Project 1 Proposal – Group 17

1. **Introduction**
   a. Dataset is a summary of global renewable energy use from the years 2000-2020
   b. We chose this because we have a background in this field in our group and it is something that is personally interesting to us.
   c. https://www.kaggle.com/datasets/anshtanwar/global-data-on-sustainable-energy
2. **High level questions**
   a. How effective/efficient is foreign aid in developing countries for renewable energy?
   b. Are there any notable factors that would cause increases in a countries increase in adoption in renewable energy year over year?
      i. Comparing U.S., China, India, Australia, Germany, Brazil with this question
      ii. Renewables (% equivalent primary energy)
      iii. Comparing renewable energy usage to pollution
   c. Is there a correlation between GDP Growth and an increase in Renewables?
      i. This question can also be addressed if nations are dedicating more economic resources to developing renewable energy sources.
3. **Inspiration** - There has been a growing movement for an increase in use or Renewable energy in the world with the rise of climate change and increases in deadly and destructive weather events. Our goal with this project is to highlight the economic and environmental effects of using renewable energy sources and how developed nations can both benefit economically and help other nations develop sustainable energy solutions.
4. **Visuals**
   a. Map with geographical data for locations that we focus on in the presentation
      i. As sustainability changed over time – do year over year comparison? Or just do start year and end year
      ii. 2nd map? Could use geographical locations to include countries with more natural geographic/social/economic factors that would improve the output of renewable energy
   b. 1 hbar chart / 1 bar chart
      i. Use to examine countries usage over years with
      ii. Use to address GDP growth in comparison to renewables
   c. Donut chart – Country energy usage top 10 (renewable)
      i. Consider using for nuclear vs other renewable energy types
   d. 1 violin chart – use to address foreign aid question
   e. Scatter Plot - Low carbon energy
   f. Color Scheme
      i. https://coolors.co/2d3142-bfc0c0-ffffff-ef8354-4f5d75
5. **Liner Regression** - Energy consumption predictions compared to foreign aid and investment in developing countries.