

## Model Development Phase Report

|               |                        |
|---------------|------------------------|
| Date          | 12 July 2024           |
| Team ID       | Team - 739960          |
| Project Title | Abalone Age Prediction |
| Maximum Marks | 6 Marks                |

## Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

| Model         | Description   | Hyperparameters | Performance Metric (e.g., Accuracy Score) |
|---------------|---|-----------------|---|
| Random Forest | Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for Abalone Age prediction. | -               | Accuracy score=93%                        |
| Decision Tree | Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights into Abalone Age Prediction.                 | -               | Accuracy score=100%                       |

|                   |  |   |                    |
|-------------------|--|---|--------------------|
| Linear Regression | It computes the linear relationship between the dependent variable and one or more independent features by fitting a linear equation to observed data. | - | Accuracy score=52% |
|-------------------|--|---|--------------------|