Contents

Types

$$\text{ProjectJSON} = \{(name, contents) \in \text{String} \times \text{Item}^*\}$$

$$\text{Item} = \{(name, type) \in \text{String} \times \text{IType} \mid \text{type} = \text{'file'}\}$$
$$\cup \{(name, type, contents) \in \text{String} \times \text{IType} \times \text{Item}^* \mid \text{type} = \text{'folder'}\}$$

$$\text{IType} = \{\text{'file'}, \text{'folder'}\}$$

$$\text{Path} = \text{String}^*$$

z.B. ('src', 'java', 'main', 'Test.java') $\in$ Path

(In JS: `['src', 'java', 'main', 'Test.java']`)

Functions

$$\text{showProject} \in \text{ProjectJSON} \to ()$$

- displays a project structure in the sidebar

$$\text{onDoubleClick} \in (\text{IType} \times (\text{Path} \to ())) \to ()$$

- the given function will be executed, if the user double clicks on an element within the project tree. The element must be of the given type, though.
- it will be given the file's path within the project tree as parameter

$$\text{onNewFile} \in (\text{Path} \to ()) \to ()$$

- the given function will be executed, if the user wants to create a new file within the project structure, using the sidebar.
- it will be given the file's path within the project tree as parameter

$$\text{onNewFolder} \in (\text{Path} \rightarrow ()) \rightarrow ()$$

- same as onNewFile, but for folders.

JS Examples

Usage of showProject

```js
showProject({
  'name': 'MyProject',
  'contents': [
    {
      'name': 'src',
      'type': 'folder',
      'contents': [
        {
          'name': 'java',
          'type': 'folder',
          'contents': [
            {
              'name': 'main',
              'type': 'folder',
              'contents': [
                {
                  'name': 'Main.java',
                  'type': 'file'
                },
                {
                  'name': 'Test.java',
                  'type': 'file'
                }
              ]
            }
          ]
        }
      ]
    },
    {
      'name': 'README.md',
      'type': 'file'
```

```
    }
  ]
});
```

Usage of onDoubleClick

```
onDoubleClick('file', (path) => {
  //...
  console.log('A file was double clicked on!');
  console.log(path);
  //...
});
```