```
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline

In [2]:

df = pd.read csv('Entrenamieto ECI 2020.csv')
```

## Out[2]:

df.head()

df = df.dropna()

	ID	Region	Territory	Pricing, Delivery_Terms_Quote_Appr	Pricing, Delivery_Terms_Approved	Bureaucratic_Code_0_Approval	Bureaucratic_Code_0_Approved	Submitted_for_Approval	Bureauc
0	27761	EMEA	None	1	1	1	1	0	Bureaucra
1	27760	EMEA	None	0	0	0	0	0	Bureaucra
2	27446	Americas	NW America	0	0	0	0	0	Bureaucra
3	16808	Americas	NW America	1	0	1	0	0	Bureaucra
4	16805	Americas	NW America	1	0	1	0	0	Bureaucra

#### 5 rows x 52 columns

1

### In [3]:

```
df_oportunidades_cerradas = df[(df.Stage == 'Closed Lost') | (df.Stage == 'Closed Won') ]
```

### In [4]:

```
df_oportunidades_cerradas = df_oportunidades_cerradas.drop(df_oportunidades_cerradas.index[df_oportunidades_cerradas['Territory']
== 'None'])
df_oportunidades_cerradas = df_oportunidades_cerradas.drop(df_oportunidades_cerradas.index[df_oportunidades_cerradas['Account_Type
'] == 'None'])
df_oportunidades_cerradas = df_oportunidades_cerradas.drop(df_oportunidades_cerradas.index[df_oportunidades_cerradas['Source '] ==
```

```
'None'])
```

### In [5]:

df\_oportunidades = df\_oportunidades\_cerradas.drop(['Quote\_Expiry\_Date','Sales\_Contract\_No','Opportunity\_Name','Pricing, Delivery\_T
erms\_Quote\_Appr','Pricing, Delivery\_Terms\_Approved','Bureaucratic\_Code\_0\_Approval','Bureaucratic\_Code\_0\_Approved','Submitted\_for\_A
pproval','Bureaucratic\_Code','Prod\_Category\_A','Total\_Taxable\_Amount\_Currency','Total\_Taxable\_Amount','Actual\_Delivery\_Date','Delivery\_Year','Delivery\_Quarter','Month','Planned\_Delivery\_End\_Date','Last\_Activity','Currency','Price','Product\_Category\_B','Size','
Product\_Type','Brand','Quote\_Type'],axis=1)

## In [20]:

df\_oportunidades.T

### Out[20]:

	2	3	4	5	6	7	62	
ID	27446	16808	16805	16802	16799	27455	18557	
Region	Americas	Americas	Americas	Americas	Americas	Americas	EMEA	
Territory	NW America	NW America	NW America	NW America	NW America	NW America	Italy	
Account_Created_Date	4/21/2015	7/27/2013	7/27/2013	7/27/2013	7/27/2013	4/21/2015	7/27/2013	
Source	Source_7	Source_11	Source_11	Source_11	Source_11	Source_7	Source_7	
Billing_Country	United States	United States	United States	United States	United States	United States	Italy	
Account_Name	Account_Name_1794	Account_Name_1201	Account_Name_1201	Account_Name_1201	Account_Name_1201	Account_Name_1794	Account_Name_1067	Ac
Opportunity_ID	2	3	4	5	6	7	19	
Account_Owner	Person_Name_6	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_64	Person_Name_2	ı
Opportunity_Owner	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_39	ı
Account_Type	Account_Type_5	Account_Type_5	Account_Type_5	Account_Type_5	Account_Type_5	Account_Type_5	Account_Type_0	
Opportunity_Type	Opportunity_Type_1	Opportunity_Type_19	Opportunity_Type_19	Opportunity_Type_19	Opportunity_Type_19	Opportunity_Type_1	Opportunity_Type_7	Op
Delivery_Terms	Delivery_Terms_4	Delivery_Terms_1	Delivery_Terms_1	Delivery_Terms_1	Delivery_Terms_4	Delivery_Terms_4	Delivery_Terms_2	I
Opportunity_Created_Date	12/8/2015	12/8/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/9/2015	
Last_Modified_Date	9/29/2016	3/27/2018	3/27/2018	3/27/2018	10/7/2016	12/9/2015	10/28/2016	
Last_Modified_By	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_8	Person_Name_4	I
Product_Family	Product_Family_81	Product_Family_209	Product_Family_209	Product_Family_209	Product_Family_164	Product_Family_143	Product_Family_164	Pı
Product_Name	Product_Name_91	Product_Name_432	Product_Name_432	Product_Name_432	Product_Name_308	Product_Name_251	Product_Name_310	Pr
ASP_Currency	USD	USD	USD	USD	USD	USD	EUR	
ASP	0.48	0.53	0.53	0.53	0.38	0.48	0.55	

ASP_(converted)_Currency	usp	usg	usp	usp	usp	usp	U <u>SD</u>
ASP_(converted)	0.48	0.53	0.53	0.53	0.38	0.48	0.6221
Planned_Delivery_Start_Date	1/25/2016	2/1/2018	2/1/2018	2/1/2018	2/1/2017	1/25/2016	4/11/2016
TRF	0	14	25	28	7	0	0
Total_Amount_Currency	USD	USD	USD	USD	USD	USD	EUR
Total_Amount	83865.6	7.42188e+06	1.33572e+07	1.48383e+07	2.65949e+06	50688	259875
Stage	Closed Won	Closed Lost	Closed Lost	Closed Lost	Closed Lost	Closed Won	Closed Lost

# 27 rows × 6495 columns

1

In [21]:

df\_final = df\_oportunidades.pivot\_table(index=['Region'], columns = ['Stage'], aggfunc = ['count'])

In [28]:

df\_final

Out[28]:

count

	ASP		ASP_(converted)		ASP_(converted)_Currency		ASP_Currency		Account_Created_Date		 Source		TRF		Territory		Total_Amount	
Stage	Closed Lost	Closed Won	Closed Lost	Closed Won	Closed Lost	Closed Won	Closed Lost	Closed Won	Closed Lost	Closed Won	 Closed Lost	Closed Won	Closed Lost	Closed Won	Closed Lost	Closed Won	Closed Lost	Closed Won
Region																		
APAC	647	719	647	719	647	719	647	719	647	719	 647	719	647	719	647	719	647	719
Americas	846	990	846	990	846	990	846	990	846	990	 846	990	846	990	846	990	846	990
EMEA	1380	1412	1380	1412	1380	1412	1380	1412	1380	1412	 1380	1412	1380	1412	1380	1412	1380	1412
Japan	68	364	68	364	68	364	68	364	68	364	 68	364	68	364	68	364	68	364
Middle East	42	27	42	27	42	27	42	27	42	27	 42	27	42	27	42	27	42	27

# 5 rows × 50 columns

In [ ]: