

# Solution Architecture:

## 1. **Best tech solution to solve existing problems:**

- To solve this problem, we'll need to consider the use of computer vision and machine learning technologies. Convolutional Neural Networks (CNNs) are commonly used for image classification tasks, and can use transfer learning methods like VGG16.

## 2. **The structure, characteristics, behaviour, and other aspects of the software to project stakeholders:**

- We'll need to make a software's structure, which would include components for image preprocessing, model training, model evaluation, and prediction. The characteristics include the ability to recognize hand signs and interpret them into English letters. The software should behave by accepting uploaded images, processing them through the model, and providing predictions.

## 3. **Features, development phases, and solution requirements:**

- Features will include image upload, real-time prediction, model training and a user-friendly interface.
- Development phases might include data collection and preparation, model development and training, web application development, testing, and deployment.
- Solution requirements could encompass accuracy goals, security measures, and scalability for handling real-time predictions.

## 4. **Specifications according to which the solution is defined, managed, and delivered:**

- Specifications include the choice of deep learning architecture, data preprocessing steps, evaluation metrics, and the technologies used for web development.
- Also, consider specifications for data privacy and security to protect user-uploaded images.

# Solution Architecture Design:

