

## GROUP B) 1)

```
[51]: import pandas as pd
```

```
[52]: df = pd.read_csv("dataset_Facebook.csv")
```

```
[53]: df
```

```
[53]:
```

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lifetime Post Consumers	Lifetime Post Consumptions	Lifetime Post Impressions by people who have liked your Page	Lifetime Post reach by people who like your Page	Lifetime People who have liked your Page and engaged with your post	comment
0	139441	Photo	2	12	4	3	0.0	2752	5091	178	109	159	3078	1640	119	4
1	139441	Status	2	12	3	10	0.0	10460	19057	1457	1361	1674	11710	6112	1108	5
2	139441	Photo	3	12	3	3	0.0	2413	4373	177	113	154	2812	1503	132	0
3	139441	Photo	2	12	2	10	1.0	50128	87991	2211	790	1119	61027	32048	1386	58
4	139441	Photo	2	12	2	3	0.0	7244	13594	671	410	580	6228	3200	396	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
495	85093	Photo	3	1	7	2	0.0	4684	7536	733	708	985	4750	2876	392	5
496	81370	Photo	2	1	5	8	0.0	3480	6229	537	508	687	3961	2104	301	0
497	81370	Photo	1	1	5	2	0.0	3778	7216	625	572	795	4742	2388	363	4
498	81370	Photo	3	1	4	11	0.0	4156	7564	626	574	832	4534	2452	370	7
499	81370	Photo	2	1	4	4	NaN	4188	7292	564	524	743	3861	2200	316	0

500 rows × 19 columns

500 rows × 19 columns



### Create data subsets

```
[54]: subset1 = df[['Type', 'Total Interactions', 'Paid']]
subset1
```

```
[54]:
```

	Type	Total Interactions	Paid
0	Photo	100	0.0
1	Status	164	0.0
2	Photo	80	0.0
3	Photo	1777	1.0
4	Photo	393	0.0
...	...	...	...
495	Photo	84	0.0
496	Photo	75	0.0
497	Photo	115	0.0
498	Photo	136	0.0
499	Photo	119	NaN

500 rows × 3 columns

```
[55]: subset2 = df[['Category', 'share']]
subset2
```

```
[55]:
```

	Category	share
0	2	17.0
1	2	29.0
2	3	14.0

495	3	26.0
496	2	22.0
497	1	18.0
498	3	38.0
499	2	28.0

500 rows × 2 columns

```
[56]: subset3 = df[['Category', 'share']]
subset3
```

```
[56]:
```

	Category	share
0	2	17.0
1	2	29.0
2	3	14.0
3	2	147.0
4	2	49.0
...	...	...
495	3	26.0
496	2	22.0
497	1	18.0
498	3	38.0
499	2	28.0

500 rows × 2 columns

```
[57]: subset4 = df[['Category', 'Type']]
subset4
```

```
[57]:
```

	Category	Type
0	2	Photo
1	2	Status
2	3	Photo
3	2	Photo
4	2	Photo
...	...	...
495	3	Photo
496	2	Photo
497	1	Photo
498	3	Photo
499	2	Photo

500 rows × 2 columns

## Merge Data

```
[58]: merge1 = pd.merge(subset2, subset1, left_on='share', right_on='Total Interactions')
merge1
```

```
[58]:
```

	Category	share	Type	Total Interactions	Paid
0	2	17.0	Photo	17	0.0
1	2	17.0	Photo	17	0.0
2	2	17.0	Status	17	0.0
3	2	17.0	Photo	17	0.0
4	3	17.0	Photo	17	0.0



## Shape and reshape Data

```
[62]: reshape = df.stack()
print(reshape)
```

```
0    Page total likes    139441
    Type    Photo
    Category    2
    Post Month    12
    Post Weekday    4
...
499  Lifetime People who have liked your Page and engaged with your post    316
    comment    0
    like    91.0
    share    28.0
    Total Interactions    119
Length: 9494, dtype: object
```

```
[63]: pd.melt(df, id_vars=['Type'], value_vars=['Post Month'])
```

```
[63]:
```

	Type	variable	value
0	Photo	Post Month	12
1	Status	Post Month	12
2	Photo	Post Month	12
3	Photo	Post Month	12
4	Photo	Post Month	12
...	...	...	...
495	Photo	Post Month	1
496	Photo	Post Month	1
497	Photo	Post Month	1
498	Photo	Post Month	1
499	Photo	Post Month	1

500 rows × 3 columns