

# **Factors Influencing Hurricane Intensity.**

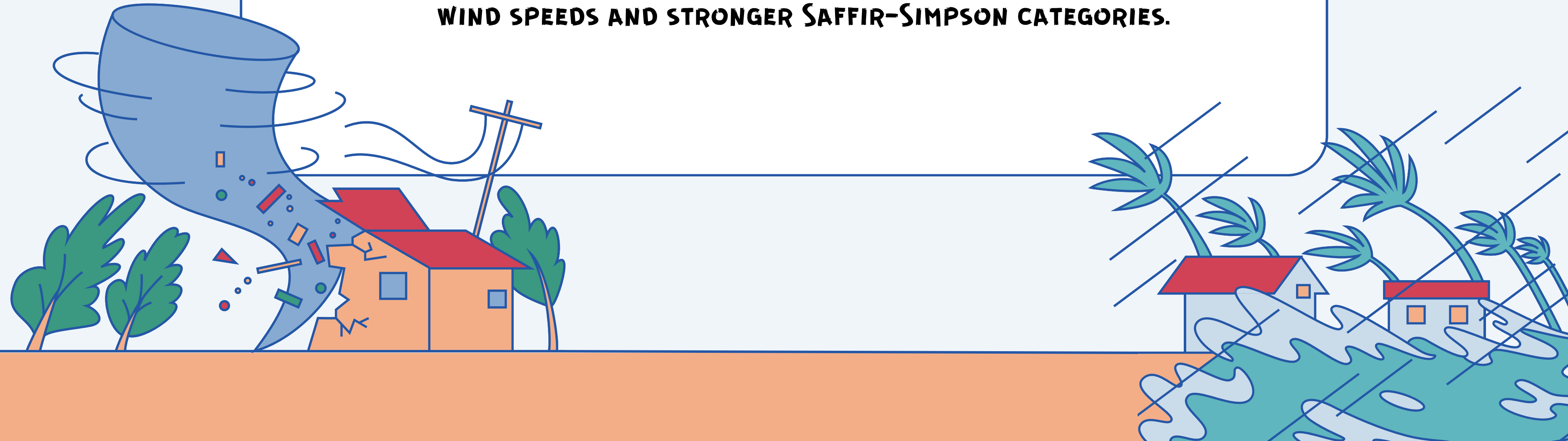


Data Science Project  
Team 2

# Introduction

**OBJECTIVE: INVESTIGATE HOW ATMOSPHERIC PRESSURE INFLUENCES HURRICANE INTENSITY**

**HYPOTHESIS: HURRICANES WITH LOWER CENTRAL PRESSURE HAVE HIGHER MAXIMUM WIND SPEEDS AND STRONGER SAFFIR-SIMPSON CATEGORIES.**



# Dataset Overview

## Key Features

Wind speed

Pressure

Latitude

Category

Temporal data

Longitude



# Methodology

## Exploratory Data Analysis (EDA)

- Scatter plots of pressure vs. wind speed
- Trends across categories

## Statistical Models

1. MLinear Regression
2. Bayesian Linear Regression



# Results

## EDA HIGHLIGHTS

Strong negative correlation between pressure and wind speed.

High wind speeds predominantly in lower pressure regions.

## MODEL

Multiple/Simple Linear Regression  
 $R^2$ : [Value to be calculated]

## MODEL

Bayesian Linear Regression  $R^2$ : [Value to be calculated]