**Project Initialization and Planning Phase**

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| Date | 5 July 2024 |
| Team ID | 739719 |
| Project Title | Garment Workers Productivity Predictions |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project proposal outlines a solution to define scope, gather requirements, plan resources, and assess risks for developing a predictive model.the activities are Kickoff meeting, requirements gathering, project planning, and risk assessment.Project charter, WBS, project plan, and risk management plan.

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| **Project Overview** | |
| Objective | To boost garment worker productivity through technology integration, predictive analytics, and process optimisation |
| Scope | integrating advanced technologies, predictive analytics, and lean processes to enhance productivity, quality, and worker satisfaction in garment manufacturing. |
| **Problem Statement** | |
| Description | Garment manufacturing struggles with low productivity, inconsistent quality, and poor worker morale due to inefficient processes and lack of modern technology integration. |
| Impact | To reduced productivity, lower product quality, and diminished worker morale, leading to operational inefficiencies and competitive disadvantages in garment manufacturing |
| **Proposed Solution** | |
| Approach | Develop a machine learning model using worker attributes, task details, and environmental factors to predict garment workers' productivity. |
| Key Features | Worker attributes (such as experience and skill level), task complexity, and environmental conditions (like temperature and noise levels). |

**Resource Requirements**

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| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** | | |
| Computing Resources | High-performance CPU/GPU for efficient model training | e.g., 2 x NVIDIA V100 GPUs |
| Memory | Sufficient RAM to handle large datasets and model computations | e.g., 16 GB |
| Storage | Adequate disk space for storing data, models, and logs | e.g., 2 TB SSD |
| **Software** | | |
| Frameworks | Python machine learning frameworks | e.g., Tensorflow,PyTorch |
| Libraries | Statistical and machine learning libraries | e.g., scikit-learn,pandas |
| Development Environment | IDE, version control | e.g., Jupyter Notebook, Git |
| **Data** | | |
| Data | Source, size, format | e.g., Kaggle dataset, 10,000 images |