make & Makefile

Make (software)

is a build automation tool that automatically builds executable programs and libraries from source code by reading files called Makefiles which specify how to derive the target program. – Wikipedia

1976 Bell Labs, Version 7 AT&T UNIX
1986 Sun DevPro Make (SunOS)
1991 GNU Make 3.62

Základní použití

```
# Makefile

run_dev_db:
    docker run --rm --network=host mongo

deploy:
    ssh server deploy.sh

check:
    wget https://eaxmple.com/sample_data.jsonl
    python -m pytest tests


$ make

$ make check
```

Parametry

```
# Makefile

python=python3

check:
    wget https://example.com/sample_data.json
    $(python) -m pytest tests




$ make

$ make python3=/usr/local/bin/python3.5
```

Závislosti

```
# Makefile

python=python3

sample_data.json:
    wget https://example.com/sample_data.json

check: sample_data.json
    $(python) -m pytest tests




$ make check
```

Proměnné

```
# Makefile

python=python3

sample_data.json:
    wget https://example.com/$@

check: sample_data.json
    $(python) -m pytest tests




$ make check
```

Patterns

```
# Makefile

python=python3

%.json:
    wget https://example.com/$@

check: sample_data.json
    $(python) -m pytest tests



$ make check
```

venv management

```
# Makefile

python=python3
venv_dir=venv

$(venv_dir):
    $(python) -m venv $(venv_dir)
    $(venv_dir)/bin/pip install -U pip wheel
    $(venv_dir)/bin/pip install -r requirements.txt


$ make
proběhne vytvoření venvu...
$ echo colorama >> requirements.txt
$ make
nic, venv dir už existuje!
```

venv management - ještě lepší

```
# Makefile

python=python3
venv_dir=venv

venv: $(venv_dir)/.stamp

$(venv_dir)/.stamp: requirements.txt
    $(python) -m venv $(venv_dir)
    $(venv_dir)/bin/pip install -r requirements.txt
    touch $@

$ make
proběhne vytvoření venvu...
$ echo colorama >> requirements.txt
$ make
proběhne reinstalace requirements
```