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

Date	19 - november -2023
Team ID	Team-591920
Project Name	Project - Image Caption Generation
Maximum Marks	4 Marks

Technical Architecture:

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

Technical Architecture:

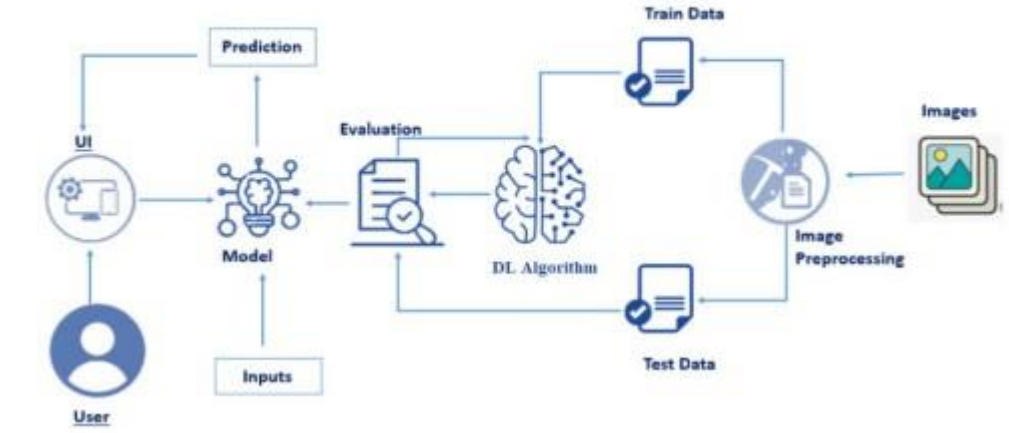

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic	Logic for a process in the application	Python
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
9.	External API-2	Purpose of External API used in the application	Flask
10.	Machine Learning Model	Purpose of Machine Learning Model	Caption generation for image
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local and development server

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	FLASK-python libraries
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	This implementation can be scaled to a higher integrating it to an app or a

			store and great use for content creation and social media

4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Standard google and windows security
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	We used CNN and LSTM to generate captions of image and deep learning techniques CNN and RNN.