Software Installation Instruction

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Pre-Workshop Instructions

This guide helps you install the software we will use during the morning session of the workshop. Please set aside **20–30 minutes**, depending on your network speed, to complete the installation before the workshop.

Prerequisites

- **Supported OS**: macOS (Apple Silicon M1/M2/M3/M4) or Windows 10/11
- **Disk space**: At least 2–5 GB free (the model requires additional space)
- **RAM**: 4 GB or more free RAM recommended
- **Internet access** to download the application and the model
- **Admin rights** to install applications

> ❗ Important
>
> **Intel Mac users**: LM Studio does not support Intel-based Macs. If your Mac has an Intel processor, please install **Ollama** instead (see Alternative: Ollama below).
> To check your chip: click the **Apple menu ( ) → About This Mac**. If it says "Chip: Apple M1/M2/M3/M4", you can use LM Studio. If it says "Processor: Intel", please use Ollama.

LM Studio

LM Studio is a free desktop application that lets you run large language models (LLMs) locally and privately on your own computer. It provides a chat interface so you can experiment with AI models without sending data to the cloud.

- Official site: https://lmstudio.ai

- Documentation: https://lmstudio.ai/docs/app
- Current version: **0.4.6** (as of March 2026)

Part 1: Download LM Studio

1. Open your web browser and go to **https://lmstudio.ai**.
2. Click the **Download** button. The site automatically detects your operating system.
3. Alternatively, go directly to **https://lmstudio.ai/download** and select your configuration:
   - **macOS**: Apple Silicon (M series) — requires macOS 13.4 or newer
   - **Windows**: x64 (requires AVX2 support) or ARM (Snapdragon X Elite)
   - **Linux**: x64, distributed as an AppImage (Ubuntu 20.04+)
4. Click the green **"Download"** button to start downloading the installer.

Part 2: Install LM Studio

macOS (Apple Silicon only — M1/M2/M3/M4)

1. Once the `.dmg` file has finished downloading, double-click it to open the disk image.
2. Drag the **LM Studio** icon into the **Applications** folder.
3. Open **LM Studio** from your Applications folder or via Spotlight.
4. If macOS displays a security warning (Gatekeeper), go to **System Settings → Privacy & Security** and click **"Open Anyway"**.

> **Note**
>
> For MLX model support (which provides better performance on Apple Silicon), macOS 14.0 or newer is required.

Windows 10/11

1. Once the `.exe` installer has finished downloading, double-click it to run.
2. Follow the on-screen installation prompts (accept the license agreement, choose an install location, etc.).
3. If Windows SmartScreen appears, click **More info → Run anyway**.
4. After installation completes, launch **LM Studio** from the Start menu or desktop shortcut.

Part 3: Download the Qwen3.5-0.8B Model

We will use the **Qwen3.5-0.8B** model for in-class practice. This is a small but capable model (~1 GB) that runs comfortably on most machines.

1. **Open LM Studio** on your computer.
2. Click the **magnifying glass icon** (Search / Discover) in the left sidebar to open the model search page.
3. In the search bar, type:

   `Qwen3.5-0.8B`

4. The search results will show available versions:

   - **macOS users**: Look for the **MLX** format (e.g., `Qwen3.5-0.8B-MLX`) for best performance on Apple Silicon.
   - **Windows users**: Look for the **GGUF** format (e.g., `Qwen3.5-0.8B-GGUF`).

5. For the GGUF format, you may see different quantizations. Choose **Q4_K_M** for a good balance of quality and size.
6. Click the **Download** button next to your chosen version. The model is relatively small (typically under 1 GB).
7. Once the download is complete, you can load the model by selecting it from the model dropdown at the top of the chat interface.

Part 4: Verify Your Installation

1. Open LM Studio and load the **Qwen3.5-0.8B** model.
2. In the chat interface, send a simple prompt:

   ```
   Hello! What is 2 + 2?
   ```

3. Confirm you get a response. This verifies the model is running locally on your machine.

> **Tip**
>
> If you have extra time and disk space, you may also download a larger model such as **Qwen3.5-4B** for higher-quality responses. Expect each model to require several GBs of storage.

Alternative: Ollama

If you cannot run LM Studio (e.g., Intel Mac, or you prefer a command-line tool), **Ollama** is an excellent alternative that also runs models locally.

- Official site: https://ollama.com

Install Ollama

macOS (Intel and Apple Silicon)

1. Go to https://ollama.com/download.
2. Download the macOS installer and follow the prompts.

Windows

1. Go to https://ollama.com/download.
2. Download the Windows installer and follow the prompts.

Download the Qwen3.5-0.8B Model

After installing Ollama, open your **Terminal** (macOS) or **Command Prompt / PowerShell** (Windows) and run:

```
ollama run qwen3.5:0.8b
```

This will automatically download (~1 GB) and start the model. You can begin chatting with it directly in the terminal.

Verify Ollama Installation

After the model loads, type a simple prompt in the terminal:

```
Hello! What is 2 + 2?
```

If you get a response, your installation is working correctly. You can exit by typing `/bye`.

Troubleshooting

- **macOS Gatekeeper warning**: Go to **System Settings → Privacy & Security → Open Anyway** after the first launch attempt.
- **Windows SmartScreen**: Click **More info → Run anyway** if downloaded from the official site.
- **Slow performance**: Close other memory-intensive applications. Smaller models like the 0.8B run comfortably on CPU; no GPU is required.
- **Model not loading**: Ensure you have enough free disk space and RAM. Try restarting LM Studio or Ollama.
- **Network/firewall prompts**: Allow the application to access the network so it can download models.

Google Antigravity

Google Antigravity is a free AI-powered development platform from Google that functions as an agentic IDE — it treats AI as an autonomous actor capable of planning, executing, validating, and iterating on complex engineering tasks with minimal human intervention.

- Official site: https://antigravity.google
- Documentation: https://codelabs.developers.google.com/getting-started-google-antigravity

Prerequisites

- **Supported OS**: macOS 10.15 (Catalina) or later (Intel and Apple Silicon), Windows 10 or later
- **Disk space**: At least 500 MB free
- **RAM**: 4 GB minimum (8 GB recommended)
- **Internet access** with at least 5 Mbps recommended
- **Google Account**: A personal Gmail account is required (Google Workspace accounts are not currently supported)
- **Chrome web browser** installed

Part 1: Download Google Antigravity

1. Open your web browser and go to **https://antigravity.google/download**.
2. Select your operating system:
   - **macOS**: Download the `.dmg` installer (supports both Intel and Apple Silicon)
   - **Windows**: Download the `.exe` installer

3. The download is approximately **300–400 MB** and typically takes 5–10 minutes depending on your connection speed.

Part 2: Install Google Antigravity

macOS

1. Once the `.dmg` file has finished downloading, double-click it to open the disk image.
2. Drag the **Antigravity** icon into the **Applications** folder.
3. Open **Antigravity** from your Applications folder or via Spotlight.
4. On first launch, macOS may ask you to grant permissions in **System Settings → Privacy & Security**. Click **"Open Anyway"** if prompted.

Windows 10/11

1. Once the `.exe` installer has finished downloading, double-click it to run.
2. If Windows SmartScreen appears, click **More info → Run anyway**.
3. Follow the on-screen installation prompts.

Part 3: Initial Setup

1. When Antigravity launches for the first time, you can choose to **import settings from VS Code/Cursor** or start fresh.
2. Select your preferred **editor theme** (dark or light).
3. Configure **agent execution policies** (you can keep the defaults for now):
   - Terminal policy
   - Review policy
   - JavaScript policy
4. Configure **editor settings** (keybindings, extensions, command line tools).
5. **Sign in with your personal Gmail account**. You will be redirected to Chrome to authenticate, then returned to Antigravity.
6. Accept the **Terms of Use**.

Part 4: Verify Your Installation

1. After signing in, you should see the **Agent Manager** — the main workspace for dispatching and monitoring autonomous agents.
2. Try creating a simple task by typing a prompt such as:

   ```
   Create a Python script that prints "Hello, World!"
   ```

3. Confirm that the agent responds and generates code. This verifies that Antigravity is connected to your Google account and working correctly.

> **Note**
>
> Antigravity uses Google's Gemini models via the cloud. Unlike LM Studio and Ollama, it does **not** run models locally — an internet connection is always required.

Uninstall (if needed)

- **LM Studio on macOS**: Drag the app from Applications to Trash. Optionally remove caches under `~/Library/Application Support/LM Studio/`.
- **LM Studio on Windows**: Use **Settings → Apps** to uninstall. Optionally remove leftover folders in `%AppData%` or `%LocalAppData%`.
- **Ollama on macOS**: Run `ollama rm qwen3.5:0.8b` to remove the model. Delete the Ollama app from Applications.
- **Ollama on Windows**: Uninstall via **Settings → Apps**.
- **Antigravity on macOS**: Drag the app from Applications to Trash.
- **Antigravity on Windows**: Uninstall via **Settings → Apps**.