

# PROGNOSIS OF SEA LEVEL DYNAMICS



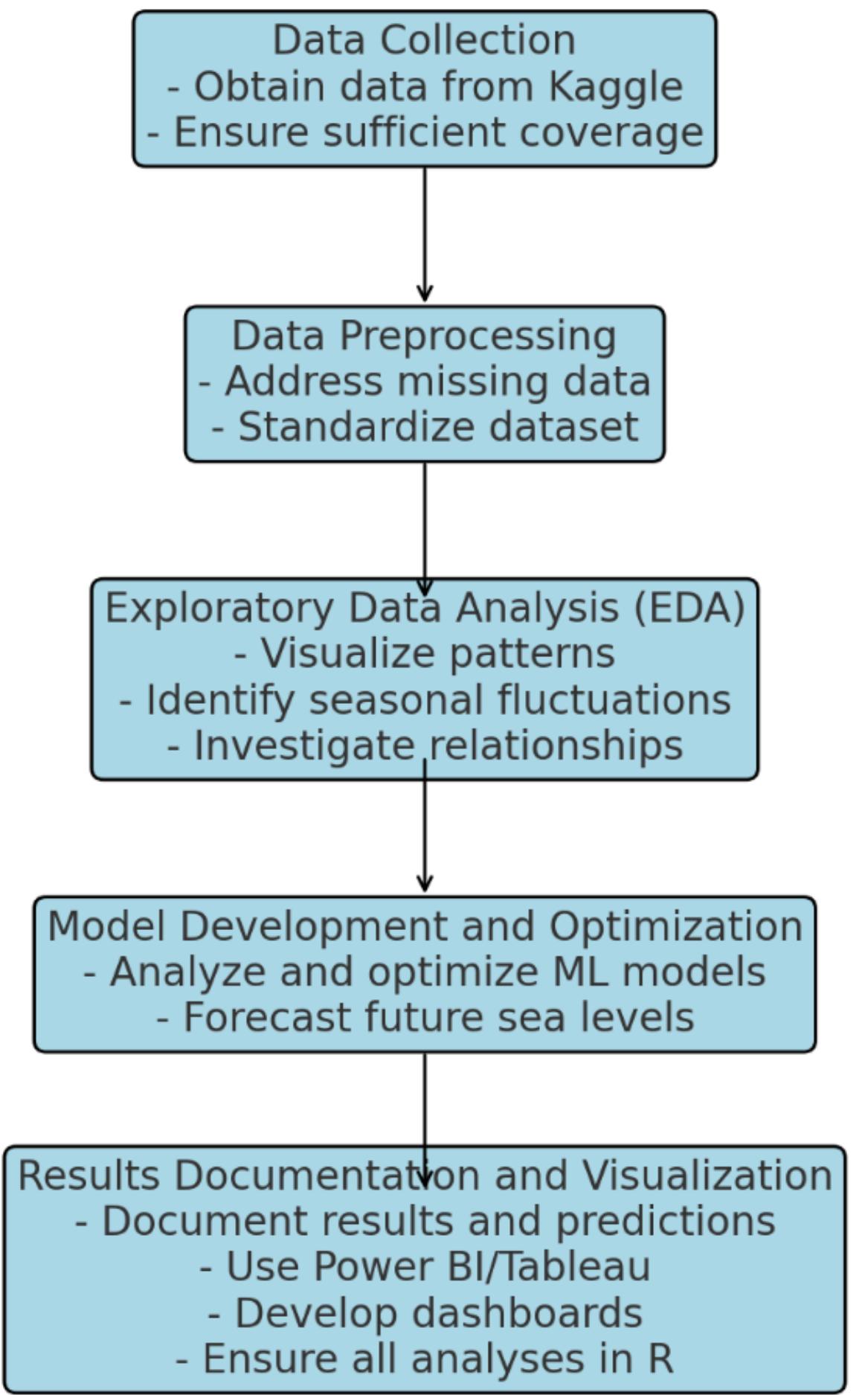
# O B J E C T I V E

- Realization of sea level rise is a result of climate change which has been identified. Thus calling for accurate predictions especially for regions that experience coastal spills.
- We aim to develop a regression analysis model for sea level activity in certain zones with the help of historical data and use specified patterns to predict the future trend.
- We are also evaluating the extent to which such areas there could be floods or, conversely, how ready they are based on the predictions.

- Our project aims to test the for future projection of sea level changes using machine learning models.
- We are also gathering historical sea level records of several areas, preprocessing the data and perform Exploratory Data Analysis to look for patterns that existed.
- The next step is to select and fit machine learning models and recognize the best predictors. We can also predict the future changes of sea level and its impact on the regions covered.
- Finally we aim to post the findings in Power BI or Tableau, to make graphical representations of the forecasted outcomes as clear as possible.

STRATEGY

# FLOWCHART



- Assess the performance of trained ML algorithms to measurement tools such as RMSE and MAE for reliability of prediction.
- Interact with the audience through the use of varied information which includes; line chart of the past sea levels and the predicted future trends using Power BI and Tableau.
- To predict the impact on the regions and how the sea level rise may affect those regions economically and geographically.
- We can also visualize and predict about various other climatic conditions that may occur due to this sea level rise.

Output

**R  
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[http://www.tiutic.org/pdf/vol-III/Vol3\\_Article%201.pdf](http://www.tiutic.org/pdf/vol-III/Vol3_Article%201.pdf)

<https://www.nature.com/articles/s41598-021-87460-z>

<https://www.sciencedirect.com/science/article/abs/pii/S0277379104000526>

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