**Project Title** -

Global Investment in Renewable Energy:

Data Analysis and Visualization of Carbon Emissions, Renewable Energy Generation and Consumption by Country

**Team Members -**

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**GitHub Repository -**   
   
 <https://github.com/coreymcculley/Rice-Boot-Camp-Project-1>

**Project Description/Outline -**

This project is a global comparison of capital inflows and investment into renewable energy production and its consumption. Energy use will be compared to economic indicators (such as GDP, GDP per capita, PPP by country) as well as how investment compares to carbon emissions by country.

**Research Questions -**

1. What are the top 5 countries that have the highest percentage use of renewable energy by their power consumption annually?
2. Who are the 5 largest producers of carbon emissions annually?
3. How does the US vs EU+UK vs China compare in investment into renewables?
4. How does the past decade of investment compare to subsequent reduction in emissions?
5. How does the past decade of investment relate to the countries GDP per capita?
6. Is there a correlation in the price of West Texas Intermediate Crude (WTI) and the investment in renewable energy?

**Data Sets -**

1. <http://data.imf.org/GDP> - International Monetary Fund GDP data by Year  
   <https://data.imf.org/?sk=4c514d48-b6ba-49ed-8ab9-52b0c1a0179b&sId=1409151240976>
2. <https://fred.stlouisfed.org/series/DCOILWTICO> - WTI crude price with time database
3. <https://www.iea.org/data-and-statistics?country=WORLD&fuel=Energy%20supply&indicator=Total%20energy%20supply%20(TES)%20by%20source> - Data on each countries energy production by category with time
4. <https://www.irena.org/Statistics/View-Data-by-Topic/Finance-and-Investment/Renewable-Energy-Finance-Flows> - Investment Data
5. <https://www.iea.org/subscribe-to-data-services/energy-technology-rdd> - Energy RD&D
6. <https://www.iea.org/subscribe-to-data-services/co2-emissions-statistics> - CO2 Emmision data

**Rough Breakdown of Tasks -**

* Corey McCulley
  + Report Writing
  + Database cleaning
  + Statistical Analysis
* Alexander Riner
  + Database cleaning
  + Data Visualization
  + Statistical Analysis
* Chad Dubiel
  + Report Writing
  + Database cleaning
  + Data Visualization
* David Amado Martinez
  + Database cleaning
  + Data Visualization
* Gina Canales
  + Data finding
  + Presentation Creation and Finalization
  + Database cleaning