Ideal Customer Marketing Strategy

This project is find out who the target audience is for this specific product

In [4]:
```
from IPython import display
display.Image("/home/harlohutch77/python/python_master/wine_bottles.png", height=500, width=800)
```

Out[4]:

In [2]:
```
!date
```

```
Thu 18 May 2023 02:30:25 PM EDT
```

In [5]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import cufflinks as cf
%matplotlib inline
```

In [6]:
```
# pd to read the csv file
idms = pd.read_csv("/home/harlohutch77/python/python_master/marketing_campaign.csv",sep='\t')
```

In [7]:
```
idms
```

Out[7]:

	ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	Dt_Customer	Recency	MntWines	...	NumWebVisitsMon
0	5524	1957	Graduation	Single	58138.0	0	0	04-09-2012	58	635	...	
1	2174	1954	Graduation	Single	46344.0	1	1	08-03-2014	38	11	...	
2	4141	1965	Graduation	Together	71613.0	0	0	21-08-2013	26	426	...	
3	6182	1984	Graduation	Together	26646.0	1	0	10-02-2014	26	11	...	
4	5324	1981	PhD	Married	58293.0	1	0	19-01-2014	94	173	...	
...	...	...	...	...	...	...	...	...	...	...	...	
2235	10870	1967	Graduation	Married	61223.0	0	1	13-06-2013	46	709	...	
2236	4001	1946	PhD	Together	64014.0	2	1	10-06-2014	56	406	...	
2237	7270	1981	Graduation	Divorced	56981.0	0	0	25-01-2014	91	908	...	
2238	8235	1956	Master	Together	69245.0	0	1	24-01-2014	8	428	...	
2239	9405	1954	PhD	Married	52869.0	1	1	15-10-2012	40	84	...	

2240 rows × 29 columns

In [7]:
```
#this process is to clean up the dataset
```

In [8]:
```
idms[['ID','Education','Marital_Status','Income','Dt_Customer','NumWebVisitsMonth','Recency','MntWines','Z_Reve
```

Out[8]:

	ID	Education	Marital_Status	Income	Dt_Customer	NumWebVisitsMonth	Recency	MntWines	Z_Revenue
0	5524	Graduation	Single	58138.0	04-09-2012	7	58	635	11
1	2174	Graduation	Single	46344.0	08-03-2014	5	38	11	11
2	4141	Graduation	Together	71613.0	21-08-2013	4	26	426	11
3	6182	Graduation	Together	26646.0	10-02-2014	6	26	11	11
4	5324	PhD	Married	58293.0	19-01-2014	5	94	173	11
...	...	...	...	...	...	...	...	...	...
2235	10870	Graduation	Married	61223.0	13-06-2013	5	46	709	11
2236	4001	PhD	Together	64014.0	10-06-2014	7	56	406	11
2237	7270	Graduation	Divorced	56981.0	25-01-2014	6	91	908	11
2238	8235	Master	Together	69245.0	24-01-2014	3	8	428	11
2239	9405	PhD	Married	52869.0	15-10-2012	7	40	84	11

2240 rows × 9 columns

In [9]:
```
idms[['Marital_Status','Income','Recency','MntWines','Z_Revenue']]
```

Out[9]:

	Marital_Status	Income	Recency	MntWines	Z_Revenue
0	Single	58138.0	58	635	11
1	Single	46344.0	38	11	11
2	Together	71613.0	26	426	11
3	Together	26646.0	26	11	11
4	Married	58293.0	94	173	11
...	...	...	...	...	...
2235	Married	61223.0	46	709	11
2236	Together	64014.0	56	406	11
2237	Divorced	56981.0	91	908	11
2238	Together	69245.0	8	428	11
2239	Married	52869.0	40	84	11

2240 rows × 5 columns

In [10]:
```
# this information below is to import and make the visualizations possible in this project
from plotly import __version__
from plotly.offline import download_plotlyjs, init_notebook_mode, plot, iplot

print(__version__) # requires version >= 1.9.0
```

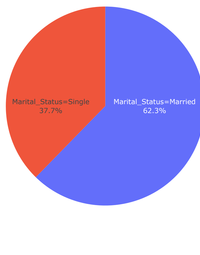
```
5.7.0
```

In [11]:
```
 import cufflinks as cf
```

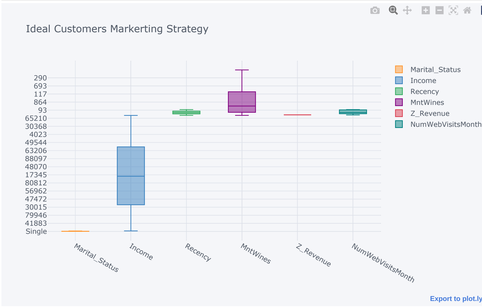
In [12]:
```
# For Notebooks
init_notebook_mode(connected=True)
```

In [13]:
```
# For offline use
cf.go_offline()
```

In [14]:
```
import plotly.graph_objects as go
labels = ['Marital_Status=Single','Marital_Status=Married']
values = [172000, 284391]
fig = go.Figure(data=[go.Pie(labels=labels, values=values,  textinfo='label+percent',
                             insidetextorientation='radial')])
fig.show()
```



In [15]:
```
#this line of code is giving a better perspective of the datset
idms[['Marital_Status','Income','Recency','MntWines','Z_Revenue','NumWebVisitsMonth']].iplot(kind='box', title
```



In [16]:
```
#this line of code is also giving you a better perspective of the data given from the dataset in a different
#visualization
import plotly.express as px
fig = px.scatter(idms, x="Income", y="Recency",title = 'Ideal Customers Marketing Strategy')
fig.show()
```

```
/home/harlohutch77/.local/lib/python3.9/site-packages/requests/__init__.py:102: RequestsDependencyWarning:

urllib3 (1.26.9) or chardet (5.0.0)/charset_normalizer (2.0.12) doesn't match a supported version!
```