**YOLOv5 Integration**

To enhance automation in item tagging, we integrated YOLOv5, a powerful object detection model, into our system. This allowed us to analyze uploaded images, identify item types, and assign relevant tags automatically. By reducing manual input and increasing accuracy, YOLOv5 made the platform smarter and more efficient for users.

**Role of Anaconda & Computer Vision**

To support the image processing workflow, we utilized Anaconda for managing Python environments and dependencies, ensuring smooth integration of required libraries. OpenCV played a crucial role in basic image manipulation and preprocessing tasks, enabling us to prepare input images effectively before feeding them into the YOLOv5 model. These tools significantly improved the backend's ability to understand and interpret image data.

**Frontend-Backend Integration**

For seamless user interaction, we developed a frontend using HTML and CSS, allowing users to upload data and images easily. Once submitted, the images are sent to the Python backend, where they are processed and analyzed. The YOLOv5 model extracts item-specific features, and the results are dynamically sent back and displayed on the frontend, creating an interactive and intelligent user experience.