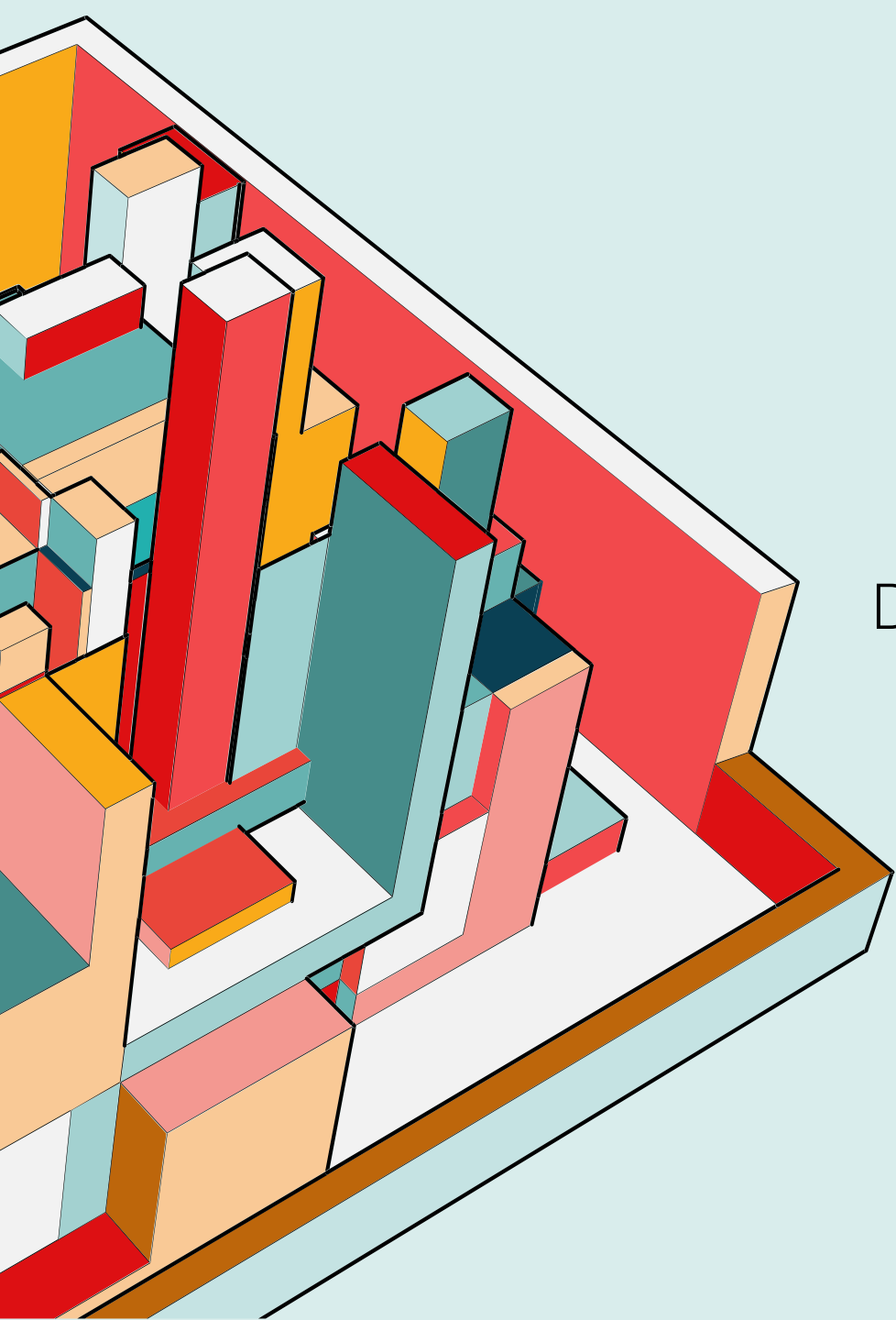


Diabetes Diagnosis from Early ICU Data

Project By,

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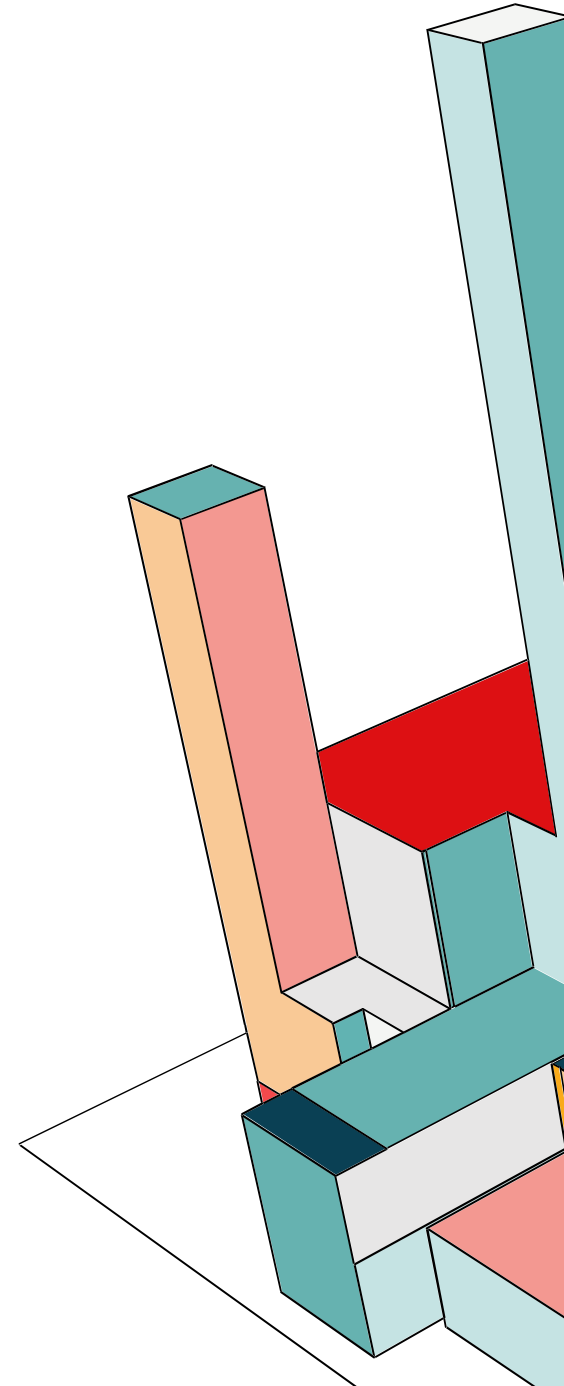


GOAL

Diagnosing diabetes mellitus in patients admitted to ICU based on preliminary clinical data

WHY?

- Knowledge of diabetes status affects treatment strategies
- Medical records of admitted patients may not be immediately available.
- Patient may be unconscious or shocked to speak anything.
- Patient may not be aware of his diabetic condition
- Hence, early prediction by ML models can improve patient treatment strategies and outcomes.

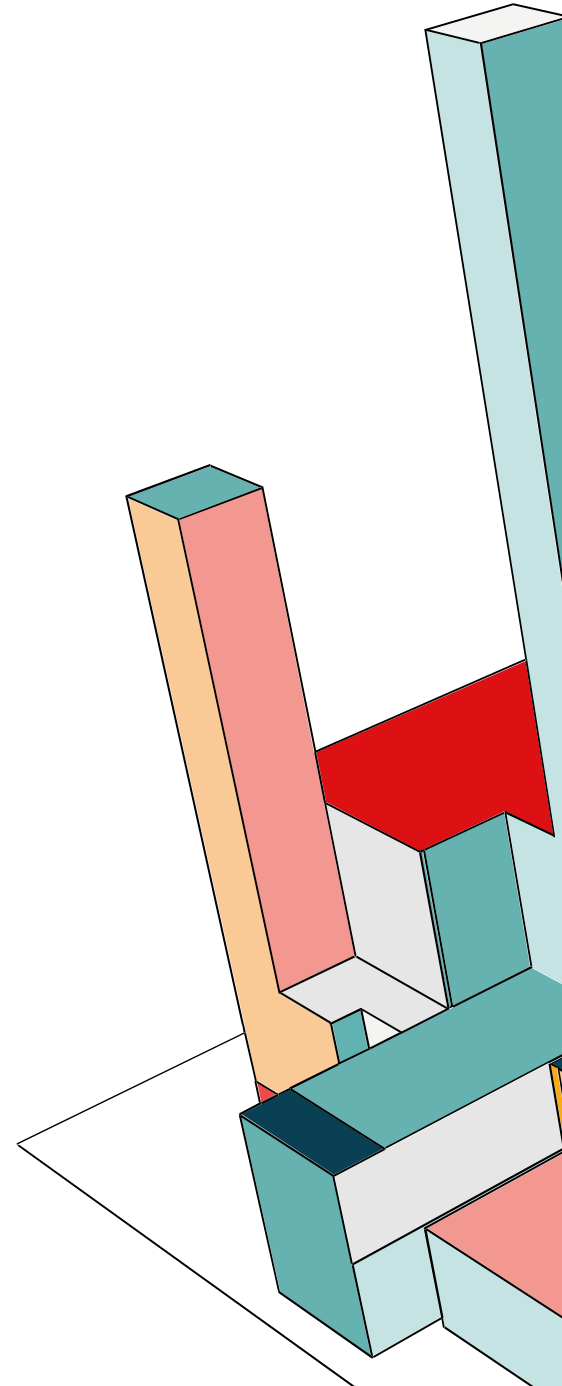


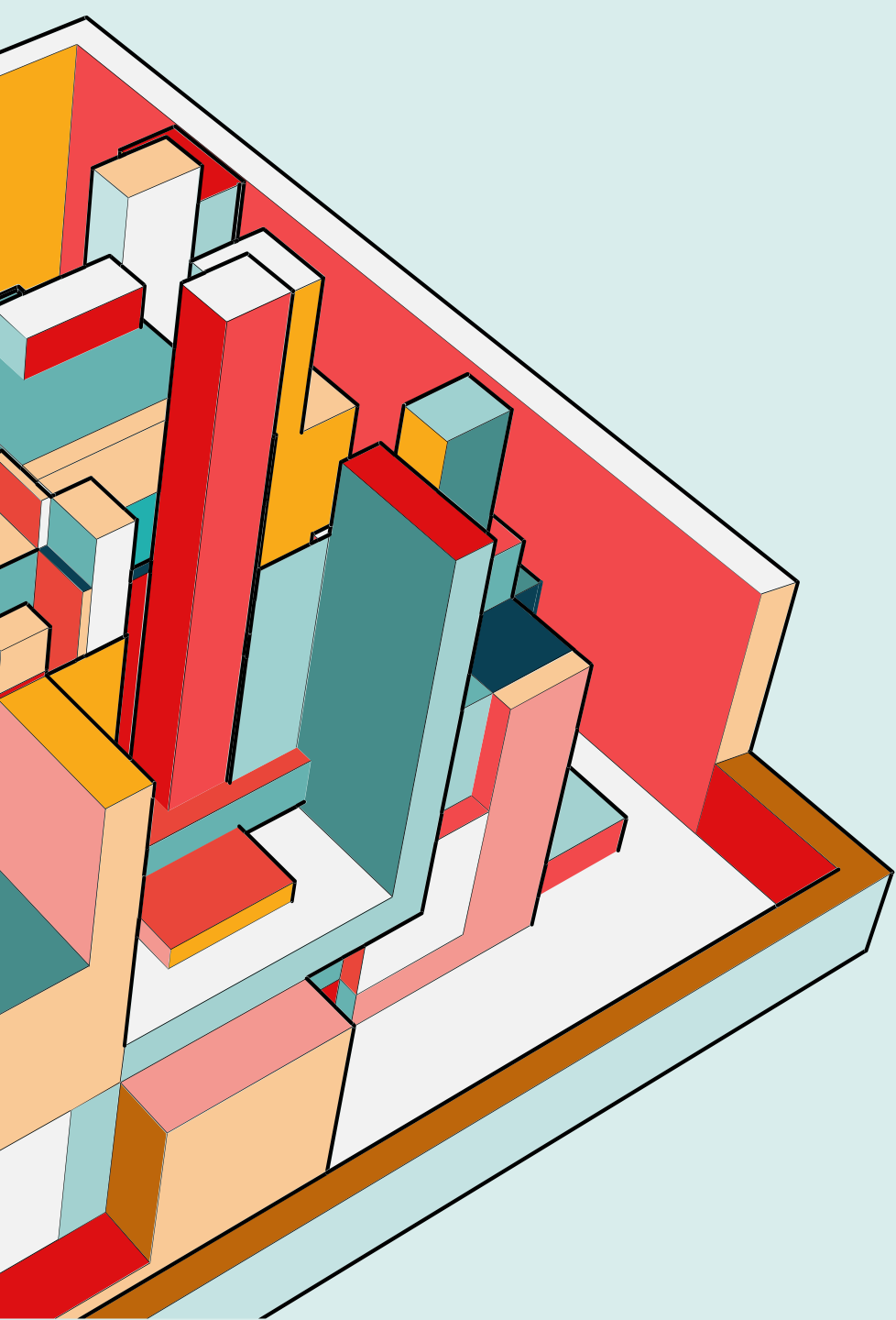
REASONS FOR SELECTING THE DATASET

- It is a real-life dataset, plagued with numerous issues like
 - missing data,
 - redundant data,
 - erroneous data,
 - data imbalance, etc.

Hence, extensive preprocessing is required before building models.

- The dataset was a part of Wids Datathon competition
- Understanding use of ML in solving real life problems





NEXT

Let us now proceed to the notebook for
Analysis



CHALLENGES FACED

- Understanding medical terminologies and dataset features was a challenge due to a lack of medical domain knowledge.
- Dataset has large number of missing values, hence determining the best approach to fill the missing values was a challenge.
- Dataset has 180 features, managing them was a challenge.
- After oversampling, training models was a challenge especially using nFold Cross-validation.
- Determining the best hyperparameters to maximize the model's performance on the given dataset. Training models was a time exhaustive process and determining best combination of hyper-parameters added to the time complexity.

THANK YOU

