

Black & White Series

# React Development Environment

Thinking in React

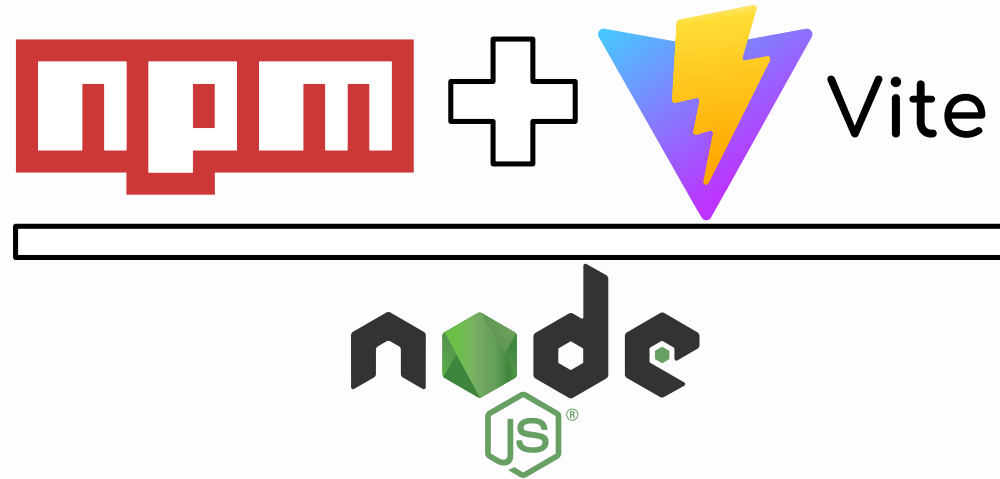
# React Program in an Environment

Available at: [frameworks/react/3-js-file](#)

# Development Environment

- **Registry:** download, update, and manage local libraries and coding tools:
  - libraries: React, Bootstrap, Chart, etc.
  - coding tools: transpiler, linter, resolver, etc.
- **Run** coding tools:
  - online for testing;
  - batch for deployment.
- **Bundler:** connect, pack, and deploy the package or application.

# Development Environment



- Registry
- Run coding tools
- Bundler

# `package.json` and Environment

- `package.json` - records libraries/development dependencies and development task scripts;
- `package-lock.json` - a picture of the current setup;

# Library Dependencies

package.json

```
"dependencies": {  
  "react": "^18.3.1",  
  "react-dom": "^18.3.1"  
},
```

# Development Dependencies

package.json

```
"devDependencies": {  
  "@eslint/js": "^9.8.0",  
  ...  
  "@vitejs/plugin-react": "^4.3.1",  
  "eslint": "^9.8.0",  
  ...  
  "globals": "^15.9.0",  
  "vite": "^5.4.0"  
}
```

# Scripts

package.json

```
"scripts": {  
  "dev": "vite",  
  "build": "vite build",  
  "lint": "eslint .",  
  "preview": "vite preview"  
},
```



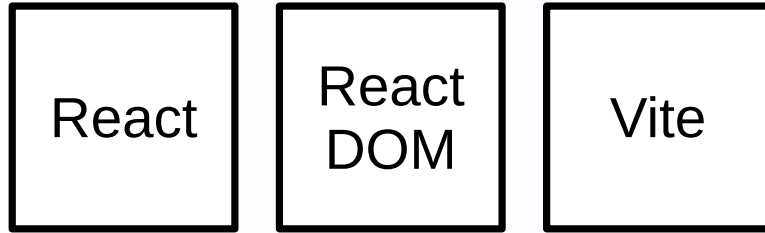
# vite.config.js

## Specific Vite configurations

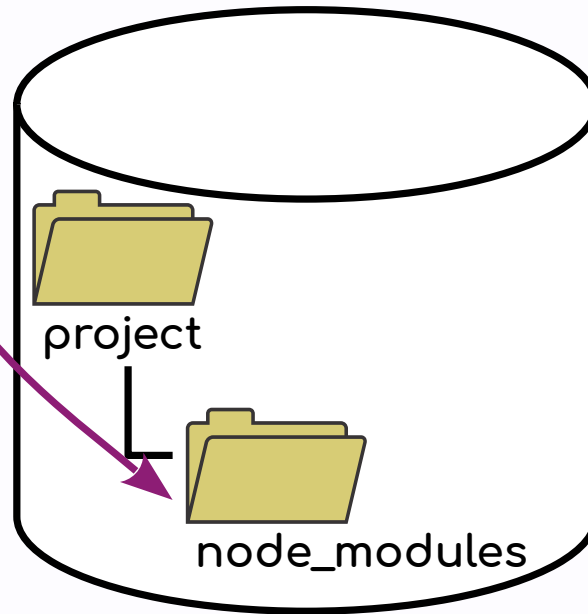
```
import { defineConfig } from 'vite'
import react from '@vitejs/plugin-react'

// https://vitejs.dev/config/
export default defineConfig({
  plugins: [react()],
})
```

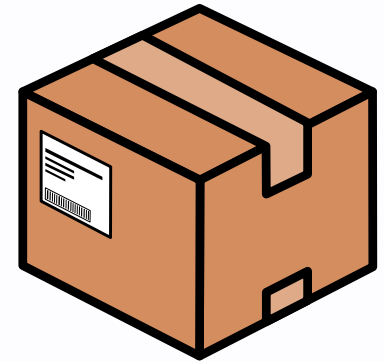
# Registry



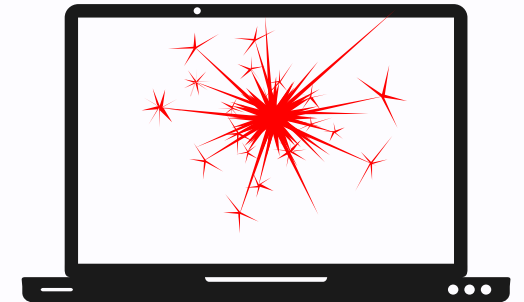
npm install



npm run build

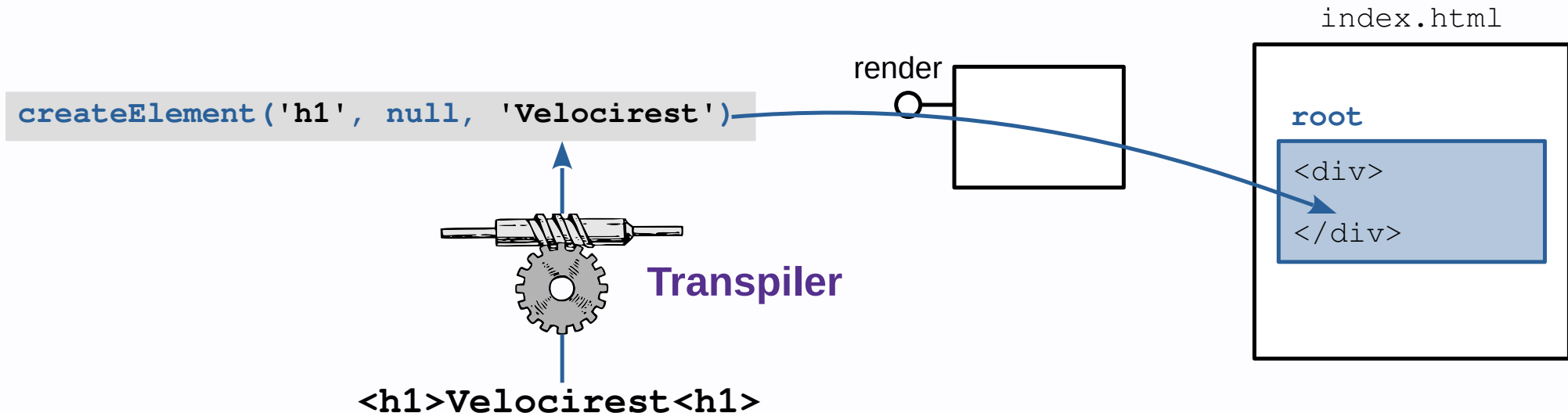


npm run dev



# JSX and Babel Transpiler

```
<script src="https://unpkg.com/@babel/standalone/babel.min.js"></script>  
<script type="text/babel">  
  ...  
</script>
```



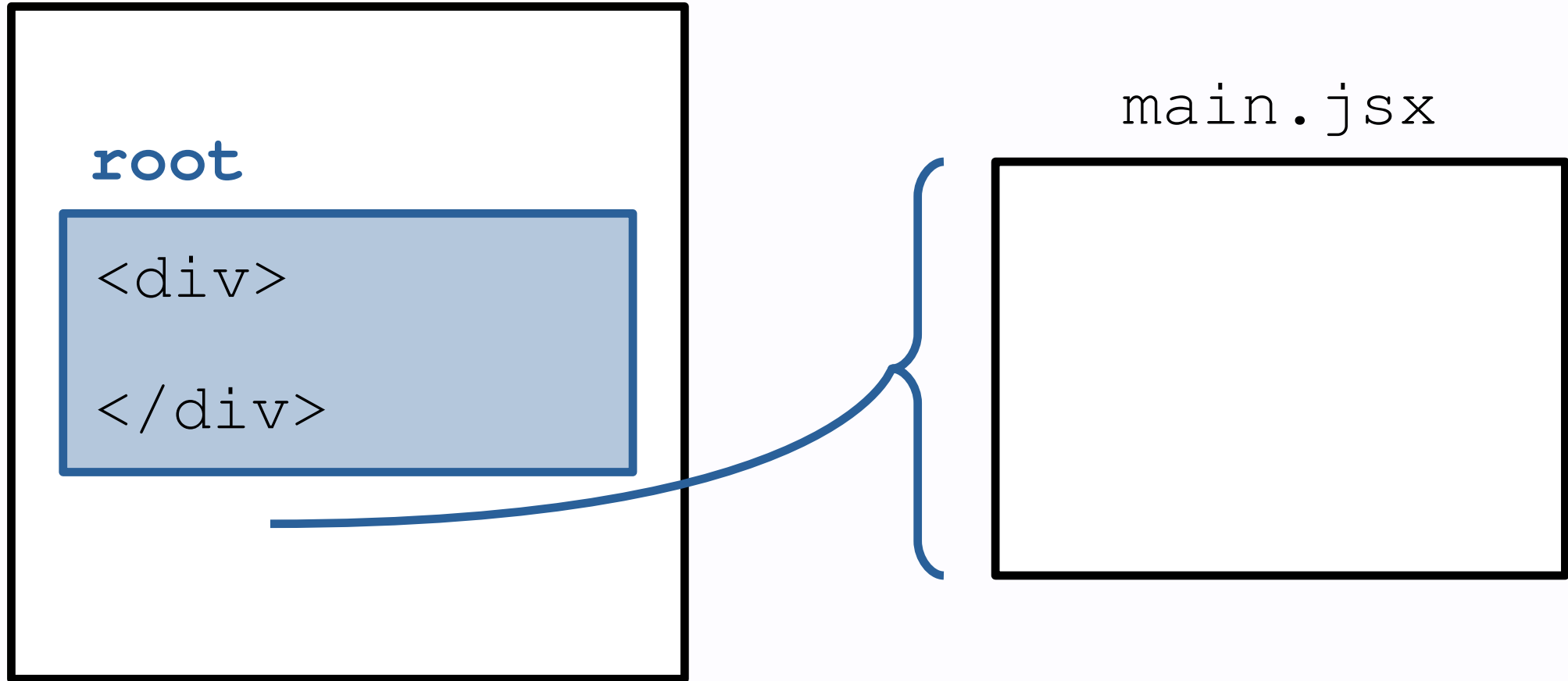
# Independent JS File

index.html

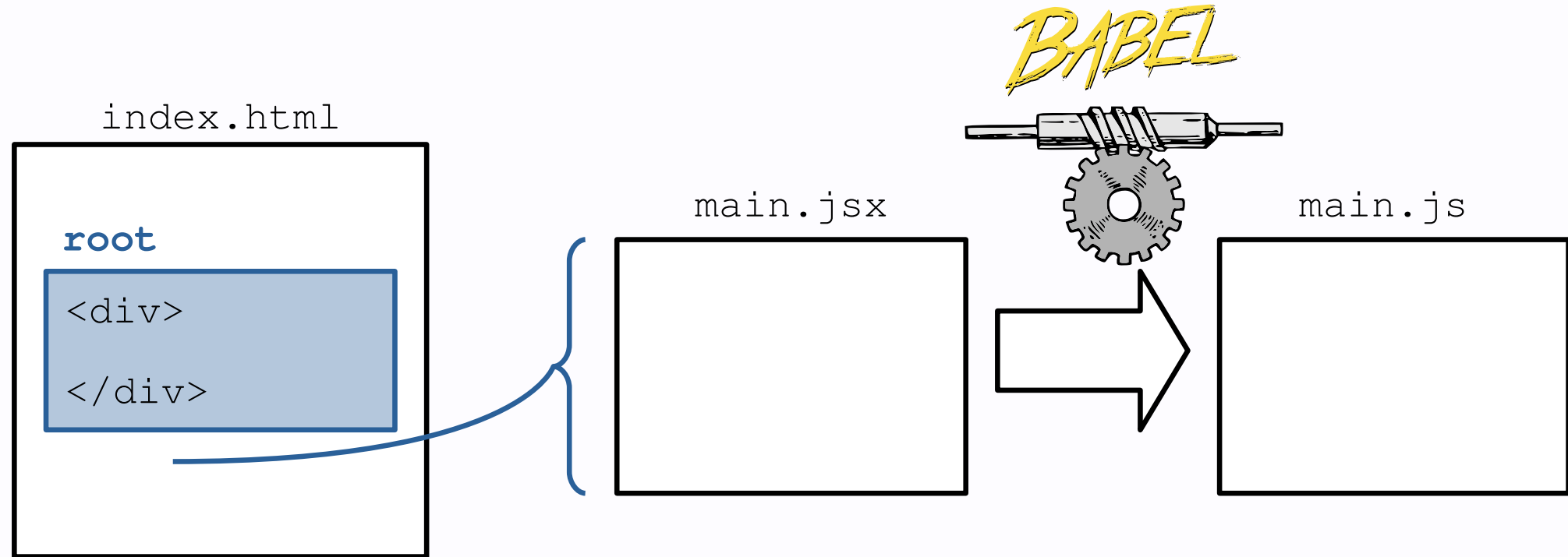
**root**

```
<div>  
</div>
```

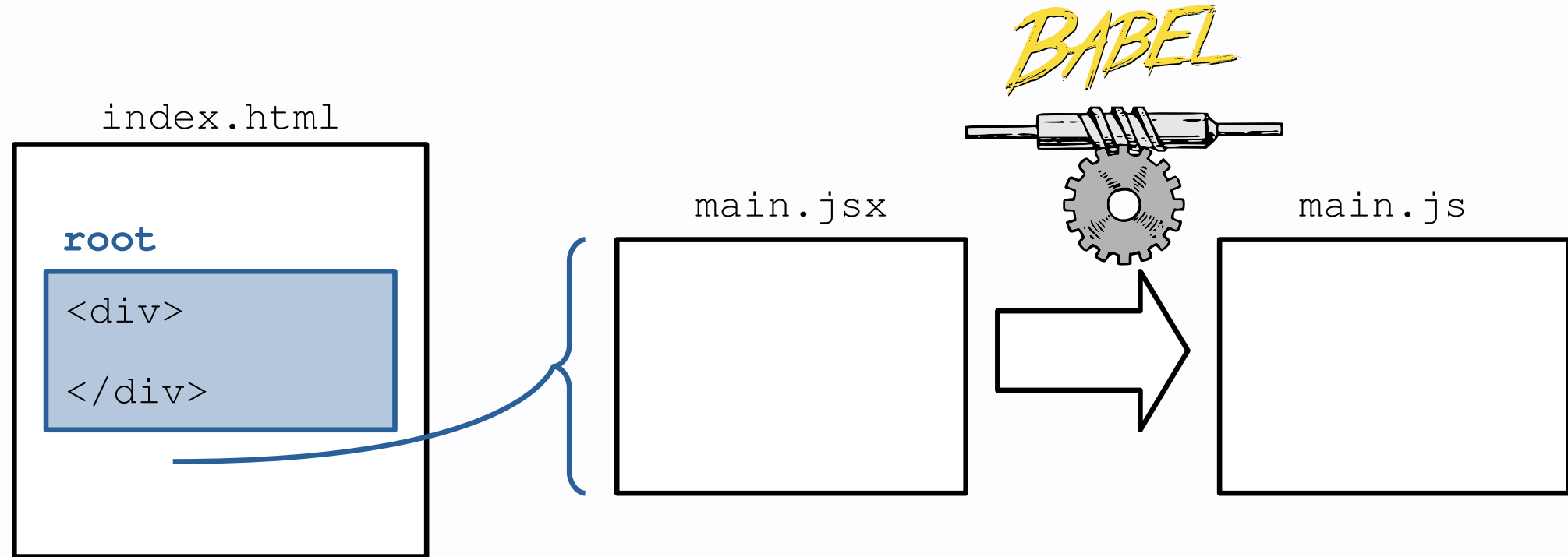
main.jsx



# Babel via Dev/Building



# Babel via Dev/Building



# References

- Writing Markup with JSX

**André Santanchè**

[www.ic.unicamp.br/~santanch/](http://www.ic.unicamp.br/~santanch/)

**Web2Learn**

[santanche.github.io/web2learn/](http://santanche.github.io/web2learn/)