

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

Date	12 May 2023
Team ID	NTM2023TMID12549
Project Name	Pixel Perfection: Transforming your photos of our cutting -Edge image editing platform

Technical Architecture for Pixel perfection:

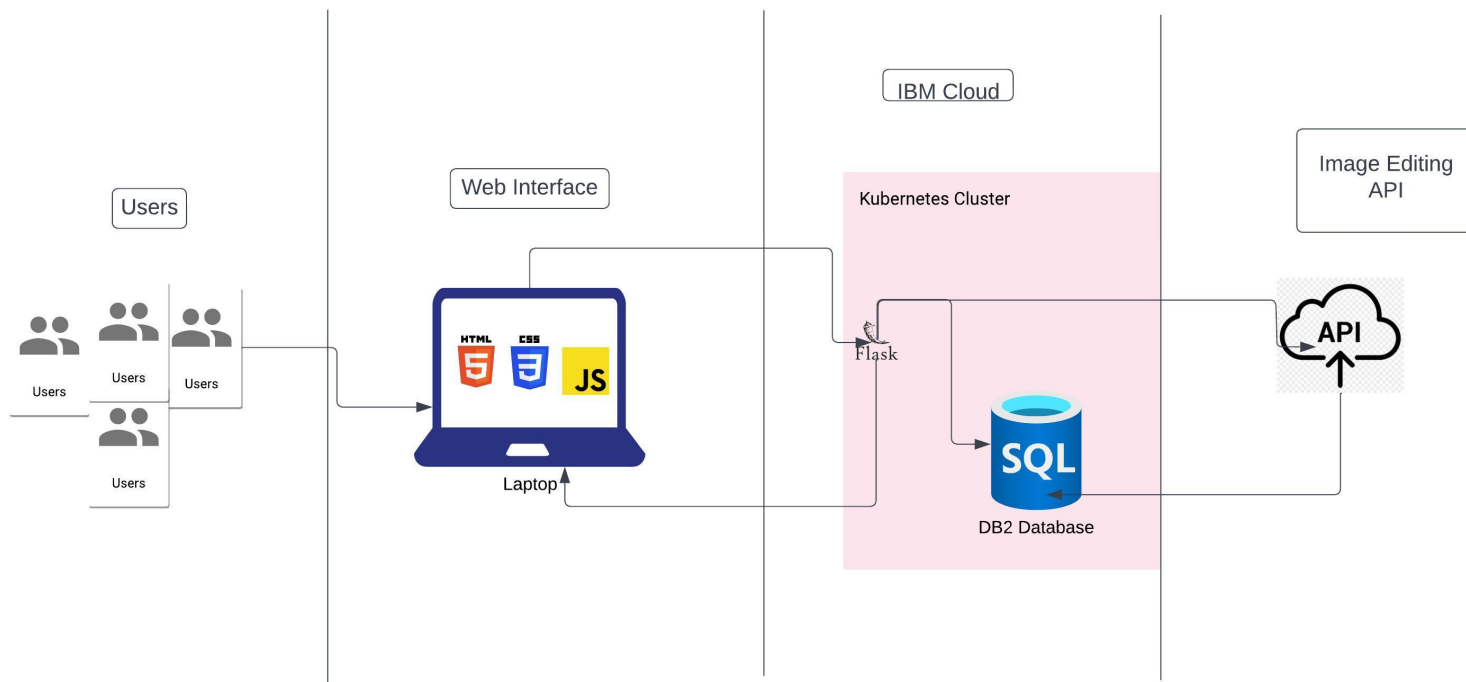


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, etc.	HTML, CSS, JavaScript etc.
2.	Image background removal	How can user easily remove only the background of his images	Human background removal api
3.	Vehicle background removal	How user can easily remove background of his vehicle images	Vehicle background removal api
4.	Cartoon your face	Transform user image into cartoon version	Cartoon yourself api
5.	Database	Storing user login details and registration details	IBM DB2
6.	Cloud Database	Storing user data on cloud to access from anywhere	IBM DB2, IBM COS
7.	Password encryption	Encrypting user passwords using hashing algorithms	Password hashing algorithm
8.	Beautify face	Beautify user face using external api	AI skin Beauty api
9.	Infrastructure (Server / Cloud)	Application deployment on cloud so it can be accessed from anywhere	Docker, Kubernetes , IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is one of the open source used in this application	Micro-Web Framework
2.	Security Implementations	HTTPS encryption to provide security to user data and images.	SHA-256, HTTPEncryption
3.	Scalable Architecture		Technology used
4.	Availability	Use of multiple replica of application hosting to ensure high availability	Kubernets, Docker
5.	Performance	Faster response time for requests in the	Load balancer, Auto scaling, Elasticity,

S.No	Characteristics	Description	Technology
		application and minimizing traffic on the web platform	Vertical scalability and horizontal scalability