

## Model Development Phase Template

Date	7th July 2024
Team ID	739719
Project Title	Garment Workers Productivity Predictions
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 or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

### Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
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Model 1  Linear regression	Predict productivity using regression with worker experience, machine utilization, and order complexity.	<ol style="list-style-type: none"> <li><b>FitIntercept:</b> Determines if the model should calculate the intercept b.</li> <li><b>Normalize:</b> Scales the features to have unit norm (if set to <b>True</b>).</li> <li><b>Solver:</b> Algorithm used to solve the optimization problem</li> </ol> <p>'auto': Automatically selects the best solver based on the data.  'svd': Singular Value Decomposition.  'cholesky': Cholesky decomposition.  'lsqr': Least squares solution.</p>	0.34
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Model 2 Randomforest Regression	Random Forest regression is a powerful machine learning technique that leverages the strengths of ensemble learning and decision trees for regression tasks	<p><b>n_estimators:</b> Number of trees in the forest. Increasing this can improve performance but also increase computation time.</p> <p><b>max_features:</b> Number of features to consider when looking for the best split. Higher values can lead to more complex models, while lower values can prevent overfitting.</p> <p><b>max_depth:</b> Maximum depth of each tree. Limiting this can prevent overfitting and reduce model complexity.</p>	0.45