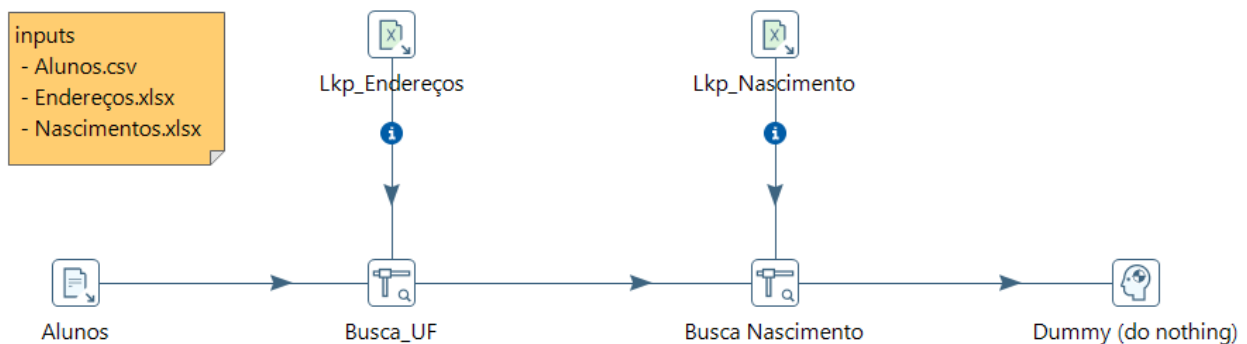


## Exercício 07 – Stream Lookup

**7.1** Crie uma nova transformação, adicionando os inputs “alunos.csv”, “endereços.xlsx” e “nascimentos.xlsx”. Em seguida, adicione o step “Stream lookup” para busca de endereços e outro step “Stream lookup” para busca de data de nascimento, direcionando o resultado para um step “Dummy”. Salve e execute.



## 7.2 Configuração da Lookup “Busca\_UF”:

Stream lookup

Step name:

Lookup step:

The key(s) to look up the value(s):

#	Field	LookupField
1	id	id

Specify the fields to retrieve:

#	Field	New name	Default	Type
1	Estado			None

☒ Preserve memory (costs CPU)  
☐ Key and value are exactly one integer field  
☐ Use sorted list (i.s.o. hashtable)

### 7.3 Configuração da Lookup “Busca\_Nascimento”:

Stream lookup

Step name:

Lookup step:

The key(s) to look up the value(s):

#	Field	LookupField
1	id	id

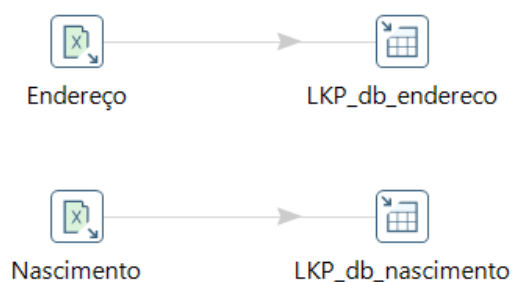
Specify the fields to retrieve :

#	Field	New name	Default	Type
1	data_nascimento			Date

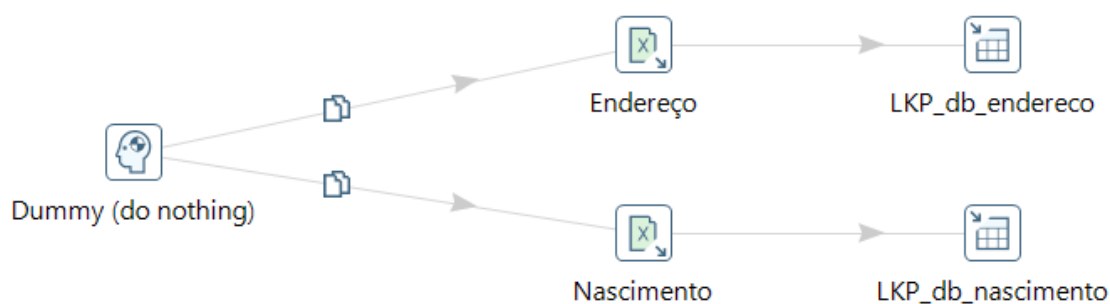
☒ Preserve memory (costs CPU)  
☐ Key and value are exactly one integer field  
☐ Use sorted list (i.s.o. hashtable)

## Exercício 08 – Database lookup

**8.1** Crie uma nova transformação, adicionando os inputs “endereços.xlsx” e “nascimentos.xlsx” e os grave em duas tabelas no Postgres (labs.lkp\_db\_endereco e labs.lkp\_db\_nascimento).



**8.2** Após execução com sucesso, adicione um step “Dummy” ao início, desabilitando todos os HOPS:



**8.3** CNa mesma transformação, adicione um novo fluxo tendo como entrada o arquivo “alunos.csv”. Em série, adicione dois steps “Database lookup”, um para buscar endereços e outro para buscar idade. Configure as lookups e grave a saída em um step “Dummy”:



**8.4** Configuração lookupu “Busca Endereco”:

Database lookup

Step name:

Connection:

Lookup schema:

Lookup table:

Enable cache? ☐

Cache size in rows (0=cache):

Load all data from table ☐

The key(s) to look up the value(s):

#	Table field	Comparator	Field1	Field2
1	id	=	id	

Values to return from the lookup table:

#	Field	New name	Default	Type
1	estado			None

Do not pass the row if the lookup fails ☐

Fail on multiple results? ☐

Order by:

## 8.5 Configuração lookup “Busca Idade”:

Database lookup

Step name:

Connection:

Lookup schema:

Lookup table:

Enable cache? ☐

Cache size in rows (0=cache):

Load all data from table ☐

The key(s) to look up the value(s):

#	Table field	Comparator	Field1	Field2
1	id	=	id	

Values to return from the lookup table:

#	Field	New name	Default	Type
1	idade			None

Do not pass the row if the lookup fails ☐

Fail on multiple results? ☐

Order by:

## 8.6 Salve, execute e observe evolução e performance da transformação na aba “Execution Results”:

Execution Results													
<input type="button" value="Logging"/> <input type="button" value="Execution History"/> <input type="button" value="Step Metrics"/> <input type="button" value="Performance Graph"/> <input type="button" value="Metrics"/> <input type="button" value="Preview data"/>													
#	Stepname	Copynr	Read	Written	Input	Output	Updated	Rejected	Errors	Active	Time	Speed (r/s)	input/output
1	Alunos	0	0	16306	16308	0	0	0	0	Running	5.4s	3,035	0/9900
2	Busca_Endereco	0	6406	6405	6405	0	0	0	0	Running	5.4s	1,192	9900/101
3	Busca_Idade	0	6304	6303	6303	0	0	0	0	Running	5.4s	1,173	101/100
4	Fim	0	6203	6203	0	0	0	0	0	Running	5.4s	1,155	100/0

## Exercício 09 – Rest client

**9.1** Crie uma nova transformação, adicionando o step “Generate rows”, e o preencha conforme descrito abaixo:

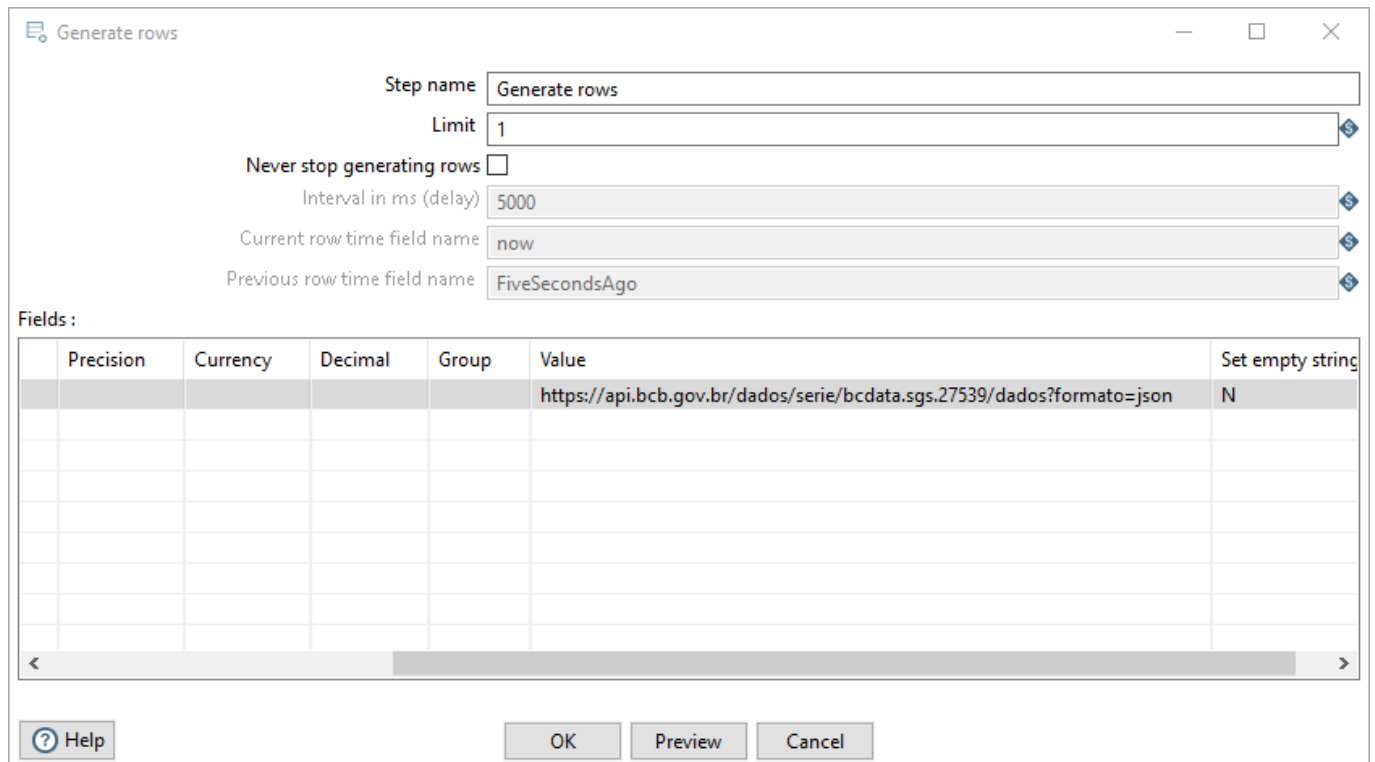
Opção Limit : 1

Campo Name : url

Campo Type : String

Campo Value : <https://api.bcb.gov.br/dados/serie/bcdata.sgs.27539/dados?formato=json>

Campo Set Empty String : N



Generate rows

Step name: Generate rows

Limit: 1

Never stop generating rows: ☐

Interval in ms (delay): 5000

Current row time field name: now

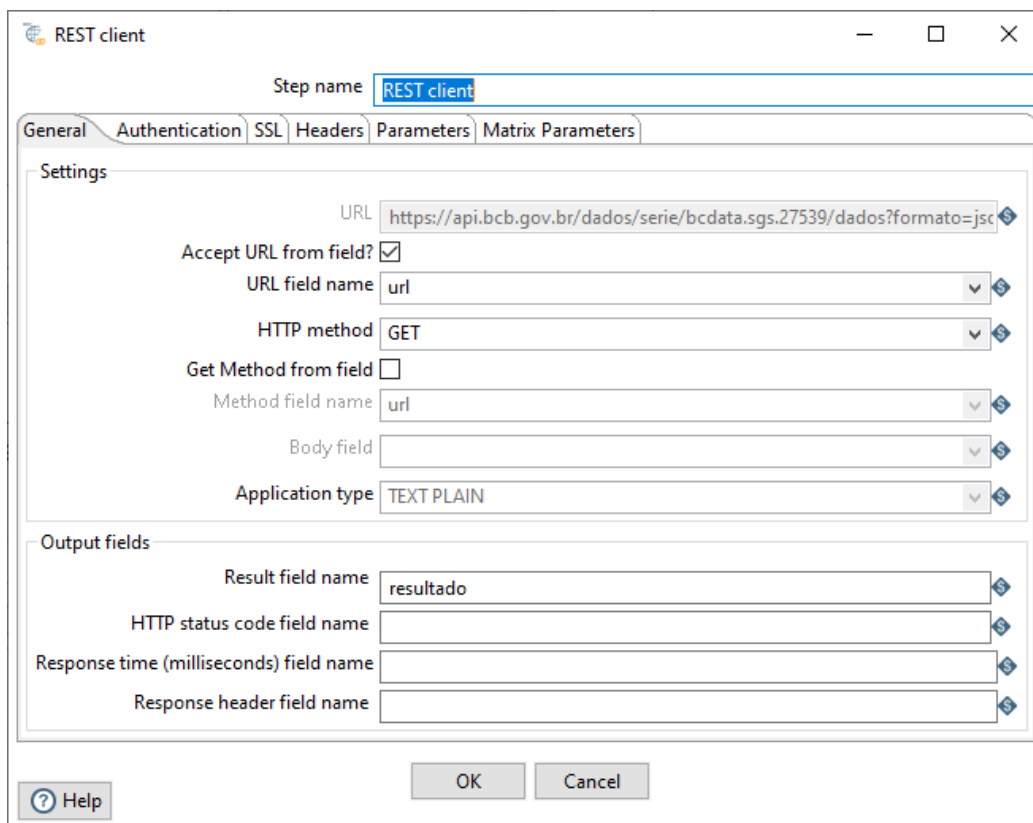
Previous row time field name: FiveSecondsAgo

Fields:

Precision	Currency	Decimal	Group	Value	Set empty string
				https://api.bcb.gov.br/dados/serie/bcdata.sgs.27539/dados?formato=json	N

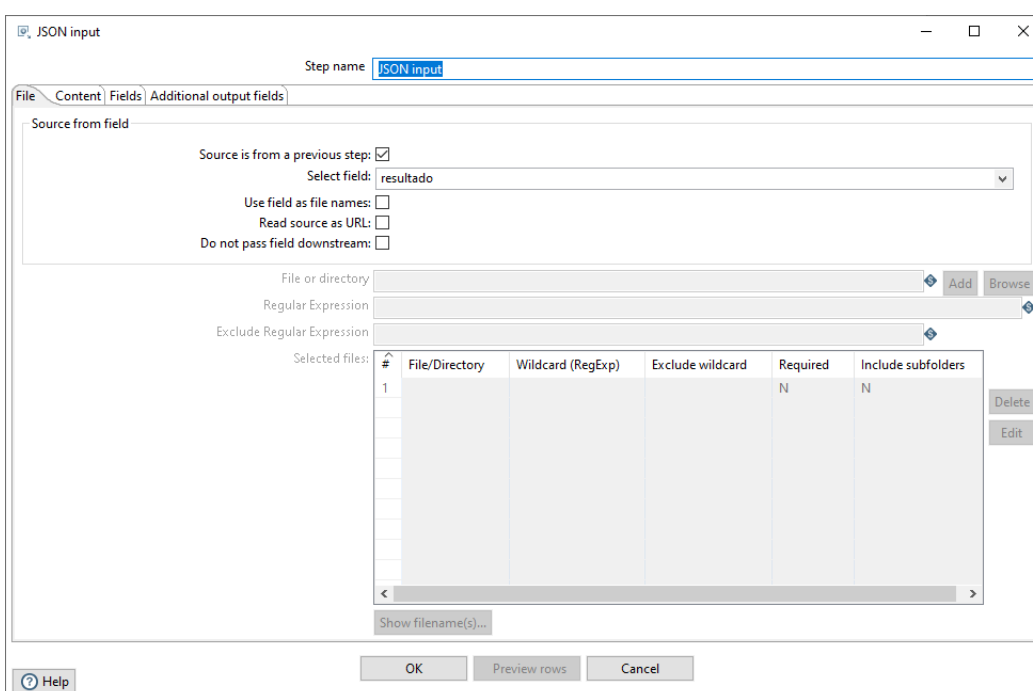
Help OK Preview Cancel

**9.2** Na saída do step “Generate rows”, adicione um step “Rest client” e o configure conforme a seguir:



The screenshot shows the 'REST client' configuration window. The 'Step name' is 'REST client'. The 'General' tab is selected. Under 'Settings', the 'URL' is 'https://api.bcb.gov.br/dados/serie/bcdata.sgs.27539/dados?formato=json', 'Accept URL from field?' is checked, 'URL field name' is 'url', 'HTTP method' is 'GET', 'Get Method from field' is unchecked, 'Method field name' is 'url', 'Body field' is empty, and 'Application type' is 'TEXT PLAIN'. Under 'Output fields', 'Result field name' is 'resultado', 'HTTP status code field name' is empty, 'Response time (milliseconds) field name' is empty, and 'Response header field name' is empty. At the bottom are 'Help', 'OK', and 'Cancel' buttons.

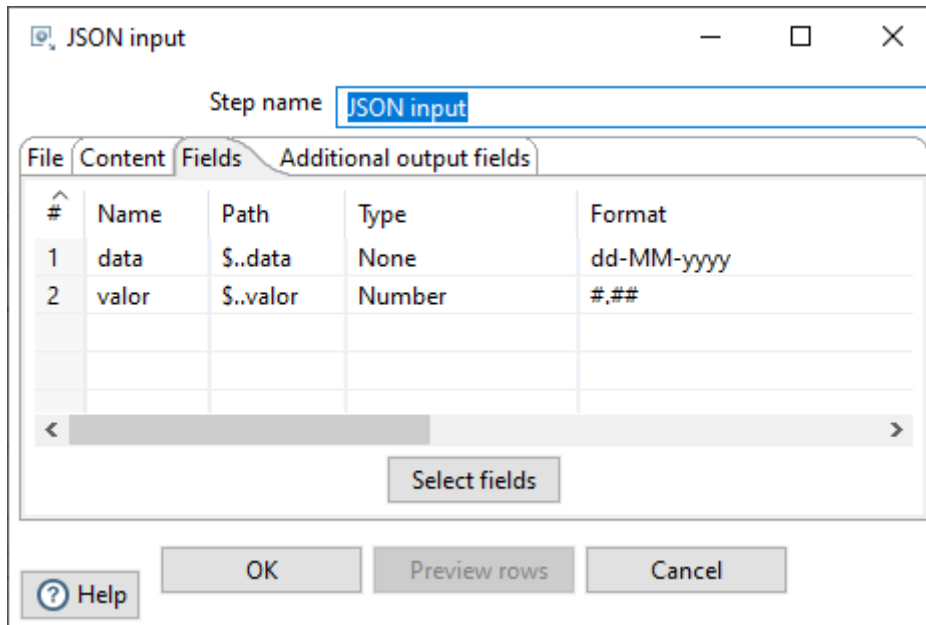
**9.3** Na saída do step “Rest client”, adicione o step “JSON input” e o configure conforme a seguir na aba “File”:



The screenshot shows the 'JSON input' configuration window. The 'Step name' is 'JSON input'. The 'File' tab is selected. Under 'Source from field', 'Source is from a previous step:' is checked, 'Select field:' is 'resultado', 'Use field as file names:' is unchecked, 'Read source as URL:' is unchecked, and 'Do not pass field downstream:' is unchecked. Below, there are fields for 'File or directory', 'Regular Expression', and 'Exclude Regular Expression'. A table titled 'Selected files' is shown with the following columns: #, File/Directory, Wildcard (RegExp), Exclude wildcard, Required, and Include subfolders. The table has one row with #1, File/Directory, Wildcard (RegExp), Exclude wildcard, Required (N), and Include subfolders (N). At the bottom are 'Help', 'OK', 'Preview rows', and 'Cancel' buttons.

#	File/Directory	Wildcard (RegExp)	Exclude wildcard	Required	Include subfolders
1				N	N

**9.4** Mude para a aba “Fields” e proceda com a configuração a seguir:



JSON input

Step name:

File Content **Fields** Additional output fields

#	Name	Path	Type	Format
1	data	\$..data	None	dd-MM-yyyy
2	valor	\$..valor	Number	#,##

< [Progress Bar] >

Select fields

Help OK Preview rows Cancel

**9.5** Remova os campos desnecessários (step “Select values”) e grave a saída em um step do tipo “Dummy”.



OBS.:

Os itens de 10 a 14 serão enviados nesta sexta feira.