Project Design Phase-II

Technology Stack (Architecture & Stack)

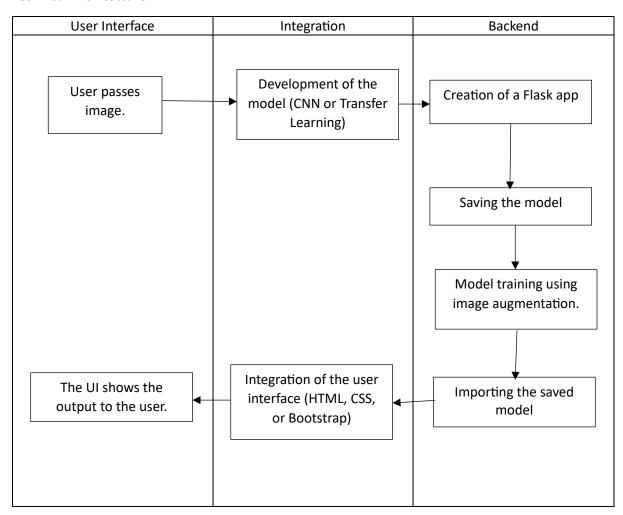| Date	28/10/23
Team ID	
Project Name	Graphical Advantages: A tableau Exploration of Top Manga
Maximum Marks	4 Marks

Technical Architecture:

User Interface	Integration	Backend

User passes image. → Development of the model (CNN or Transfer Learning) → Creation of a Flask app

Creation of a Flask app ↓ Saving the model ↓ Model training using image augmentation. ↓ Importing the saved model

Importing the saved model → Integration of the user interface (HTML, CSS, or Bootstrap) → The UI shows the output to the user.

Table 1- Components & Technologies:

S. No.	Component	Description	Technology
1	User Interface	How user interacts with application e.g. Web UI	HTML, CSS, JavaScript / React Js/ Angular Js etc.
2	Application logic	Logic for a process in the application	Tabeleu/IBM Cognos Analytics
3	Database	Manga title, author, sales data, and reader preferences	MySQL, NoSQL, etc.
4	File Storage/ Data	File storage requirements for Storing the dataset	Local System, Google Drive Etc
5	Recommendation System	Algorithm for suggesting manga based on user preferences	Machine Learning, Content-Based Filtering
6	Digital Publishing	Platform for digital manga distribution	Amazon Kindle, ComiXology, Manga Rock, etc.
7	Community Features	Forums, comments, and social features for reader engagement	PHP, MySQL, Social Media Integration
8	Cloud Hosting	Infrastructure for web and data hosting	Amazon Web Services, Google Cloud Platform, etc.
9	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	Open-Source Frameworks	List the open-source frameworks used	Django, Angular Js, Spark
2	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SSL/TLS, Authentication
3	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro services)	Microservices, Load Balancers
4	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Cloud Hosting
5	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	CDNs, Caching