

Use of Loan or Personal Capital to start business

```
In [1]: import numpy as np  
import pandas as pd
```

```
In [2]: #Getting my csv file on the use of loan or their personal capital to start business by the managers/owners of business

capital = pd.read_csv(r'C:\Users\business_capital.csv')

capital
```

Out[2]:

	country	value	statistic	total_asked	statistic_type	who_was_asked	variable	question
0	AL	I'm not sure	50	372	count	Owners/Managers of Businesses	fob_bus_cdt	At this time, does this business have a line o...
1	AL	No	158	372	count	Owners/Managers of Businesses	fob_bus_cdt	At this time, does this business have a line o...
2	AL	Yes	82	372	count	Owners/Managers of Businesses	fob_bus_cdt	At this time, does this business have a line o...
3	AL	NaN	82	372	count	Owners/Managers of Businesses	fob_bus_cdt	At this time, does this business have a line o...
4	AO	I'm not sure	38	315	count	Owners/Managers of Businesses	fob_bus_cdt	At this time, does this business have a line o...
...
31745	US	42.92005814	688	688	average	Owners/Managers of Businesses	fob_age	How old are you?
31746	UY	39.15697036	911	911	average	Owners/Managers of Businesses	fob_age	How old are you?
31747	VN	30.33366142	1016	1016	average	Owners/Managers of Businesses	fob_age	How old are you?
31748	ZA	33.31467474	661	661	average	Owners/Managers of Businesses	fob_age	How old are you?
31749	ZM	28.87769784	417	417	average	Owners/Managers of Businesses	fob_age	How old are you?

31750 rows × 8 columns

```
In [3]: capital.keys()
```

```
Out[3]: Index(['country', 'value', 'statistic', 'total_asked', 'statistic_type',  
             'who_was_asked', 'variable', 'question'],  
            dtype='object')
```

```
In [4]: capital.columns
```

```
Out[4]: Index(['country', 'value', 'statistic', 'total_asked', 'statistic_type',  
             'who_was_asked', 'variable', 'question'],  
            dtype='object')
```

```
In [5]: #getting the general information on my dataset
```

```
capital.info()
```

```
<class 'pandas.core.frame.DataFrame'>  
RangeIndex: 31750 entries, 0 to 31749  
Data columns (total 8 columns):  
#   Column          Non-Null Count  Dtype  
---  -  
0   country         31750 non-null  object  
1   value           23755 non-null  object  
2   statistic       31750 non-null  int64  
3   total_asked     31750 non-null  int64  
4   statistic_type  31750 non-null  object  
5   who_was_asked   31750 non-null  object  
6   variable        31750 non-null  object  
7   question        31750 non-null  object  
dtypes: int64(2), object(6)  
memory usage: 1.9+ MB
```

In [6]: *#getting the null in the dataset*

```
capital.isnull()
```

Out[6]:

	country	value	statistic	total_asked	statistic_type	who_was_asked	variable	question
0	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False
3	False	True	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False
...
31745	False	False	False	False	False	False	False	False
31746	False	False	False	False	False	False	False	False
31747	False	False	False	False	False	False	False	False
31748	False	False	False	False	False	False	False	False
31749	False	False	False	False	False	False	False	False

31750 rows × 8 columns

In [7]: *#checking if there is any duplicate*

```
capital[capital.duplicated()]
```

Out[7]:

country	value	statistic	total_asked	statistic_type	who_was_asked	variable	question
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In [8]: *#the dataset was generally base on the questions that was asked*

```
capital['question'].value_counts()
```

```
Out[8]: How well do the following statements describe you?      8109
In which sector is your main job?                               6049
What type of work does your spouse or partner do? (Select all that apply) 1649
Of the following, which are the 3 biggest challenges in your community today? 1552
What type of work do you do? (Select all that apply)           1411
How many years have you worked in this sector?                 1164
Who lives in your household with you? (Select all that apply)  1164
In which industry is your main job?                             1067
In what ways did your spouse or partner help you start this business? 1067
Why did you start or join this business? Please select the main reason. 1066
When you were a child, did your mother or father manage or own a business? 970
Where did most of the starting money or funding for this business come from? 873
Which of these describe your role at this business? (Select all that apply) 775
How does using social media (like Facebook, Instagram, or WhatsApp) affect this business? 677
What is your highest level of completed education?             580
How many of the owners of this business are female?           485
At this time, does this business have a line of credit or loan from a bank or financial institution? 388
A role model is a person who serves as an example. Did you have a key role model growing up? 388
How many people own this business?                             388
Which of these best describe the area you live in?            382
Do you have a spouse or long-term partner?                     291
Do you earn the most money among people in your household?     291
In your main business's industry and sector, do you think more businesses are owned by men or by women? 291
What is your gender?                                           288
Did you start or found this business?                          288
How old are you?                                               97
Name: question, dtype: int64
```

In [9]: *#getting my shape*

```
capital.shape
```

Out[9]: (31750, 8)

```
In [12]: # dropping some of my columns

capital.drop(['variable', 'who_was_asked'], axis=1, inplace=True)

capital
```

Out[12]:

	country	value	statistic	total_asked	statistic_type	question
0	AL	I'm not sure	50	372	count	At this time, does this business have a line o...
1	AL	No	158	372	count	At this time, does this business have a line o...
2	AL	Yes	82	372	count	At this time, does this business have a line o...
3	AL	NaN	82	372	count	At this time, does this business have a line o...
4	AO	I'm not sure	38	315	count	At this time, does this business have a line o...
...
31745	US	42.92005814	688	688	average	How old are you?
31746	UY	39.15697036	911	911	average	How old are you?
31747	VN	30.33366142	1016	1016	average	How old are you?
31748	ZA	33.31467474	661	661	average	How old are you?
31749	ZM	28.87769784	417	417	average	How old are you?

31750 rows × 6 columns

In [13]: *# setting my general index to country*

```
capital.set_index('country')
```

Out[13]:

	value	statistic	total_asked	statistic_type	question
country					
AL	I'm not sure	50	372	count	At this time, does this business have a line o...
AL	No	158	372	count	At this time, does this business have a line o...
AL	Yes	82	372	count	At this time, does this business have a line o...
AL	NaN	82	372	count	At this time, does this business have a line o...
AO	I'm not sure	38	315	count	At this time, does this business have a line o...
...
US	42.92005814	688	688	average	How old are you?
UY	39.15697036	911	911	average	How old are you?
VN	30.33366142	1016	1016	average	How old are you?
ZA	33.31467474	661	661	average	How old are you?
ZM	28.87769784	417	417	average	How old are you?

31750 rows × 5 columns

In [14]: *#getting the top 10 countries who answered the questions well*

```
capital.country.value_counts().head(10)
```

Out[14]:

MA	336
MM	335
BG	335
IN	334
NG	334
KE	333
PK	333
BD	333
LB	333
GR	332

Name: country, dtype: int64

In [15]: capital

Out[15]:

	country	value	statistic	total_asked	statistic_type	question
0	AL	I'm not sure	50	372	count	At this time, does this business have a line o...
1	AL	No	158	372	count	At this time, does this business have a line o...
2	AL	Yes	82	372	count	At this time, does this business have a line o...
3	AL	NaN	82	372	count	At this time, does this business have a line o...
4	AO	I'm not sure	38	315	count	At this time, does this business have a line o...
...
31745	US	42.92005814	688	688	average	How old are you?
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31747	VN	30.33366142	1016	1016	average	How old are you?
31748	ZA	33.31467474	661	661	average	How old are you?
31749	ZM	28.87769784	417	417	average	How old are you?

31750 rows × 6 columns


```
In [16]: #checking the mode of the data in total_asked  
capital['total_asked'].mode()[0]
```

Out[16]: 739

```
In [17]: #checking the mode of the data in statistic_type  
capital['statistic_type'].mode()[0]
```

Out[17]: 'count'

```
In [18]: #checking the mode of the data in value  
capital['value'].mode()[0]
```

Out[18]: 'A little well'

```
In [20]: #checking the mode of the data in statistic  
capital['statistic'].mode()[0]
```

Out[20]: 1

```
In [21]: #checking the mode of the data in question  
capital['question'].mode()[0]
```

Out[21]: 'How well do the following statements describe you?'

In [22]: *# setting my general index to country*

```
capital.set_index('country')
```

Out[22]:

	value	statistic	total_asked	statistic_type	question
country					
AL	I'm not sure	50	372	count	At this time, does this business have a line o...
AL	No	158	372	count	At this time, does this business have a line o...
AL	Yes	82	372	count	At this time, does this business have a line o...
AL	NaN	82	372	count	At this time, does this business have a line o...
AO	I'm not sure	38	315	count	At this time, does this business have a line o...
...
US	42.92005814	688	688	average	How old are you?
UY	39.15697036	911	911	average	How old are you?
VN	30.33366142	1016	1016	average	How old are you?
ZA	33.31467474	661	661	average	How old are you?
ZM	28.87769784	417	417	average	How old are you?

31750 rows × 5 columns

In [29]: `business_capital.csv`

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-29-939d35b517af> in <module>
----> 1 business_capital.csv
```

NameError: name 'business_capital' is not defined

```
In [28]: capital.to_csv(r'C:\Users\business_capital.csv')
```

PermissionError

Traceback (most recent call last)

<ipython-input-28-3f3dcdbd558cb> in <module>

----> 1 capital.to_csv(r'C:\Users\business_capital.csv')

~\anaconda3\lib\site-packages\pandas\core\generic.py in to_csv(self, path_or_buf, sep, na_rep, float_format, columns, header, index, index_label, mode, encoding, compression, quoting, quotechar, line_terminator, chunksize, date_format, doublequote, escapechar, decimal)

3202 decimal=decimal,

3203)

-> 3204 formatter.save()

3205

3206 if path_or_buf is None:

~\anaconda3\lib\site-packages\pandas\io\formats\csvs.py in save(self)

186 self.mode,

187 encoding=self.encoding,

--> 188 compression=dict(self.compression_args, method=self.compression),

189)

190 close = True

~\anaconda3\lib\site-packages\pandas\io\common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map, is_text)

426 if encoding:

427 # Encoding

--> 428 f = open(path_or_buf, mode, encoding=encoding, newline="")

429 elif is_text:

430 # No explicit encoding

PermissionError: [Errno 13] Permission denied: 'C:\\Users\\business_capital.csv'

TAIWO IBRAHIM OLAJIDE PROJECT

THANK YOU