

## DATS 6101 Project Proposal

**Team No: 3**

**Team Member Names:**

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**Description and SMART Questions**

Rising global temperatures pose significant challenges to vulnerable communities across the globe. In the first phase of our project, our team examined surface temperature trends from 1750-present, as well as temperature trends across regions and time periods. In project 1, our team modeled this change based on predictor variables such as energy and renewable energy use, forested area, and CO2 emissions. In phase 2 of the project, we will expand our analysis to build the optimal model describing climate change using feature selection and time series modeling. In our modeling for our predictive SMART questions, we will utilize decision trees as well. The following questions will be answered using our original data sources from Kaggle and the World Bank.

1. What is the optimal model for predicting surface temperatures?
2. What are the predicted temperature trends over the next century? How do these vary by region?

**Data Source**

The dataset used for this project has more than 50,000 observations spanning from 1750-present and is sourced from

<https://www.kaggle.com/berkeleyearth/climate-change-earth-surface-temperature-data>

World Bank Indicators:

<https://data.worldbank.org/indicator>

**Git Usage**

All work progress will be committed to GitHub at

<https://github.com/BABAYEGAR/DATS6101-TEAM3-CLIMATE.git>