Week 6 Discussion - APAC's Share of the Travel Market

In [3]:
```
import matplotlib.pyplot as plt
import pandas as pd
import numpy as np
import random as rd
import matplotlib
import matplotlib.pyplot as plt
from matplotlib.pyplot import figure
from pandas import ExcelWriter
from pandas import ExcelFile
%matplotlib inline
```

In [39]:
```
# Import the Data
apac = pd.read_excel('C:\\Users\\zadai\\OneDrive\\Documents\\Data Science School Documents\\MSDS 670 Visualizations\\Week 6\\APAC_Travel_Market.xlsx')
apac
```

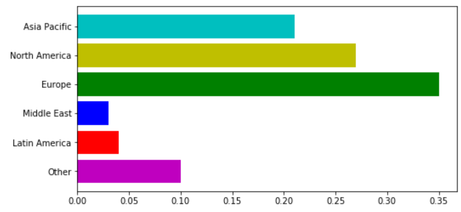
Out[39]:

	Region	2000	2016
0	Other	0.10	0.09
1	Latin America	0.04	0.04
2	Middle East	0.03	0.03
3	Europe	0.35	0.27
4	North America	0.27	0.25
5	Asia Pacific	0.21	0.31

In [42]:
```
Region = "Other", "Latin America", "Middle East", "Europe", "North America", "Asia Pacific"
two = 0.10, 0.04, 0.03, 0.35, 0.27, 0.21
sixteen = 0.09, 0.04, 0.03, 0.27, 0.25, 0.31
```

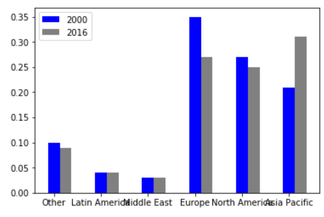
In [47]:
```
plt.figure(figsize = (8, 4))
a = plt.barh(Region, two, height = .8, color = ("m", "r", "b","g","y", "c"))
plt.title("Region in 2000", fontsize = 20)
plt.legend(a, Region, fontsize = 10)
plt.show()
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-47-1c1f84d3771e> in <module>()
      1 plt.figure(figsize = (8, 4))
      2 a = plt.barh(Region, two, height = .8, color = ("m", "r", "b","g","y", "c"))
----> 3 plt.title("Region in 2000", fontsize = 20)
      4 plt.legend(a, Region, fontsize = 10)
      5 plt.show()

TypeError: 'str' object is not callable
```



In [57]:
```
x = np.arange(6)
plt.bar(x + 0.00, two, color = "b", width = 0.25, label = "2000")
plt.bar(x + 0.25, sixteen, color = "grey", width = 0.25, label = "2016")
plt.xticks(x, Region)
plt.legend(fontsize = 10)
plt.title("Region Differences from 2000 to 2016", fontsize = 24)
plt.show()
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-57-8cce2fea715a> in <module>()
      4 plt.xticks(x, Region)
      5 plt.legend(fontsize = 10)
----> 6 plt.title("Region Differences from 2000 to 2016", fontsize = 24)
      7 plt.show()

TypeError: 'str' object is not callable
```



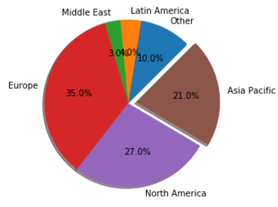
Reflection on Comparison

As the data shows, we can see the difference between the regions from 2000 to 2016 with the numbers either staying stagnant or dropping over the 16 year lapse.The only region with an increase over this time was the Asia Pacific region where we see a substantial rise in their numbers over the time.

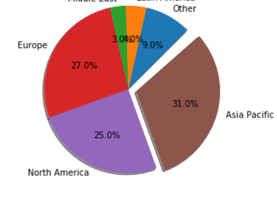
Up Next

Using a Pie Chart to see the change in the percent of total for the regions and how that changes from 2000 to 2016.

In [58]:
```
# Pie chart of Regions for 2000
explode = (0, 0, 0, 0, 0, 0.1)  # only "explode" the Other slice since that is the one of interest

fig1, ax1 = plt.subplots()
ax1.pie(two, explode=explode, labels=Region, autopct='%1.1f%%',
        shadow=True, startangle=45)
ax1.axis('equal')  # Equal aspect ratio ensures that pie is drawn as a circle.

plt.show()
```



In [59]:
```
# Pie Chart of Regions for 2016
fig2, ax2 = plt.subplots()
ax2.pie(sixteen, explode=explode, labels=Region, autopct='%1.1f%%',
        shadow=True, startangle=45)
ax2.axis('equal')  # Equal aspect ratio ensures that pie is drawn as a circle.
plt.show()
```



Reflection

From what we see when comparing 2000 to 2016 we are seeing that there was a drop in the numbers but the Asia Pacific region where there was a 10% jump in their Travel Market numbers over the timespan.

In [ ]:
```
```