Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	26 October 2023
Team ID	592923
Project Name	Garment Woker Productivity Prediction
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

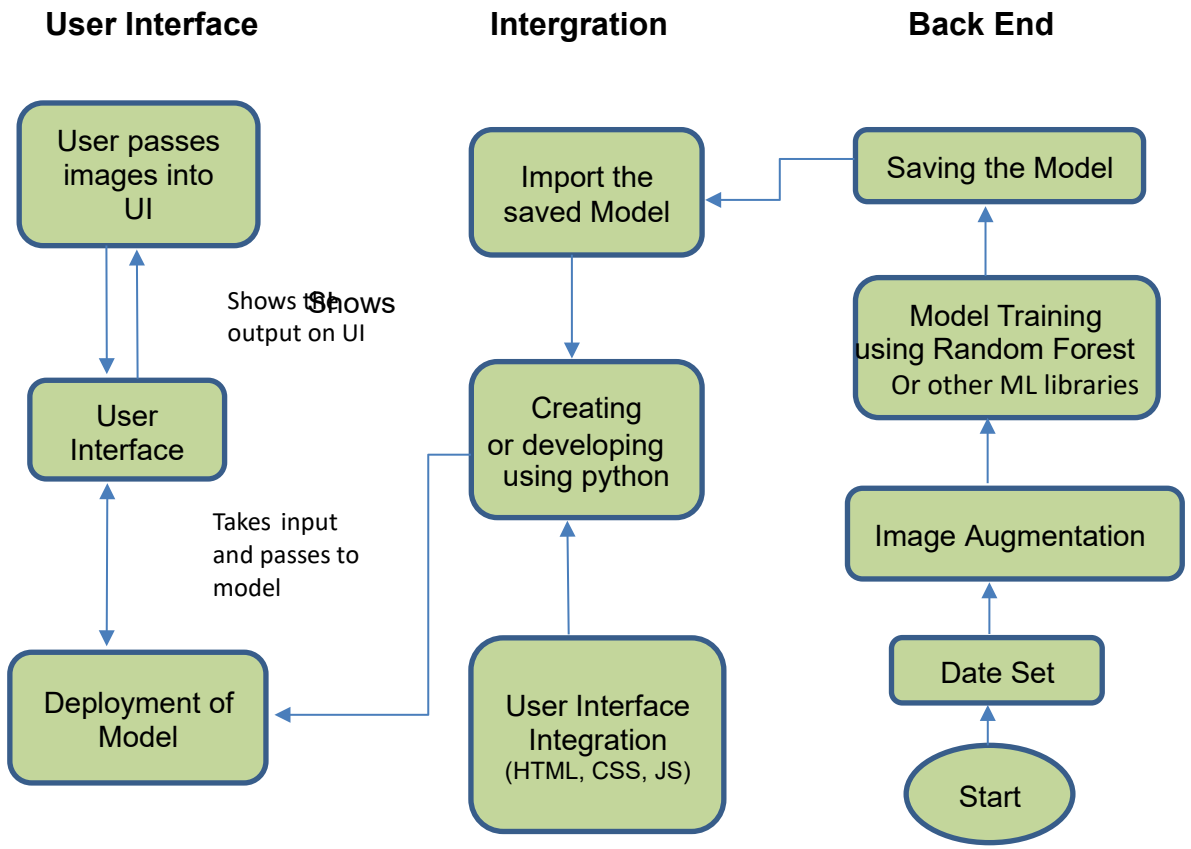

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The graphical interface for user interaction and model input.	HTML, CSS, JavaScript
2.	Application Logic-1	Implements the application logic for user interactions, handles requests from the UI, and processes inputs.	Python ,JavaScript
3.	Database	Stores and manages data related to garment production attributes.	Csv File and images
4.	File Storage	Manages storage of files, such as dataset files or model weights.	Local Filesystem ,Cloud Storage
5.	Frame Work	Provides tools and utilities for developing, training, and deploying machine learning models	Scikit-learn, TensorFlow, PyTorch, XGBoost
6.	Machine Learning Model	Implements a machine learning model for predicting garment worker productivity.	Scikit-learn, XGBoost, RandomForest, or other ML libraries

Table-2: Application Characteristics:

S.No	Component	Description	Technology
1.	Open-Source Frameworks	Utilizes frameworks that are open-source, fostering collaboration and flexibility.	Google Colab, Jupyter Notebook,VS Code
2.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	TensorFlow and Pytorch
3.	Availability	Ensures high availability with minimal downtime and robust fault tolerance.	Redundant servers, Failover mechanisms, Cloud-based infrastructure
4.	Performance	Optimized for efficient and responsive operation under varying workloads.	Caching mechanisms, Load balancing, Performance monitoring tools