A/B Testing

Suggesting better implementation plan

Modular Architecture:

Design the framework with a modular architecture consisting of several components: **Bandit Algorithms, Experimentation Module, Data Logger, and Visualization and Reporting**. Each component will perform specific functionality and be responsible for a single principle.

> **Bandit Algorithms**: Implement bandit algorithms, including Epsilon Greedy, Thompson Sampling, and any other custom algorithms. Each algorithm can be implemented as a class within this module.
> **Experimentation Module**: Develop an experimentation module responsible for orchestrating experiments, running trials, and passing the results to the Data Logger module. This module will manage parameters such as the number of trials, the duration of each trial and etc..
> **Data Logger:** This module will receive data from the experimentation module and store them in the appropriate folder.
> **Visualization and Reporting**: Create a Visualizer component to generate visualizations of experiment results, including cumulative rewards, regret curves, and bandit performance over time. Implement reporting functionality to summarize key metrics such as average reward, regret, and confidence intervals.