Project Design Phase-1

Solution Architecture

Date	21 May 2023
Team ID	NM2023TMID13223
Project Name	Pixel Perfection: Transforming your photos with our cutting-edge image editing platform

Solution Architecture:

Cluster:

Clustering is used to identify groups of similar objects in datasets with two or more variable quantities .

Kubernets:

Kubernetes check constantly the health of nodes and containers.

Horizontal scaling: Kubernetes allows you scaling resources not only vertically but also horizontally ,easily and quickly.
Kubernetes clusters allow containers to run across multiple machines and environments: virtual physical ,cloud-based and on-premises.
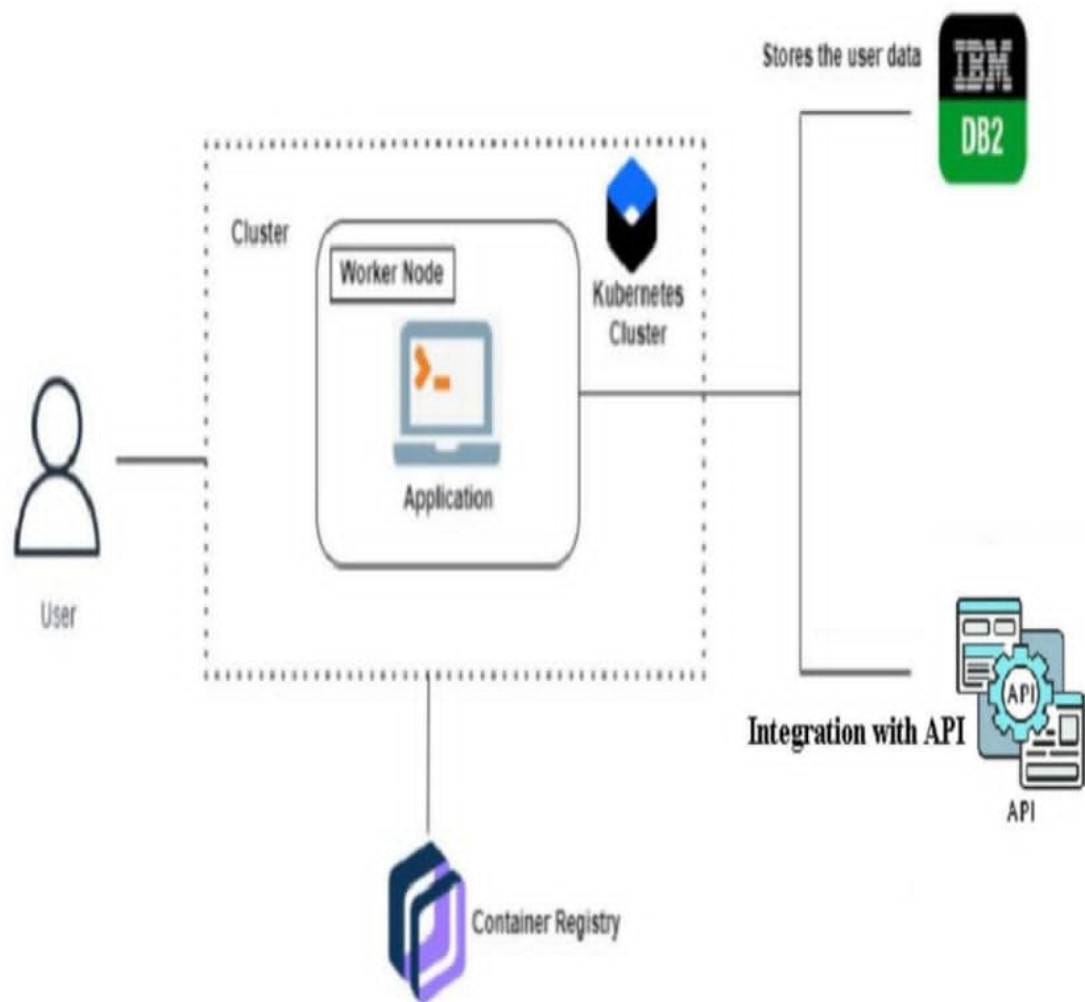
Container registry: container Registry stores its tags and layer files for container images in a Cloud Storage bucket in the same project as the registry. Access to the bucket is configured using Cloud Storage's identity and access management(IAM)settings.

API:

An Application programming interface(API) is a messenger that processes requests and ensures seamless functioning of enterprise systems.API enables interaction between data ,applications and facilities connectivity between devices and programs. Determine the Business's Systems and Goals. Management should understand what operations need improvement and how API integration will provide the solution.

WORKER NODE:

Worker nodes within the kubernetes cluster are used to run containerized applications and handle networking to ensure that traffic between applicatons across the cluster can be properly facilitated.

Stores the user data

Cluster

Worker Node

Application

Kubernetes Cluster

User

Container Registry

Integration with API

API

Solution Architecture Diagram

User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Team Member
Customer (Mobile user)	Upload Image	USN-1	As an user, I can upload image to the application provided by the developer of this system	I can upload image	High	Divya
User	Checking Image	USN-2	I will check the image uploaded is good or not	Check good/not image	High	Divya
Operator	Conversion	USN-3	I will convert the uploaded image into gray scale	conversion	High	Brindha
User	Image Editing	USN-4	As an user, you can crop your image in your own style editing with cutting edges	Cropping	Medium	Divya Tharshini
Operator	Image Complementry	USN-5	As an operator, It can change image	Image Complementry	High	Indra Sibi
User	Background	USN-6	As an User, I can change the background	Set image background	Medium	Brindha
Operator	Image filter	USN-7	As an operator, It give some filter to add features in the image	It can enhance the image	High	Divya Tharshini
User	Output image	USN-8	As an user, I can get the beautiful image from pixel perfection editing platform	Enhance image	Medium	Indra Sibi