

# TSQL Dynamic Pivot

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## How to Pivot SQL Data dynamically

Jerry Payne

I always find the need to pivot data, but don't always know the data that I need to pivot. Currently, with TSQL you have to 'Explicitly' list the Data that you want, as column names. But what if you don't know, or what if there is a new entry in the table that you need to pivot. This has plagued me for years, and I have finally found a solution.

First, I will list the functions I used. Then we can create a table, and insert some data.

**STUFF** Function: <https://docs.microsoft.com/en-us/sql/t-sql/functions/stuff-transact-sql?view=sql-server-ver15>

```
STUFF ( character_expression,  
start , length , replaceWith_expression )
```

**QUOTENAME** Function: <https://docs.microsoft.com/en-us/sql/t-sql/functions/quotename-transact-sql?view=sql-server-ver15>

```
QUOTENAME ( 'character_string' [ , 'quote_character' ] )
```

**FOR XML** Function: <https://docs.microsoft.com/en-us/sql/relational-databases/xml/for-xml-sql-server?view=sql-server-ver15>

Create table

```
CREATE TABLE dbo.PivotTest  
(  
UnitNumber VARCHAR(10) NOT NULL,  
PayrollDate DATE NOT NULL,  
GrossRevenue DECIMAL(9,2) NOT NULL  
);
```

Insert Data

```
INSERT INTO dbo.PivotTest  
(UnitNumber, PayrollDate, GrossRevenue)  
VALUES  
( '111', '1/1/2019', '1000' ),  
( '222', '1/1/2019', '2000' ),
```

```
('111','2/1/2019','3000'),  
('222','2/1/2019','4000'),  
('111','3/1/2019','1000'),  
('222','3/1/2019','5000'),  
('111','4/1/2019','3000'),  
('222','4/1/2019','2000');
```

```
SELECT  
    STUFF(  
        (SELECT DISTINCT ', ' +  
            QUOTENAME([PayrollDate])  
        FROM  
            dbo.PivotTest FOR XML PATH ('')),1,2,'')
```