

Tutorial: Setting Up Environment Keys on macOS and Windows

1. Why Use Environment Variables?

- Security: Avoid hard-coding secrets in your code
- Portability: Same scripts work across machines/environments
- Flexibility: Override or extend settings without changing code

2. On macOS

2.1 Identify Your Shell: ``echo $SHELL``

2.2 Edit Shell Profile:

- zsh: edit `~/.zshrc`
- bash: edit `~/.bash_profile` or `~/.bashrc`

2.3 Add Your Variable:

```
export MY_API_KEY="abcd1234"
```

2.4 Apply Changes: ``source ~/.zshrc`` or ``source ~/.bash_profile``

2.5 Verify: ``echo $MY_API_KEY``

Optional for GUI Apps: ``launchctl setenv MY_API_KEY "abcd1234"``

3. On Windows

3.1 GUI:

- Start → Edit the system environment variables → Environment Variables...
- New User Variable: Name=MY_API_KEY, Value=abcd1234

3.2 Command Line:

- cmd.exe: ``setx MY_API_KEY "abcd1234"``
- PowerShell:
`[Environment]::SetEnvironmentVariable("MY_API_KEY", "abcd1234", "User")`

Verify:

- cmd.exe: ``echo %MY_API_KEY%``
- PowerShell: ``echo $Env:MY_API_KEY``

4. Using .env Files (Cross-Platform)

Create ``.env`` in project root:

```
MY_API_KEY=abcd1234
```

Python:

```
from dotenv import load_dotenv
load_dotenv()
import os; os.getenv("MY_API_KEY")
```

Node.js:

```
require('dotenv').config()
process.env.MY_API_KEY
```

5. Recap

- macOS: export in shell profile + source
- Windows: GUI or CLI (``setx`` / `SetEnvironmentVariable``)
- .env files: cross-platform loader

End of Tutorial