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

Date	20 November 2023
Team ID	Team-592436
Project Name	Advanced Crime Classification using DL
Maximum Marks	4 Marks

Technical Architecture:

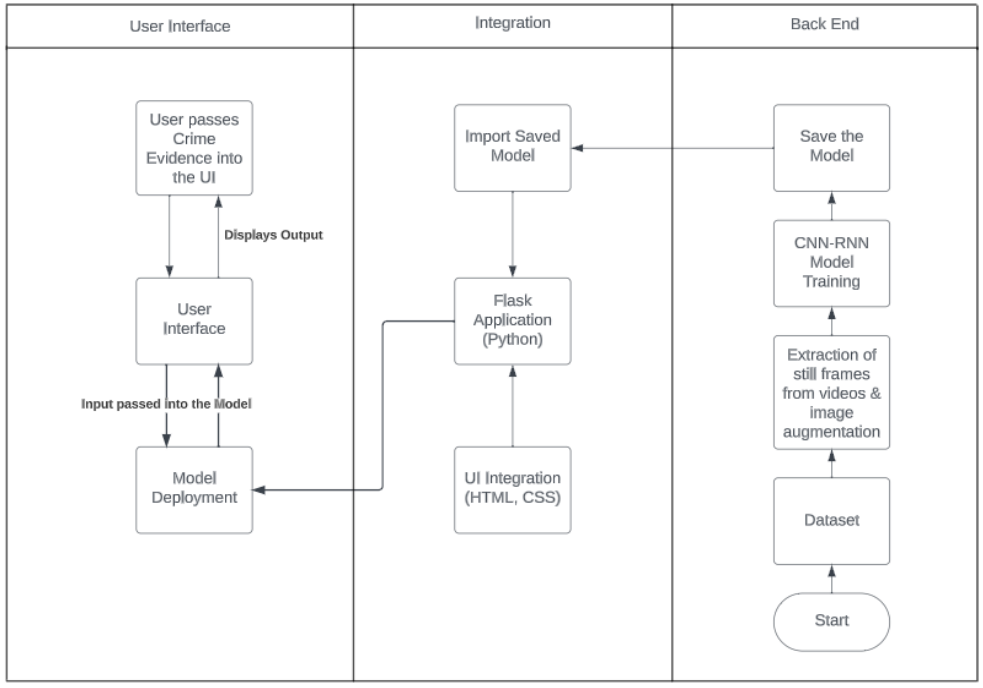

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the 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, NoSQL, etc.
4.	File Storage/ Data	File storage requirements for Storing the dataset	Local System, Google Drive, etc.
5.	Frame Work	Used to Create a web Application, Integrating Frontend and Back End	Python Flask
6.	Deep Learning Model	Purpose of Model	CNN, RNN, Transfer Learning, etc.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python's Flask
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)	Microservices run by Kubernetes Engine (GKE), Cloud Run, etc.
4.	Availability	Justify the availability of the application (e.g. use of load balancers, distributed servers, etc.)	Google Cloud Load Balancing, Google Cloud Spanner, etc.

S.No	Characteristics	Description	Technology
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDNs), etc.	Google Cloud CDN, Cloud Memorystore for Redis as a caching solution, etc.

References:

https://c4model.com/

https://www.leanix.net/en/wiki/ea/technical-architecture

https://aws.amazon.com/architecture

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