this would be too costly. We decided to add an index to the StudentRegistrationId column on the CourseRegistrations table. It now takes about half a second to complete.

A newly computed column added to StudentRegistrationsToDegrees contains the GPA of the student for this degree. This speeds query 2 up by a factor of about 20.