Virtual Environment Cheatsheet

Virtualenv

```
# Create a virtual environment
python -m venv myenv

# Activate the virtual environment
source myenv/bin/activate  # On macOS and Linux
myenv\Scripts\activate     # On Windows

# Deactivate the virtual environment
deactivate

# Delete a virtual environment
rm -rf myenv
```

Virtualenvwrapper

1. Install virtualenvwrapper:

```
pip install virtualenvwrapper
```

2. Configure virtualenvwrapper (add to ~/.zshrc):

```
export WORKON_HOME=$HOME/.virtualenvs
export VIRTUALENVWRAPPER_PYTHON=$(which python3)
source /Library/Frameworks/Python.framework/Versions/3.11/bin/virtualenvwrapper.sh
```

3. Reload the shell configuration:

```
source ~/.zshrc
```

4. Usage:

```
# Create a new virtual environment
mkvirtualenv myenv
```

```
# Activate a virtual environment
workon myenv

# Deactivate the current environment
deactivate

# List all virtual environments
lsvirtualenv

# Remove a virtual environment
rmvirtualenv myenv
```

Package Management

```
# Install packages
pip install package_name

# Install packages from requirements.txt
pip install -r requirements.txt

# List installed packages
pip list

# Upgrade a package
pip install --upgrade package_name

# Uninstall a package
pip uninstall package_name

# Generate requirements.txt
pip freeze > requirements.txt
```

Switching Between Environments

```
# Deactivate the current environment
deactivate
```

```
# Activate another environment
workon other_env_name
```