Lab 15: Cursors Nidhi Surya Prakash SUID:215895619

Purpose:

Create a function with a cursor.

Steps:

- 1. Create a function which will walk through the Enrollment table and calculate the average grades for each of the students¹. Provide a **screenshot** of script execution. *The function will take in a student id as a parameter and then calculate that student's average grade (round to hundredth).*
- 2. Execute the function. Provide a **screenshot** of execution, showing the results. Also provide a **screenshot** of the data, proving that your function worked as expected (please write a single SELECT statement that will provide the answers).

SCRIPT:

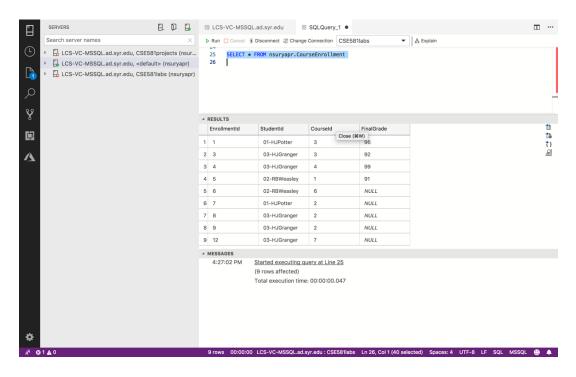
```
CREATE FUNCTION calcAvgGrade(@studentID as varchar(50)) RETURNS DECIMAL(10,2) AS
DECLARE @aG DECIMAL(10,2),@finalGrade int = 0, @c float=0.0, @grades int
DECLARE avgGradesCursor CURSOR FOR
SELECT FinalGrade FROM nsuryapr.CourseEnrollment WHERE StudentId = @studentID AND
FinalGrade is not NULL
OPEN avgGradesCursor
FETCH NEXT FROM avgGradesCursor INTO @grades
   WHILE @@FETCH_STATUS = 0
    BEGIN
         SELECT @c = @c + 1
         SELECT @finalGrade = @finalGrade + @grades
         FETCH NEXT FROM avgGradesCursor INTO @grades
    END
SELECT @aG = ROUND(@finalGrade / @c,2)
CLOSE avgGradesCursor
DEALLOCATE avgGradesCursor
RETURN @aG
END
```

¹ Please note that this can be done in easier ways, but the point here is to create a cursor and make sure it works.

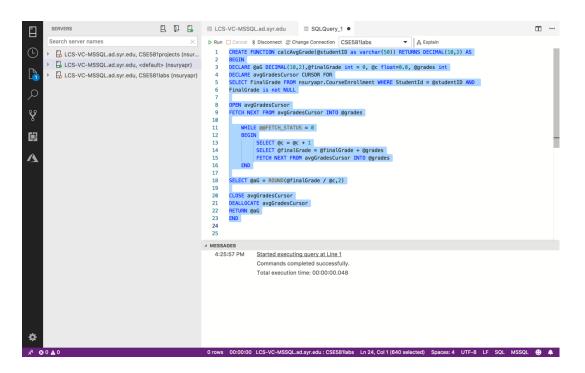
CourseEnrollment table

Script:

SELECT * FROM nsuryapr.CourseEnrollment



Script execution



Execution of function

Script:

SELECT nsuryapr.calcAvgGrade('03-HJGranger') as Avg_Grade

