**Project Title: Types of Cybersecurity Attacks on Credit Cards**

**Team Members:** Cory Lingerfelt, Gregory Smith, Kelly Carter, Sara Kleine-Kracht

**Project Description/ Outline**

The team will analyze credit card cybersecurity attack data to measure the level of impact across various demographics and parameters. The aim is to identify patterns that can support preventative action planning.

**Research Questions to Answer**

* Which credit card companies have the most cards hacked on average?
* What is the range of financial loss across various industries/ companies?
* What is the most common country of origin for attacks? Will show geographic heat map of countries of origin.
* What is the most common country for victims? Will show geographic heat map of victim locations.
* What is the average age of victims?
* What is the most common/ most successful malware type, on average?
* What, if any, correlation exists between victim age and malware type?
* What, if any, correlation exists between the credit card companies and financial loss?

**Datasets to be Used**

* <https://www.kaggle.com/datasets/teamincribo/credit-card-fraud>
* <https://www.consumerfinance.gov/data-research/consumer-complaints/>
* <https://github.com/Virus-Samples/Malware-Sample-Sources>
* More TBD

**Rough Breakdown of Tasks**

* **All**
  + Research datasets
  + Clean data and perform analysis of datasets
* **Kelly**
  + **Owner of github repo**
  + **Primarily analzying:** 
    - What, if any, correlation exists between the credit card companies and financial loss?
* **Greg**
  + **Primarily analyzing:** 
    - What is the most common country of origin for attacks? Will show geographic heat map of countries of origin.
    - What is the most common country for victims? Will show geographic heat map of victim locations.
* **Sara**
  + **Will create draft ppt template**
  + **Primarily analyzing**
    - What is the average age of victims?
    - What is the most common/ most successful malware type, on average?
    - What, if any, correlation exists between victim age and malware type?
* **Cory**
  + **Primarily analyzing:** 
    - Which credit card companies have the most cards hacked on average?
    - What is the range of financial loss across various industries/ companies?