Name: Muhammad Adeel Riasat

Data Sources:

- https://www.cryptodatadownload.com/data/cexio/
- https://www.data.gov.uk/dataset/44864962-e4ad-46e6-8f10-71b40126cefb/higher-education-student-data
- https://data.worldbank.org/indicator/IT.CEL.SETS.P2?locations=XO-XM-XJ&name_desc=false

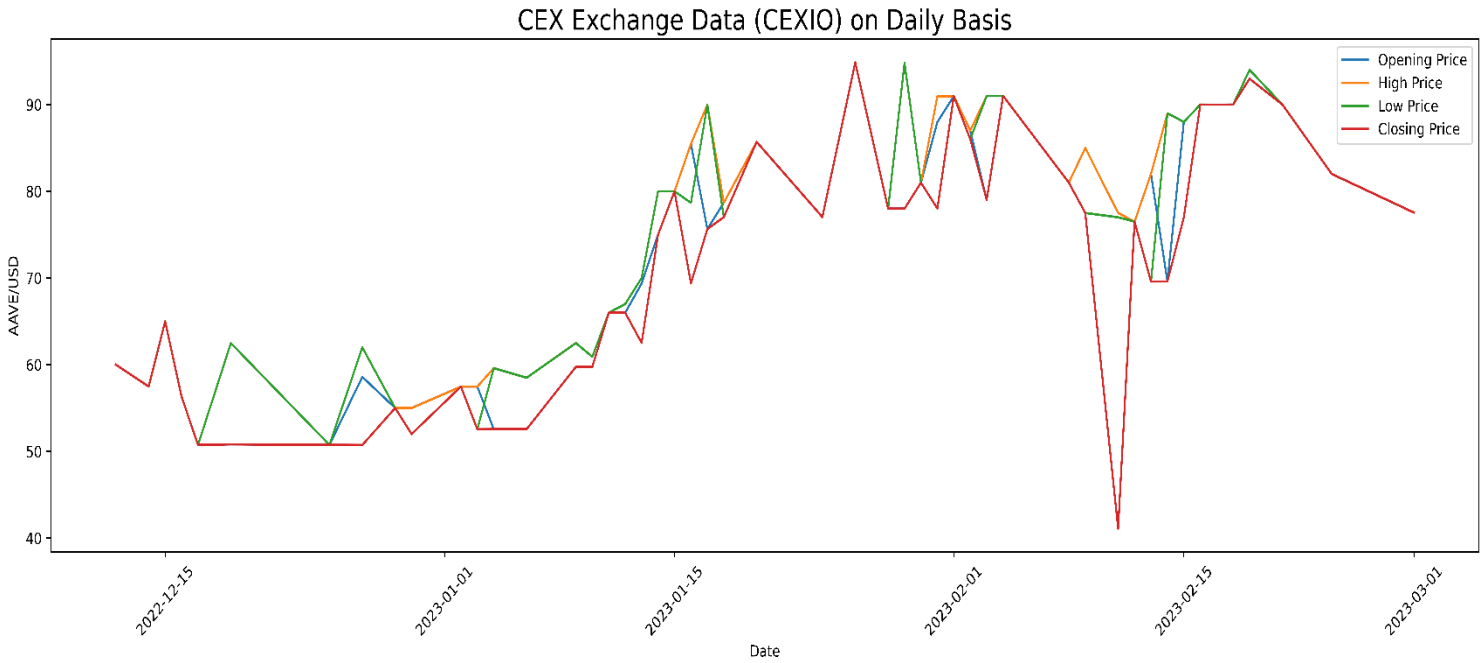
Github Repo Link:

- https://github.com/adeelriasat/ads-assignment-1
- Data Link -> https://github.com/adeelriasat/data-ads-1

Visualization 1: CEX.IO Crypto Exchange OHLC (Open/High/Low/Close) Price Data from 21/04/2021 to 03/03/2023 on Daily Basis

Line graph are good choice for displaying crypto prices on daily basis because it shows the overall trend of prices over time in a clear and easy-to-understand way.

For better visualization I have shown the data of first 50 rows from 15/12/2022 to 03/03/2023. It can be seen from the graph that OHLC prices are same close to 60 from start of the graph. As the days pass the prices are going high. We can see that low and high prices are close to 90 on the 01/15/2023 closing price is below 70 and opening price is between 80 and 90. It means that at this point crypto sold on high price than the opening price. Overall this graph show that closing prices are mostly below from the opening but at some period of the day prices are gone high and low for each day.



Visualization 2: Student Enrollment for Academic Year 2014/15 and Year 2021/22

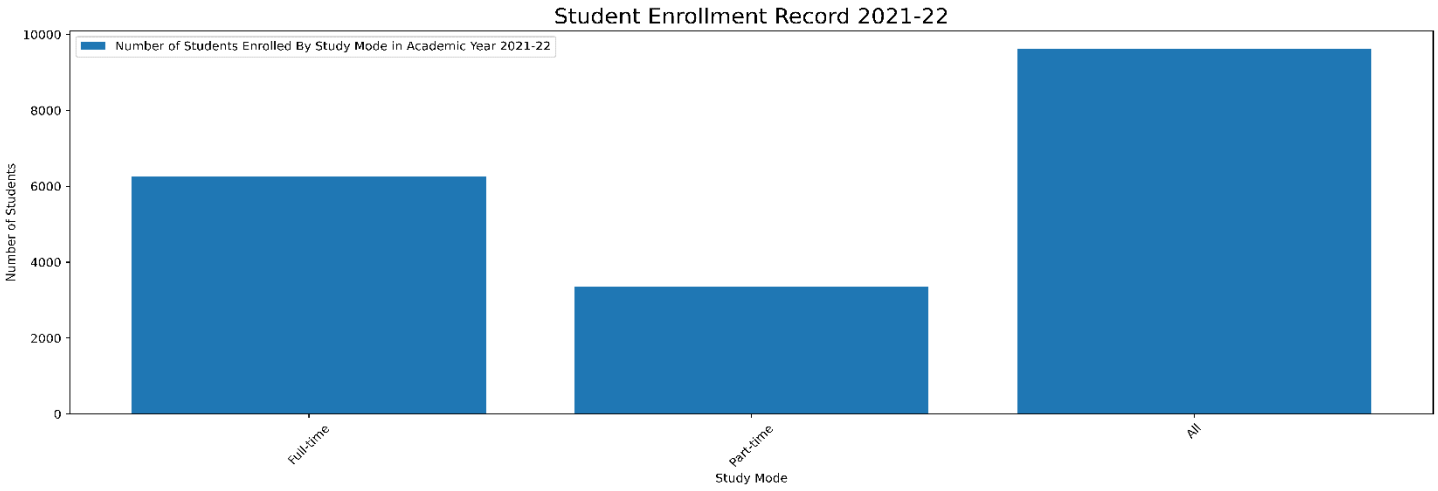
Reason for Using Bar Graph:

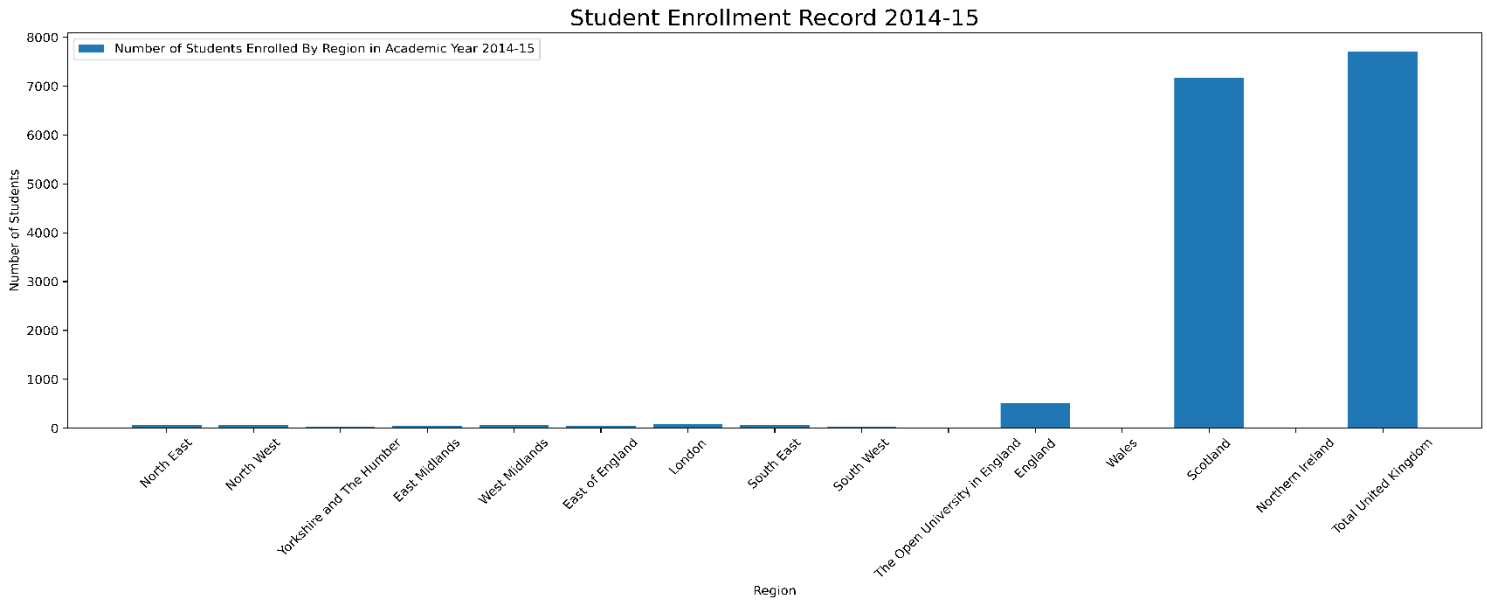
A bar graph is a good choice for showing student enrollment for academic year by region because it allows viewers to easily compare the enrollment numbers for each region side by side. Also it is easy to understand when you want to compare the length of the bar in the graph shows the number of student enrolled in each region. Bar in the graph can easily be compared to one another in the graph making it simple that from area student enrolled more.

Explanation:

From the first graph it can be seen that in year 2021-22 there were more than 6000 students enrolled in full time and below 4000 in part time and overall student enrolled are above 6000 and close to 10000.

In the second graph it can be seen that above 8000 student are enrolled from United Kingdom and Scotland is on second number. We can see that from other countries there are less than 1000 Student enrolled in year 2021-22.




Student Enrollment Record 2014-15
Number of Students Enrolled By Region in Academic Year 2014-15
Number of Students
0
1000
2000
3000
4000
5000
6000
7000
8000
North East
North West
Yorkshire and The Humber
East Midlands
West Midlands
East of England
London
South East
South West
The Open University in England
England
Wales
Scotland
Northern Ireland
Total United Kingdom
Region

Visualization 3: Mobile Cellular Subscription By Region For 2010 and 2020

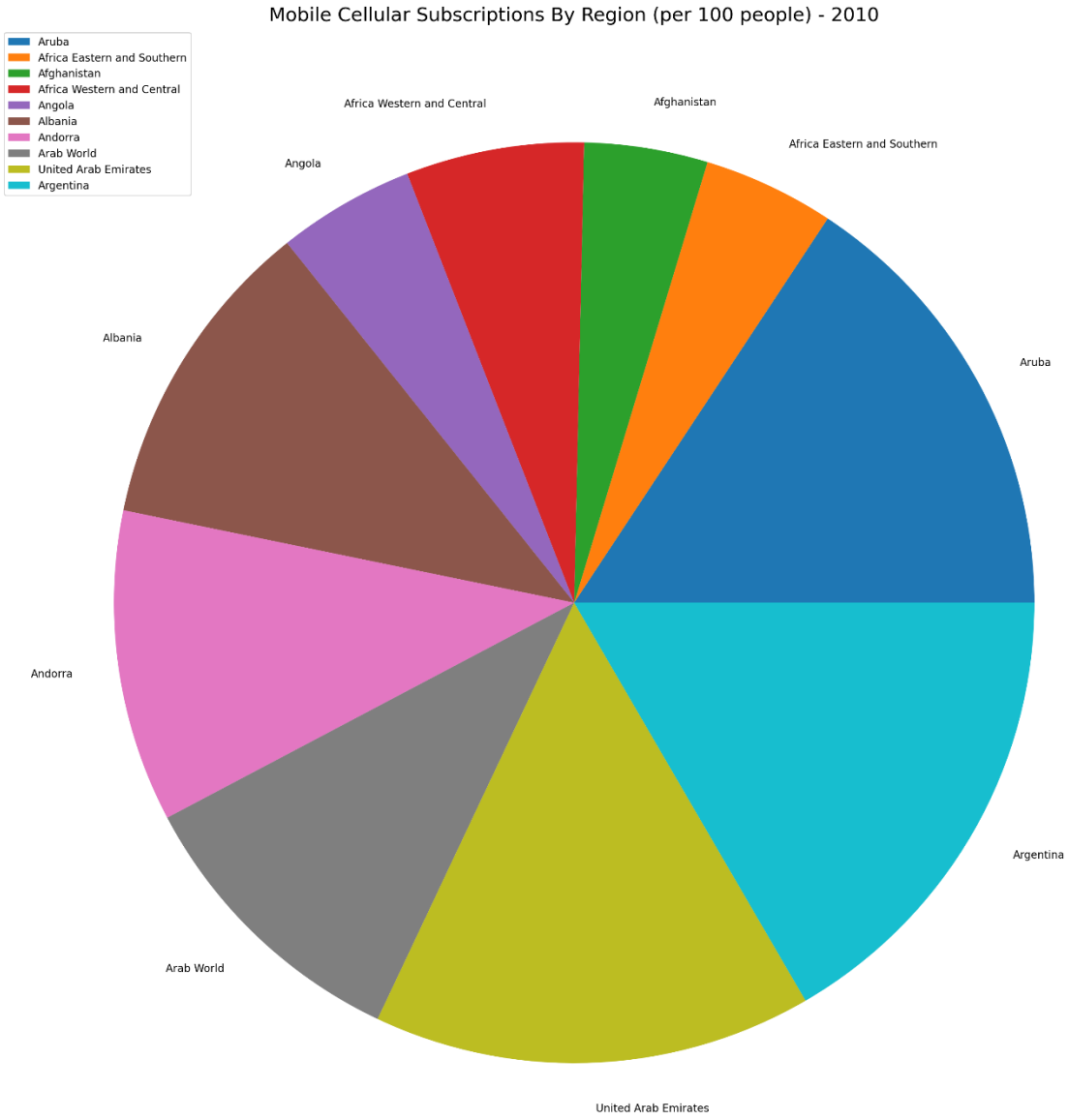
Reason for Using Pie Graph:

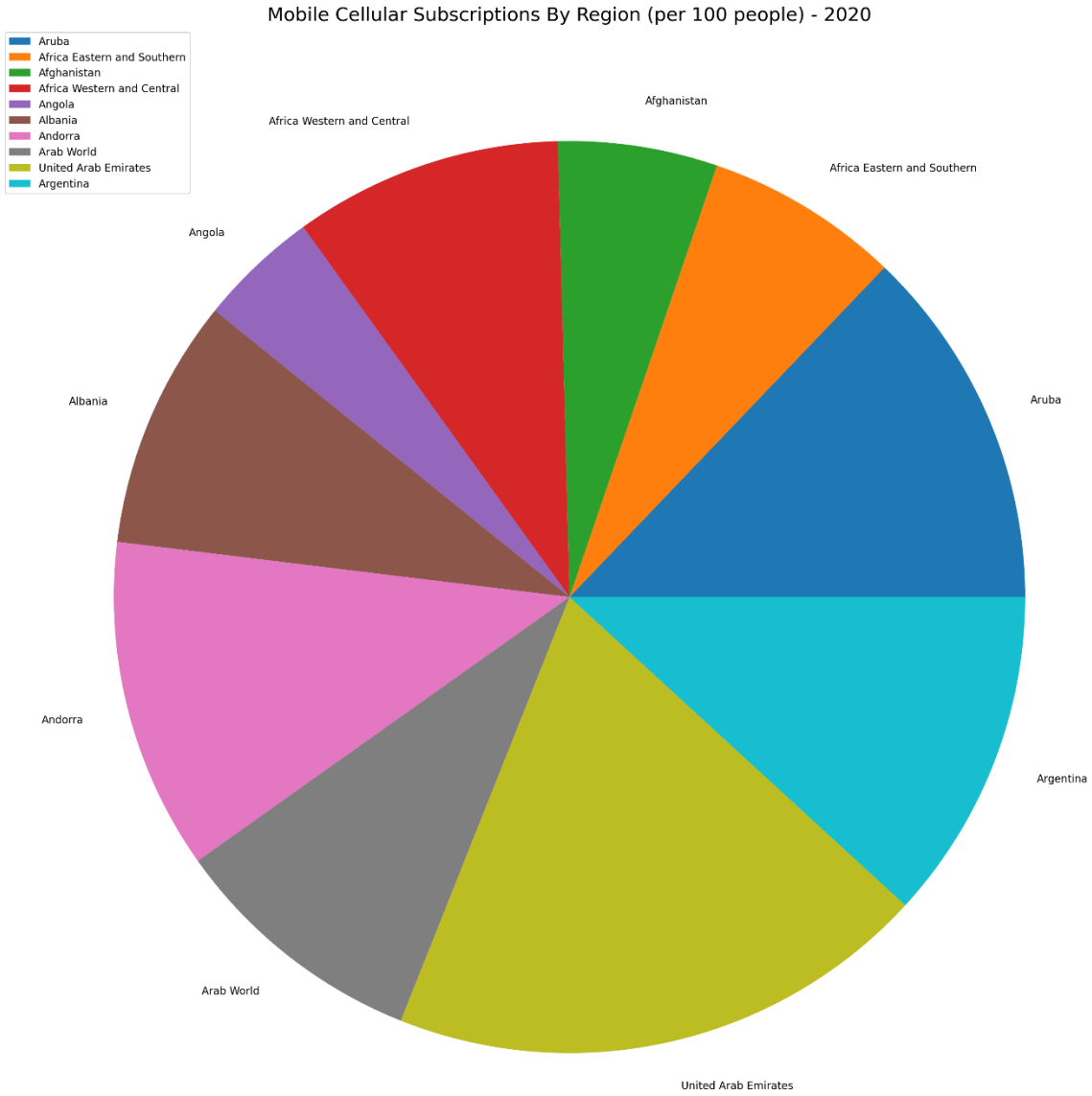
Pie graph are commonly used to display the distribution of a single variable across different categories. In the case of mobile cellular subscription by region, a pie graph can effectively show the proportion of mobile cellular subscriptions in each region. From pie graph we can easily compare the data for two years by just looking at the portion of the region. One can easily understand the change in the size of slice by looking at the graph. Also if you want to see for one year you can see which slice is bigger by just looking at the graph.

Explanation:

From the 2010 graph we can see that Argentina and UAE have more cellular subscription per 100 people than any other country. It can be seen that 4 countries (Angola, Africa Western and Central, Afghanistan, Africa Eastern and Southern) have low cellular subscription per 100 people than other countries.

From the graph 2020 it can be seen that there is increase in cellular subscription in the countries (Angola, Africa Western and Central, Afghanistan, Africa Eastern and Southern). It implies that people from these countries has started using more cellular subscription over the years.


Mobile Cellular Subscriptions By Region (per 100 people) - 2010
Aruba
Africa Eastern and Southern
Afghanistan
Africa Western and Central
Angola
Albania
Andorra
Arab World
United Arab Emirates
Argentina
Africa Western and Central
Afghanistan
Africa Eastern and Southern
Angola
Albania
Aruba
Andorra
Argentina
Arab World
United Arab Emirates


Mobile Cellular Subscriptions By Region (per 100 people) - 2020
Aruba
Africa Eastern and Southern
Afghanistan
Africa Western and Central
Angola
Albania
Andorra
Arab World
United Arab Emirates
Argentina
Afghanistan
Africa Western and Central
Africa Eastern and Southern
Angola
Aruba
Albania
Andorra
Argentina
Arab World
United Arab Emirates