

# Conditional selection of rows from a dataframe

V.CF.9

# Program:

```
filename <- "emissions.csv"  
emissions_data <- read_spreadsheet(filename)
```

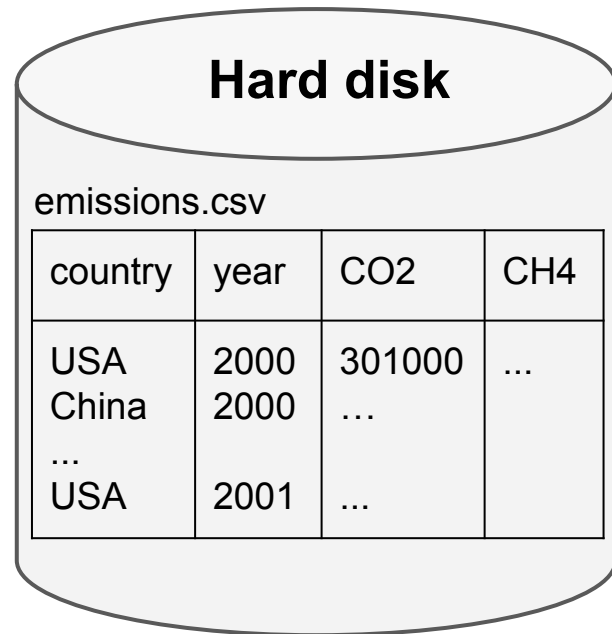
# In memory:

symbol table

names	values
filename	"emissions.csv"
emissions_data	

dataframe

country	year	CO2	CH4
USA	2000	301000	5950000
China	2000	...	
...			
USA	2001	...	



# Selecting rows by condition

```
filename <- "emissions.csv"  
emissions_data <- read_spreadsheet(filename)  
us_emissions <- get_rows_by_condition(emissions_data,  
                                     get_column(emissions_data, "country")=="USA")
```

## In memory:

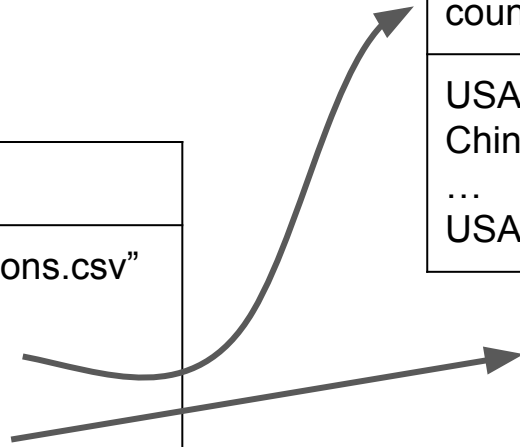
symbol table

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emissions_data	
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dataframe

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USA	2000	301000	5950000
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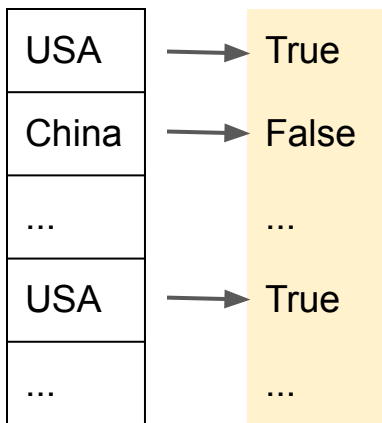
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```

USA
China
...
USA
...

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```

USA	→ True
China	→ False
...	...
USA	→ True
...	...

country	year	CO2	CH4
USA	2000	301000	5950000
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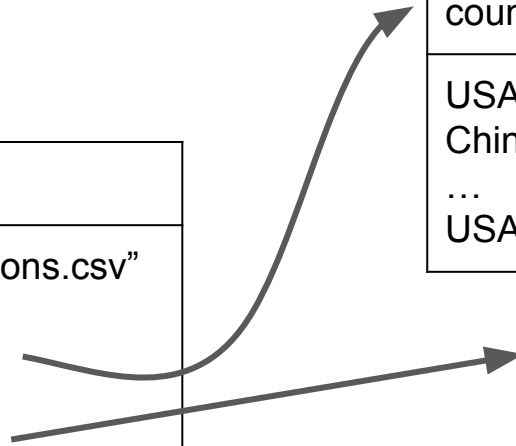
symbol table

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filename	"emissions.csv"
emissions_data	
us_emissions	

dataframe

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USA	2000	301000	5950000
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...			
USA	2001	...	

country	year	CO2	CH4
USA	2000	301000	5950000
USA	2001	...	
...			





# Another example: Selecting rows by condition

```
filename <- "emissions.csv"  
emissions_data <- read_spreadsheet(filename)  
emissions_since_2010 <- get_rows_by_condition(emissions_data,  
                                              get_column(emissions_data, "year")>=2010)
```

## In memory:

symbol table

names	values
filename	"emissions.csv"
emissions_data	
emissions_since_2010	

dataframe

country	year	CO2	CH4
USA	2000	301000	5950000
China	2000	...	
...			
USA	2001	...	

country	year	CO2	CH4
USA	2010	289000	5560000
China	2010	...	
...			

