

**Q1: Choosing the Right Approach**

**You are tasked with identifying whether a product is missing its label on an assembly line. The products are visually similar except for the label.**

**Answer:** I would use detection, since the problem is about checking if the label is present or not. Detection helps locate the label area. If that doesn't work, I'd try segmentation for finer details.

**Q2: Debugging a Poorly Performing Model**

**You trained a model on 1000 images, but it performs poorly on new images from the factory.**

**Answer:** I will check if the training and test images look different, then review labels, and try adding more varied data.

**Q3: Accuracy vs Real Risk**

**Your model has 98% accuracy but still misses 1 out of 10 defective products.**

**Answer:** Accuracy isn't the right measure here. Even with 98% accuracy, missing 1 out of 10 defective products is a big issue. In such cases, recall and false negatives matter more, since the goal is to catch every faulty product, even if it means a few false alarms.

**Q4: Annotation Edge Cases**

**You're labeling data, but many images contain blurry or partially visible objects.**

**Answer:** I will keep some blurry images since they reflect real cases, but not too many so the model doesn't get confused.