

# Multi-Agent Coding Framework

A Streamlit application powered by AutoGen for multi-agent AI coding collaboration.

## Prerequisites

Before you begin, make sure you have:

1. **Python 3.10+** installed on your system
2. **OpenAI API Key** (get one at <https://platform.openai.com/api-keys>)

## Quick Start Guide

### For Windows

#### Step 1: Open Command Prompt or PowerShell

- Press Win + R , type cmd or powershell , and press Enter

#### Step 2: Navigate to the Project Folder

```
cd path\to\DATAECONOMY.AI
```

#### Step 3: Create a Virtual Environment

```
python -m venv venv
```

#### Step 4: Activate the Virtual Environment

For Command Prompt:

```
venv\Scripts\activate
```

For PowerShell:

```
venv\Scripts\Activate.ps1
```

## Step 5: Install Dependencies

```
pip install -r requirements.txt
```

## Step 6: Create .env File

1. Create a new file named `.env` in the project root folder
2. Add the following content:

```
OPENAI_API_KEY=sk-your-actual-api-key-here  
OPENAI_MODEL=gpt-4o
```

3. Replace `sk-your-actual-api-key-here` with your actual OpenAI API key

## Step 7: Run the Application

```
streamlit run app.py
```

The application will automatically open in your browser at `http://localhost:8501`

## For Mac

### Step 1: Open Terminal

- Press `Cmd + Space`, type `Terminal`, and press Enter

### Step 2: Navigate to the Project Folder

```
cd path/to/DATAECONOMY.AI
```

### Step 3: Create a Virtual Environment

```
python3 -m venv venv
```

## Step 4: Activate the Virtual Environment

```
source venv/bin/activate
```

## Step 5: Install Dependencies

```
pip install -r requirements.txt
```

## Step 6: Create .env File

1. Create a new file named `.env` in the project root folder:

```
touch .env
```

2. Open the file in a text editor and add:

```
OPENAI_API_KEY=sk-your-actual-api-key-here  
OPENAI_MODEL=gpt-4o
```

3. Replace `sk-your-actual-api-key-here` with your actual OpenAI API key

## Step 7: Run the Application

```
streamlit run app.py
```

Or use the provided start script:

```
chmod +x start.sh  
./start.sh
```

The application will automatically open in your browser at `http://localhost:8501`

## Stopping the Application

To stop the application, press `Ctrl + C` in the terminal/command prompt where it's running.

# 🔧 Troubleshooting

## Python Not Found (Windows)

- Make sure Python is installed and added to PATH
- Try using `py` instead of `python`

## Python Not Found (Mac)

- Make sure Python 3 is installed
- Try using `python3` instead of `python`

## Permission Denied (Mac)

- If you get permission errors, try:

```
chmod +x start.sh
```

## OpenAI API Key Issues

- Make sure your `.env` file is in the project root folder
- Verify your API key is correct (starts with `sk-`)
- Check that you have credits available in your OpenAI account

# 📁 Project Structure

```
DATAECONOMY.AI/
├── app.py                  # Main Streamlit application
├── agents.py               # Agent configurations
├── workflow.py              # Workflow logic
├── requirements.txt         # Python dependencies
├── .env                     # Environment variables (you create this)
├── start.sh                 # Mac/Linux start script
└── utils/                   # Utility modules
```