BakuFlow Demo Requirements and Plan

# 1. Technical Requirements

## 1.1 Hardware

- Computer: Laptop or desktop with Intel i5 8th Gen (or AMD equivalent) or higher  
- RAM: Minimum 8GB (16GB recommended)  
- GPU: NVIDIA CUDA-compatible GPU with at least 4GB VRAM preferred for AI features; demo can run on CPU with reduced speed  
- Display: Full HD (1920×1080) or higher  
- Power Supply: Access to power outlets  
- Table/Desk Space: For demo computer and mouse

## 1.2 Software

- Operating System: Windows 10/11, macOS 10.14+, or Ubuntu 18.04+  
- Python: Version 3.8 or higher (3.8–3.11 supported)  
- Python Packages (installed via `pip install -r requirements.txt`):  
 • PyQt5 >= 5.15.0  
 • opencv-python >= 4.5.0  
 • numpy >= 1.19.0  
 • torch >= 1.8.0  
 • torchvision >= 0.9.0  
 • Pillow >= 8.0.0  
 • ultralytics >= 8.0.0  
- Write Permissions: To save annotation files in demo directories

## 1.3 Network

- Internet Access (recommended): For model downloads and documentation, but not strictly required if resources are pre-installed.

## 1.4 Data and Files

- Sample Images and `classes.txt` provided by the demo team  
- Pre-trained Model (`yoloe-11l-seg.pt`) preloaded or downloaded  
- Demo Workspace: Folder with read/write permissions

# 2. Demo Plan

Estimated Duration: ~15 minutes

## Step-by-Step Demo Script

1. 1. Setup & Launch (1 min)

* Power on the demo machine and launch BakuFlow (`python bakuai-labelimg.py`). Ensure the application interface loads correctly.

1. 2. Load Dataset (1 min)

* Open `File > Open Directory` and select sample images folder. Load the `classes.txt` file and confirm class list.

1. 3. Manual Annotation Demo (2 min)

* Draw bounding boxes and assign classes. Show editing, moving, and resizing boxes. Use magnifier tool for precise annotation. Demonstrate multi-selection and undo/redo.

1. 4. AI-Powered Auto-Labeling Workflow (4 min)

* Manually label 2–3 images as visual prompts. Trigger automatic labeling on new images with `Auto Label > Visual Prompt Auto Labeling`. Review and adjust AI-generated annotations as needed; save results.

1. 5. Batch Augmentation & Export (2 min)

* Use the `Data Augmentation` tool for batch rotation/brightness/flipping. Show that annotations remain correct after augmentation. Export sample annotations in YOLO, Pascal VOC, and COCO formats.

1. 6. Language and Shortcuts (1 min)

* Demonstrate switching application language (e.g., English/Chinese). Show keyboard shortcuts for efficiency.

1. 7. Q&A and Live Interaction (4 min)

* Invite reviewer to test annotation features. Respond to technical questions or requests for troubleshooting.

# 3. Demo Highlights & Notes

- Focus on demonstrating AI assistance, usability, multi-format support, and productivity tools.  
- Demo can be run on the team’s preconfigured laptop or organiser’s workstation (with necessary environment).  
- Internet access is helpful, but not mandatory if all data/models are preloaded.  
- Reviewers can request specific actions or ask questions during any stage.

# 4. Preparation Checklist

- Laptop/PC with Python 3.8+ and dependencies  
- Preloaded models, `classes.txt`, sample images  
- Write permissions for output folders  
- Projector or display (if required)  
- Power and network available

# 5. Contact

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