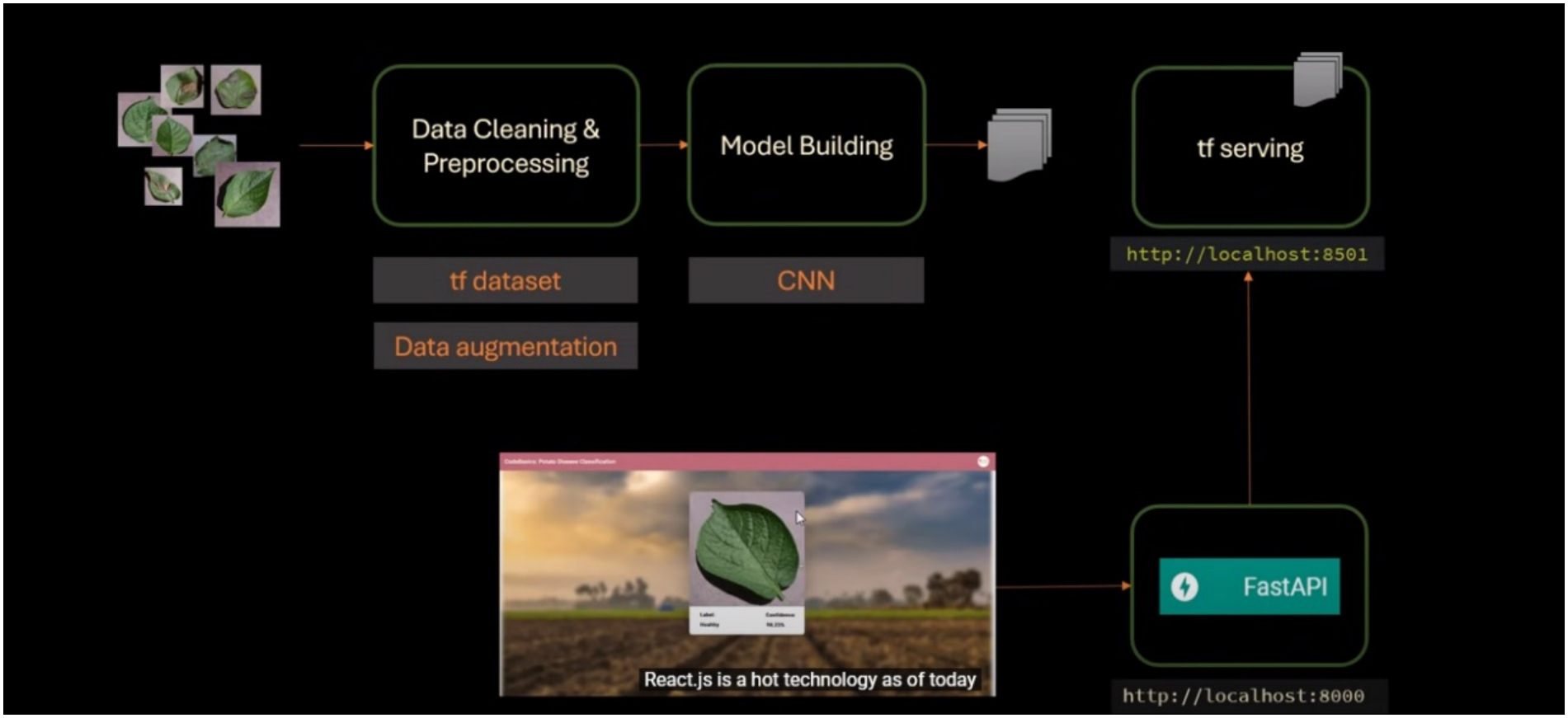
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 November 2023
Team ID	Team-592967
Project Name	Project - Potato Disease Classification
Maximum Marks	4 Marks

Technical Architecture:



S.No	Component	Description	Technology
1.	User Interface	How users interact with the application. - Web UI: HTML, CSS, JavaScript, React Js, Angular Js - Mobile App: React Native, Flutter, Swift (for iOS), Kotlin (for Android)	Web UI, Mobile App
2.	Application Logic-1	Core application logic for processing images.	Python (TensorFlow, PyTorch)

3. Application Logic-2 Speech-to-Text logic for converting voice commands. IBM Watson Speech to Text Service

4. Application Logic-3 Chatbot logic for user interaction. IBM Watson Assistant

5. Database Storage for application data. MySQL, MongoDB (NoSQL)

6. Cloud Database Cloud-based database service. IBM Db2 on Cloud, IBM Cloudant

7. File Storage File storage requirements for images and data. IBM Object Storage, Local Filesystem

8. External API-1 Fetching real-time weather data for analysis. IBM Weather API

9. External API-2 Integration with external services (e.g., Aadhar). Aadhar API

10. Machine Learning Model Model for potato disease classification. Custom CNN (Convolutional Neural Network) model or pre-trained model (e.g., MobileNet, ResNet)

11. Infrastructure (Server/Cloud) Deployment Configuration:

Local Server Configuration: Local development environment for testing. Local Server (e.g., Flask development server)

Cloud Server Configuration: Cloud deployment for scalability.
- Cloud Foundry, Kubernetes on IBM Cloud, AWS, Azure, or Google Cloud Platform

S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use	Technology used

		of load balancers, distributed servers etc.)	
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

References: