FINAL REPORT

GARMENT WORKER PRODUCTIVITY PREDICTION

TEAM:

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1. Introduction

    a. Project overviews:

    The garment industry is one of the largest industries in the world, and garment worker productivity is a crucial factor in determining the success and profitability of a company. In this project, we aim to develop a machine learning model that predicts the productivity of garment workers based on a given set of features. Our dataset contains information on various attributes of garment production, including the quarter, department, day, team number, time allocated, unfinished items, over time, incentive, idle time, idle men, style change, number of workers, and actual productivity. We will use this dataset to train and evaluate our predictive model.

    The development of an accurate garment worker productivity prediction model using machine learning can have significant implications in various domains, including manufacturing, human resources, and supply chain management. This model can help companies identify the factors that affect worker productivity and take corrective actions to improve efficiency, reduce costs, and enhance their competitiveness in the market.

    Technical Architecture:
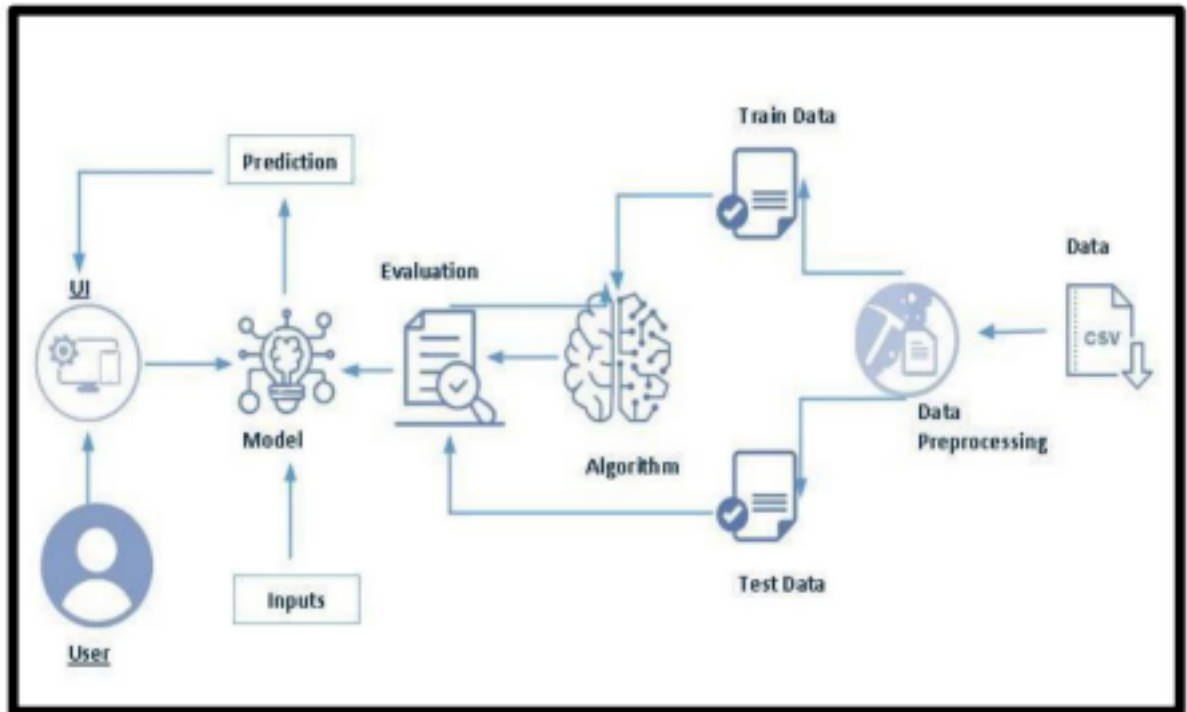
b. Objectives:

Define Problem / Problem Understanding

- Specify the business proble,

> Business requirements
> Literature Survey
> Social or Business Impact

Data Collection & Preparation

- Collect the dataset

- Data Preparation

Exploratory Data Analysis

- Descriptive statistical

- Visual Analysis

Collect the dataset

- Training the model in multiple algorithms

- Testing the model

Performance Testing & Hyperparameter Tuning

- Testing model with multiple evaluation metrics

- Comparing model accuracy before & after applying hyperparameter tuning

Model Deployment

- Save the best model

- Integrate with Web Framework

Project Demonstration & Documentation

- Record explanation Video for project end to end solution

- Project Documentation-Step by step project development procedure