

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

Date	11 May 2023
Team ID	NM2023TMID22530
Project Name	Deep Learning Mode2023I for Detecting diseases in Tea Leaves

**Technical Architecture:**

**Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	Web UI, can be also used in mobile phones	HTML, CSS, JavaScript,php
2.	Training the model	Training the deep learning application using the database	Python
3.	Integrating the application	The model was integrated inside the flask application	Flask app
4.	Database	The database used for training is taken from kaggle	Kaggle
5.	Cloud Database	Database Service on Cloud	IBM Cloud services
6.	File Storage	The files are stored using IBM Block storage	IBM Block Storage
7.	Deep Learning Model	Purpose of this Deep Learning Model is to classify crimes correctly	Object Recognition Model.
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System	Local system

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
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:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>