**FUNCTIONAL REQUIREMENTS AND DATA FLOW DIAGRAM**

**FUNCTIONAL REQUIREMENTS**

**Programming Language:**

Python is a popular choice for machine learning and image processing tasks. You can use it to develop the backend of the system.

**Machine Learning Frameworks:**

1. TensorFlow or PyTorch:

These deep learning frameworks are commonly used for image recognition tasks and can be employed for training and deploying the model.

1. Scikit-learn:

Useful for traditional machine learning tasks and data preprocessing.

**Image Processing and Computer Vision:**

1. OpenCV:

For image and video processing, which can be used to capture and preprocess sign language gestures.

1. Pillow:

For image manipulation and handling.

**Version Control:**

Use Git for version control to collaborate with team members and manage your codebase.

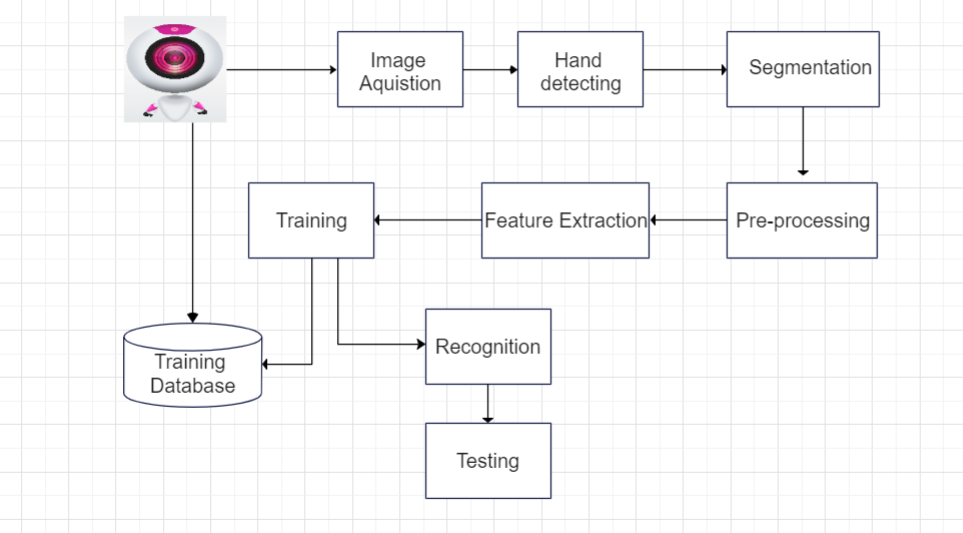
**Teachable Machine:**

Utilize Google's Teachable Machine platform for training the image recognition model.

**Accessibility Tools:**

Incorporate accessibility tools and libraries to make the application accessible to individuals with disabilities, such as screen readers.

**DATA FLOW DIAGRAM**

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