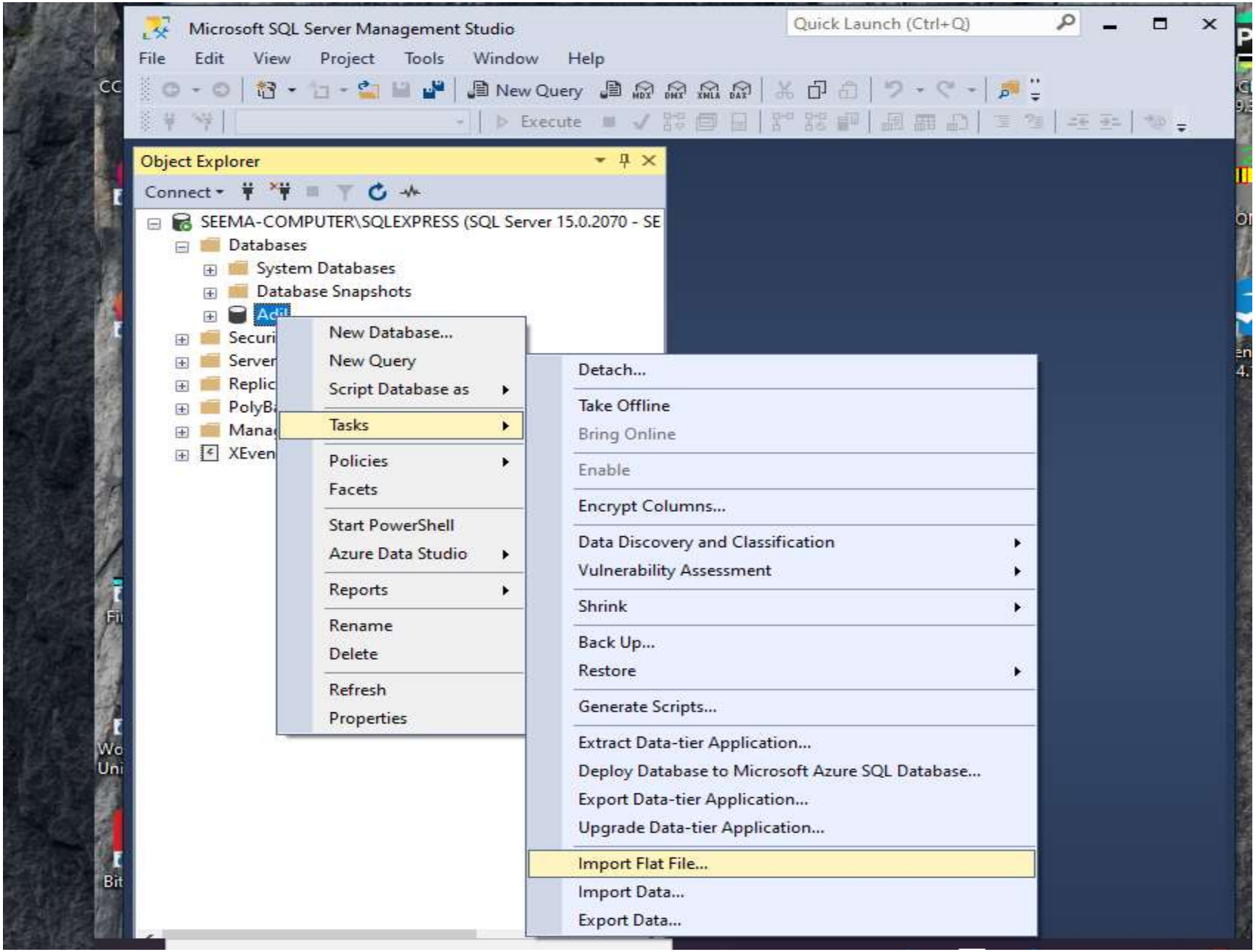
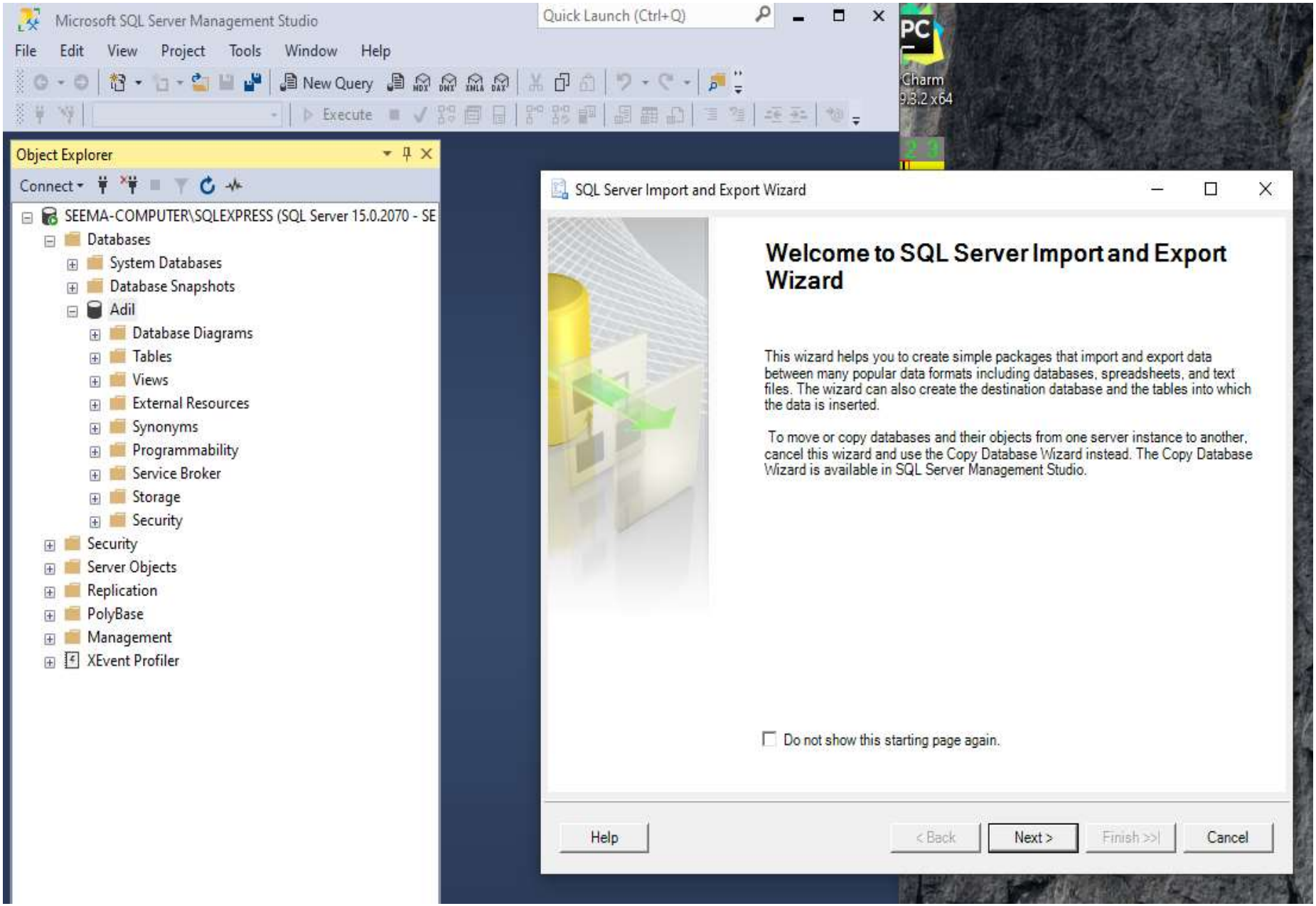
Course Review Project

- Use "Grade Record" dataset (either use the entire dataset or the first 50 record).
- Create a master table that will hold your entire dataset.
- Normalize the dataset into third normal form.
- Identify primary and foreign keys for your tables.
- Use JOIN to create a consolidated table.
- Present your code to class.

IMORTING DATASET FILE



IMORTING DATASET FILE



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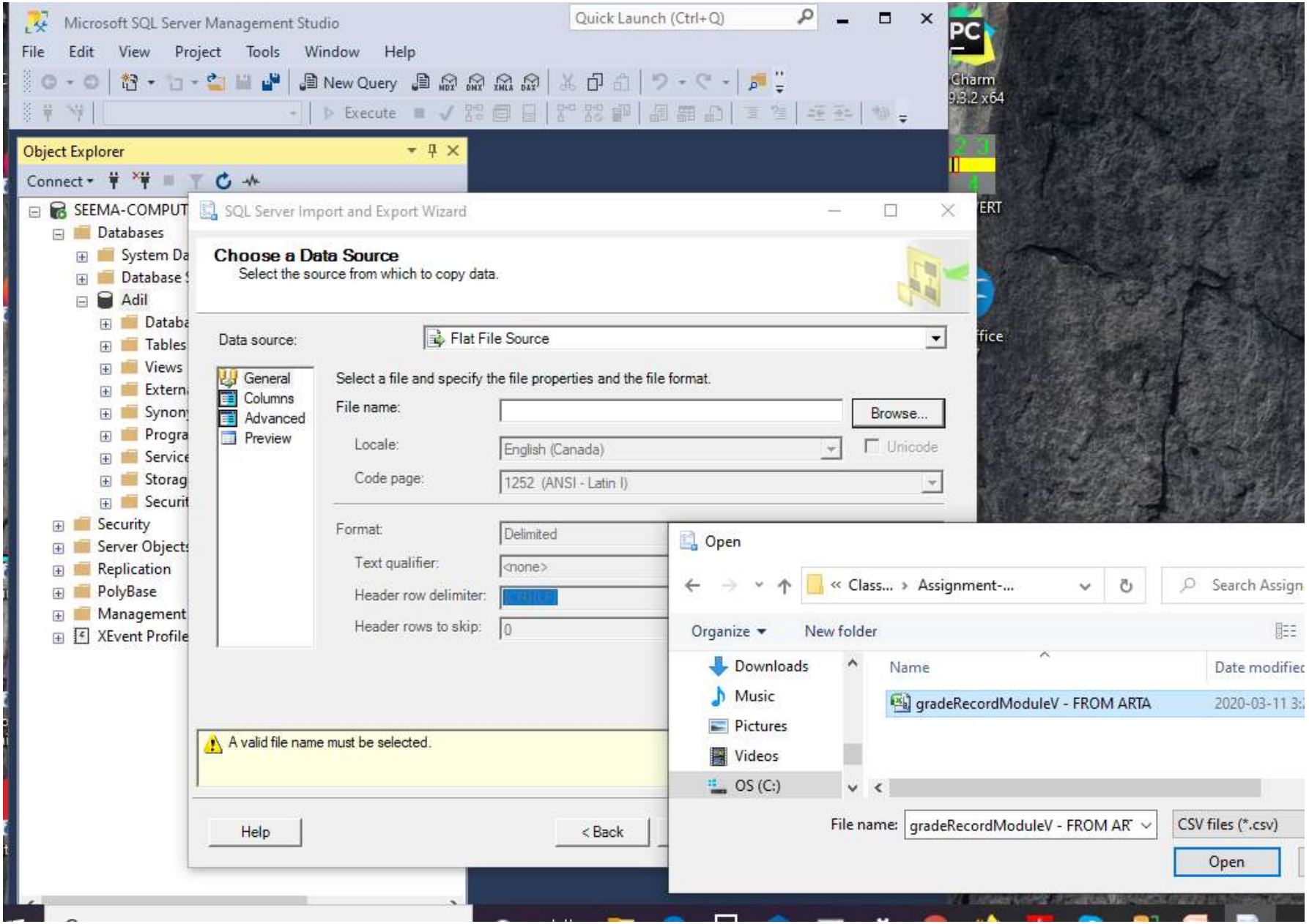

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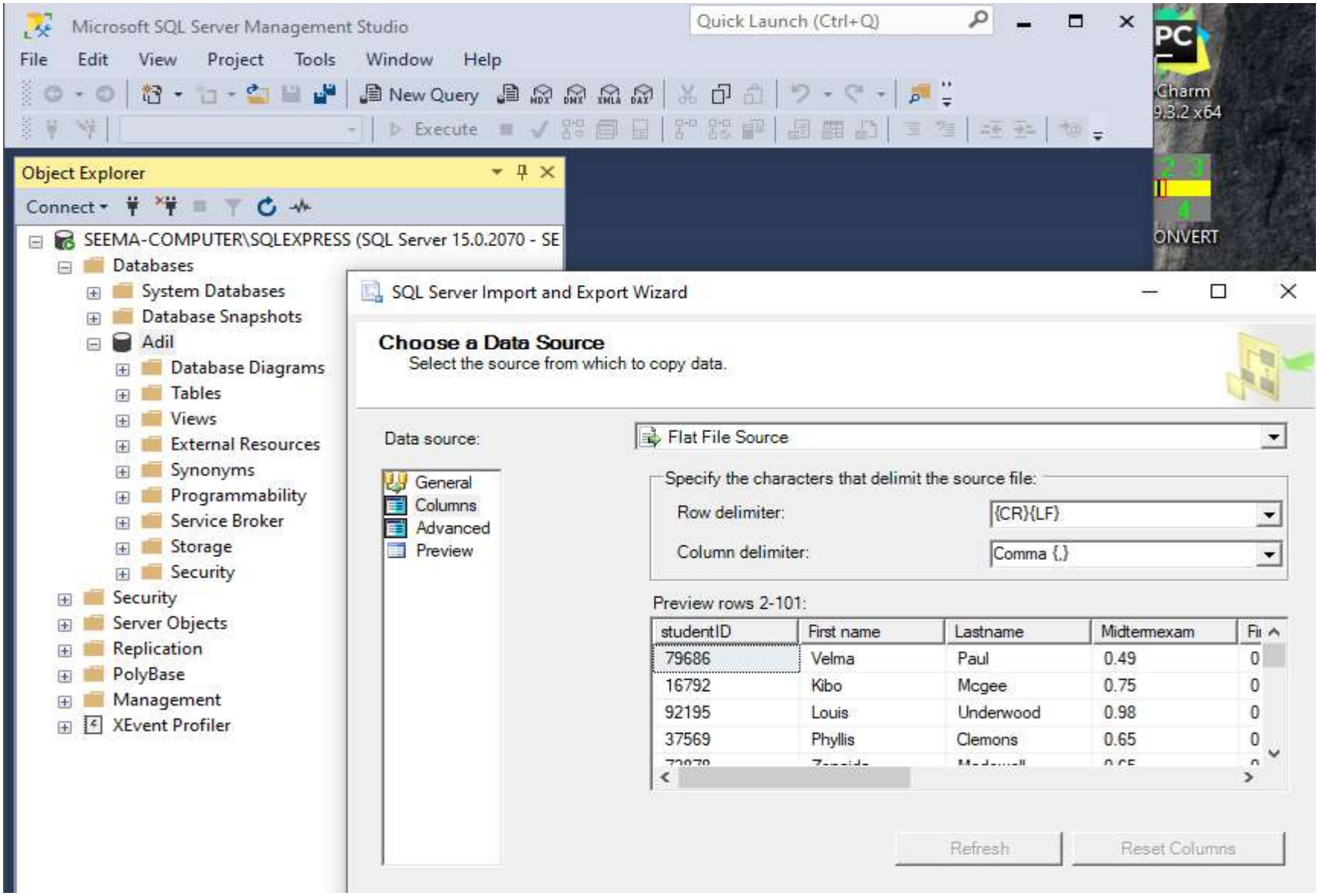

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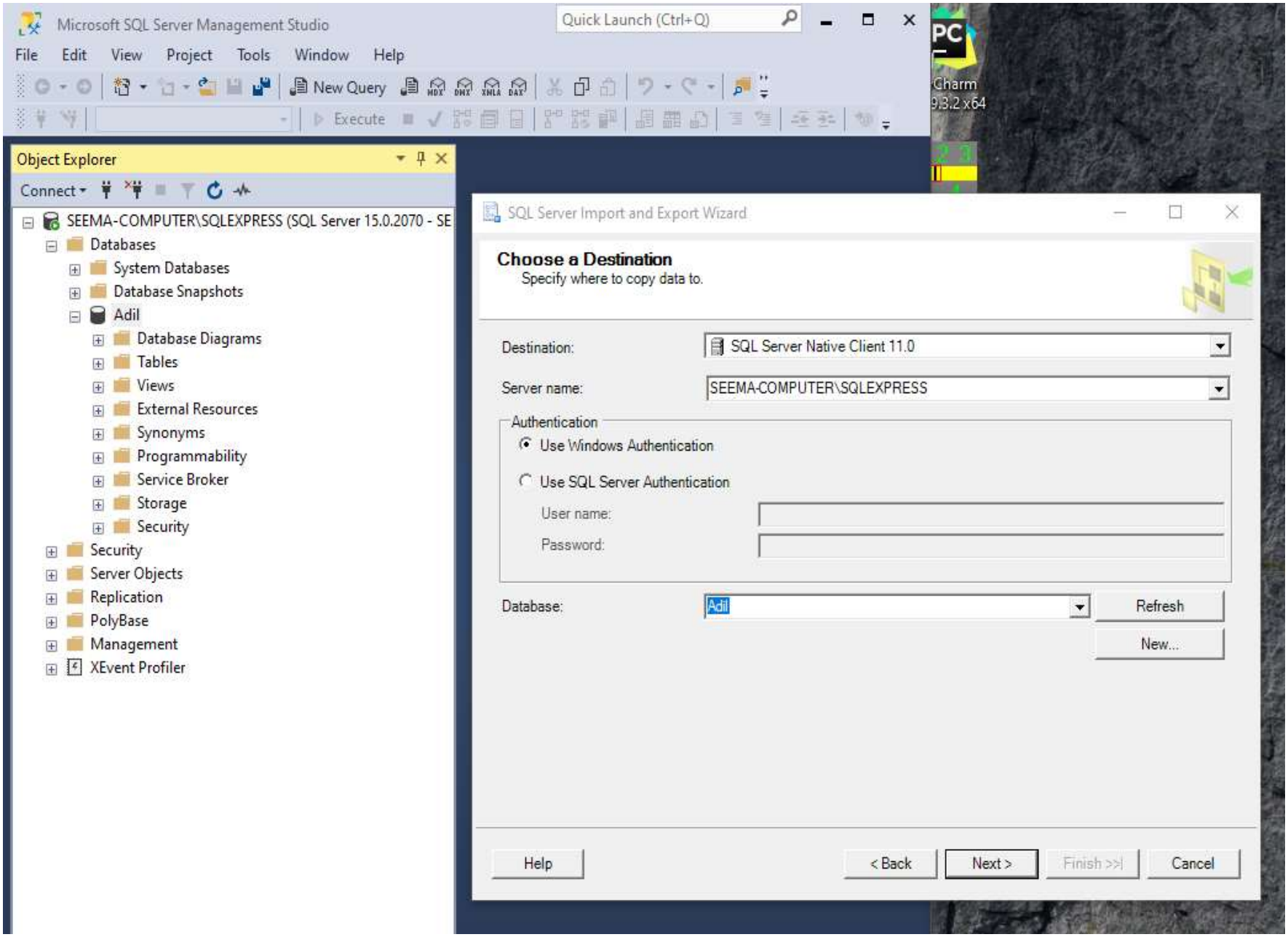

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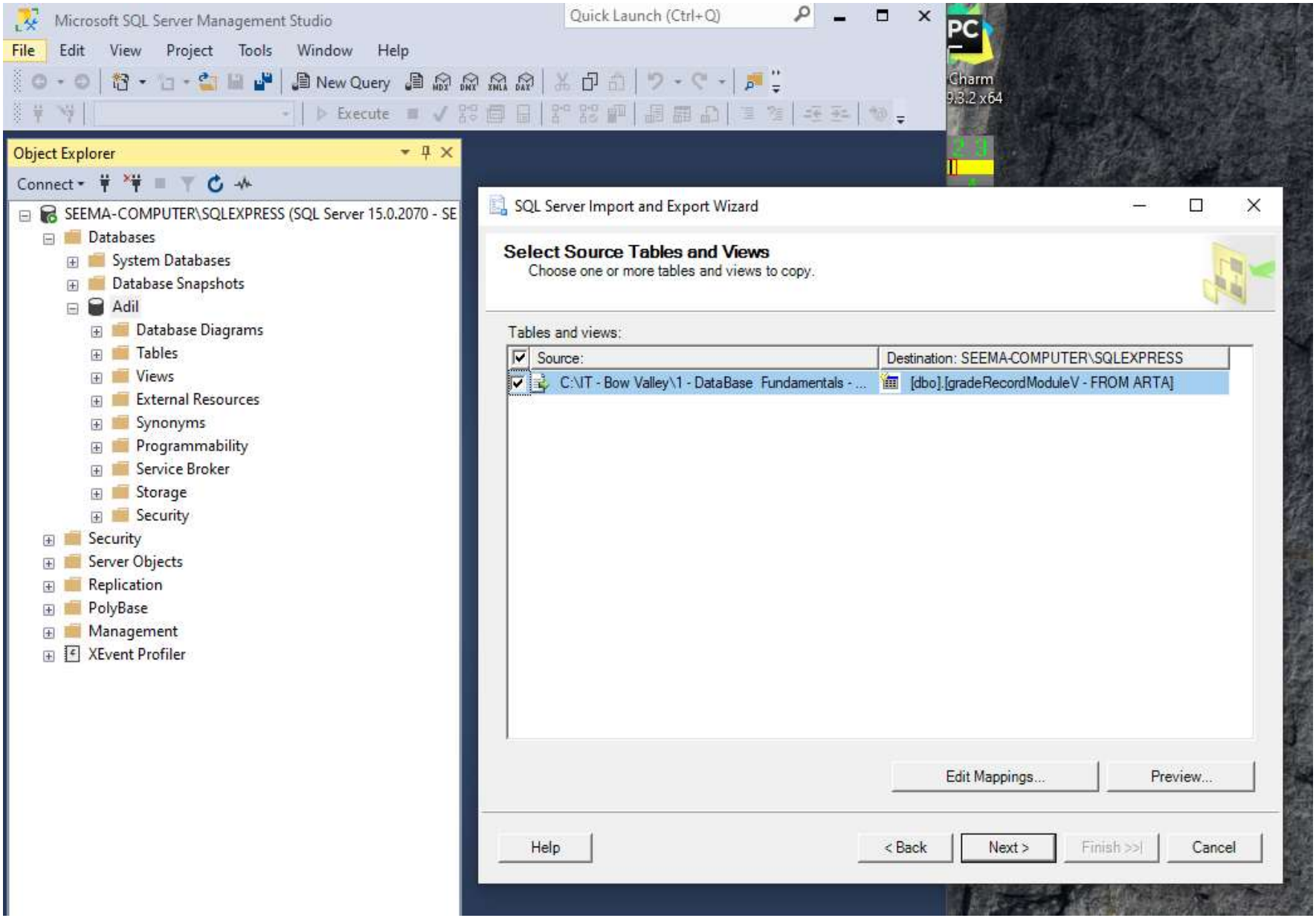

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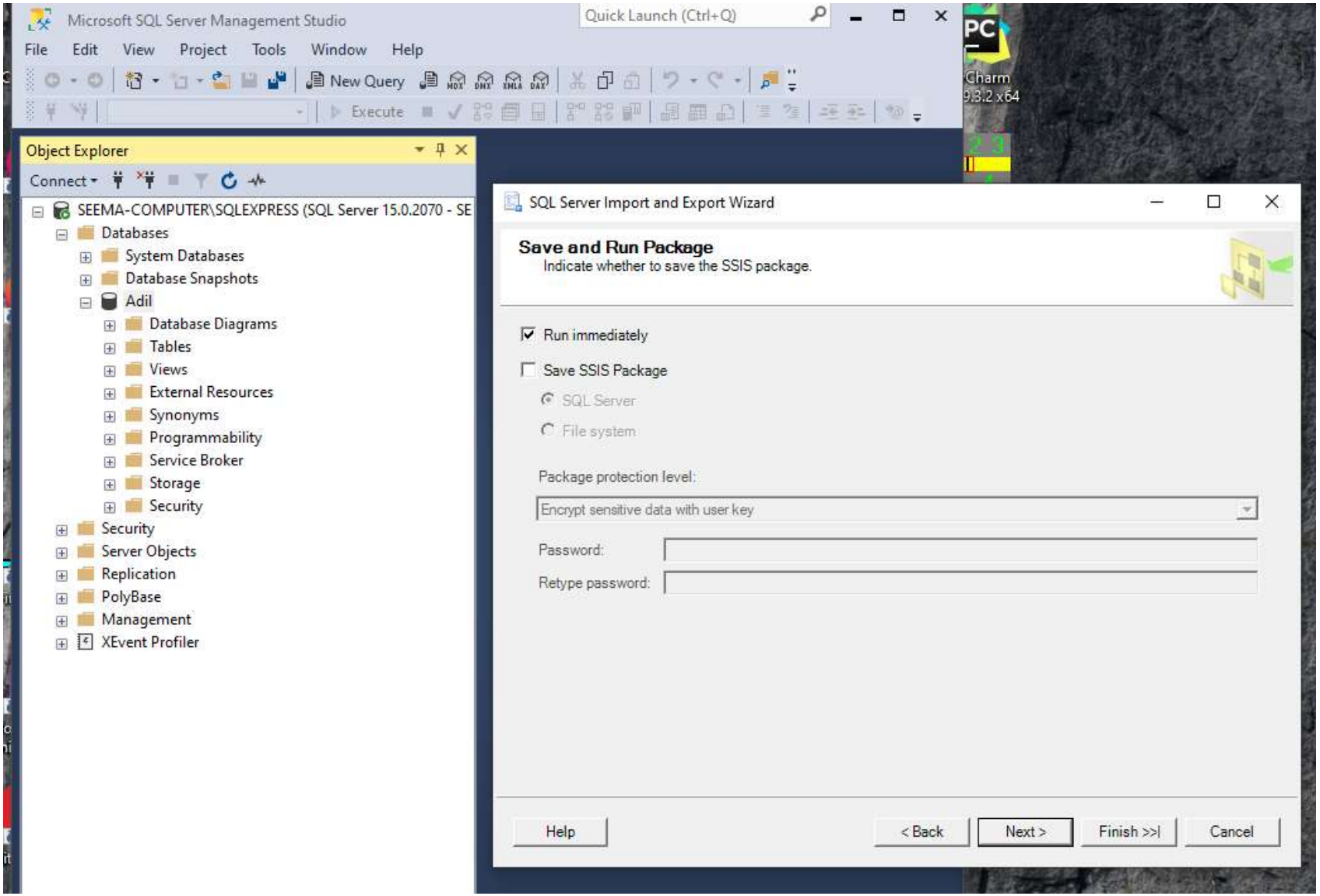

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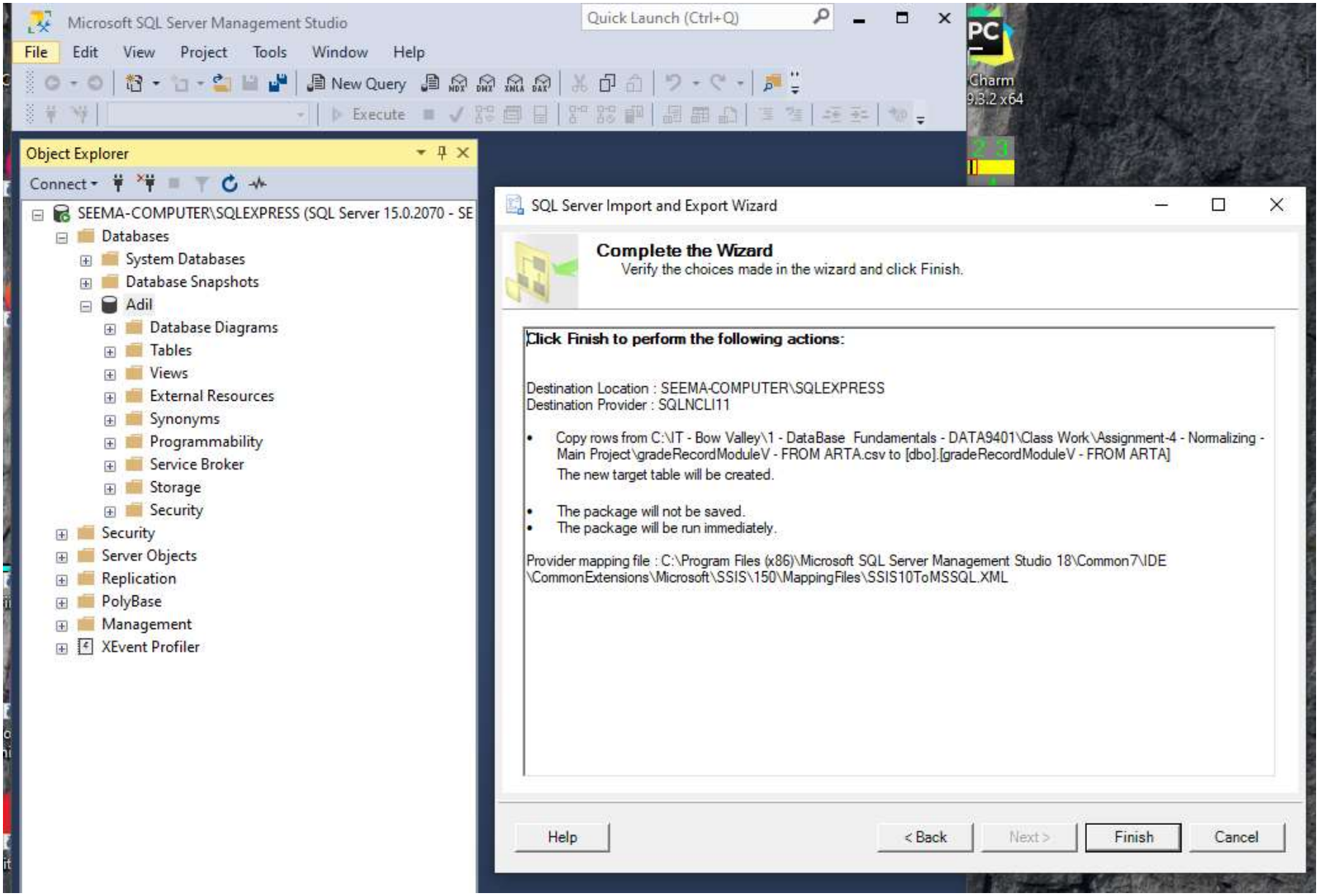

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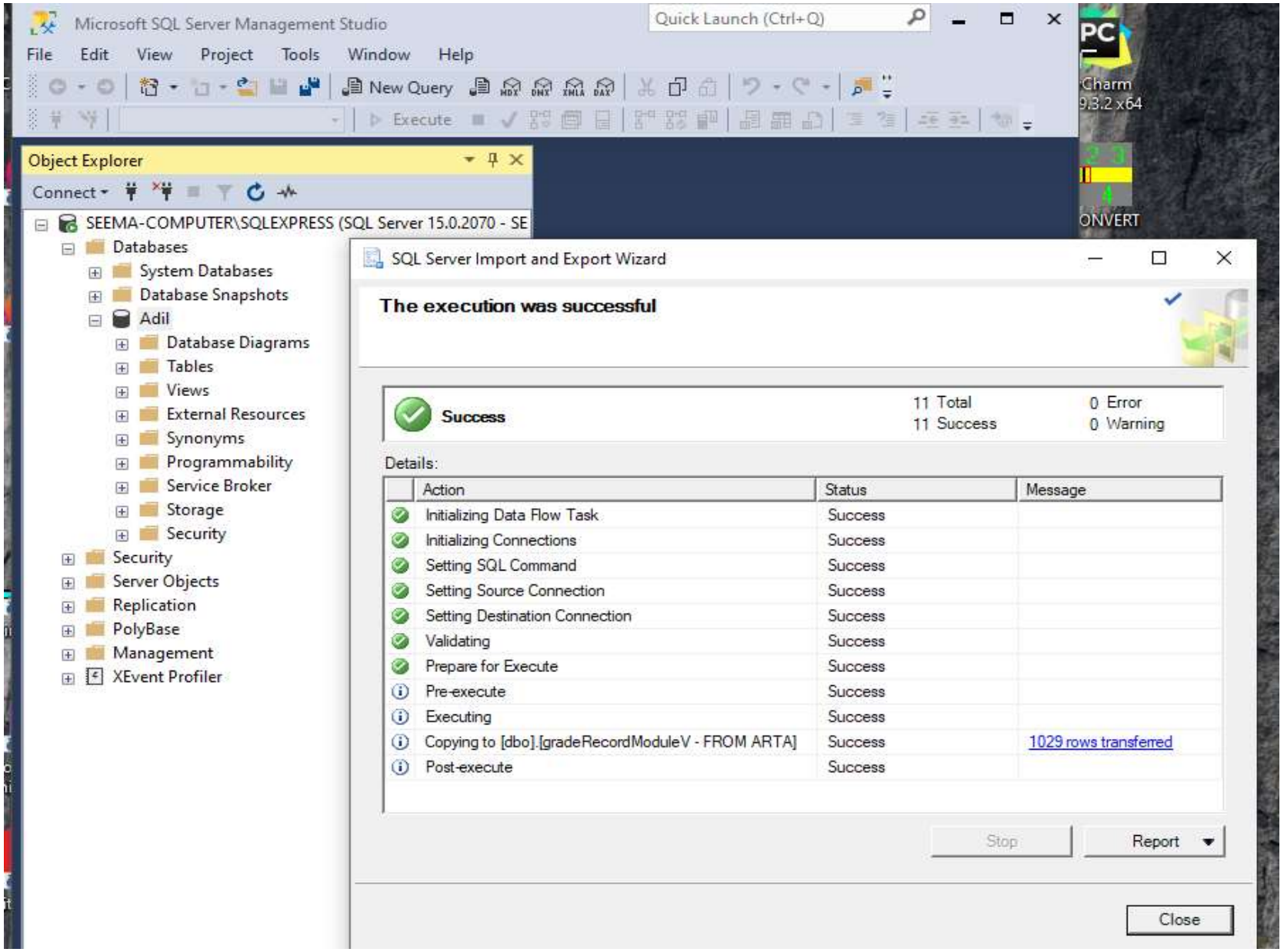

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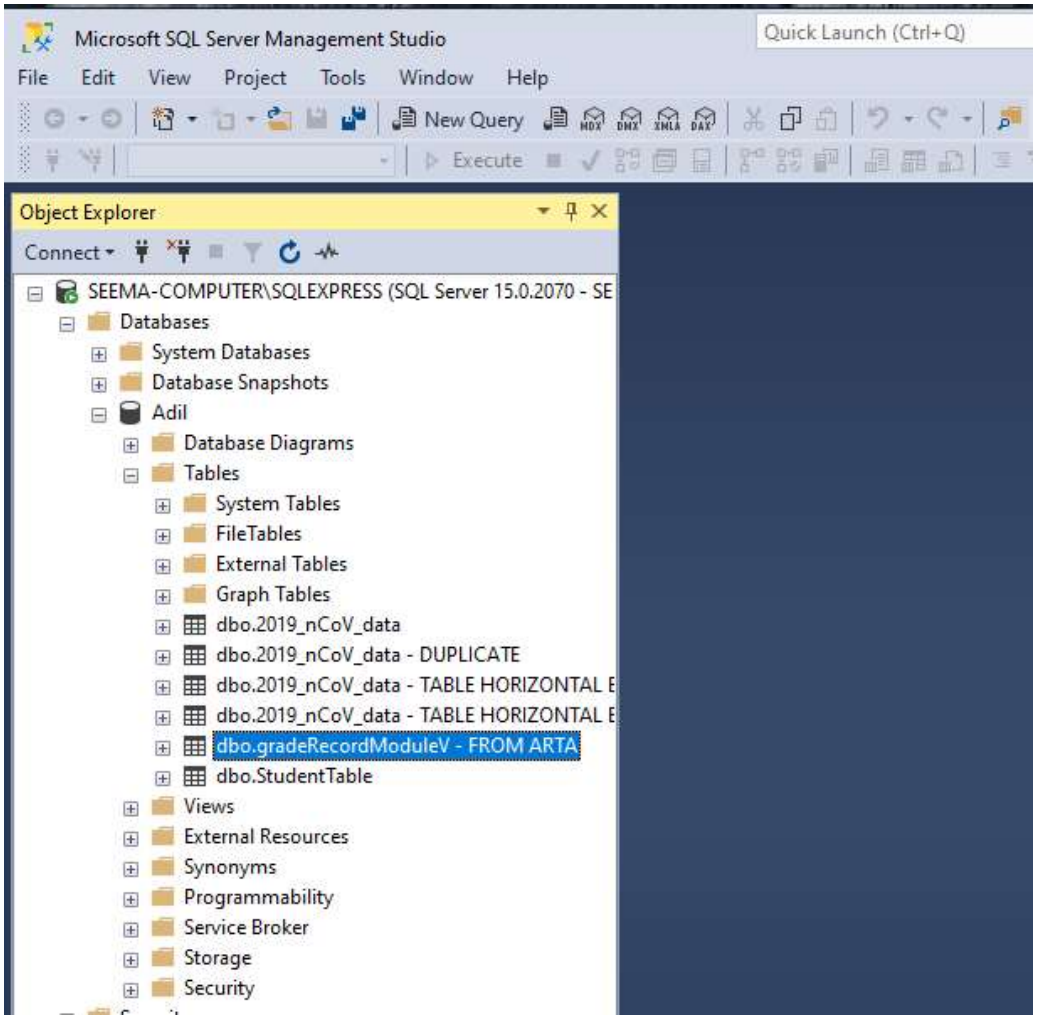

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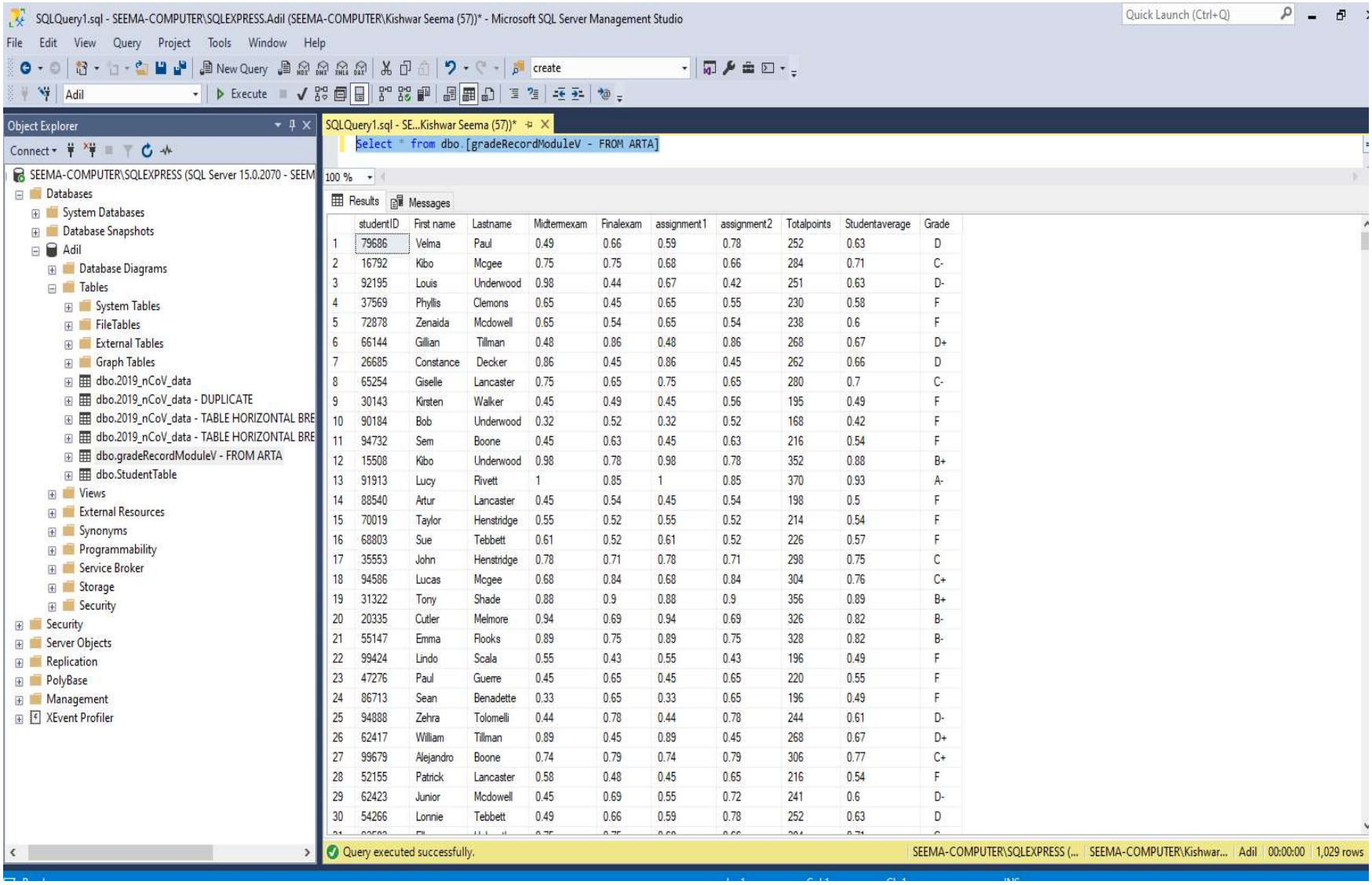
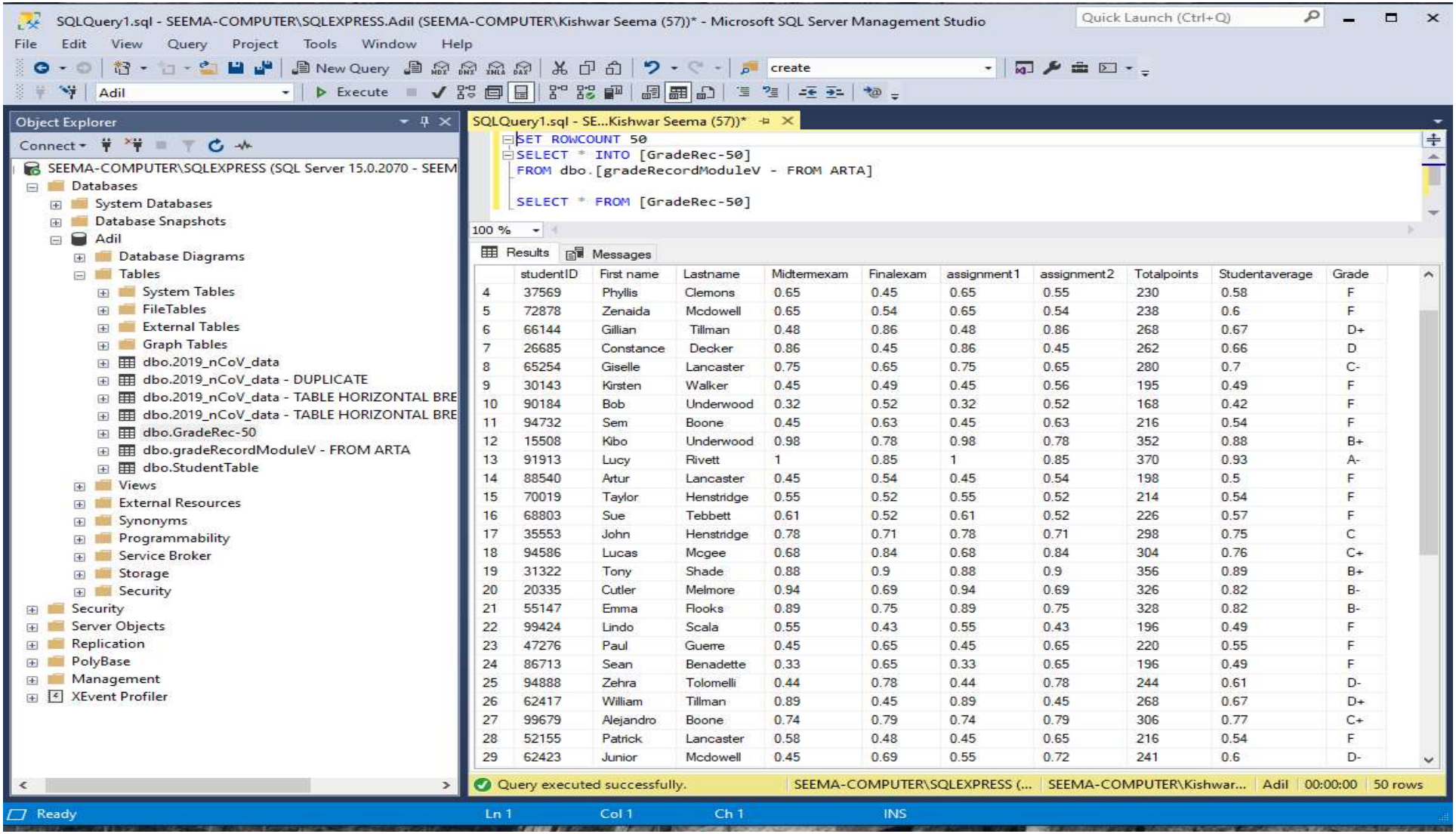


SPLITTING TABLE IN 50 ROWS

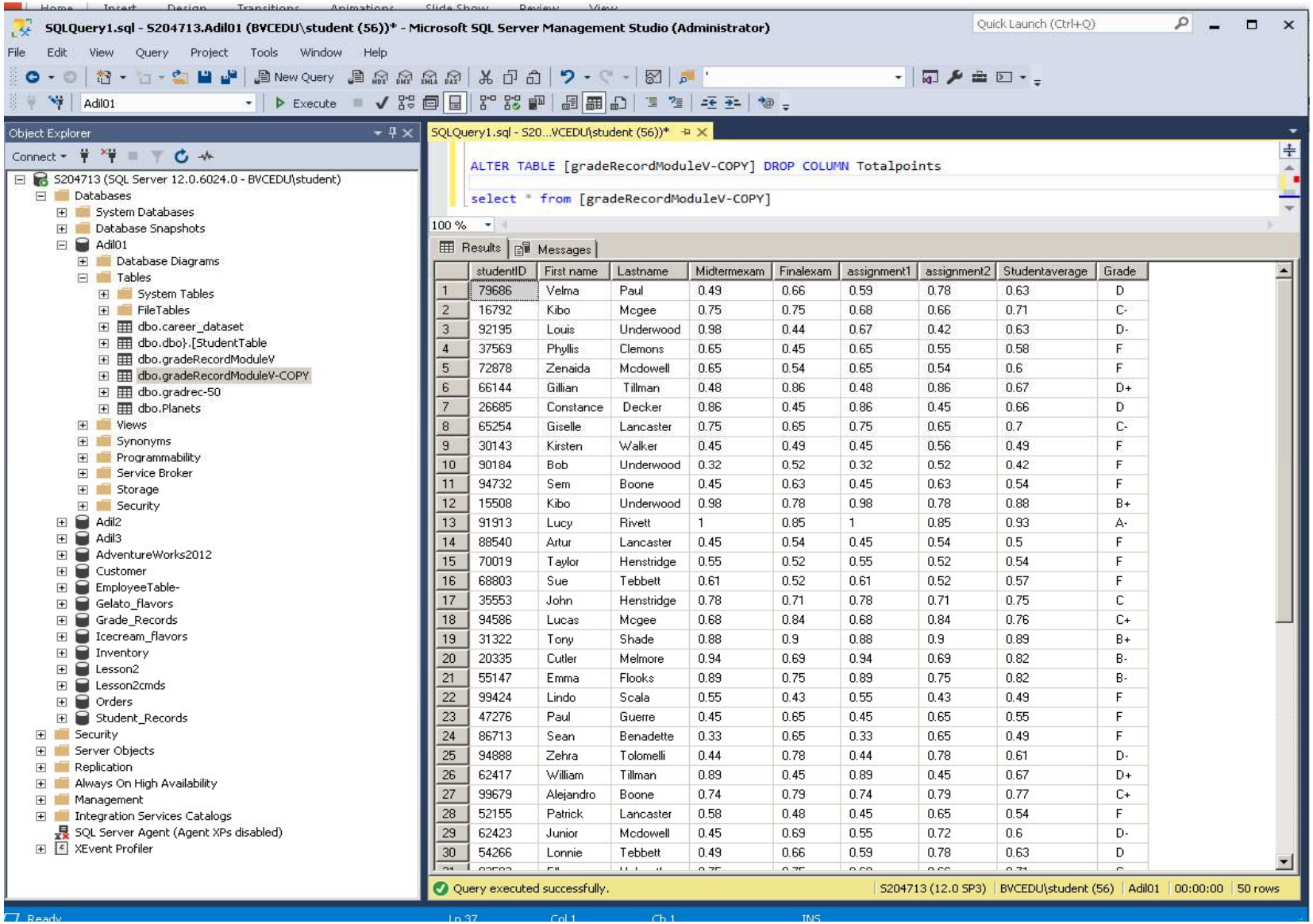
```
SET ROWCOUNT 50
SELECT * INTO [GradeRec-50]
FROM dbo.[gradeRecordModuleV - FROM ARTA]
SELECT * FROM [GradeRec-50]
```



DROPPING REDUNDANT COLUMN

ALTER TABLE [gradeRecordModuleV-COPY] DROP COLUMN Totalpoints

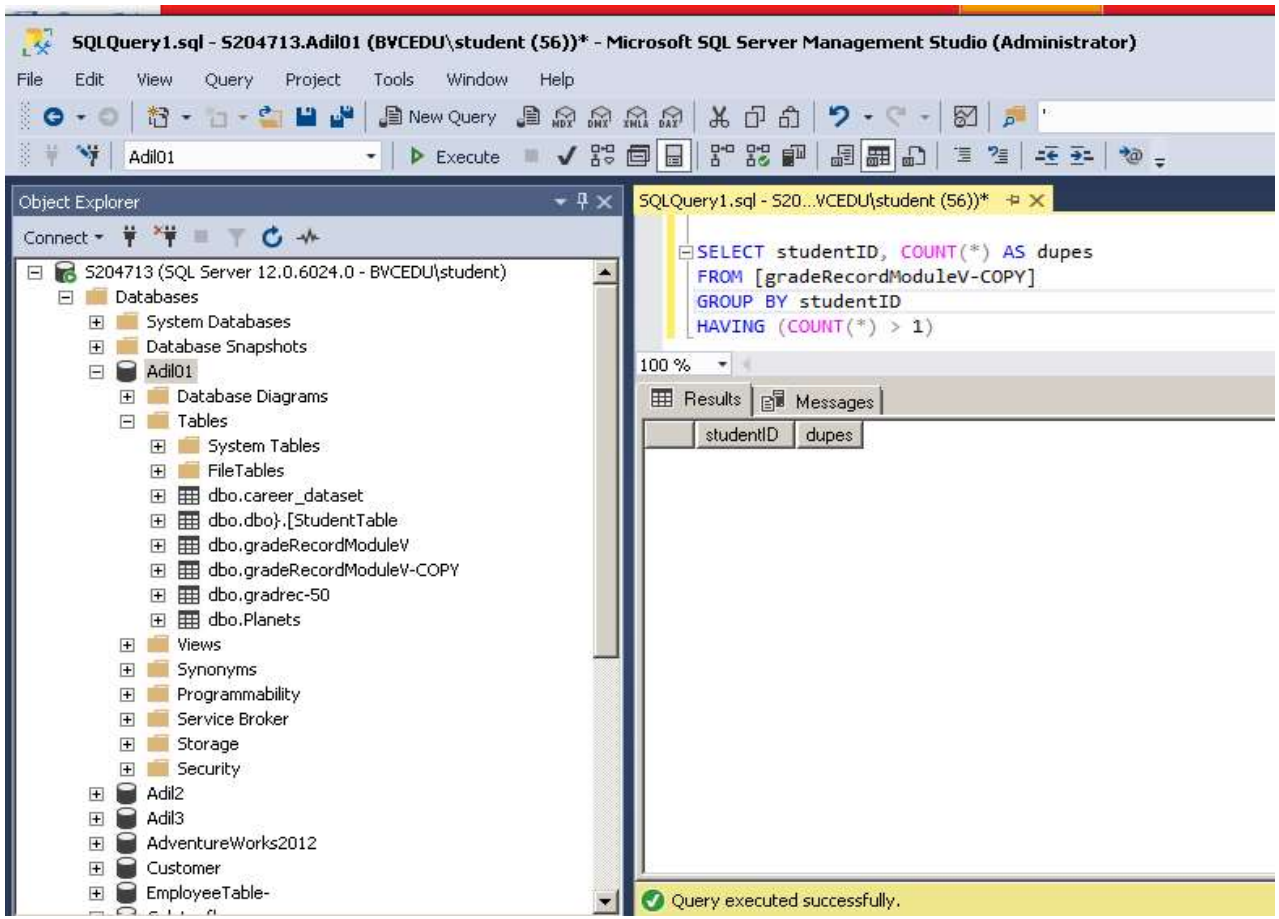
SELECT * from [gradeRecordModuleV-COPY]



CHECKING FOR DUPLICATE RECORDS

```
SELECT studentID, COUNT(*) AS dupes
FROM [gradeRecordModuleV-COPY]
GROUP BY studentID
HAVING (COUNT(*) > 1)
```

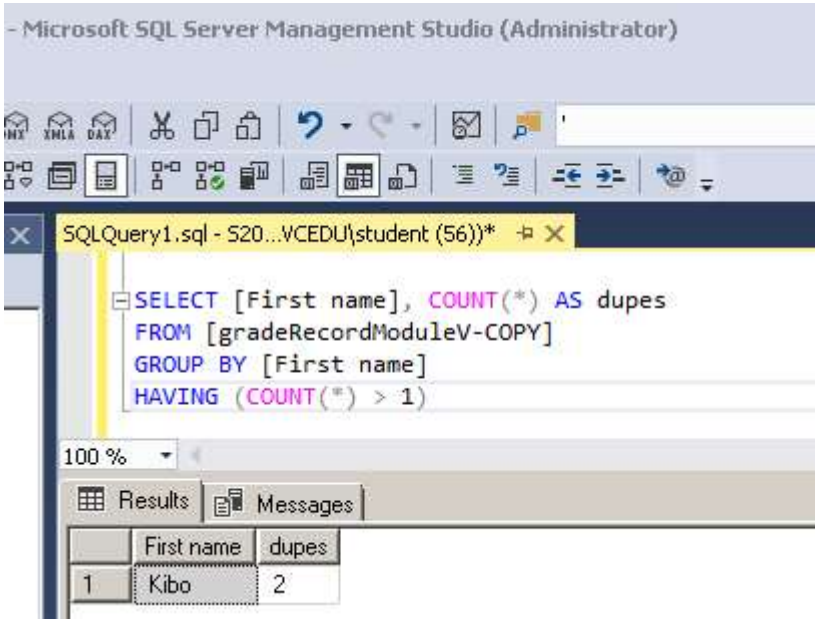
No Duplicate record found.



CHECKING FOR DUPLICATE RECORDS

Double Checking Duplicate Groups

```
SELECT [First name], COUNT(*) AS dupes
FROM [gradeRecordModuleV-COPY]
GROUP BY [First name]
HAVING (COUNT(*) > 1)
```

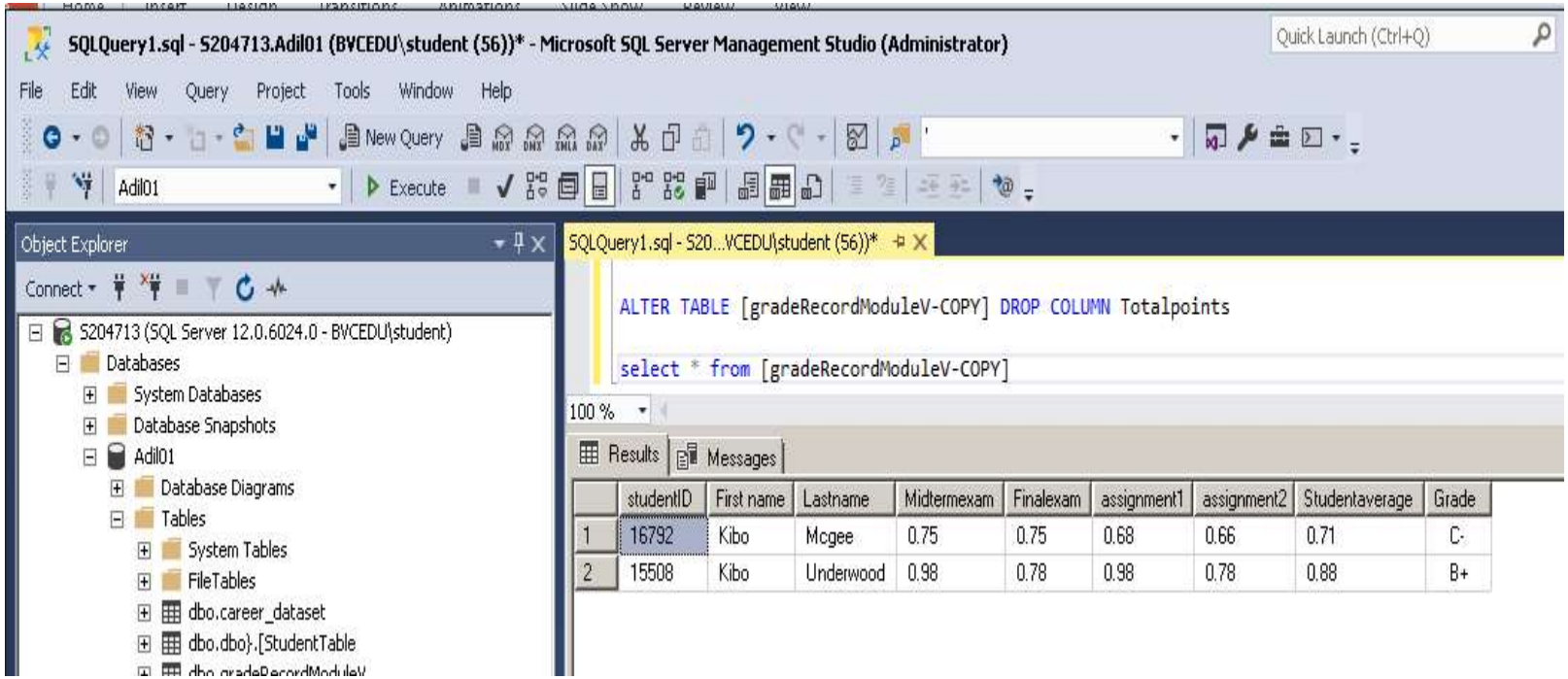


CHECKING FOR DUPLICATE RECORDS

Checking Duplicate Groups

```
select * from [gradeRecordModuleV-COPY]
where [First name] = 'Kibo‘
```

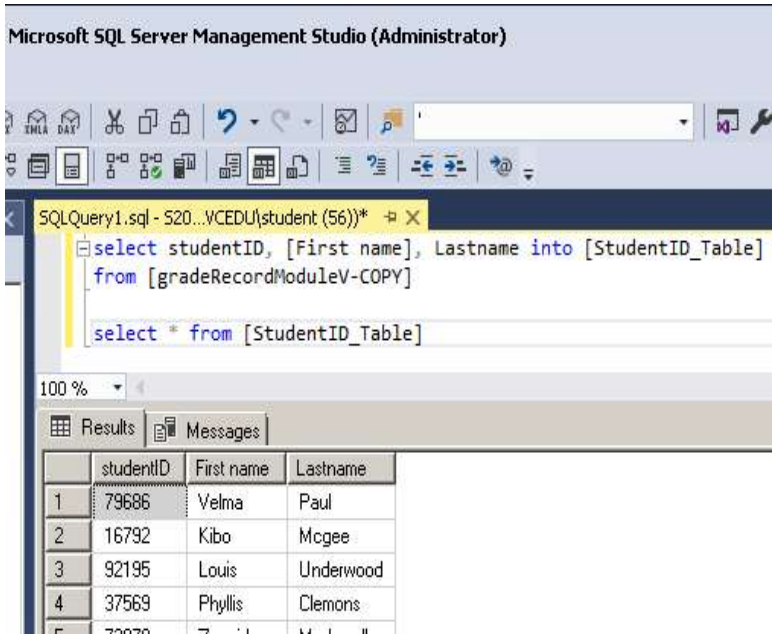
No Duplicate record found because the 2nd name is different.

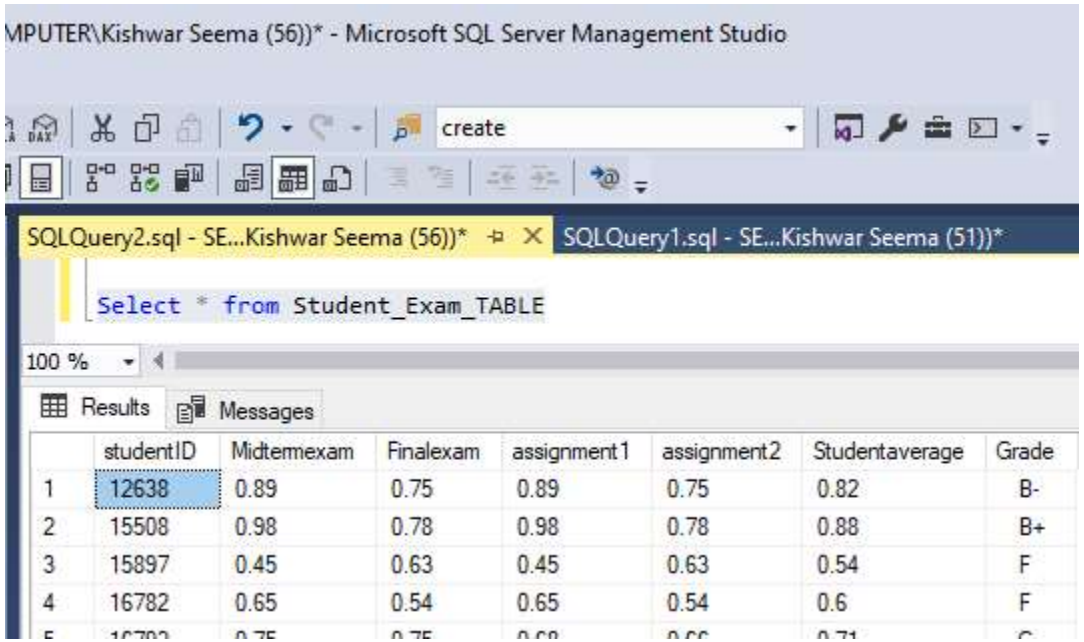


CREATING TABLES

StudentID_TABLE, Student_Exam TABLE

SELECT studentID, [First name], Lastname into [StudentID_Table]
FROM [gradeRecordModuleV-COPY]
SELECT * from [StudentID_Table]
SELECT studentID, Midtermexam, Finalexam, assignment1, assignment2,
Studentaverage, Grade into [Student_Exam_TABLE]
FROM [gradeRecordModuleV-COPY]

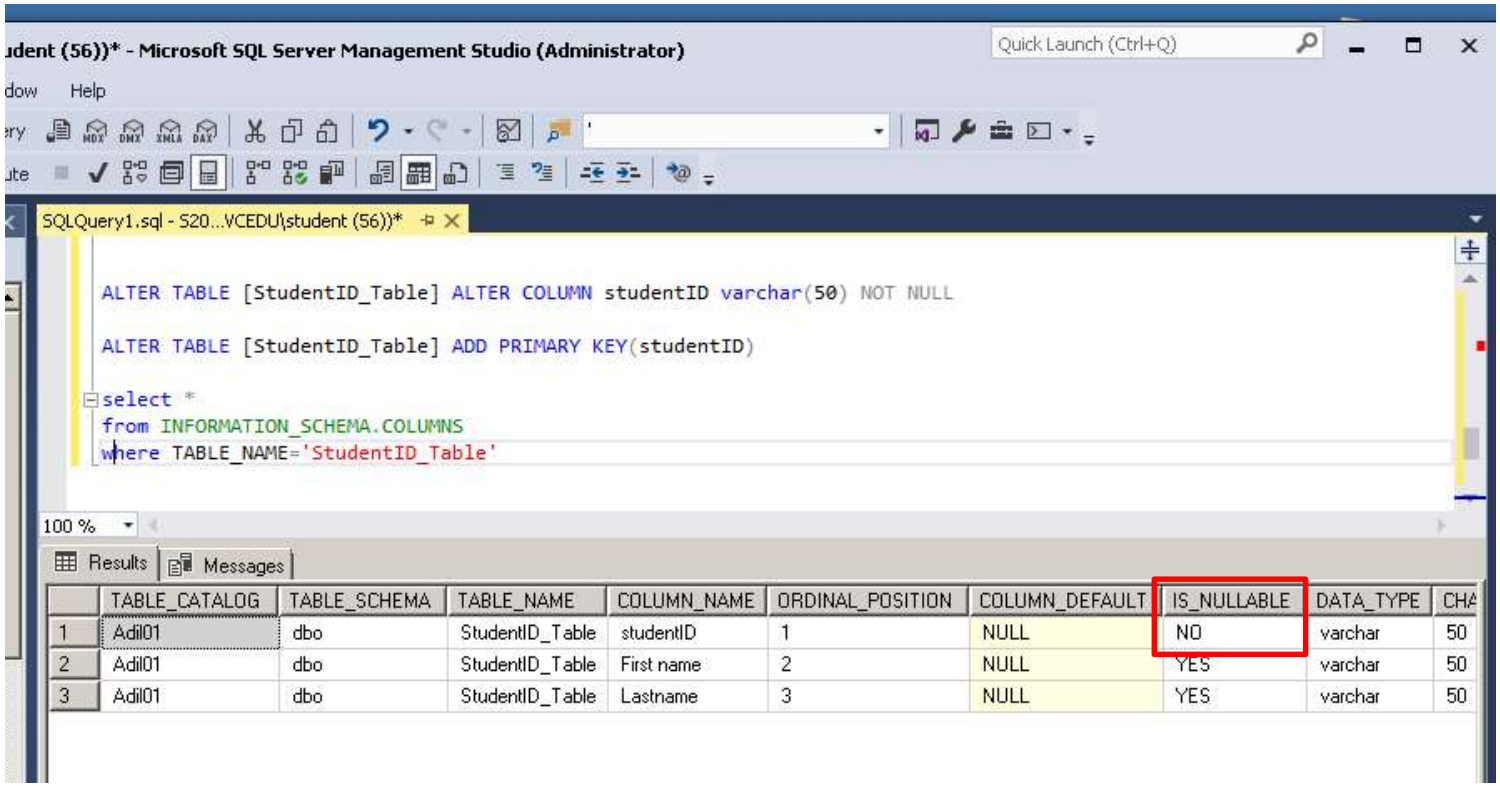




CREATING PRIMARY KEYS

ALTER TABLE [StudentID_Table] ALTER COLUMN studentID varchar(50) NOT NULL
ALTER TABLE [StudentID_Table] ADD PRIMARY KEY(studentID)

select * from INFORMATION_SCHEMA.COLUMNS
where TABLE_NAME = 'StudentID_Table‘
(Other Table is also added with Keys Similarly)



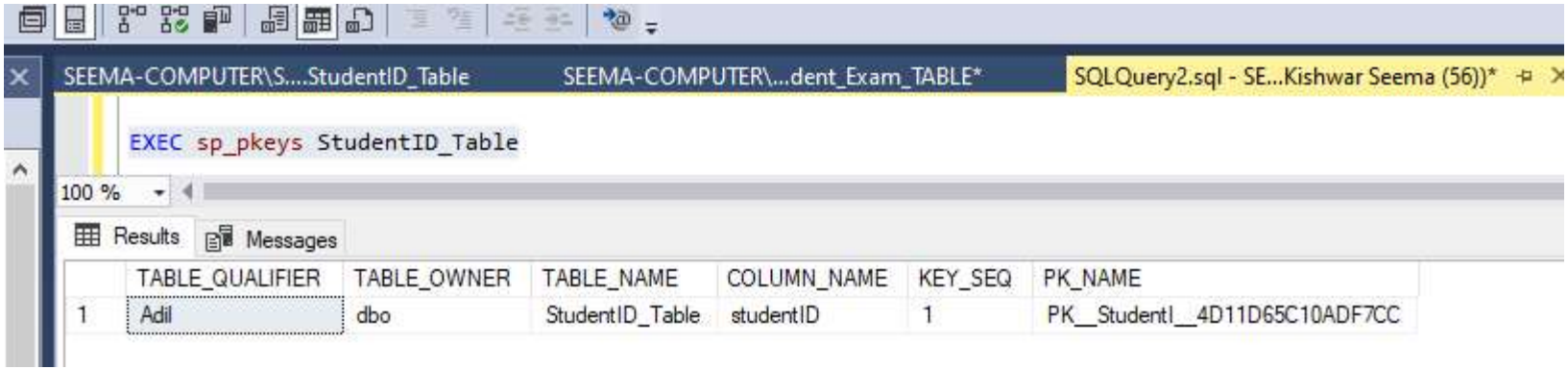
ADDING FOREIGN KEYS

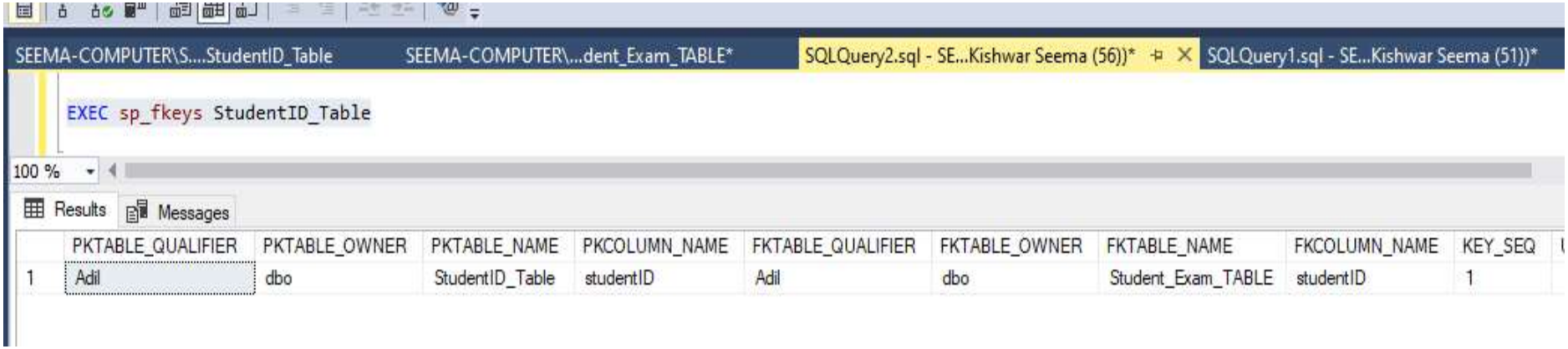
ALTER TABLE [Student_Exam_TABLE]
ADD CONSTRAINT studentID FOREIGN KEY (studentID)
REFERENCES [StudentID_Table] (studentID)

VIEW KEYS

EXEC sp_pkeys StudentID_Table

EXEC sp_fkeys StudentID_Table

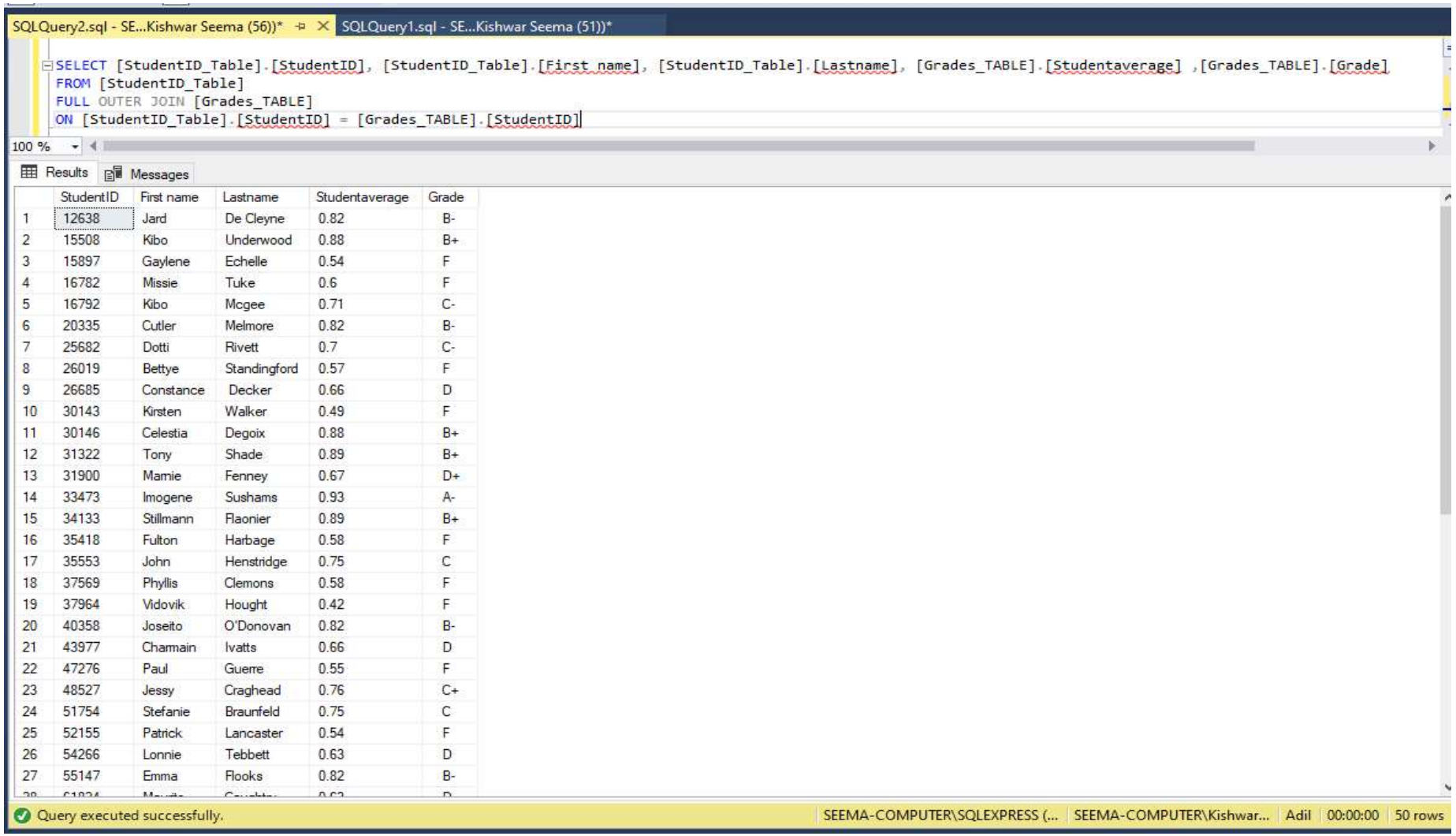




USING OUTER JOIN TO CONSOLIDATE DATABASE

```
SELECT [StudentID_Table].[StudentID], [StudentID_Table].[First name], [StudentID_Table].[Lastname],
[Grades_TABLE].[Studentaverage] ,[Grades_TABLE].[Grade]
FROM [StudentID_Table]
FULL OUTER JOIN [Grades_TABLE]
ON [StudentID_Table].[StudentID] = [Grades_TABLE].[StudentID]
```

(StudentID IS IN ASCENDING ORDER, WHICH WAS NOT IN THE MASTER TABLE)



	StudentID	First name	Lastname	Studentaverage	Grade
1	12638	Jard	De Cleyne	0.82	B-
2	15508	Kibo	Underwood	0.88	B+
3	15897	Gaylene	Echelle	0.54	F
4	16782	Missie	Tuke	0.6	F
5	16792	Kibo	Mcgee	0.71	C-
6	20335	Cutler	Melmore	0.82	B-
7	25682	Dotti	Rivett	0.7	C-
8	26019	Bettye	Standingford	0.57	F
9	26685	Constance	Decker	0.66	D
10	30143	Kirsten	Walker	0.49	F
11	30146	Celestia	Degoix	0.88	B+
12	31322	Tony	Shade	0.89	B+
13	31900	Mamie	Fenney	0.67	D+
14	33473	Imogene	Sushams	0.93	A-
15	34133	Stillmann	Flaonier	0.89	B+
16	35418	Fulton	Harbage	0.58	F
17	35553	John	Henstridge	0.75	C
18	37569	Phyllis	Clemons	0.58	F
19	37964	Vidovik	Hought	0.42	F
20	40358	Joseito	O'Donovan	0.82	B-
21	43977	Charmain	Ivatts	0.66	D
22	47276	Paul	Guerre	0.55	F
23	48527	Jessy	Craghead	0.76	C+
24	51754	Stefanie	Braunfeld	0.75	C
25	52155	Patrick	Lancaster	0.54	F
26	54266	Lonnie	Tebbett	0.63	D
27	55147	Emma	Flooks	0.82	B-

COMPARING MASTER TABLE AND THE CONSOLIDATED TABLE

SELECT [StudentID], [First name], [Lastname], [Studentaverage], [Grade]
FROM [gradeRecordModuleV-COPY]
ORDER BY StudentID ASC

(BOTH TABLES ARE FOUND IDENTICAL)

SQLQuery2.sql - SE...Kishwar Seema (56))* | SQLQuery1.sql - SE...Kishwar Seema (51))*

```
SELECT [StudentID], [First name], [Lastname], [Studentaverage], [Grade]
FROM [gradeRecordModuleV-COPY]
ORDER BY StudentID ASC
```

100 %

Results | Messages

	StudentID	First name	Lastname	Studentaverage	Grade
1	12638	Jard	De Cleyne	0.82	B-
2	15508	Kibo	Underwood	0.88	B+
3	15897	Gaylene	Echelle	0.54	F
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13	31900	Mamie	Fenney	0.67	D+
14	33473	Imogene	Sushams	0.93	A-
15	34133	Stillmann	Flaonier	0.89	B+
16	35418	Fulton	Harbage	0.58	F
17	35553	John	Henstridge	0.75	C
18	37569	Phyllis	Clemons	0.58	F
19	37964	Vidovik	Hought	0.42	F
20	40358	Joseito	O'Donovan	0.82	B-
21	43977	Charmain	Ivatts	0.66	D
22	47276	Paul	Guerre	0.55	F
23	48527	Jessy	Craghead	0.76	C+
24	51754	Stefanie	Braunfeld	0.75	C
25	52155	Patrick	Lancaster	0.54	F
26	54266	Lonnie	Tebbett	0.63	D

SQLQuery2.sql - SE...Kishwar Seema (56))* | SQLQuery1.sql - SE...Kishwar Seema (51))*

```
SELECT [StudentID_Table].[StudentID], [StudentID_Table].[First name], [Student
FROM [StudentID_Table]
FULL OUTER JOIN [Grades_TABLE]
ON [StudentID_Table].[StudentID] = [Grades_TABLE].[StudentID]
```

100 %

Results | Messages

	StudentID	First name	Lastname	Studentaverage	Grade
1	12638	Jard	De Cleyne	0.82	B-
2	15508	Kibo	Underwood	0.88	B+
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26	54266	Lonnie	Tebbett	0.63	D
27	55147	Emma	Flooks	0.82	B-

Query executed successfully.

END