

Module 5

Repository structure

README

= a **guide** that gives users a detailed **description** of a project

= a **documentation** with **guidelines** on **how to use** a project

- Project title
- Project description
- Content overview
- How to install & run project
- How to use the project
- Credits (if necessary)

Repository structure

- Designed for small files (snapshots!)
 - For large files: Git Large File Storage (GitHub service), 1 GiB storage, 1 GiB/month bandwidth free
 - DVC (Data Version Control): tracks change in data in repository (changed data needs LFS)
- Do not include files that are PC/environment-specific/not human-readable
 - Compiled/cache files, Jupyter checkpoints, .env files...
- Intended use case of repository (Raw code? Package with installation? Compiled into application?)
- Language- and framework-specific aspect
 - C++: Windows Terminal (<https://github.com/microsoft/terminal>)
 - Python: Pandas (<https://github.com/pandas-dev/pandas>)

Suggestions

- Source code: src
- Tests: test
- Documentation: doc
- Data:
 - Is sample data enough? -> samples
 - Is data tightly coupled with code? LFS...
 - Convenient to have it in same directory, but no need for version control?...

.gitignore

- A (text) file in the root repository folder
- Make files/folders invisible to git add, git status
- Create .gitignore first, commit it
 - Already tracked files will **not** be automatically removed
- Wildcard symbol: *
 - i. e. *.so ignores all .so files in current folder
- Sample patterns available on GitHub

```
# Byte-compiled / optimized / DLL files
__pycache__/
*.py[cod]
*$py.class

# C extensions
*.so

# Distribution / packaging
.Python
build/
develop-eggs/
dist/
downloads/
eggs/
.eggs/
lib/
lib64/
parts/
sdist/
var/
wheels/
share/python-wheels/
*.egg-info/
.installed.cfg
*.egg
MANIFEST

# PyInstaller
# Usually these files are written by a python script from a template
# before PyInstaller builds the exe, so as to inject date/other infos into it.
*.manifest
*.spec
```