Programming Setup

Dirk Riehle, Univ. Erlangen

ADAP A02

Agenda

1. git
2. GitHub
3. Node
4. npm
5. Typescript
6. ADAP Examples
7. VS Code
8. Vitest

git

git is

- A version control system

Installation

- Through your operating system

Example

- apt install git

GitHub

GitHub is

- A software forge [1] based on git

Installation

- None, but you need an account

[1] GitHub redefined the category and sometimes "hub" is used synonymously with forge

https://profriehle.com

Node (Node.js)

Node is

- A framework and toolset for developing Javascript applications

Installation

- https://nodejs.org/en/learn/getting-started/how-to-install-nodejs
- Through your operating system

Example

- apt install curl
- curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.0/install.sh | bash
- nvm install 20

5

npm (npmjs)

npm is

- A package manager for managing dependencies in Javascript applications

Installation

- Comes with Node

6

Typescript

Typescript is

- A more type-safe Javascript

Installation

- https://www.typescriptlang.org/download/
- Through npm

Example

- npm install typescript --save-dev # local install
- npm install @types/node --save-dev # install types

7

ADAP Examples and Homework

riehlegroup/adap-names contains

- Our running example code; use as you see fit

Installation

- https://github.com/riehlegroup/adap-names

Example

- Fork the repository on GitHub # using example user friedalexuni
- git clone https://github.com/friedalexuni/adap-names
- npm install # installs project dependencies
- npm run build # compiles and builds
- npm run test # runs tests

8

Visual Studio Code

Visual Studio Code (VS Code) is

- A flexible integrated development environment (IDE)
- Strong on Javascript and Typescript

Installation

- https://code.visualstudio.com/docs
- Through your operating system

Example

- Download from https://code.visualstudio.com/Download
- Install as your operating system sees fit

9

Vitest

Vitest is

- A Javascript/Typescript testing framework

Installation

- Will be automatically pulled in by npm as a dependency
- You may find the VS Code plugin helpful

Example

- Install Vitest plugin through VS Code marketplace
- You may want to create a VS code launch.json configuration for Vitest

Summary

1. git
2. GitHub
3. Node
4. npm
5. Typescript
6. ADAP Examples
7. VS Code
8. Vitest

Thank you! Any questions?

dirk.riehle@fau.de – https://oss.cs.fau.de

dirk@riehle.org – https://dirkriehle.com – @dirkriehle

Legal Notices

License

- Licensed under the [CC BY 4.0 International](#) license

Copyright