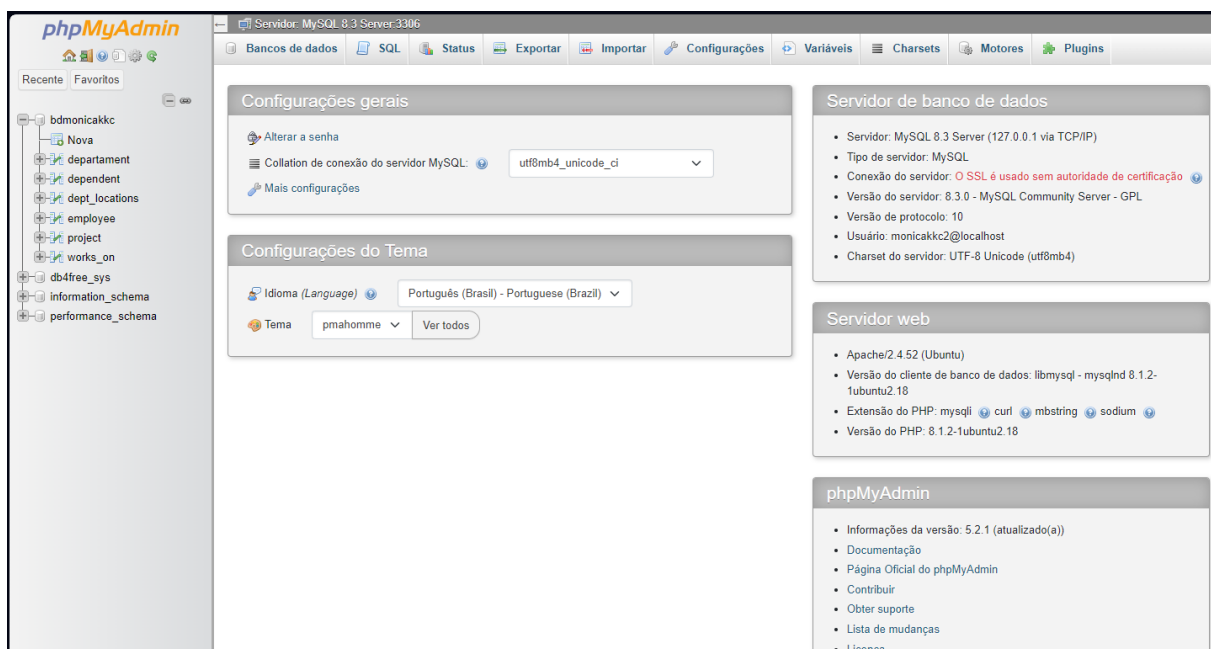


# teste

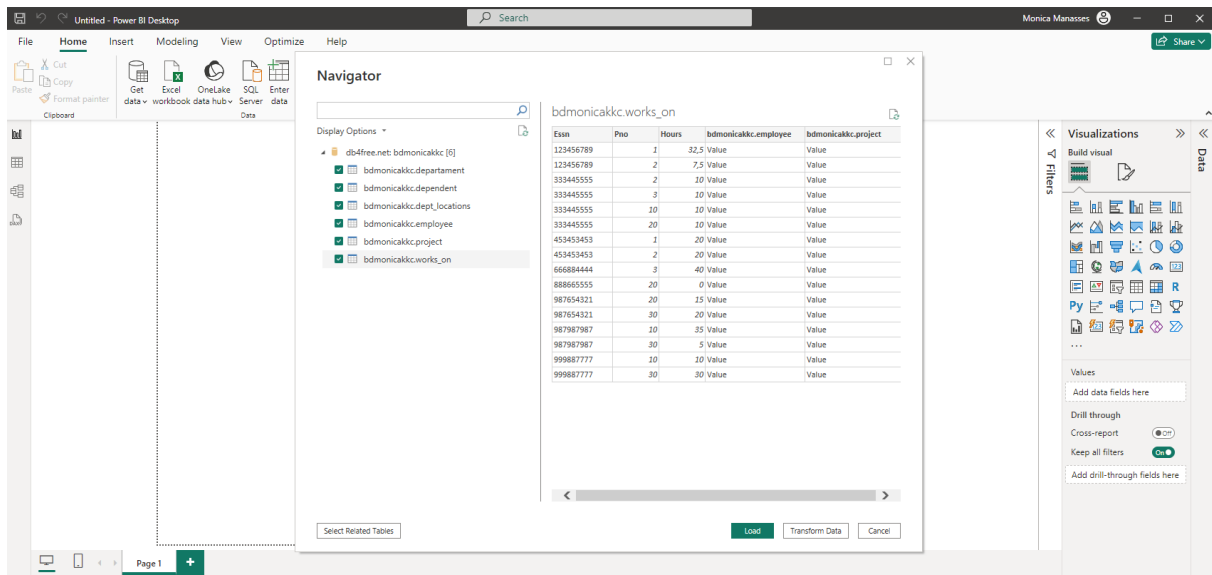
🕒 Criado em	@August 30, 2024 6:26 PM
🏷️ Tags	

## Projeto módulo 3 - Transformação de dados

1. Criado o banco de dados em nuvem no site db4free.net, em mySQL, criadas as tabelas e inseridos os dados conforme o recomendado:

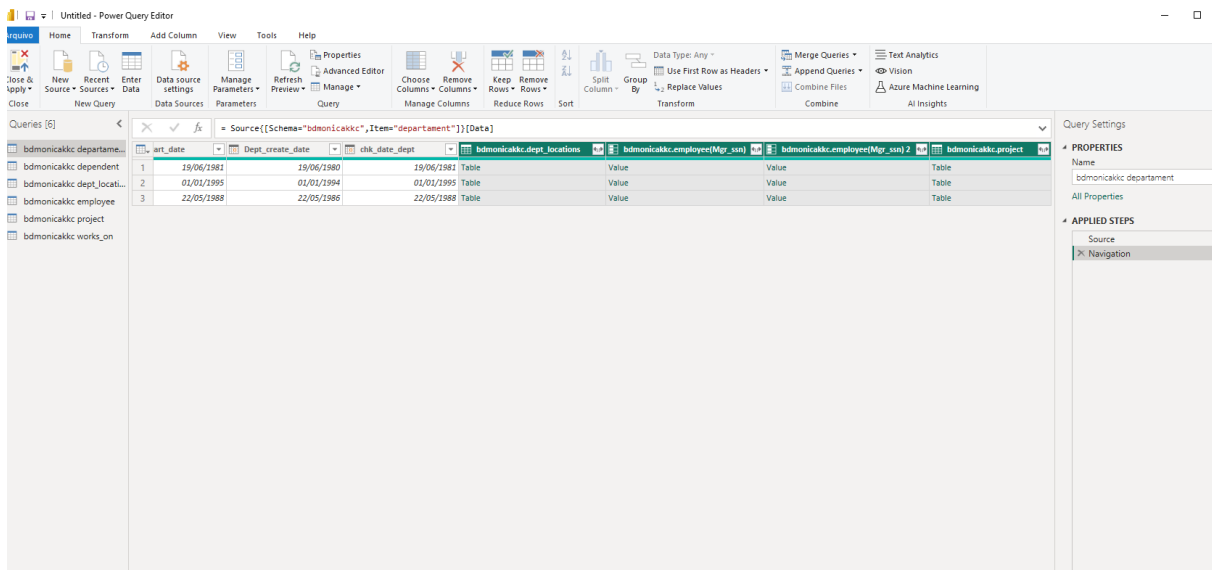


2. Feita a conexão do Power BI com o banco mySQL:



## Diretrizes para transformação dos dados

### 3. Remover colunas desnecessárias - ok



### 4. Verifique os cabeçalhos e tipos de dados - ok

Power Query Editor - Query View

Queries [6]

Table.RemoveColumns(bdmonicakcc\_works\_on,{"bdmonicakcc.employee", "bdmonicakcc.project"})

	Essn	Pno	Hours
1	123456789	1	32,5
2	123456789	2	7,5
3	333445555	2	10
4	333445555	3	10
5	333445555	10	10
6	333445555	20	10
7	453453453	1	20
8	453453453	2	20
9	666884444	3	40
10	888665555	20	0
11	987654321	20	15
12	987654321	30	20
13	987987987	10	35
14	987987987	30	5
15	999887777	10	10
16	999887777	30	30

## 5. Modifique os valores monetários para o tipo double preciso - ok

Power Query Editor - Query View

Queries [6]

Table.TransformColumnTypes(\*Removed Columns\*,{{"Salary", Currency.Type}})

	Essn	Bdate	Address	Sex	Salary	Super_ssn	Pno
1	123456789	09/02/1965	731-Fondren-Houston-TX	M	30.000,00	333445555	5
2	333445555	08/12/1955	638-Voss-Houston-TX	M	40.000,00	888665555	5
3	453453453	31/07/1972	5631-Rice-Houston-TX	F	25.000,00	333445555	5
4	666884444	15/09/1962	975-Fine-Oak-Humble-TX	M	38.000,00	333445555	5
5	888665555	10/11/1937	450-Stone-Houston-TX	M	55.000,00		1
6	987654321	20/06/1941	291-Berry-Bellaire-TX	F	43.000,00	888665555	4
7	987987987	29/03/1969	980-Dallas-Houston-TX	M	25.000,00	987654321	4
8	999887777	19/01/1968	3321-Castle-Spring-TX	F	25.000,00	987654321	4

Query Settings

PROPERTIES

Name: bdmonicakcc.employee

APPLIED STEPS

Source, Navigation, Removed Columns, Changed Type

## 6. Verifique a existência dos nulos e analise a remoção - é gerente?

Power Query Editor - Query View

Queries [6]

Table.TransformColumnTypes(\*Removed Columns\*,{{"Salary", Currency.Type}, {"chk\_salary\_employee", Currency.Type}})

	Fname	Mname	Lname	Ssn	Bdate	Address	Sex	Salary	Super_ssn
1	John	B	Smith	123456789	09/02/1965	731-Fondren-Houston-TX	M	30.000,00	333445555
2	Franklin	T	Wong	333445555	08/12/1955	638-Voss-Houston-TX	M	40.000,00	888665555
3	Joyce	A	English	453453453	31/07/1972	5631-Rice-Houston-TX	F	25.000,00	333445555
4	Ramesh	K	Narayan	666884444	15/09/1962	975-Fine-Oak-Humble-TX	M	38.000,00	333445555
5	James	E	Borg	888665555	10/11/1937	450-Stone-Houston-TX	M	55.000,00	
6	Jennifer	S	Wallace	987654321	20/06/1941	291-Berry-Bellaire-TX	F	43.000,00	888665555
7	Ahmad	V	Jabbar	987987987	29/03/1969	980-Dallas-Houston-TX	M	25.000,00	987654321
8	Alicia	J	Zeleva	999887777	19/01/1968	3321-Castle-Spring-TX	F	25.000,00	987654321

## 7. Os employees com nulos em Super\_ssn podem ser os gerentes. Verifique se há algum colaborador sem gerente - ok

= Table.TransformColumnTypes(#"Removed Columns",({{"Salary", Currency.Type}, {"chk_salary_employee", Currency.Type}}))										
A <sub>0</sub> Fname	A <sub>1</sub> Minit	A <sub>2</sub> Lname	A <sub>3</sub> Ssn	Bdate	A <sub>5</sub> Address	A <sub>6</sub> Sex	\$ Salary	A <sub>8</sub> Super_ssn		
1 John	B	Smith	123456789	09/01/1965	731-Fondren-Houston-TX	M	30.000,00	333445555		
2 Franklin	T	Wong	333445555	08/12/1955	638-Voss-Houston-TX	M	40.000,00	888665555		
3 Joyce	A	English	453453453	31/07/1972	5631-Rice-Houston-TX	F	25.000,00	333445555		
4 Ramesh	K	Narayan	666884444	15/09/1962	975-Fire-Oak-Humble-TX	M	38.000,00	333445555		
5 James	E	Borg	888665555	10/11/1937	450-Stone-Houston-TX	M	55.000,00			null
6 Jennifer	S	Wallace	987654321	20/06/1941	291-Berry-Bellaire-TX	F	43.000,00	888665555		
7 Ahmad	V	Jabbar	987987987	29/03/1969	980-Dallas-Houston-TX	M	25.000,00	987654321		
8 Alicia	J	Zelaya	999887777	19/01/1968	3321-Castle-Spring-TX	F	25.000,00	987654321		

8. Verifique se há algum departamento sem gerente - ok

= Table.RemoveColumns(bdmonicakkc_departament,({"bdmonicakkc.dept_locations", "bdmonicakkc.employee(Mgr_ssn)", "bdmonicakkc.employee(Mgr_ssn) 2", "bdmonicakkc.project"}))										
A <sub>0</sub> Dname	A <sub>1</sub> Dnumber	A <sub>2</sub> Mgr_ssn	A <sub>3</sub> Mgr_start_date	A <sub>4</sub> Dept_create_date	A <sub>5</sub> chk_date_dept					
1 Headquarters		1 888665555	19/06/1981	19/06/1980	19/06/1981					
2 Administration		4 987654321	01/01/1995	01/01/1994	01/01/1995					
3 Research		5 333445555	22/05/1988	22/05/1986	22/05/1988					

9. Se houver departamento sem gerente, suponha que você possui os dados e preencha as lacunas - ok

10. Verifique o número de horas dos projetos - Precisa alterar formato?

= Table.RemoveColumns(bdmonicakkc_works_on,({"bdmonicakkc.employee", "bdmonicakkc.project"}))										
A <sub>0</sub> Essn	A <sub>1</sub> Pno	1.2 Hours								
1 123456789	1	32,5								
2 123456789	2	7,5								
3 333445555	2	10								
4 333445555	3	10								
5 333445555	10	10								
6 333445555	20	10								
7 453453453	1	20								
8 453453453	2	20								
9 666884444	3	40								
10 888665555	20	0								
11 987654321	20	15								
12 987654321	30	20								
13 987987987	10	35								
14 987987987	30	5								
15 999887777	10	10								
16 999887777	30	30								

11. Separar colunas complexas - ok

	Id	Sin	Bdate	AddressNum	Address	City	State	Sex	Salary
1	123456789	09/01/1963	721	Fondren	Houston	TX	M	30.000,00	33344
2	333445555	08/12/1955	638	Voss	Houston	TX	M	40.000,00	88866
3	453453453	31/07/1972	5632	Rice	Houston	TX	F	25.000,00	33344
4	666884444	15/09/1962	975	Fire Oak	Humble	TX	M	38.000,00	33344
5	888665555	10/11/1937	450	Stone	Houston	TX	M	55.000,00	
6	987654321	20/06/1941	291	Berry	Bellaire	TX	F	43.000,00	88866
7	987987987	29/03/1969	880	Dalles	Houston	TX	M	25.000,00	98765
8	999887777	19/01/1968	3321	Castle	Spring	TX	F	25.000,00	98765

12. Mesclar consultas employee e departament para criar uma tabela employeee com o nome dos departamentos associados aos colaboradores. A mescla terá como base a tabela employeee. Fique atento, essa informação influencia no tipo de junção

**Merge**

Select tables and matching columns to create a merged table.

bdmonicakk employee

Id	Sin	Bdate	AddressNum	Address	City	State	Sex	Salary	Super_sin	Dno
h	123456789	09/01/1963	721	Fondren	Houston	TX	M	30.000,00	333445555	5
g	333445555	08/12/1955	638	Voss	Houston	TX	M	40.000,00	888665555	5
ph	453453453	31/07/1972	5632	Rice	Houston	TX	F	25.000,00	333445555	5
yan	666884444	15/09/1962	975	Fire Oak	Humble	TX	M	38.000,00	333445555	5

bdmonicakk departament

Dname	Department	Mgr_sin	Mgr_start_date	Dept_create_date	chk_date_dept
Headquarters	2	888665555	19/06/1981	19/06/1980	19/06/1981
Administration	4	987654321	01/01/1995	01/01/1994	01/01/1995
Research	5	333445555	22/05/1986	22/05/1986	22/05/1986

Join Kind: Left Outer (all from first, matching from second)

☐ Use fuzzy matching to perform the merge

Fuzzy matching options: ☒ The selection matches 7 of 8 rows from the first table.

13. Neste processo elimine as colunas desnecessárias.

	Sin	Super_sin	Dno	Salary	Department	Mgr_start_date	Dept_create_date
1	30.000,00	333445555	5	0,00	Research	22/05/1986	22/05/1986
2	25.000,00	333445555	5	0,00	Research	22/05/1986	22/05/1986
3	38.000,00	333445555	5	0,00	Research	22/05/1986	22/05/1986
4	40.000,00	888665555	5	0,00	Headquarters	19/06/1981	19/06/1980
5	55.000,00		5	0,00	Headquarters	19/06/1981	19/06/1980
6	43.000,00	888665555	4	0,00	Administration	01/01/1995	01/01/1994
7	25.000,00	987654321	4	0,00	Administration	01/01/1995	01/01/1994
8	25.000,00	987654321	4	0,00	Administration	01/01/1995	01/01/1994

14. Realize a junção dos colaboradores e respectivos nomes dos gerentes .  
Isso pode ser feito com consulta SQL ou pela mescla de tabelas com Power BI. Caso utilize SQL, especifique no README a query utilizada no processo.  
- ok

The screenshot shows the Power Query Editor with a query named "Table.NestedJoin(#'bdmonicakk employee', ('Ssn'), EmployeeDepartment, ('Super\_ssn'), 'EmployeeDepartment', JoinKind.Inner)". The resulting table has 3 rows and 9 columns: Fname, Minit, Lname, Ssn, Bdate, AddressNum, Address, City, and State.

	Fname	Minit	Lname	Ssn	Bdate	AddressNum	Address	City	State
1	Franklin	T	Wong	333445555	08/12/1955	638	Voss	Houston	TX
2	James	E	Borg	888665555	10/11/1937	450	Stone	Houston	TX
3	Jennifer	S	Wallace	987654321	20/06/1941	291	Berry	Bellaire	TX

Arguments

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Choose ColumnsRemove ColumnsManage Columns

Keep RowsRemove Rows

Split ColumnGroup By

Data typeTextUse First Row as HeadersReplace ValuesTransform

Merge QueriesAppend QueriesCombine FilesCombine

Text AnalyticsUse VisionAzure Machine Learning

Insights

Queries [9]

bdmonicakk.department

bdmonicakk.dependent

bdmonicakk.dep\_locations

bdmonicakk.employee

bdmonicakk.project

bdmonicakk.works\_on

EmployeeDepartment

Manager

EmployeeManager

Table.RemoveColumns(#'Expanded Gerentes',('Dno'), 'chm\_salary\_employee', 'bdmonicakk.department.Dname', 'bdmonicakk.department.mgr\_start\_date', 'bdmonicakk.department.mgr\_ssn')

	Fname	Lname	Ssn	Bdate	Sex	Salary	Gerentes.Fname	
1	John	Smith	123456789	09/01/1965	M	30.000,00	333445555	Franklin
2	Joyce	English	453453453	31/07/1972	F	25.000,00	333445555	Franklin
3	Ramesh	Narayan	666884444	15/09/1962	M	38.000,00	333445555	Franklin
4	Franklin	Wong	333445555	08/12/1955	M	40.000,00	888665555	James
5	James	Borg	888665555	10/11/1937	M	55.000,00	null	null
6	Jennifer	Wallace	987654321	20/06/1941	F	43.000,00	888665555	James
7	Ahmad	Jabbar	987987987	29/03/1969	M	25.000,00	987654321	Jennifer
8	Alicia	Zelaya	999887777	19/01/1968	F	25.000,00	987654321	Jennifer

PropertiesNameEmployeeManager

APPLIED STEPSSourceExpanded GerentesRemoved Columns

15. Mescle as colunas de Nome e Sobrenome para ter apenas uma coluna definindo os nomes dos colaboradores - ok

The screenshot shows a query named "Table.ReorderColumns(#'Duplicated Column1',('Fname', 'Minit', 'Lname', 'Fname - Copy', 'Lname - Copy', 'Ssn', 'Bdate', 'AddressNum', 'Address', 'City', 'State', 'Sex', 'Salary'))". The resulting table has 8 rows and 13 columns, where the first and last names are combined into a single column.

	Fname	Minit	Lname	Fname - Copy	Lname - Copy	Ssn	Bdate	AddressNum	Address	City	State	Sex	Salary
1	John	B	Smith	John	Smith	123456789	09/01/1965	731	Fondren				
2	Franklin	T	Wong	Franklin	Wong	333445555	08/12/1955	638	Voss				
3	Joyce	A	English	Joyce	English	453453453	31/07/1972	5631	Rice				
4	Ramesh	K	Narayan	Ramesh	Narayan	666884444	15/09/1962	975	Fire Oak				
5	James	E	Borg	James	Borg	888665555	10/11/1937	450	Stone				
6	Jennifer	S	Wallace	Jennifer	Wallace	987654321	20/06/1941	291	Berry				
7	Ahmad	V	Jabbar	Ahmad	Jabbar	987987987	29/03/1969	980	Dallas				
8	Alicia	J	Zelaya	Alicia	Zelaya	999887777	19/01/1968	8321	Castle				

FName	LName	FName - Copy	LName - Copy	SSN	Mgr_ssn	Mgr_start_date	Dept_create_date	chg_date_dept	Address	City
John	B	John	B	123456789		05/01/1963			731 Fondren	Houston
Franklin	T	Franklin	T	333445555		06/12/1953			638 Voss	Houston
Joyce	A	Joyce	A	454545455		31/07/1972			5631 Iree	Houston
Ramesh	K	Ramesh	K	656884444		15/09/1962			975 Fire Oak	Humble
James	E	James	E	888665555		10/11/1937			450 Stone	Houston
Jennifer	S	Jennifer	S	987654321		20/06/1941			291 Berry	Bellaire
Ahmad	V	Ahmad	V	98787987		25/03/1969			580 Dallas	Houston
Alicia	J	Alicia	J	999887777		19/01/1968			3321 Caste	Spring

16. Mescla os nomes de departamentos e localização. Isso fará que cada combinação departamento-local seja único. Isso irá auxiliar na criação do modelo estrela em um módulo futuro.

Dname	Dnumber	Mgr_ssn	Mgr_start_date	Dept_create_date	chg_date_dept
Headquarters	1	888665555	19/06/1981	19/06/1980	19/06/1981
Administration	4	987654321	01/02/1995	01/02/1994	01/02/1995
Research	5	333445555	22/05/1988	22/05/1986	22/05/1988

Dname	Dnumber	Mgr_ssn	Mgr_start_date	Dept_create_date	chg_date_dept	bdmonicakcc.dept_locations.Dlocation
Headquarters	1	888665555	19/06/1981	19/06/1980	19/06/1981	Houston
Administration	4	987654321	01/02/1995	01/02/1994	01/02/1995	Stafford
Research	5	333445555	22/05/1988	22/05/1986	22/05/1988	Bellaire
Research	5	333445555	22/05/1988	22/05/1986	22/05/1988	Houston
Research	5	333445555	22/05/1988	22/05/1986	22/05/1988	Sugarland

17. Explique por que, neste caso supracitado, podemos apenas utilizar o mesclar e não o atribuir.

Os dados ficam desconexos no caso do append

Untitled - Power Query Editor

Home Transform Add Column View Tools Help

Queries [1]

bdmonicaikk departament  
bdmonicaikk dependent  
bdmonicaikk dept\_locations  
bdmonicaikk employee  
bdmonicaikk project  
bdmonicaikk works\_on  
EmployeeDepartment  
Manager  
EmployeeManager  
DepLocation  
Atribuir

Table.Combine({#"bdmonicaikk departament", #"bdmonicaikk dept\_locations"})

	Id	Dept	Mgr_ssn	Mgr_start_date	Dept_create_date	chk_date_dept	Allocacion
1	Headquarters	1	888665555	19/06/1981	19/06/1989	19/06/1981	null
2	Administration	4	987654321	01/01/1995	01/01/1994	01/01/1995	null
3	Research	5	333445555	22/05/1988	22/05/1988	22/05/1988	null
4	null	1	null	null	null	null	Houston
5	null	4	null	null	null	null	Stafford
6	null	5	null	null	null	null	Bellaire
7	null	5	null	null	null	null	Houston
8	null	5	null	null	null	null	Sugarland

Query Settings

PROPERTIES

Name  
Atribuir

APPLIED STEPS

Source

18. Agrupe os dados a fim de saber quantos colaboradores existem por gerente

Untitled - Power Query Editor

Home Transform Add Column View Tools Help

Queries [12]

bdmonicaikk departament  
bdmonicaikk dependent  
bdmonicaikk dept\_locations  
bdmonicaikk employee  
bdmonicaikk project  
bdmonicaikk works\_on  
EmployeeDepartment  
Manager  
EmployeeManager  
DepLocation  
Atribuir  
EmployeesByManager

Table.RenameColumns({#"Grouped Rows", {"Count", "QtdEmployees"}})

	Gerentes	Count
1	Franklin	3
2	James	2
3	null	2
4	Jennifer	2

Query Settings

PROPERTIES

Name  
EmployeesByManager

APPLIED STEPS

Source  
Expanded Gerentes  
Grouped Rows  
Renamed Columns