**Model Development Phase Template**

|  |  |
| --- | --- |
| Date | 7th July 2024 |
| Team ID | 739719 |
| Project Title | Garment Workers Productivity Predictions |
| Maximum Marks | 5 Marks |

**Model Selection Report**

In the model selection report for **b**riefly state the goal of predicting garment workers' productivity and the importance of selecting the optimal model.and report, including the models considered and evaluation criteria.

Choose ARIMA for its robust performance in forecasting hourly productivity fluctuations, leveraging fatigue levels and task types effectively. ARIMA outperformed linear regression in accuracy and ability to capture temporal dependencies, essential for optimizing workforce management.

**Model Selection Report:**

|  |  |
| --- | --- |
| **Model** | **Description** |
| Model 1  Linear regression | Predict productivity using regression with worker experience, machine utilization, and order complexity. |
| 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 |