INTRODUCTION

The World Happiness Report 2021 focuses on the effects of COVID-19 and how people all over the world have fared .The reports review the state of happiness in the world today and show how the new science of happiness explains personal and national variations in happiness.The Happiness Index is framed to set various parameters on grounds of which a country could be ranked in a list of 156 countries

In [6]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import plotly.express as px
```

In [2]:

```
df = pd.read_csv("C:/Users/sandr/OneDrive/Desktop/PROJECT/world-happiness-report-2021.csv")
```

In [11]:

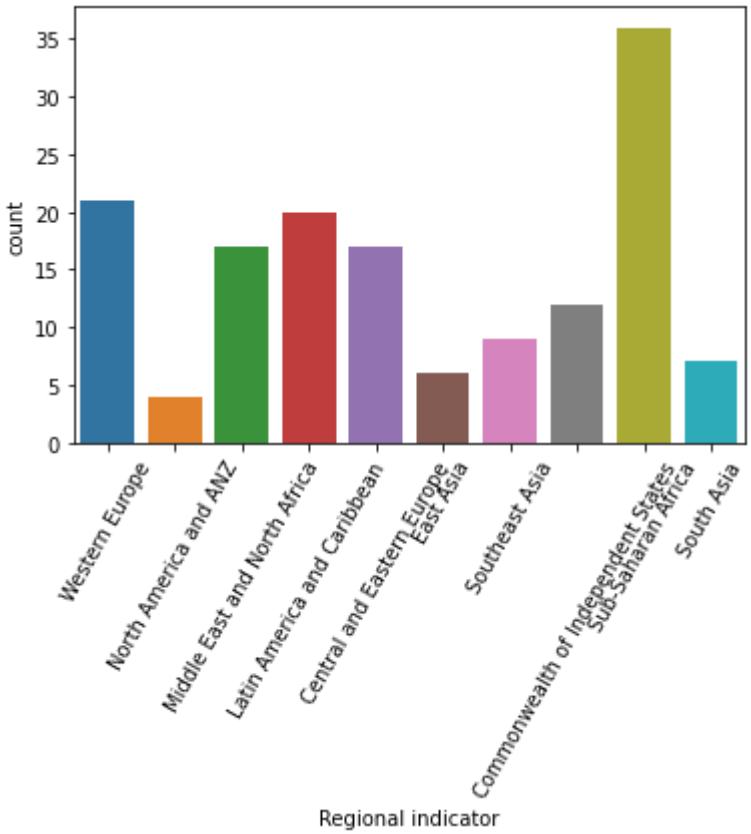
```
df.head(10)
```

Out[11]:

	Country name	Regional indicator	Ladder score	Standard error of ladder score
0	Finland	Western Europe	7.842	0.032
1	Denmark	Western Europe	7.620	0.035
2	Switzerland	Western Europe	7.571	0.036
3	Iceland	Western Europe	7.554	0.059
4	Netherlands	Western Europe	7.464	0.027
5	Norway	Western Europe	7.392	0.035
6	Sweden	Western Europe	7.363	0.036
7	Luxembourg	Western Europe	7.324	0.037
8	New Zealand	North America and ANZ	7.277	0.040
9	Austria	Western Europe	7.268	0.036

In [4]:

```
#count regional indicator
sns.countplot(df["Regional indicator"])
plt.xticks(rotation=60)
plt.show()
```



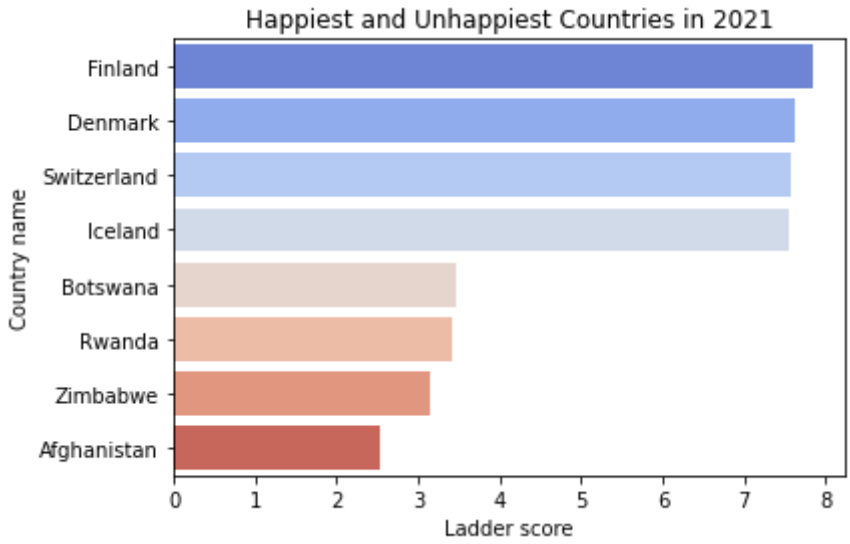
This histogram show us the regional distribution of countries. It takes the count of different countries that comes under a region.X axis represents the Regional Indicator and Y represents the count of countries.

OBJECTIVE

To visualise the happiest and unhappiest countries in the world-2021 according to the happiness index. To find the average happiness score in each region

In [9]:

```
df_happiest_unhappiest= df[(df.loc[:, "Ladder score"]>7.5)|(df.loc[:, "Ladder score"]<3.5)]
sns.barplot(x="Ladder score", y="Country name", data=df_happiest_unhappiest, palette="coolw
plt.title("Happiest and Unhappiest Countries in 2021")
plt.show()
```



df_happiest_unhappiest variable means to Ladder score data the greater than 7.5 and less than 3.5 Blue represents the happiness and red the unhappiness.Finland is the happiest country in the world, followed by Denmark. And Afghanistan is the least happy country.

In [10]:

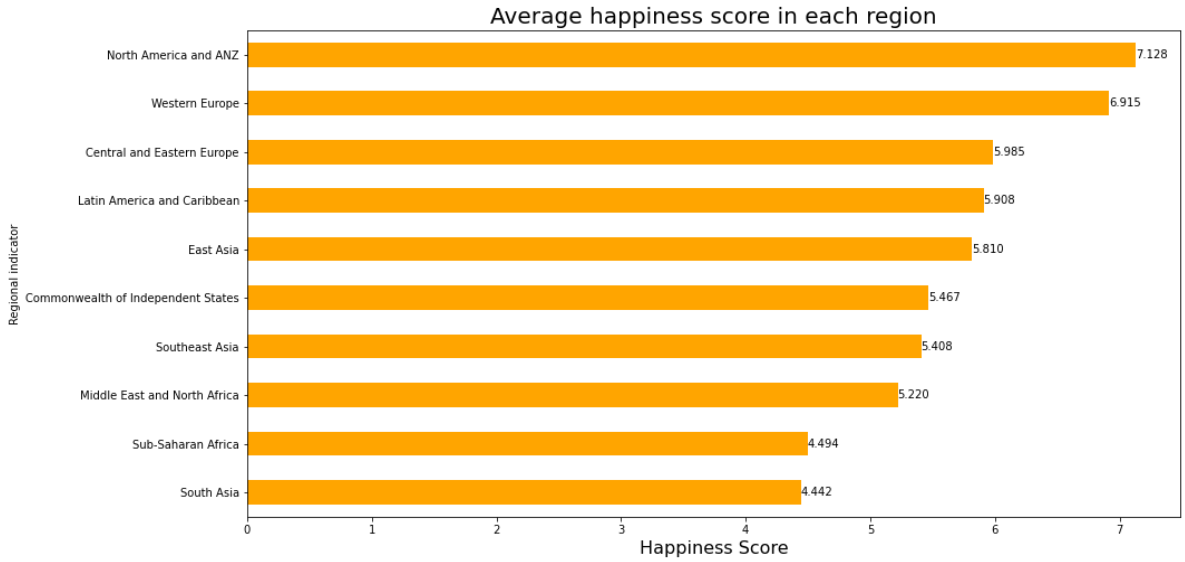
```
g = df.groupby("Regional indicator")['Ladder score'].mean().sort_values().plot.barh(figsize

g.set_xlabel("Happiness Score", fontsize=16)
g.set_title("Average happiness score in each region", fontdict={"size":20})

for rect in g.patches:
    x = rect.get_x()
    y = rect.get_y()
    height = rect.get_height()
    width = rect.get_width()

    plt.annotate(f"{width:.3f}", (width, y+height/2), ha='left', va='center')

plt.show()
```



North America and ANZ region is the happiest region, and South Asia is the least happy region.

INFERENCE

In this project, I have calculated the regional distribution of countries and found the happiest and unhappiest countries in the world with respect to Ladder score. Thus it is concluded that Finalnd is the most happiest country.Average happiness score of each region was also calculated and North America and ANZ region is the happiest region, and South Asia is the least happy region.

CONCLUSION

The Happiness Index is a comprehensive survey instrument that assesses happiness, wellbeing, and aspects of sustainability and resilience. The Happiness Alliance developed the Happiness Index to provide a survey instrument to community organizers, researchers, and others seeking to use a subjective well-being index and data.It can also be used to define income inequality, trust in government, sense of community and other aspects of wellbeing within specific demographics of a population. In this project,we visualised the happiness index ranking and average happiness score in each region and arrived at a conclusion that the most happiest country is Finland and the most happiest region is North America.