



# VIDEO Q&A ANALYSIS

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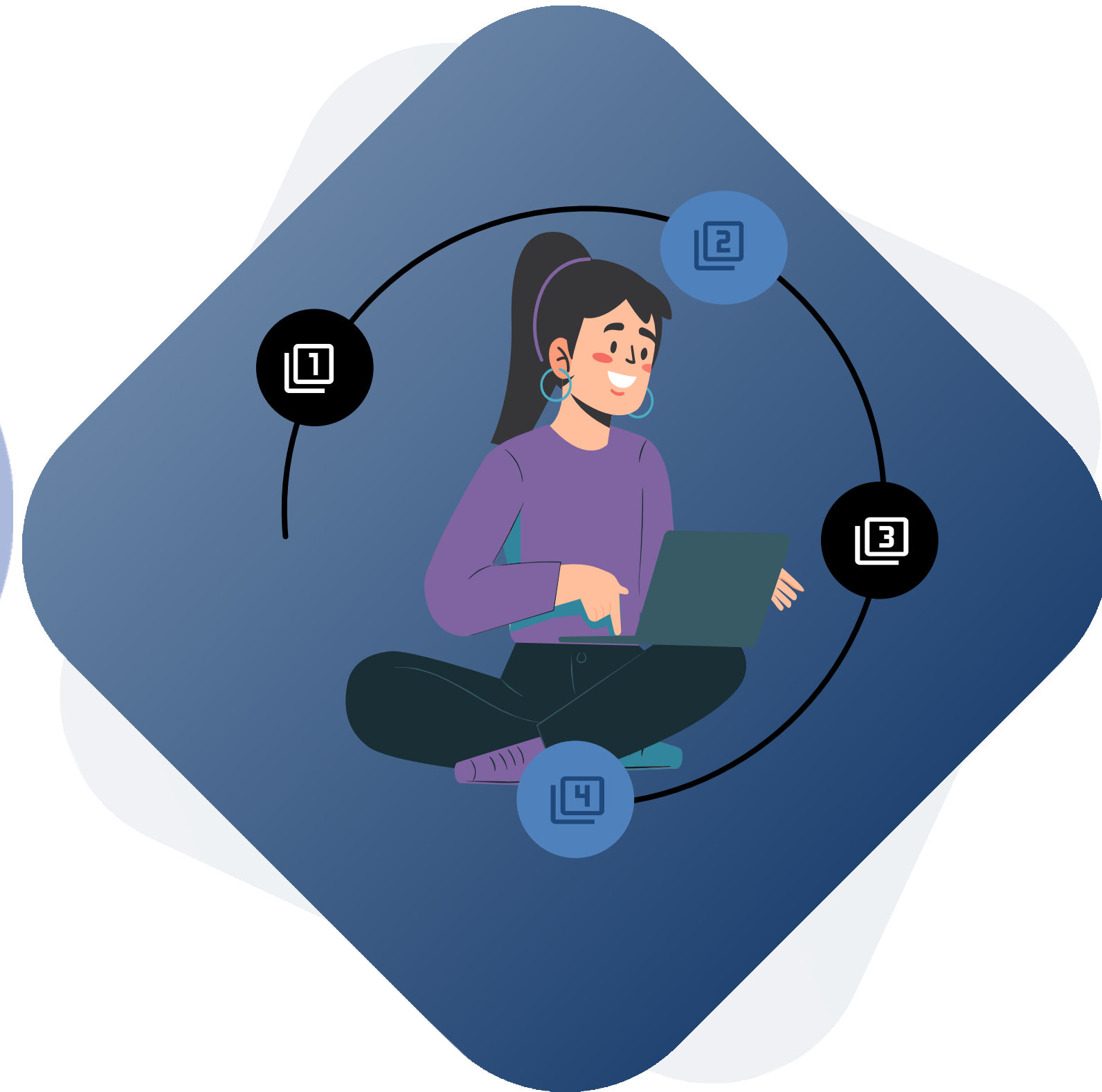
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# PROBLEM STATEMENT:

- Enable users to ask questions related to video content.
- Utilize AI technology to provide accurate answers to user queries.
- Enhance user engagement and interaction with video content.

# FUNCTIONALITIES:

- Video Hosting
- Content Understanding
- Question Submission
- User-Friendly Interface
- AI Question Analysis
- Automated Responses



# ADVANTAGES

**Saves Time**

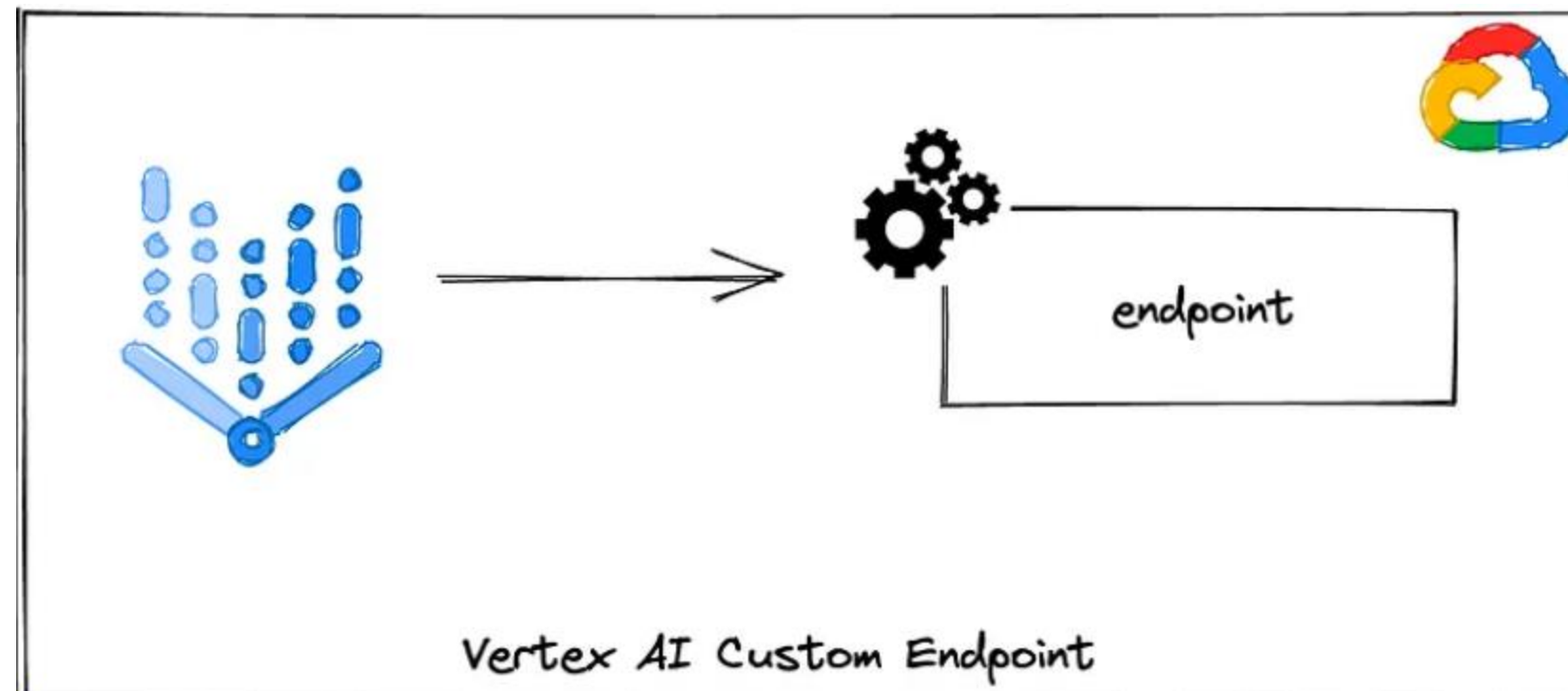
**Personalized learning**

**Accessibility Tools**

**Debugging**

**Insights**

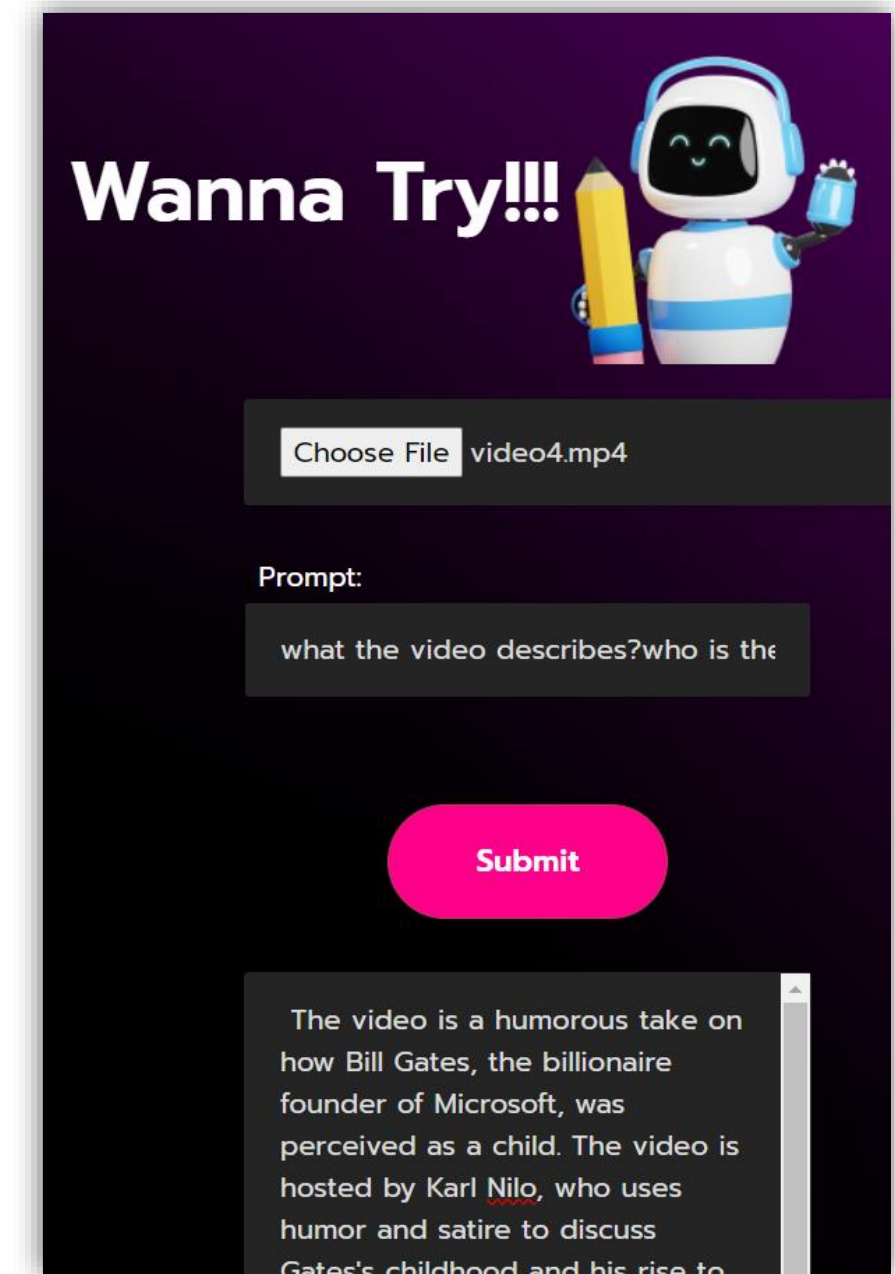
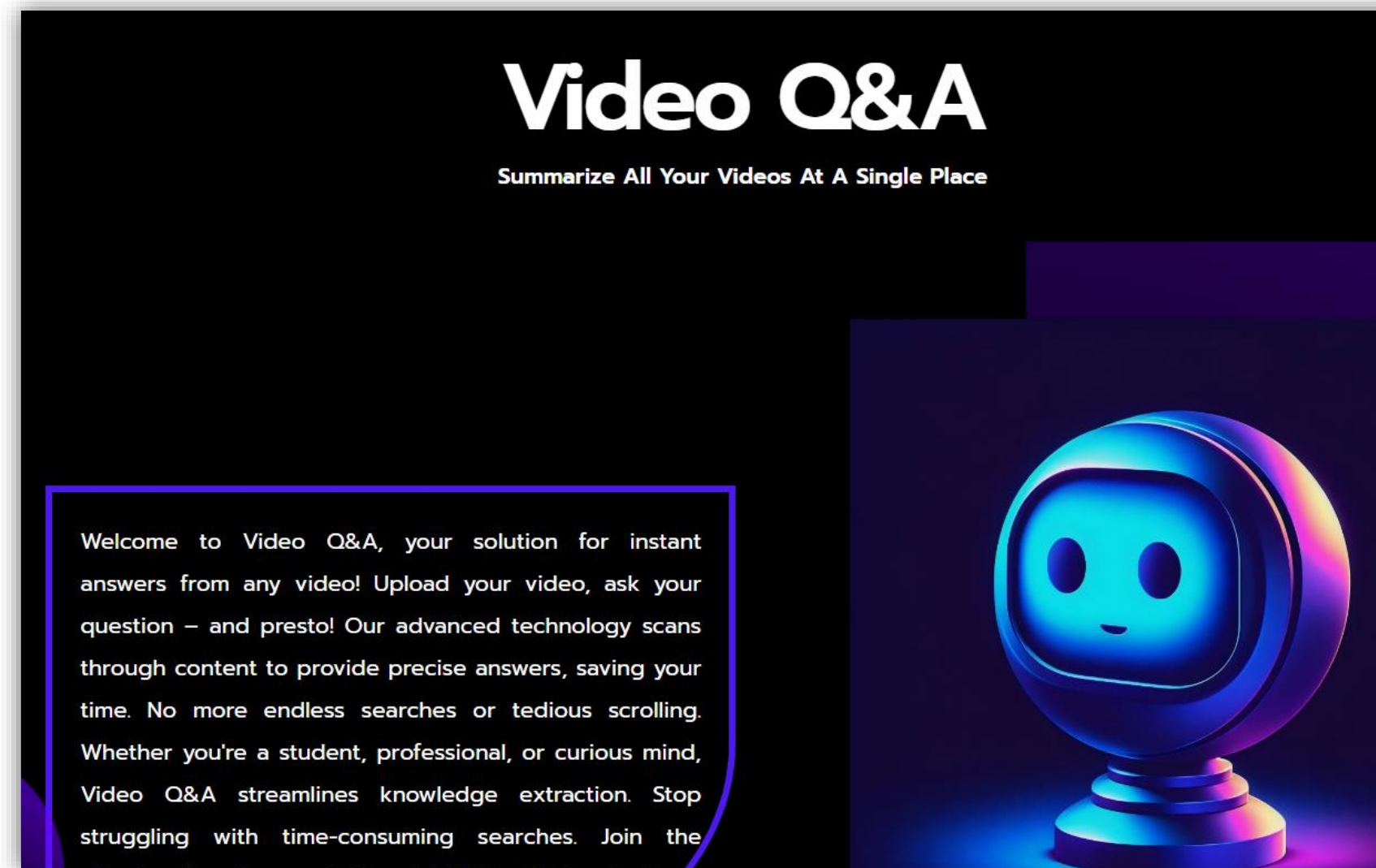
# Work Flow Using Vertex AI Custom Endpoint



Google Cloud's Vertex AI offers a unified platform for building, training, and deploying machine learning models at scale. We can leverage Vertex AI to develop a custom question answering model, trained on the extracted video features and textual data. Vertex AI's Auto ML capabilities can facilitate model training and optimization, reducing the need for manual intervention.



# Frontend





# Backend

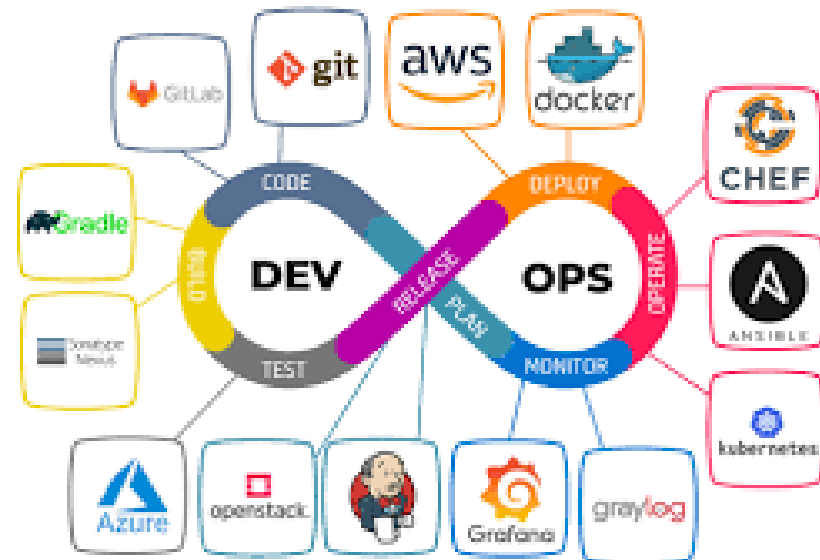
```
C:\Windows\System32\cmd.e  X  +  v

Microsoft Windows [Version 10.0.22631.3155]
(c) Microsoft Corporation. All rights reserved.

C:\Video Q&A>node node2.js
Please enter some text: who is the person in the video
User input: who is the person in the video
Generated text: The person in the video is Bill Gates. He is an American business magnate, investor, author, and philan
thropist. He is the co-founder of Microsoft Corporation, the world's largest personal computer software company.
```

# Tools Used

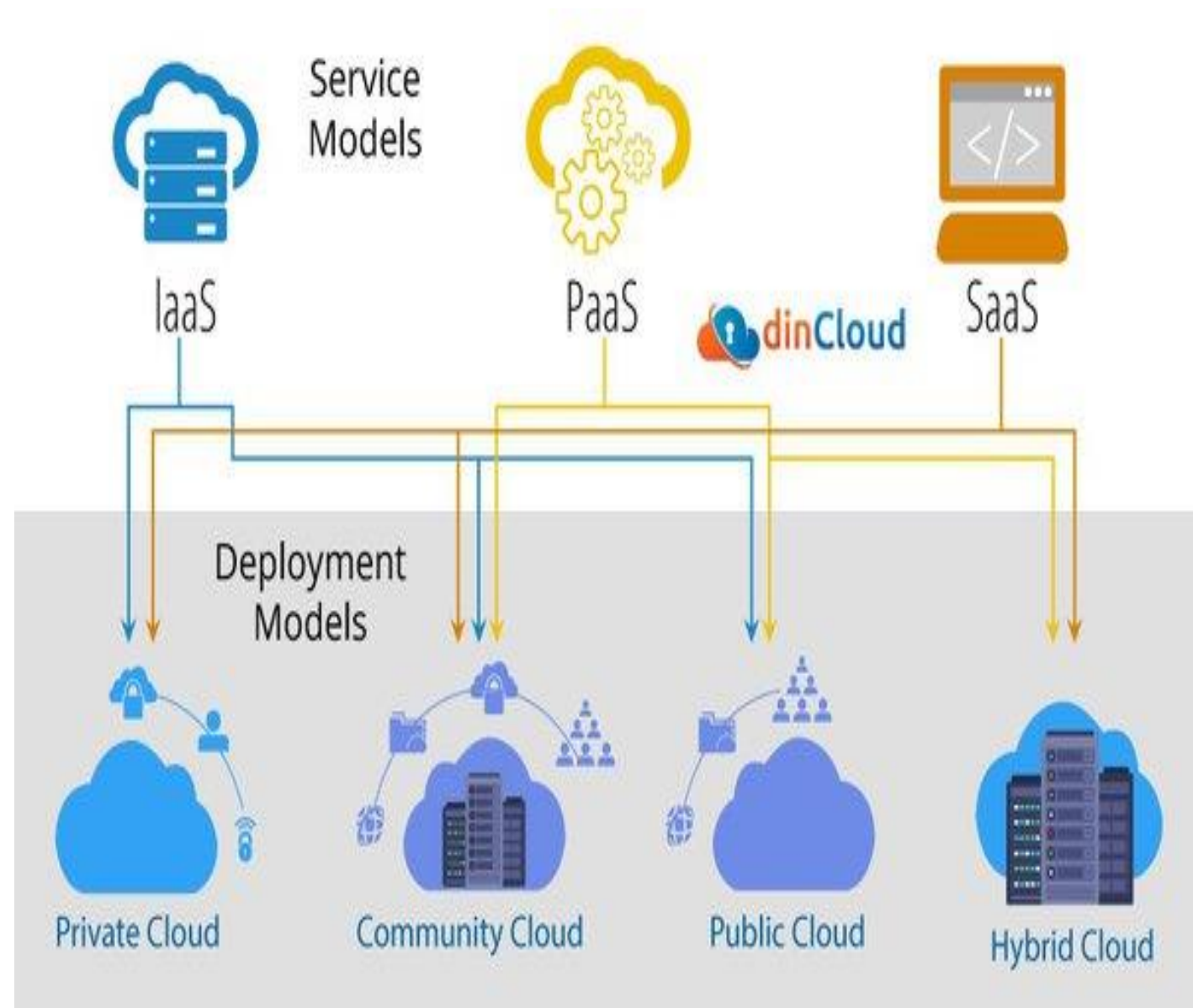
# Technologies Used



- FRONTEND-HTML,CSS,JAVASCRIPT
- BACKEND-NODE JS
- GOOGLE CLOUD
  - ❑ MULTIMODELGEMINI
  - ❑ VERTEXAI PLATFORM
  - ❑ VIDEO Q&A SERVICE



# Conclusion



- ◆ The development of the Video-Based Question Answering System leveraging Google Cloud Services represents a significant advancement in enhancing the accessibility, usability, and functionality of video content analysis.
- ◆ By harnessing the capabilities of Google Cloud Storage, Video Intelligence API, Speech-to-Text API, Natural Language API, and Vertex AI, we have created a scalable, efficient, and accurate solution for extracting insights and answering questions from uploaded videos.
- ◆ Video-Based Question Answering System has the potential to revolutionize the way users interact with video content, making it more accessible, actionable, and informative.

Thank you

