Steps:

1. Activate conda/env environment.
2. Install required dependencies in the environment.
3. To run the app_ui.py need these requirements to be fulfilled
   pip install -r requirements.txt [requirements.txt uploaded on Github]
4. After installing necessary dependencies, run app_ui.py
   streamlit run app_ui.py

🏗️ System Architecture Diagram

```plaintext
User → [Streamlit UI] → Uploads Image
            ↓
    Saved to: data/uploads/
            ↓
 [YOLOv8 via Roboflow SDK]
            ↓
  Detected Classes (e.g. "onion", "pepper")
            ↓
 [Supervision parses results]
            ↓
 Streamlit UI displays results
```

⚙️ Tech Stack Breakdown

Component	Description
Streamlit	Python framework for building web UIs easily — no HTML/JS needed.
PIL (Pillow)	Image processing (used to display uploaded image).
OpenCV (`cv2`)	Backend image processing (saving & loading image).
Roboflow Inference SDK	Interface to run inference using hosted YOLOv8 models.
Supervision	High-level computer vision utility for parsing predictions and annotating results.
YOLOv8	A modern object detection model (YOLO = You Only Look Once). Detects ingredients from images.