

A dark blue vertical bar runs down the left side of the page. A blue arrow points to the right from this bar, containing the date.

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# Applied data science

Assignment - 1

Several thin, curved lines in dark blue and light grey originate from the bottom left corner and sweep upwards and to the right.

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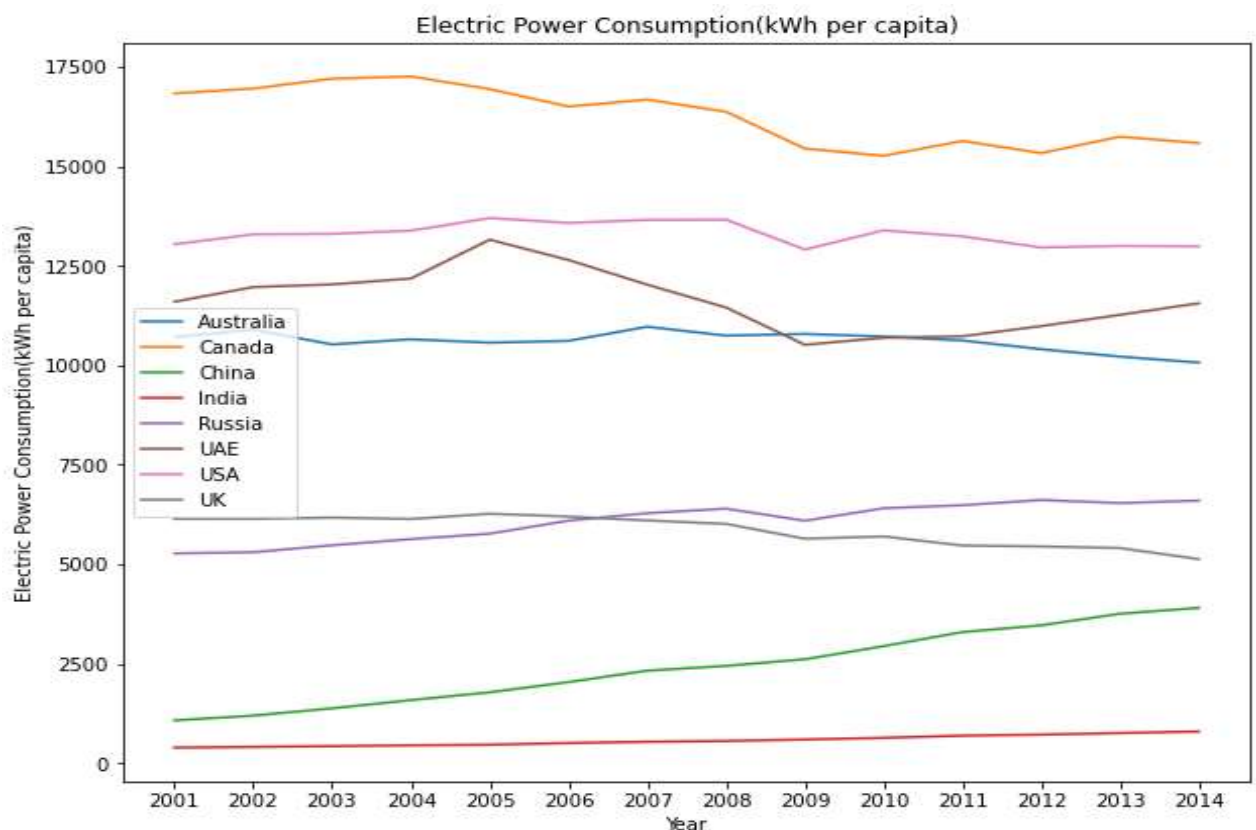
**Student ID:** 22022407

**Data Source:**

[https://drive.google.com/file/d/1haOwxP2Mo\\_WkIPlhwQngGbmd9h8vZTdO/view?usp=drivesdk](https://drive.google.com/file/d/1haOwxP2Mo_WkIPlhwQngGbmd9h8vZTdO/view?usp=drivesdk)

**Link to the Repo:** [https://github.com/MouliSirigiri/Electric\\_Power\\_Consumption.git](https://github.com/MouliSirigiri/Electric_Power_Consumption.git)

**Visualization 1: Electric Power Consumption (kWh Per Capita) Of 8 Countries**

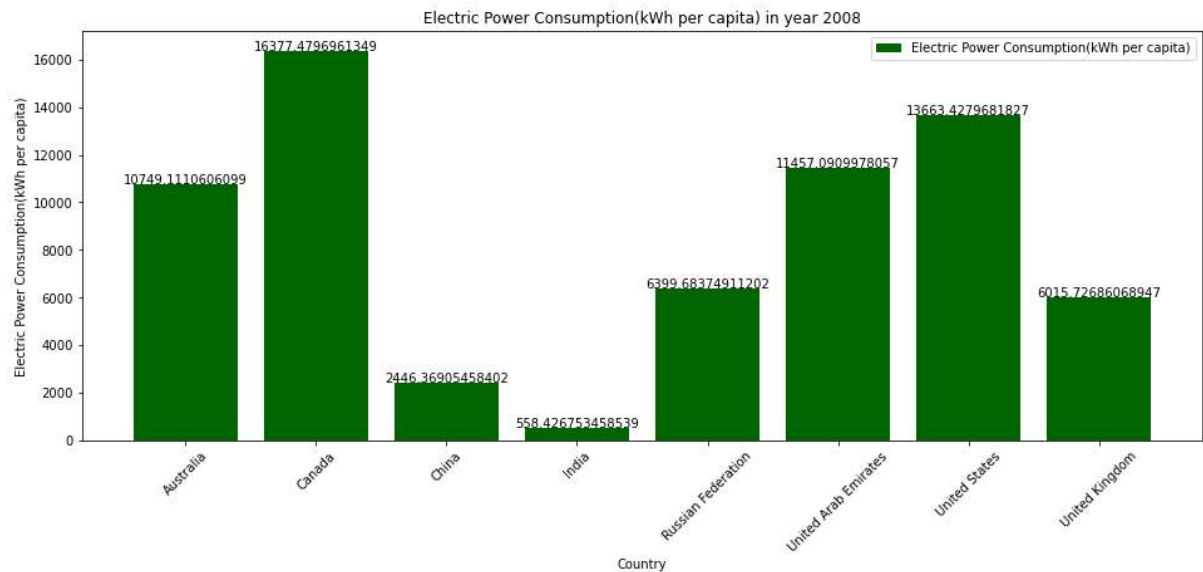


*Fig 1: A Line Plot for Electric Power Consumption (kWh Per Capita)*

A line plot is the best way to show the data of time series. The above graph shows the Electric Power consumption (kWh per capita) of 8 different countries.

From the graph above we can deduce that the power consumption of China has increased in 2014 when compared to 2001. The power consumption of all the remaining countries remains almost the same in the year 2014 when compared to 2001. There's only a small variation. On the other hand, Canada's consumption of electricity is more than all the other countries and India's consumption is lesser than all the other countries.

## visualization 2:

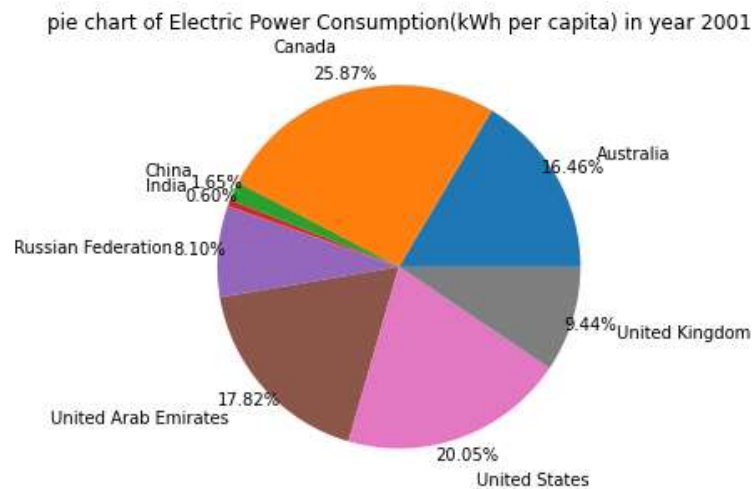


*Fig 3: A Bar Chart for Electric Power Consumption (kWh Per Capita) For the Year 2008*

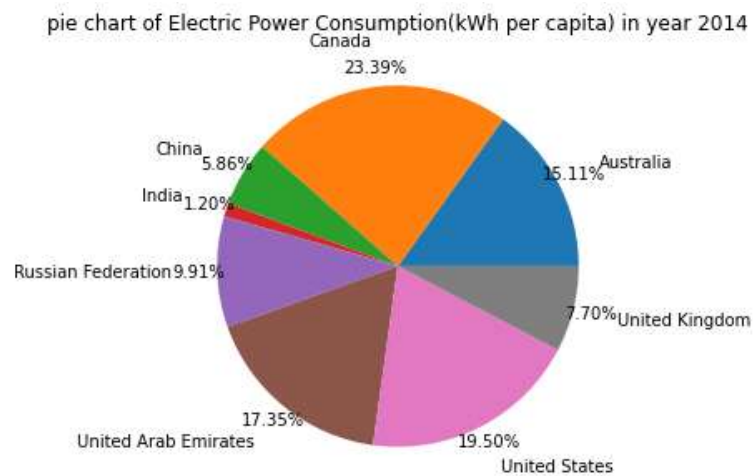
Another best and easiest way to represent data that is independent of each other is a bar chart.

From the above Fig 3 we can say that the country with the highest consumption of electricity in the year 2008 is Canada 16377.5 kWh per Capita and the second highest is USA. The country with the lowest electric consumption is India. And both Russia and the UK have almost the same consumption, Russia being slightly more than the UK.

### Visualization 3: Electric Power Consumption (kWh Per Capita) Of 8 Countries in The Year 2001 And 2014



*Fig 2.1: A Pie Chart for Electric Power Consumption (kWh Per Capita) For the Year 2001*



*Fig 2.1: A Pie Chart for Electric Power Consumption (kWh Per Capita) For the Year 2014*

For the next visualization I have chosen a Pie chart because it is one of the best ways to compare relative consumption of electricity. The above figs 2.1 & 2.2 show the power consumption of 8 countries in the years 2001 and 2014 respectively.

While countries like USA, United Kingdom, Australia, Canada, India, UAE and Russia's consumption have only a slight change in their energy consumption, China's consumption shows a notable change over a decade.