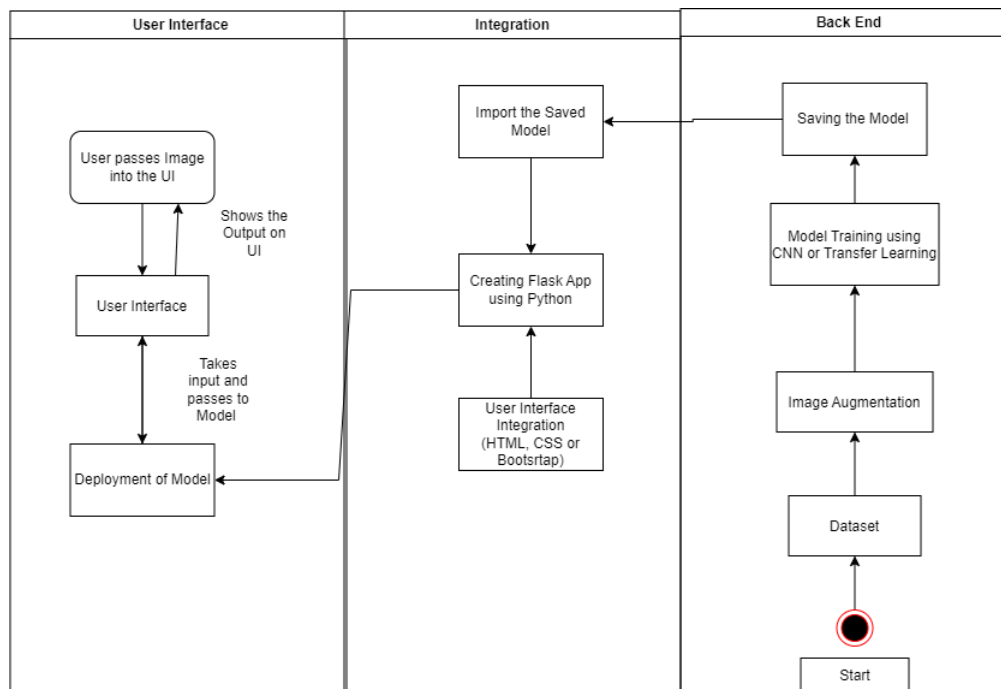


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	26-10-2023
Team ID	592597
Project Name	COVID-19 DETECTION USING DEEP LEARNING
Maximum Marks	4 Marks

### Technical Architecture:



**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python
3.	Database	Collect the Dataset Based on the Problem Statement	File Manager,MySQL
4.	File Storage/ Data	File storage requirements for Storing the dataset	Local System, Google Drive
5.	Frame Work	Used to Create a web Application, Integrating Frontend and Back End	PythonFlask, Django
6.	Deep Learning Model	Purpose of Model	CNN, Transfer Learning, etc.
7.	Infrastructure(Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Image Classification and Interpretability:	Identifying COVID-19 in medical images with explainable AI.	CNNs, pre-trained models,interpretability tools
2.	Scalability and Interoperability:	Scaling the system and seamless integration with healthcare platforms.	Cloud, containers, APIs, and interoperability standards.
3.	Data Security and Compliance:	Protecting patient data and adhering to healthcare regulations.	Encryption, access controls, compliance tools
4.	Continuous Monitoring and Collaboration:	Ongoing model evaluation and healthcare expert involvement.	Monitoring tools, automation, and secure collaboration platforms.

S.No	Characteristics	Description	Technology
5.	Ethical & Transparent AI	Addressing ethics and maintaining transparency in healthcare AI	Ethical guidelines, expert input, and thorough documentation.

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#### References:

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

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