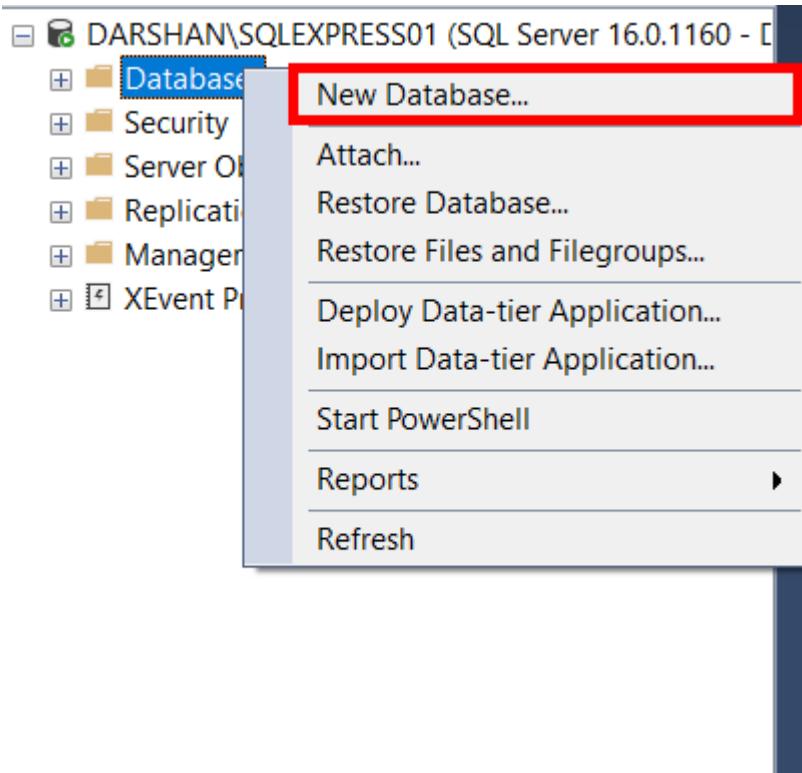


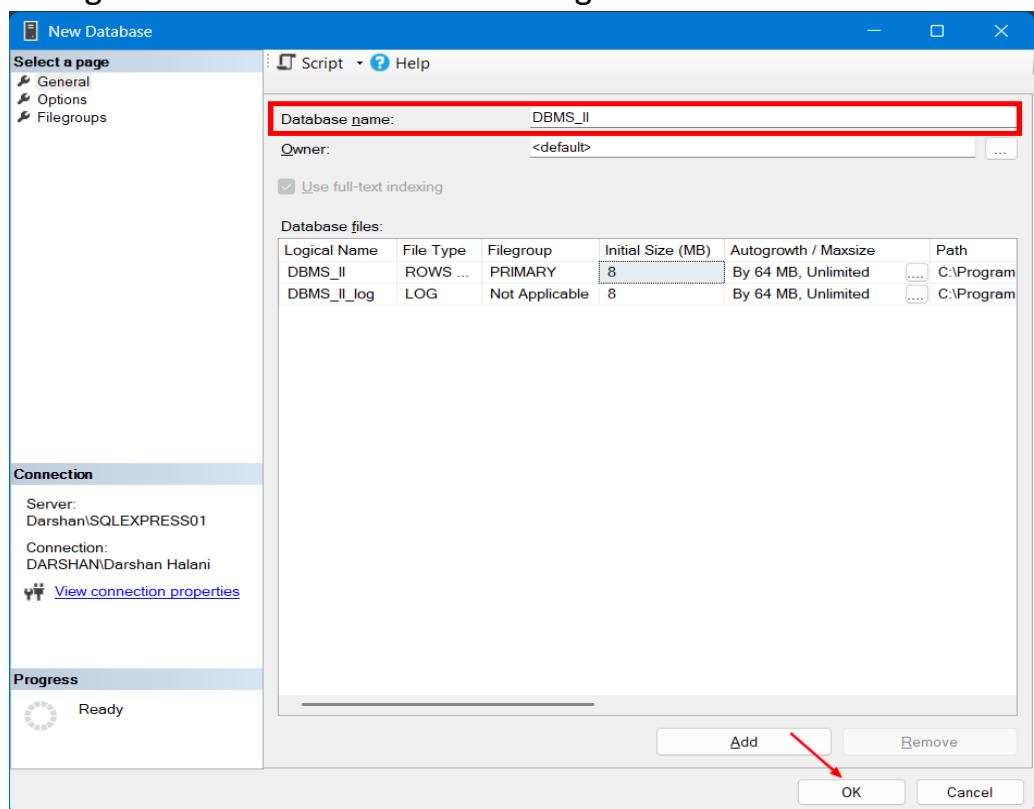
SQL Server Design Mode - Step-by-Step Practical Guide

1. Creating Database:

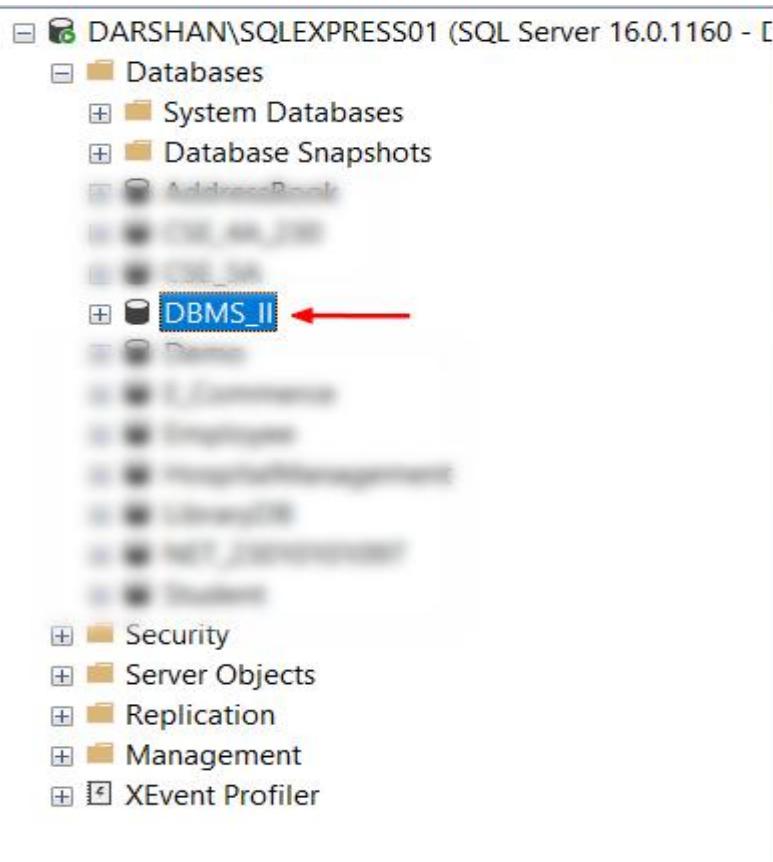
- Selecting “New Database...”



- Entering Database Name and Confirming.

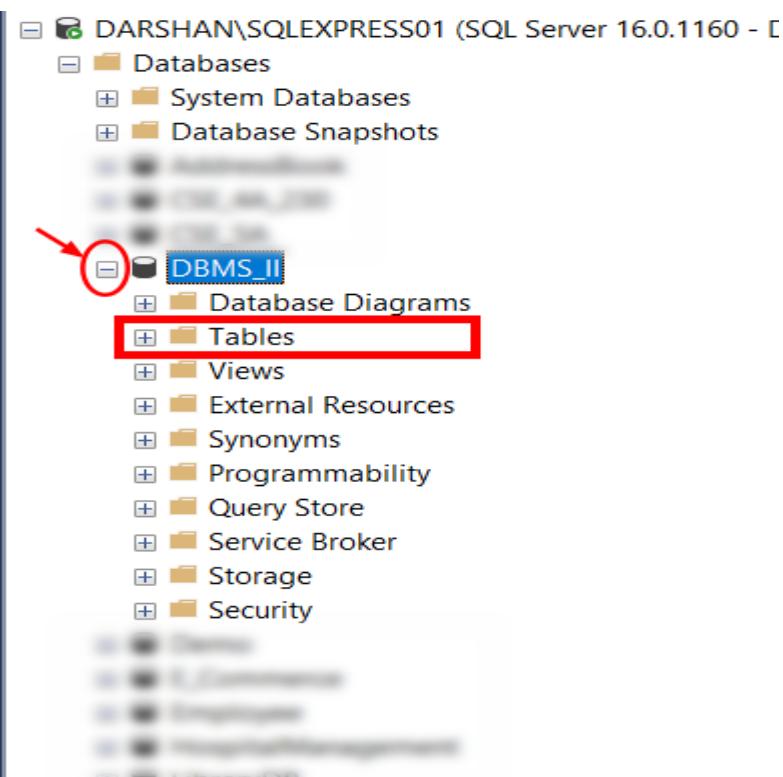


- Newly Created Database Displayed

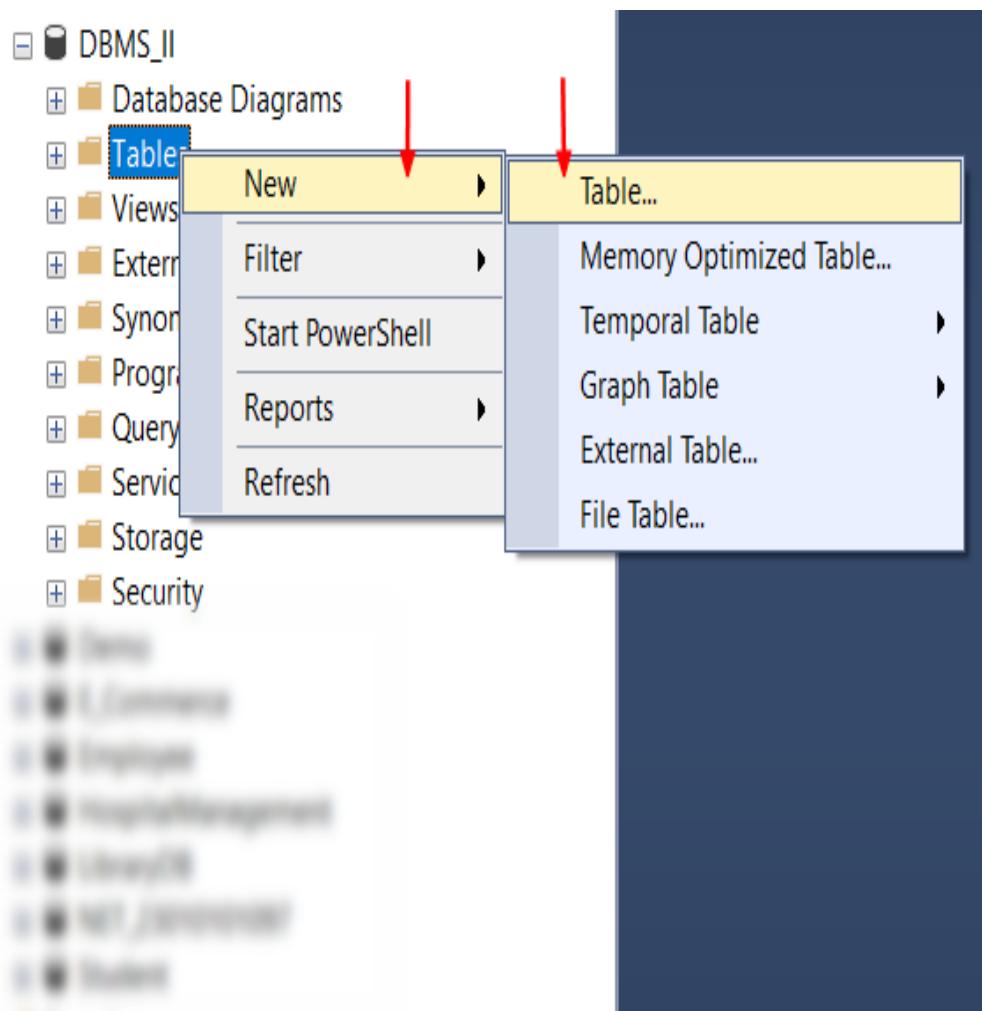


2. Creating Table

- Opening the Tables Folder



- Creating a New Table



- Entering Column Name and Data Type

A screenshot of the 'Table Editor' window in SSMS. The title bar shows 'Darshan\SQLEXPRESS - S_II - dbo.Table_1*'. The table has one row with the following data:

Column Name	Data Type	Allow Nulls
StudentID	int	<input checked="" type="checkbox"/>

A red arrow points from the 'Allow Nulls' checkbox to the text 'Use Tab key to go next cell' at the bottom of the editor.

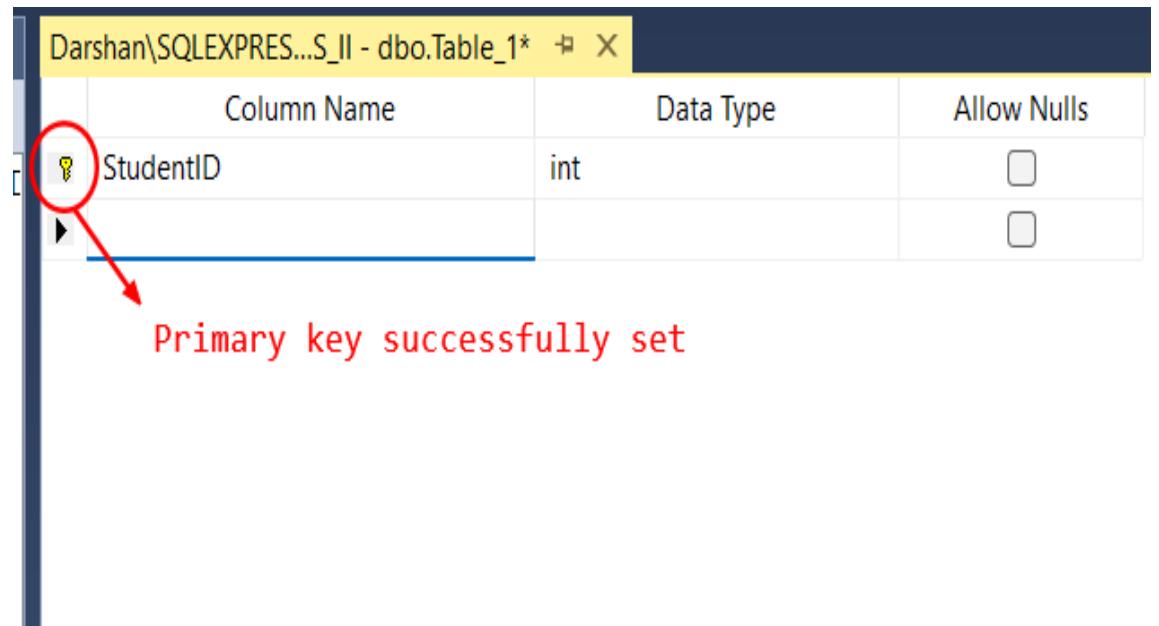
- Selecting the Column to Set Primary Key

Column Name	Data Type	Allow Nulls
StudentID	int	<input checked="" type="checkbox"/> <input type="checkbox"/>

- Setting the Primary Key

Column Name	Data Type	Allow Nulls
StudentID	int	<input checked="" type="checkbox"/> <input type="checkbox"/>

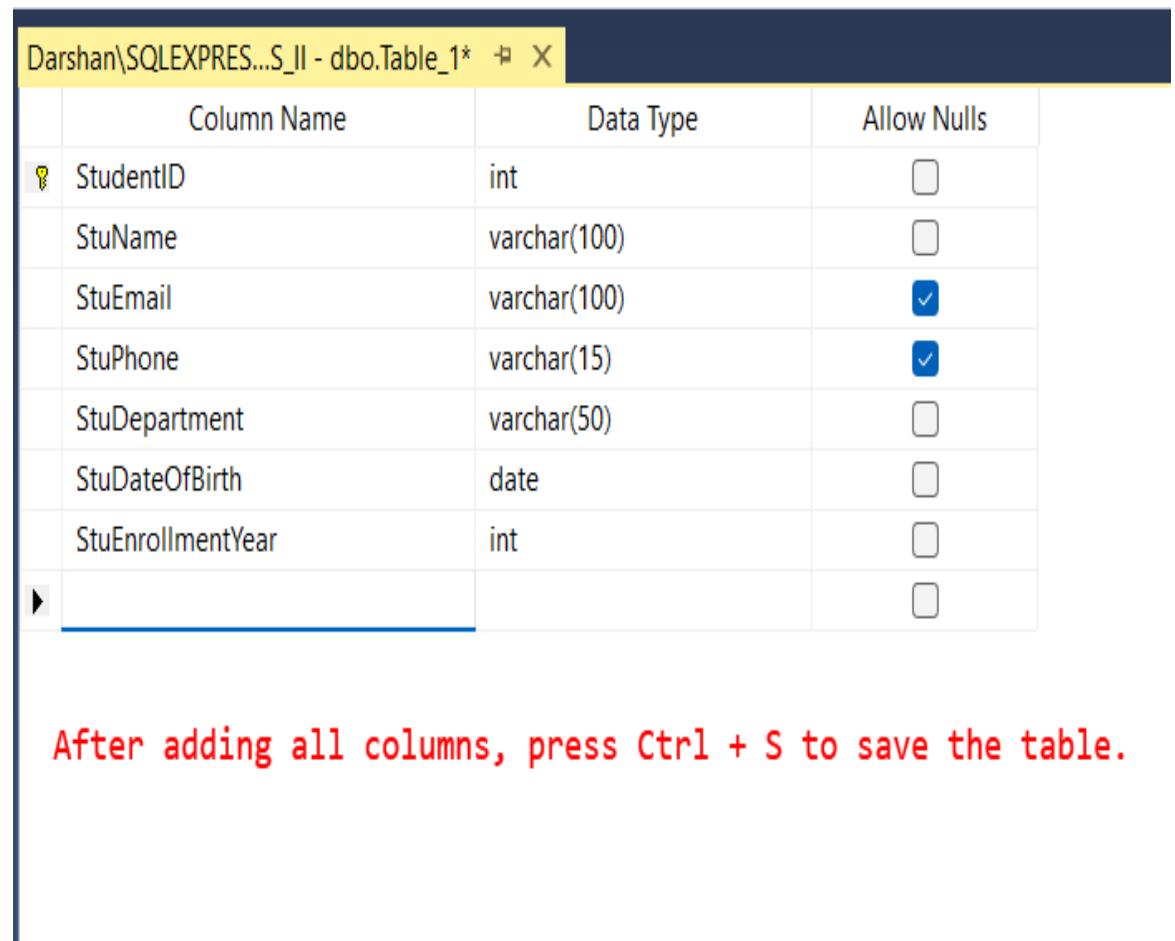
- Primary Key Successfully Set



Primary key successfully set

	Column Name	Data Type	Allow Nulls
	StudentID	int	<input type="checkbox"/>
			<input type="checkbox"/>

- Adding All Required Columns

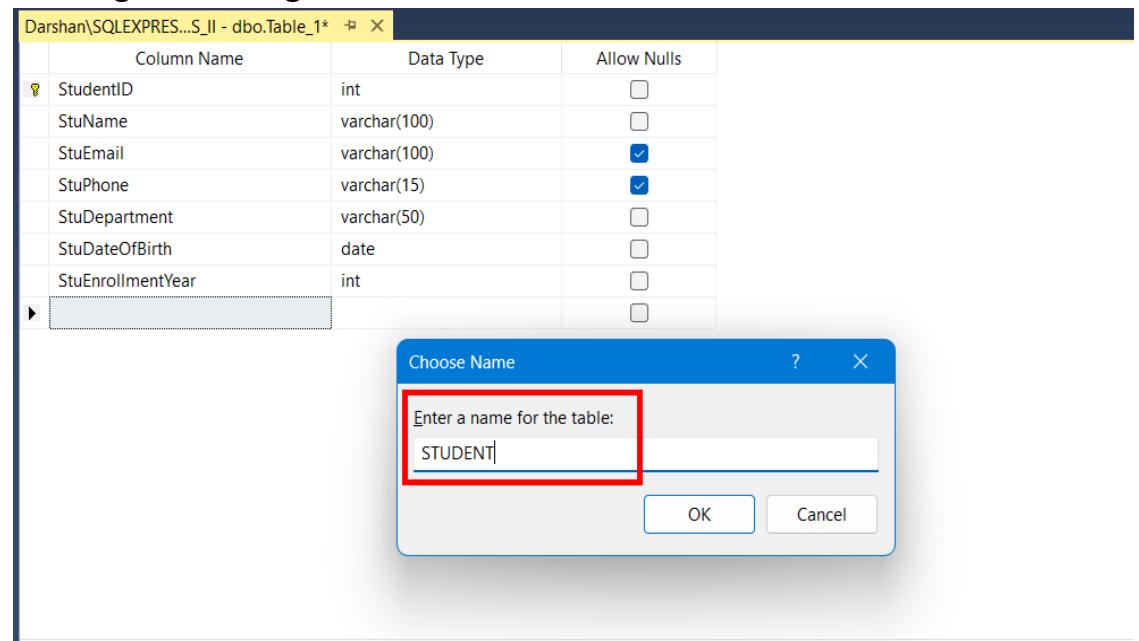


After adding all columns, press Ctrl + S to save the table.

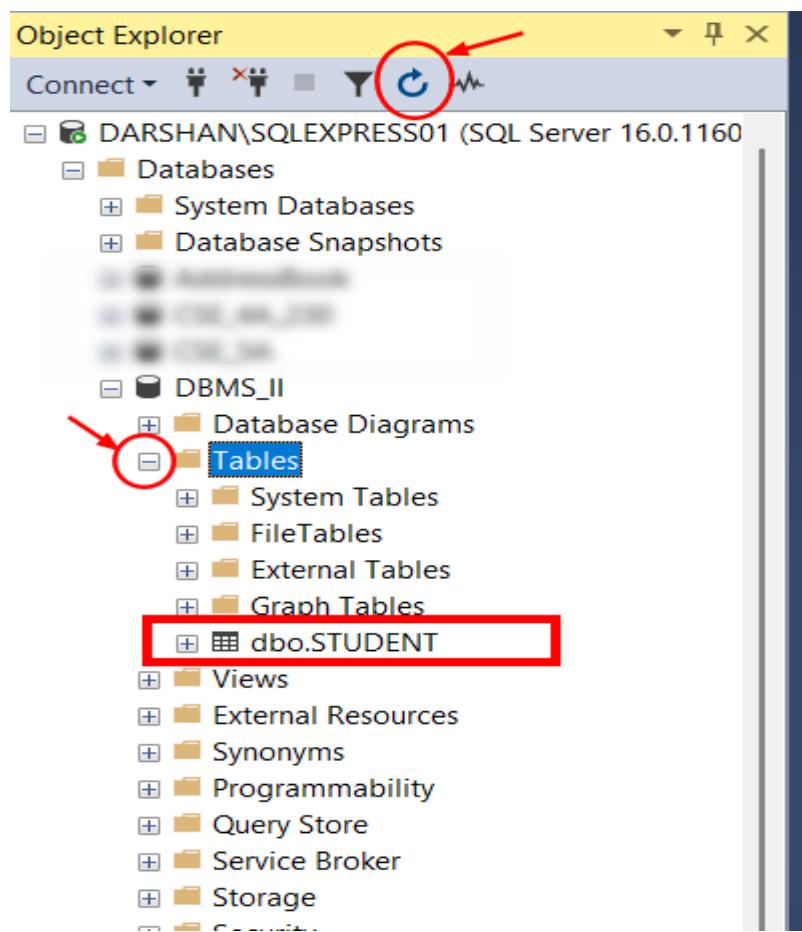
	Column Name	Data Type	Allow Nulls
	StudentID	int	<input type="checkbox"/>
	StuName	varchar(100)	<input type="checkbox"/>
	StuEmail	varchar(100)	<input checked="" type="checkbox"/>
	StuPhone	varchar(15)	<input checked="" type="checkbox"/>
	StuDepartment	varchar(50)	<input type="checkbox"/>
	StuDateOfBirth	date	<input type="checkbox"/>
	StuEnrollmentYear	int	<input type="checkbox"/>
			<input type="checkbox"/>

3. Saving Table & Inserting Data

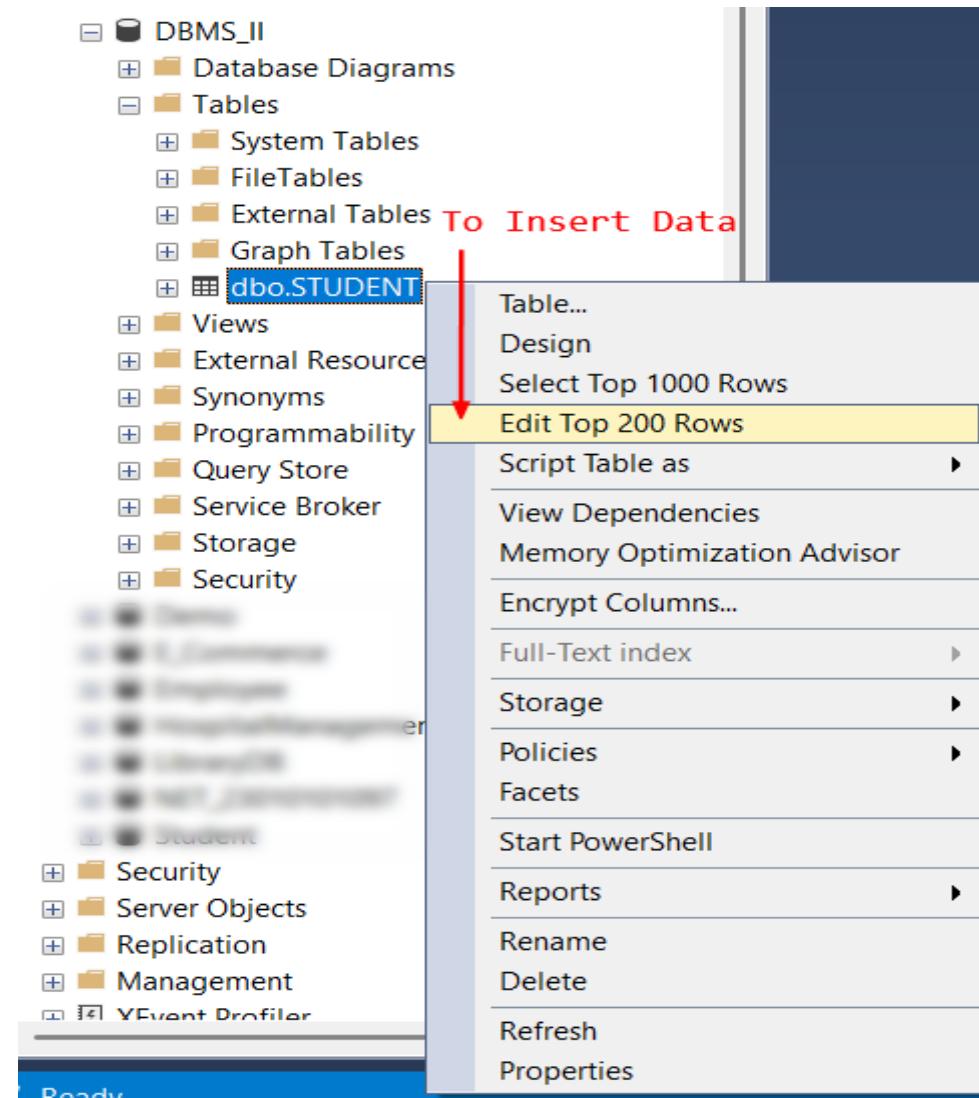
- Naming and Saving the Table



- Refreshing to View the Saved Table



- Opening “Edit Top 200 Rows” to Insert Data



- Inserting Records Using Design Mode

	StudentID	StuName	StuEmail	StuPhone	StuDepartment	StuDateOfBirth	StuEnrollmentYear
1	Raj Patel	raj@univ.edu	9876543210	CSE	2003-05-15	2021	
2	Priya Shah	priya@univ....	9876543211	IT	2002-08-22	2020	
3	Amit Kumar	amit@univ....	9876543212	CSE	2003-11-10	2021	
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

After inserting all records, press Ctrl + S to save them into the table.

- Verifying Inserted Records with SELECT Query

The screenshot shows a SQL Server Management Studio window titled "SQLQuery1.sql - DA...arshan Halani (53)*". The query entered is "select * from STUDENT;". The results pane displays three rows of data from the STUDENT table:

	StudentID	StuName	StuEmail	StuPhone	StuDepartment	StuDateOfBirth	StuEnrollmentYear
1	1	Raj Patel	raj@univ.edu	9876543210	CSE	2003-05-15	2021
2	2	Priya Shah	priya@univ.edu	9876543211	IT	2002-08-22	2020
3	3	Amit Kumar	amit@univ.edu	9876543212	CSE	2003-11-10	2021

4. Setting Identity (Auto Increment)

- Opening Identity Specification

The screenshot shows the "Column Properties" dialog for the "EnrollmentID" column of the "Table_1" table. A red arrow points from the "Column Name" section of the main grid down to the "Identity Specification" row in the properties grid.

To set the column as Identity (auto increment)

Column Name	Data Type	Allow Nulls
EnrollmentID	int	<input type="checkbox"/>
		<input type="checkbox"/>

Column Properties

Condensed Data Type	int
Description	
Deterministic	Yes
DTS-published	No
> Full-text Specification	No
Has Non-SQL Server Subscriber	No
> Identity Specification	No
Indexable	Yes
Is Columnset	No
Is Sparse	No
Merge-published	No
Not For Replication	No
Replicated	No
RowGuid	No
Size	4

(General)

- Enabling Identity and Setting Seed & Increment

Screenshot of SQL Server Management Studio (SSMS) showing the creation of a table and its column properties.

Table Definition:

Column Name	Data Type	Allow Nulls
EnrollmentID	int	<input type="checkbox"/>
		<input type="checkbox"/>

Column Properties - EnrollmentID:

Condensed Data Type: int

Description:

Deterministic: Yes

DTS-published: No

> Full-text Specification: No

Has Non-SQL Server Subscriber: No

Identity Specification (Is Identity): Yes

Identity Increment: Yes

Identity Seed: 1

Indexable: Yes

Is Columnset: No

Is Sparse: No

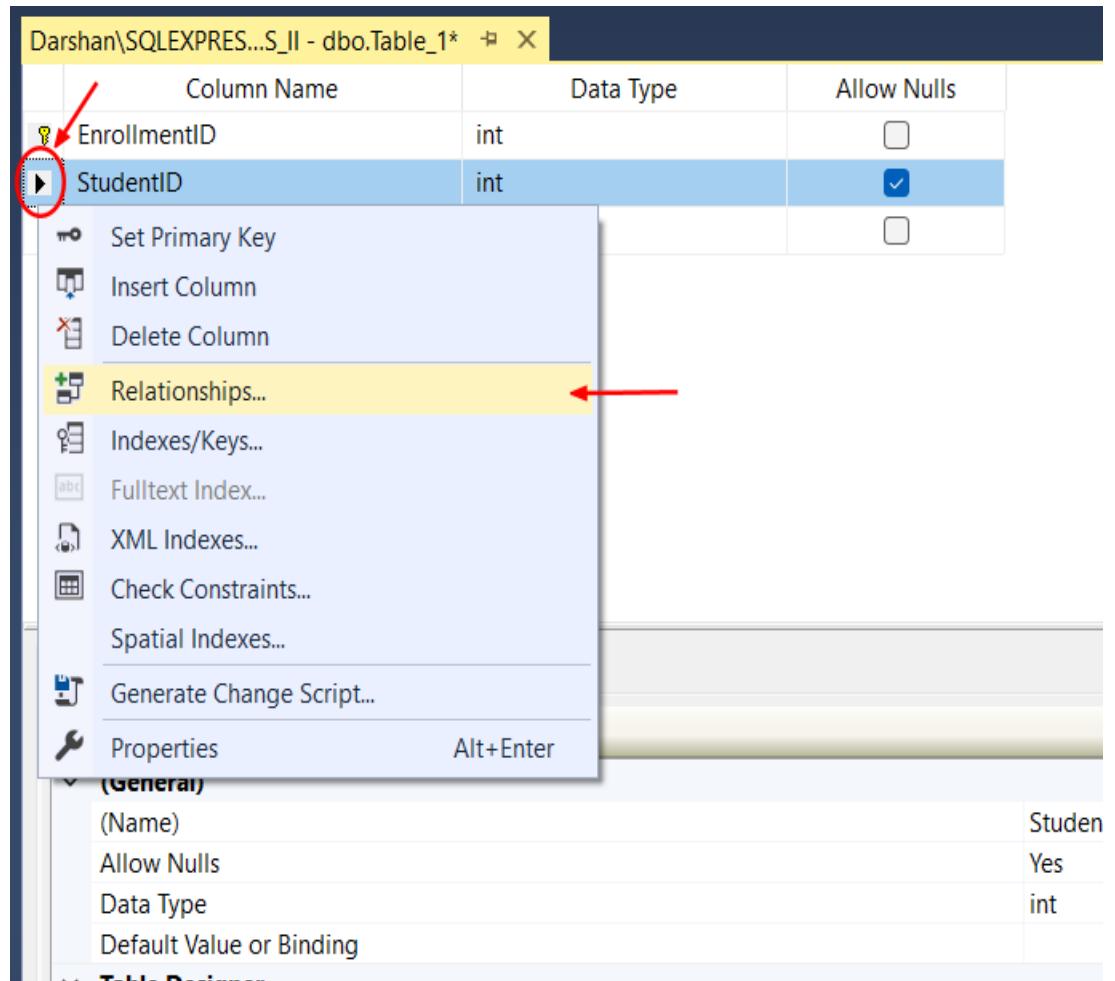
Merge-published: No

Not For Replication: No

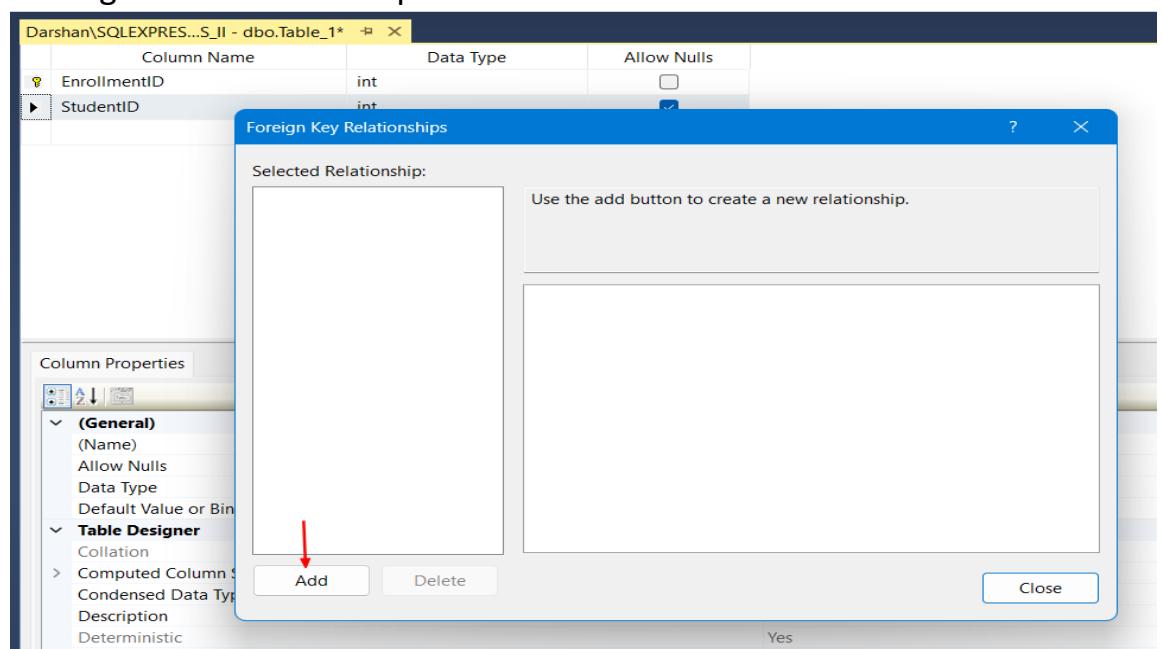
(Is Identity)

5. Creating Foreign Key

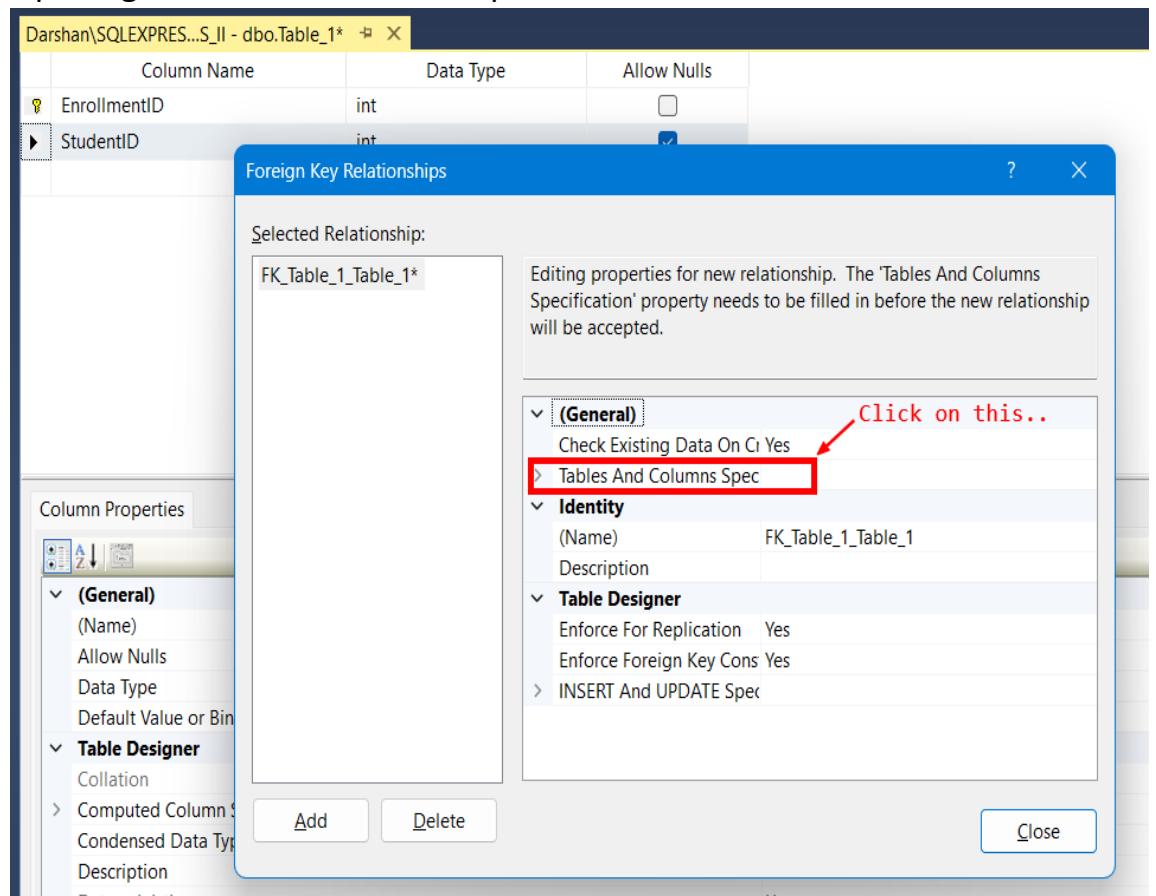
- Opening the Relationships Window



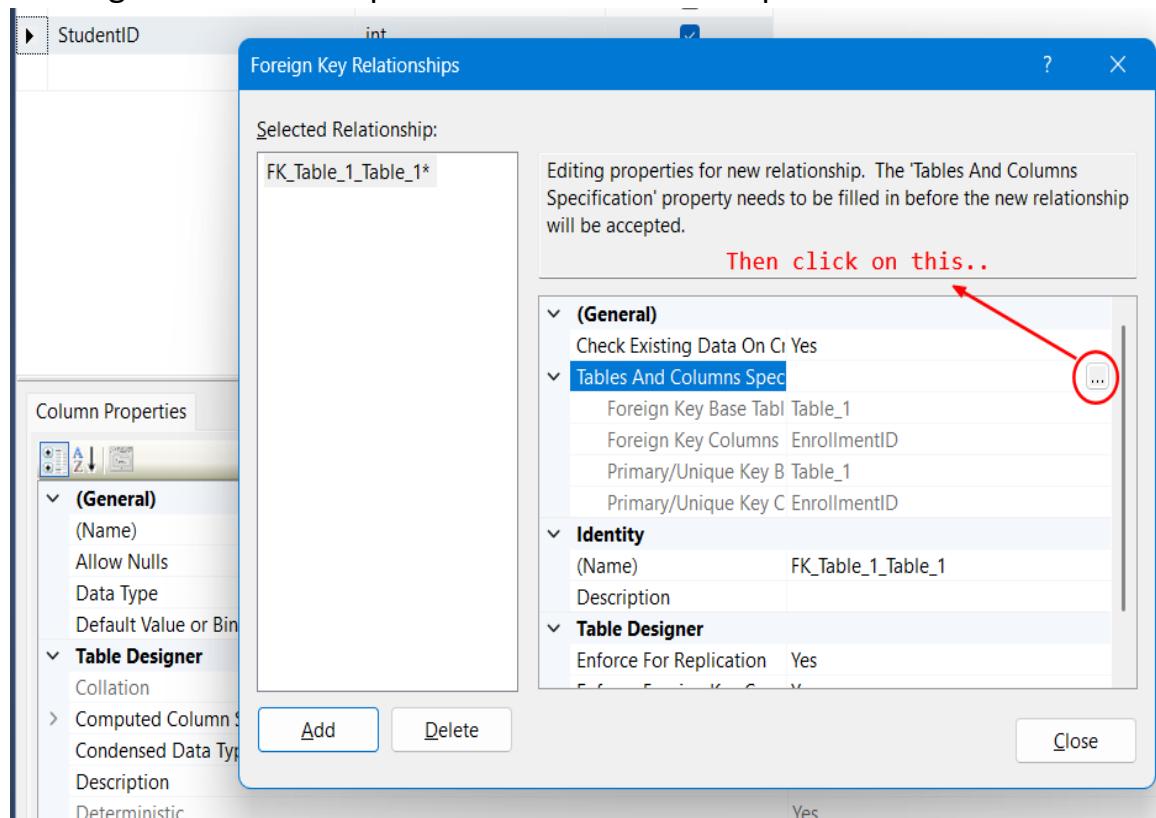
- Adding a New Relationship



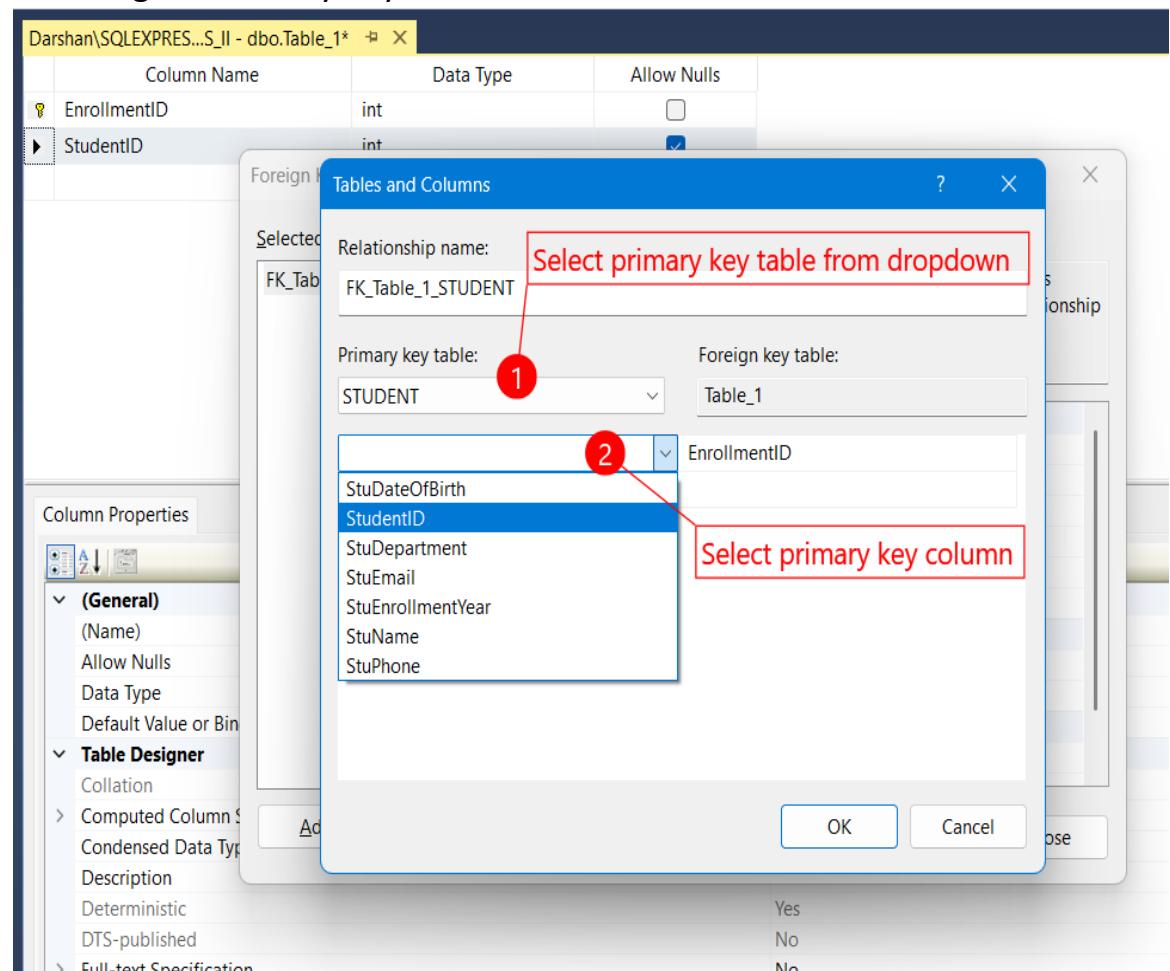
- Opening “Tables and Columns Specification”



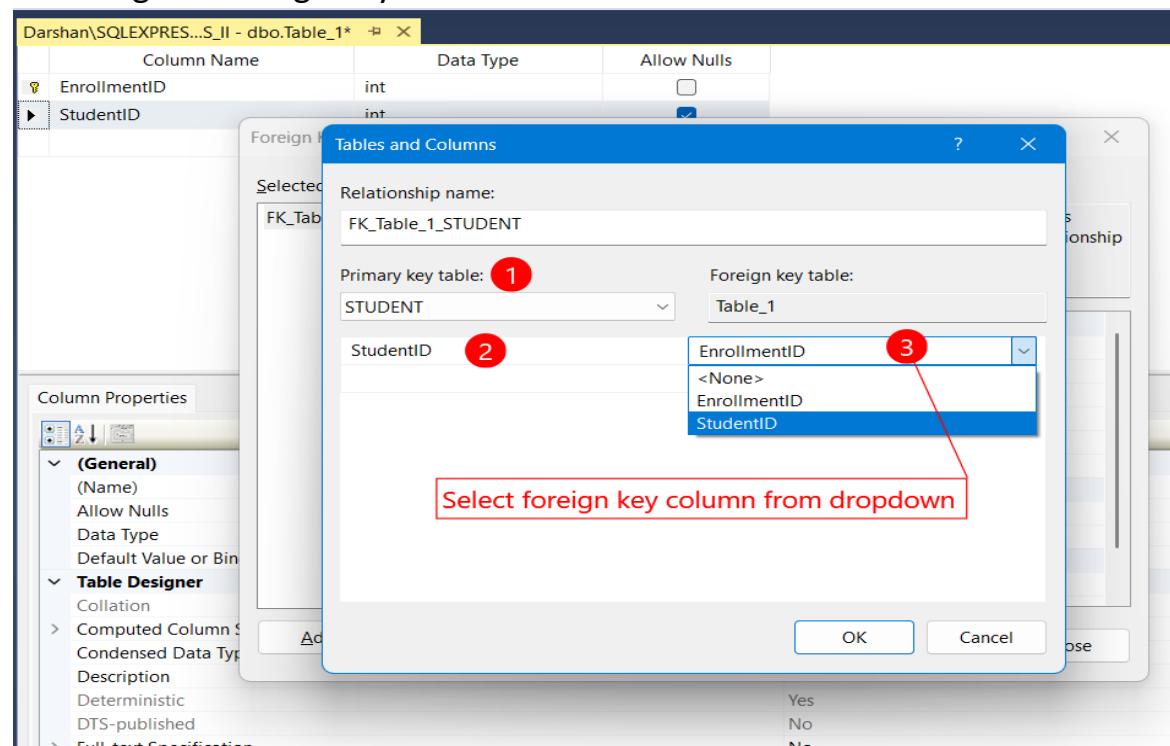
- Clicking the Button to Open Tables and Columns Specification



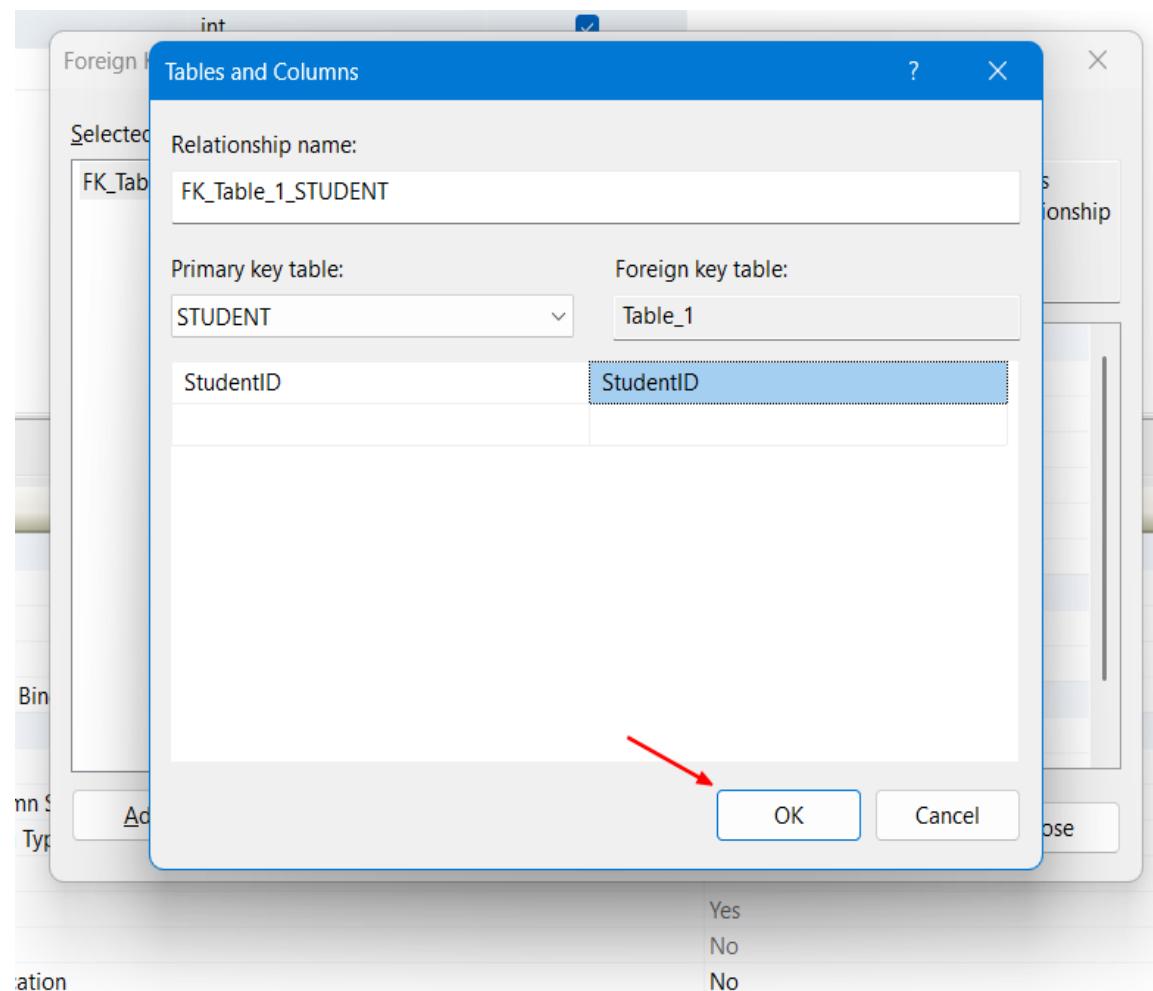
- Selecting the Primary Key Table and Column



- Selecting the Foreign Key Column

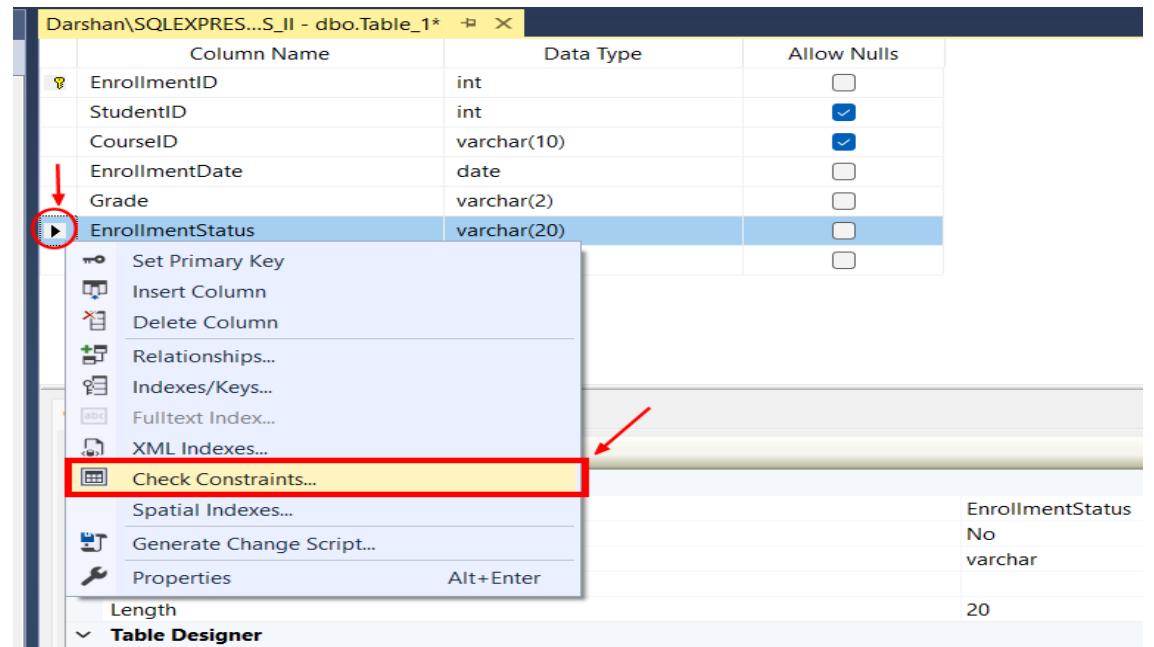


- Confirming the Foreign Key Mapping

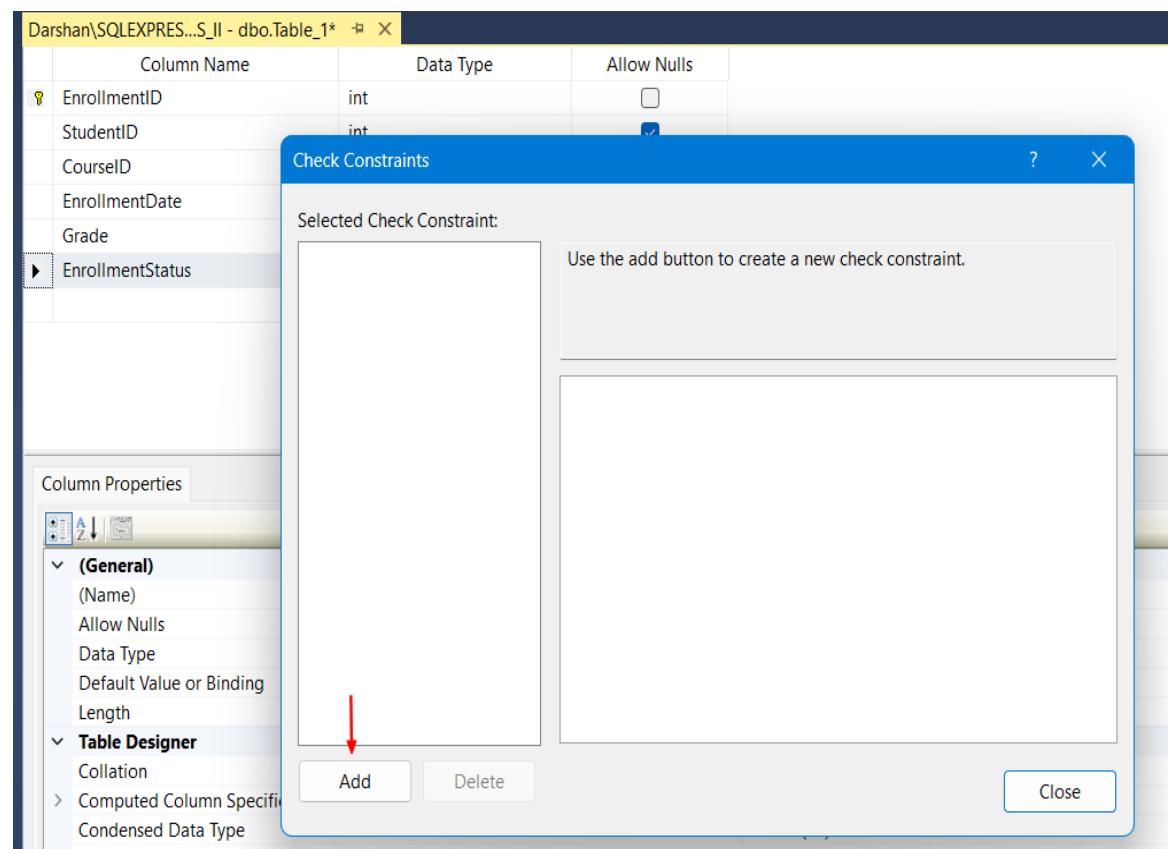


6. Setting Check Constraint

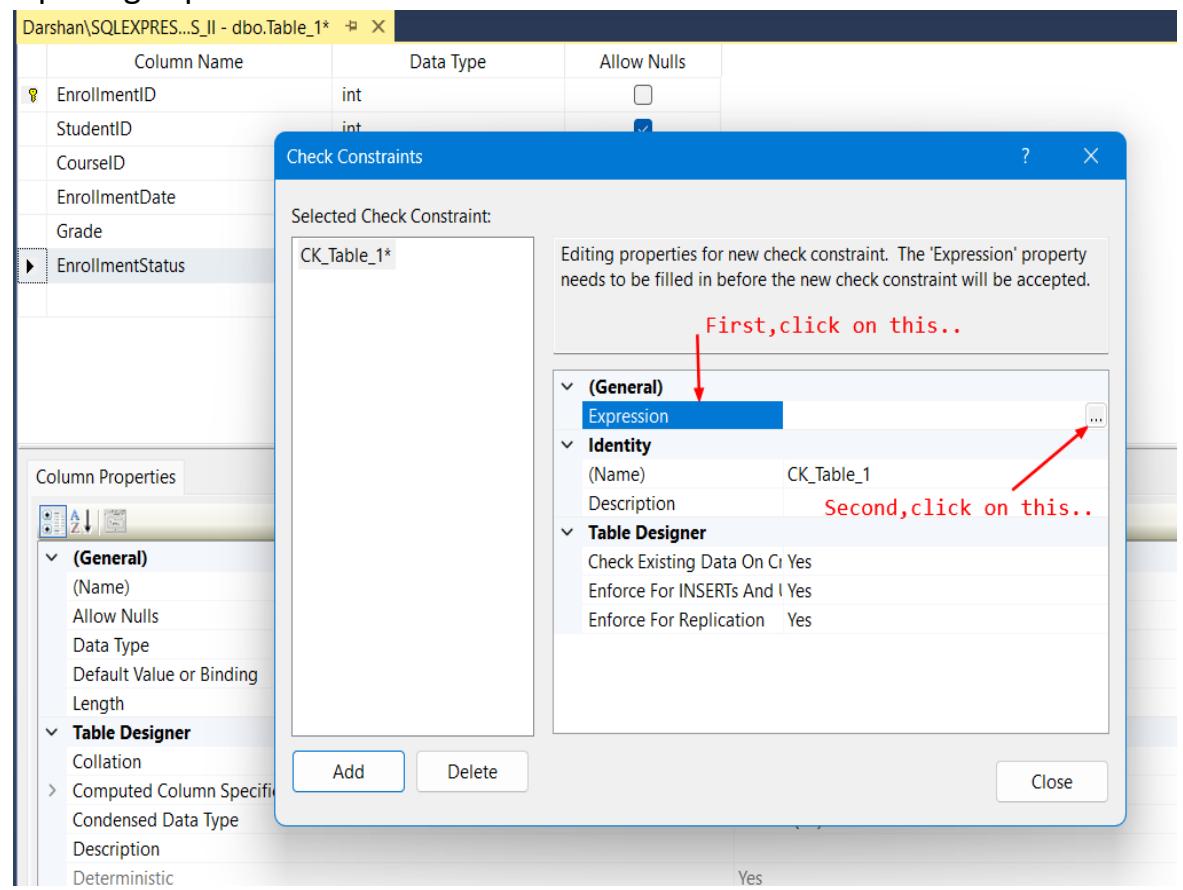
- Opening Check Constraints



- Adding a New Check Constraint



- Opening Expression Editor



- Entering the Check Constraint Expression

