

# Windows Setup and Usage Guide

## Windows-Specific Setup

### Prerequisites

#### 1. **Install uv** (Choose one method):

```
powershell

# PowerShell (Recommended)
irm https://astral.sh/uv/install.ps1 | iex

# Or using pip
pip install uv

# Or using conda
conda install -c conda-forge uv
```

#### 2. **Install Python 3.9+** (if not already installed):

- Download from [python.org](https://python.org)
- Or use Windows Store
- Or use `winget install Python.Python.3.11`

## Quick Start (Windows)

### Option 1: Command Prompt (CMD)

```
cmd
```

```
# 1. Create and navigate to project
uv init langgraph-mcp-groq
cd langgraph-mcp-groq

# 2. Run Windows setup script
scripts\setup.bat

# 3. Edit config\settings.env and add your Groq API key
notepad config\settings.env

# 4. Start the server
scripts\start-server.bat

# 5. In another CMD window, start the client
scripts\start-client.bat
```

## Option 2: PowerShell (Recommended)

```
powershell

# 1. Create and navigate to project
uv init langgraph-mcp-groq
cd langgraph-mcp-groq

# 2. Run PowerShell setup script
.\scripts\setup.ps1

# 3. Edit config\settings.env and add your Groq API key
notepad config\settings.env

# 4. Start the server
.\scripts\start-server.ps1

# 5. In another PowerShell window, start the client
.\scripts\start-client.ps1
```

## Option 3: Git Bash

```
bash
```

```
# Use the Linux/macOS scripts
./scripts/setup.sh
./scripts/start-server.sh # Terminal 1
./scripts/start-client.sh # Terminal 2
```

## Manual Setup (if scripts don't work)

powershell

*# 1. Create project structure*

```
uv init langgraph-mcp-groq
cd langgraph-mcp-groq
```

*# 2. Create directories*

```
New-Item -ItemType Directory -Path "src\langgraph_mcp_groq\agents" -Force
New-Item -ItemType Directory -Path "src\langgraph_mcp_groq\server" -Force
New-Item -ItemType Directory -Path "src\langgraph_mcp_groq\client" -Force
New-Item -ItemType Directory -Path "src\langgraph_mcp_groq\utils" -Force
New-Item -ItemType Directory -Path "tests" -Force
New-Item -ItemType Directory -Path "config" -Force
New-Item -ItemType Directory -Path "scripts" -Force
```

*# 3. Create \_\_init\_\_.py files*

```
New-Item -ItemType File -Path "src\langgraph_mcp_groq\__init__.py" -Force
New-Item -ItemType File -Path "src\langgraph_mcp_groq\agents\__init__.py" -Force
New-Item -ItemType File -Path "src\langgraph_mcp_groq\server\__init__.py" -Force
New-Item -ItemType File -Path "src\langgraph_mcp_groq\client\__init__.py" -Force
New-Item -ItemType File -Path "src\langgraph_mcp_groq\utils\__init__.py" -Force
New-Item -ItemType File -Path "tests\__init__.py" -Force
```

*# 4. Install dependencies*

```
uv sync
```

*# 5. Create config file*

```
Copy-Item "config\settings.env.example" "config\settings.env"
```

## Configuration (Windows)

Edit `config\settings.env`:

env

```
GROQ_API_KEY=your_groq_api_key_here
MCP_SERVER_HOST=localhost
MCP_SERVER_PORT=8000
DEFAULT_MODEL=llama-3.1-70b-versatile
TEMPERATURE=0.7
MAX_TOKENS=4096
```

## Running the Application

### Start Server:

```
powershell

# PowerShell
.\scripts\start-server.ps1

# CMD
scripts\start-server.bat

# Or directly
uv run mcp-server
```

### Start Client:

```
powershell

# PowerShell
.\scripts\start-client.ps1

# CMD
scripts\start-client.bat

# Or directly
uv run groq-client
```

## Testing (Windows)

```
powershell
```

*# PowerShell*

.\scripts\test.ps1

*# CMD*

scripts\test.bat

*# Or manually*

uv run pytest tests/ -v

uv run black --check src/ tests/

uv run flake8 src/ tests/

uv ru