

# README - How to Use JPNBLab

## Quick Start Guide

### For First-Time Users

#### Prerequisites

- Python 3.12+ installed
- VSCode (recommended)
- Git/GitHub Desktop

#### Option 1: Clone from GitHub (Easiest)

```
cmd

git clone https://github.com/hanshendrickx/JPNBLab.git
cd JPNBLab
setup.bat
```

#### Option 2: Create New Project

```
cmd

REM 1. Download the template files
REM 2. Put github-New-NAME.bat and setup.bat in a folder
REM 3. Run:
github-New-NAME.bat
REM 4. Enter your project name when asked
REM 5. Run setup in the new project folder:
cd YourProjectName
setup.bat
```

## Daily Usage

### Start Jupyter Lab

```
cmd

start-jupyter.bat
```

Opens Jupyter Lab in your browser at `http://localhost:8888`

## Activate Environment (if needed)

```
cmd  
  
py-env\Scripts\activate
```

You'll see `(py-env)` appear in your prompt

## Check What's Installed

```
cmd  
  
py-env\Scripts\pip list
```

## Add New Packages

```
cmd  
  
py-env\Scripts\pip install package-name
```

## Project Structure

```
YourProject/  
├── py-env/      # Virtual environment  
├── notebooks/   # Your Jupyter notebooks  
│   ├── examples/ # Learning/testing  
│   └── medical-tools/ # Production apps  
├── shared/      # Common utilities  
├── assets/      # Images, CSS, etc.  
├── README.md  
├── setup.bat    # Setup script  
└── start-jupyter.bat # Launch Jupyter
```

## For Sharing with Patients (Voila)

### Install Voila

```
cmd  
  
py-env\Scripts\pip install voila
```

## Share a Notebook

```
cmd
```

```
py-env\Scripts\voila notebooks/medical-tools/your-app.ipynb
```

Opens at <http://localhost:8866> - patients can use this link

## Troubleshooting

### Environment Not Active?

```
cmd
```

```
py-env\Scripts\activate
```

### Jupyter Won't Start?

```
cmd
```

```
py-env\Scripts\pip install jupyter jupyterlab
```

```
start-jupyter.bat
```

### Want to Reset Everything?

```
cmd
```

```
rmdir /s py-env
```

```
setup.bat
```

## File Descriptions

| File                                | Purpose  |
|-------------------------------------|--|
| <a href="#">github-New-NAME.bat</a> | Creates new projects (reusable template)         |
| <a href="#">setup.bat</a>           | Sets up Python environment and installs packages |
| <a href="#">start-jupyter.bat</a>   | Starts Jupyter Lab                               |
| <a href="#">py-env/</a>             | Virtual environment (don't touch)                |
| <a href="#">notebooks/</a>          | Your Jupyter notebooks go here                   |

## For Developers

### Code Formatting

```
cmd
```

```
py-env\Scripts\pip install black ruff
py-env\Scripts\black notebooks/
py-env\Scripts\ruff check notebooks/
```

## Git Workflow

```
cmd

git add .
git commit -m "Your message"
git push
```

## Support

- Check project structure matches the layout above
- Ensure `(py-env)` shows in your command prompt
- All `.bat` files should be in the project root
- Use `py-env\Scripts\` prefix for Python commands

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## Ready to Code! 🚀

Run `start-jupyter.bat` and start creating notebooks in the `notebooks/` folder!