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```python
import pandas as pd
import numpy as np
```

1. Subir el archivo netflix_titles.csv y cargarlos en un DataFrame

```
!curl -O https://raw.githubusercontent.com/Manchas2k4/tc1002S/main/datasets/netflix_titles.csv
```

```
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 2930k  100 2930k    0     0  7513k      0 --:--:-- --:--:-- --:--:-- 7494k
```

```python
df = pd.read_csv('netflix_titles.csv')
```

2. Desplegar las primeras 5 líneas del DataFrame

```python
df.head(5)
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	l
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	2020	TV-MA	4 Seasons	In... T...
1	s2	Movie	7:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	2016	TV-MA	93 min	In...
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	2011	R	78 min	In...
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly,	United States	November 16, 2017	2009	PG-13	80 min	In...

3. Implementa una función que despliegue el primer renglon de un DataFrame

```python
def the_first(x):
  y = df.head(x)
  return y
```

```python
the_first(1)
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	li
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel	Brazil	August 14, 2020	2020	TV-MA	4 Seasons	Inter TV TV T

4. Implementa una función que regrese el número de registros en el DataFrame

```python
def row_number(df):
  y = len(df)
  return y
```

```
row_number(df)
```

```
    7787
```

5. Implementa una función que despliega las películas con un release_year determinado.

```
def released_year(df, year):
  determined_y = df.groupby('release_year').get_group(year)
  return determined_y

year_query = 2020
released_year(df, year_query)
```

	show_id	type	title	director	cast	country	date_added	release_year	rating	duratic
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	2020	TV-MA	Seasor
24	s25	TV Show	SAINT SEIYA: Knights of the Zodiac	NaN	Bryson Baugus, Emily Neves, Blake Shepard, Pat...	Japan	January 23, 2020	2020	TV-14	Seasor
26	s27	TV Show	(Un)Well	NaN	NaN	United States	August 12, 2020	2020	TV-MA	1 Seasc
27	s28	Movie	#Alive	Cho Il	Yoo Ah-in, Park Shin-hye	South Korea	September 8, 2020	2020	TV-MA	99 m
29	s30	TV Show	#blackAF	NaN	Kenya Barris, Rashida Jones, Iman Benson, Genn...	United States	April 17, 2020	2020	TV-MA	1 Seasc
...	...	...	...	...	...	...	...	...	...	
7725	s7726	TV Show	You Cannot Hide	NaN	Blanca Soto, Eduardo Noriega, Iván Sánchez, Ma...	Mexico	October 1, 2020	2020	TV-MA	1 Seasc
7734	s7735	Movie	You've Got This	Salvador Espinosa	Mauricio Ochmann, Esmeralda Pimentel, Matteo G...	Mexico	October 2, 2020	2020	TV-MA	112 m
7738	s7739	TV Show	Young Wallander	NaN	Adam Pålsson, Richard Dillane, Leanne Best, El...	United Kingdom	September 3, 2020	2020	TV-MA	1 Seasc
7741	s7742	Movie	Your Name Engraved Herein	Liu Kuang-hui	Edward Chen, Tseng Ching-hua, Leon Dai, Jason ...	Taiwan	December 23, 2020	2020	TV-MA	115 m

6. Implementa una función que despliegue las películas que son de un país determinado.

```
def origin_country(df, country):
  determined_c = df.groupby('country').get_group(country)
  return determined_c

country_query = 'Mexico'
origin_country(df, country_query)
```

1	s2	Movie	7:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	2016	TV-MA	93
12	s13	TV Show	1994	Diego Enrique Osorno	NaN	Mexico	May 17, 2019	2019	TV-MA	1 Se:
292	s293	Movie	Acapulco La vida va	Alfonso Serrano Maturino	Patricio Castillo, Sergio Bustamante, Alejandr...	Mexico	June 3, 2017	2016	TV-MA	89
370	s371	Movie	Alan Saldaña: Mi vida de pobre	Raúl Campos, Jan Suter	Alan Saldaña	Mexico	August 4, 2017	2017	TV-MA	54
378	s379	Movie	Alex Fernández: The Best Comedian in the World	Alex Díaz	Alex Fernández	Mexico	January 23, 2020	2020	TV-MA	51
...	...	...	...	...	...	...	...	...	...	
7698	s7699	TV Show	Yankee	NaN	Pablo Lyle, Ana Layevska, Leonardo Daniel, Jav...	Mexico	June 14, 2019	2019	TV-MA	1 Se:
7725	s7726	TV Show	You Cannot Hide	NaN	Blanca Soto, Eduardo Noriega, Iván Sánchez, Ma...	Mexico	October 1, 2020	2020	TV-MA	1 Se:
7734	s7735	Movie	You've Got This	Salvador Espinosa	Mauricio Ochmann, Esmeralda Pimentel, Matteo G...	Mexico	October 2, 2020	2020	TV-MA	112
7773	s7774	Movie	Zoé: Panoramas	Rodrigo Guardiola, Gabriel Cruz Rivas	Sergio Acosta, Jesús Báez, Ángel Mosqueda, Rod...	Mexico	November 1, 2019	2016	TV-MA	89
7779	s7780	TV Show	Zona Rosa	NaN	Manu NNa, Ana Julia Yeyé, Ray Contreras, Pablo...	Mexico	November 26, 2019	2019	TV-MA	1 Se:

100 rows × 12 columns

7. Crea un nuevo DataFrame que sólo contenga las columnas type, title, country, y release_year.

```python
ndf = pd.read_csv('netflix_titles.csv', usecols=[1,2,5,7])
ndf.head()
```

	type	title	country	release_year
0	TV Show	3%	Brazil	2020
1	Movie	7:19	Mexico	2016
2	Movie	23:59	Singapore	2011
3	Movie	9	United States	2009
4	Movie	21	United States	2008
5	TV Show	46	Turkey	2016

8. Despliega, cuantos tipos de producciones (type) se hicieron por país determinado (country)

```python
def type_c(df, country):
  lista = ndf.groupby('country').get_group(country)
  tv = lista['type'].value_counts()['TV Show']
  movie = lista['type'].value_counts()['Movie']
  return tv, movie

country_query = 'Brazil'
type_c(ndf, country_query)
```

```
(26, 46)
```

9. Implementa la función que genera el cuadrado de un número.

```python
def square(x):
  x= x * x
  return x

square(10)
```

```
100
```

10. Usando el método apply, genera el cuadrado de todos los valores del siguiente DataFrame

```python
df2 = pd.DataFrame({'A': [1,2,3,5,6], 'B':[10,20,30,40,50]})
df2
```

	A	B
0	1	10
1	2	20
2	3	30
3	5	40
4	6	50

```python
df2.apply(square, axis=1)
```

	A	B
0	1	100
1	4	400
2	9	900
3	25	1600
4	36	2500

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