

## Model Optimization and Tuning Phase Template

Date	15 March 2024
Team ID	740048
Project Title	Air Quality Index Analyzer Using ML
Maximum Marks	10 Marks

### Model Optimization and Tuning Phase

The Model Optimization and Tuning Phase involves refining machine learning models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

#### Hyperparameter Tuning Documentation (6 Marks):

Model	Tuned Hyperparameters	Optimal Values
Model 1	Hyperparam1, Hyperparam2, ...	Value1, Value2, ...
Model 2	Hyperparam1, Hyperparam2, ...	Value1, Value2, ...
...	...	...

#### Performance Metrics Comparison Report (2 Marks):

Model	Baseline Metric	Optimized Metric
Model 1	Baseline value	Optimized value

Model 2	Baseline value	Optimized value
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**Final Model Selection Justification (2 Marks):**

Final Model	Reasoning
Model 1 (or other)	Explanation of why this model was chosen as the final optimized model