

LABORATORIO 2

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```
In [1]: import numpy as np
import pandas as pd
heroes = pd.read_csv("heroes_information.csv")

In [2]: ###instalar desde anaconda navigator#####
from pandasql import *

In [3]: pysqldf = lambda q: sqldf(q,globals())
```

Contenido tabla

```
In [4]: query2 = " SELECT * FROM heroes limit 10"

In [5]: pysqldf(query2)
```

Out[5]:

	id	name	Gender	Eye color	Race	Hair color	Height	Publisher	Skin color	Alignment	Weight
0	0	A-Bomb	Male	yellow	Human	No Hair	203.0	Marvel Comics	None	good	441.0
1	1	Abe Sapien	Male	blue	Ichthy Sapien	No Hair	191.0	Dark Horse Comics	blue	good	65.0
2	2	Abin Sur	Male	blue	Ungaran	No Hair	185.0	DC Comics	red	good	90.0
3	3	Abomination	Male	green	Human / Radiation	No Hair	203.0	Marvel Comics	None	bad	441.0
4	4	Abraxas	Male	blue	Cosmic Entity	Black	-99.0	Marvel Comics	None	bad	-99.0
5	5	Absorbing Man	Male	blue	Human	No Hair	193.0	Marvel Comics	None	bad	122.0
6	6	Adam Monroe	Male	blue	None	Blond	-99.0	NBC - Heroes	None	good	-99.0
7	7	Adam Strange	Male	blue	Human	Blond	185.0	DC Comics	None	good	88.0
8	8	Agent 13	Female	blue	None	Blond	173.0	Marvel Comics	None	good	61.0
9	9	Agent Bob	Male	brown	Human	Brown	178.0	Marvel Comics	None	good	81.0

1. Nombre primer superheroe

```
In [6]: q1 = " SELECT * FROM heroes limit 1"

In [7]: pysqldf(q1)
```

Out[7]:

	id	name	Gender	Eye color	Race	Hair color	Height	Publisher	Skin color	Alignment	Weight
0	0	A-Bomb	Male	yellow	Human	No Hair	203.0	Marvel Comics	None	good	441.0

El primer superheroe es A-Bomb

2. Cuantas casas publicadoras existen

```
In [8]: q2 = "SELECT COUNT(DISTINCT Publisher) as cantidad FROM heroes"

In [9]: pysqldf(q2)
```

Out[9]:

	cantidad
0	24

Hay 24 casas publicadoras

3. Cuantos superheroes miden mas de 2m

```
In [10]: q3 = " SELECT COUNT(*) as cantidad FROM heroes WHERE Height > 200"
```

```
In [11]: pysqldf(q3)
```

Out[11]:

	cantidad
0	59

59 heroes miden mas de 2m

4. Cuantos son humanos y miden mas de 2m

```
In [12]: q4 = " SELECT COUNT(*) as cantidad FROM heroes WHERE Height > 200 AND Race = 'Human' "
```

```
In [13]: pysqldf(q4)
```

Out[13]:

	cantidad
0	12

Hay 12 superheroes que son humanos y miden mas de 2m

5. Cuantos pesan mas de 100lbs y menos de 200lbs

```
In [14]: q5 = " SELECT COUNT(*) as cantidad FROM heroes WHERE Weight BETWEEN 100 AND 200"
```

```
In [15]: pysqldf(q5)
```

Out[15]:

	cantidad
0	98

Hay 98 heroes con pesos entre 100 y 200

6. Cuantos tienen los ojos color azul o rojo

```
In [16]: q6 = " SELECT COUNT(*) FROM heroes WHERE [Eye color]='blue' OR [Eye color]='red' "
```

```
In [17]: pysqldf(q6)
```

Out[17]:

	COUNT(*)
0	271

Hay 271 superheroes con ojos azules o rojos

7. Cuántos superhéroes son Human, Mutant y tienen el pelo color Verde o son Vampiros con pelo Negro

```
In [18]: q7 = " SELECT COUNT(*) FROM heroes WHERE (([Race]='Human' OR [Race]='Mutant') AND [Hair color]='Green') OR ([Race]='Vampire' AND [Hair color]='Black')"
```

```
In [19]: pysqldf(q7)
```

Out[19]:

	COUNT(*)
0	5

Hay 5 superheroes que son humano o mutante con pelo verde, o vampiro con pelo negro

8. Cúales el nombre del primer superhéroe si ordena la tabla por peso en orden descendente?

```
In [20]: q8 = "SELECT * FROM heroes ORDER BY Race Desc limit 1"
```

```
In [21]: pysqldf(q8)
```

Out[21]:

	id	name	Gender	Eye color	Race	Hair color	Height	Publisher	Skin color	Alignment	Weight
0	611	Solomon Grundy	Male	black	Zombie	White	279.0	DC Comics	None	bad	437.0

El primer nombre es Solomon Grundy

9. Cuántos superhéroes son de género masculino y cuántas de género femenino?

```
In [22]: qf = "SELECT COUNT(*) as 'cantidad mujeres' FROM heroes WHERE Gender = 'Female'"
         qm = "SELECT COUNT(*) as 'cantidad hombres' FROM heroes WHERE Gender = 'Male'"
```

```
In [23]: pysqldf(qf)
```

Out[23]:

	cantidad mujeres
0	200

```
In [24]: pysqldf(qm)
```

Out[24]:

	cantidad hombres
0	505

Hay 200 mujeres y 505 hombres

10. Cuántas casas publicadoras tienen más de 15 superhéroes?

```
In [25]: q10 = "SELECT COUNT(*) as cantidad FROM heroes GROUP BY Publisher HAVING COUNT(*)>15"
```

```
In [26]: pysqldf(q10)
```

Out[26]:

	cantidad
0	215
1	18
2	388
3	19

Hay 4 casas publicadoras con mas de 15 superheroes