



## **Model Optimization and Tuning Phase Template**

Date	July 2024
Team ID	Team-739774
Project Title	Cereal analysis based on ratings by using mechine learning techniques
Maximum Marks	10 Marks

## **Model Optimization and Tuning Phase**

The Model Optimization and Tuning Phase involves refining neural network 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 (8 Marks):**

Model	Tuned Hyperparameters	
Linear Regression Model	LINEAR REGRESSION MODEL    from sklearn.linear_model import LinearRegression	
R2_Score Model	R2_SCORE MODEL  ] from sklearn.metrics import r2_score r2_score(y_test,lr_pred)  \$\frac{1}{2}\$ 0.999999999999999999999999999999999999	





## **Final Model Selection Justification (2 Marks):**

Final Model	Reasoning	
Random Forest	<pre>complex datasets high predictive ac  lr_pred = lr.predict(x_test)  lr_pred  array([[29.92428517],</pre>	1 yz = 1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0