# Web Technologies

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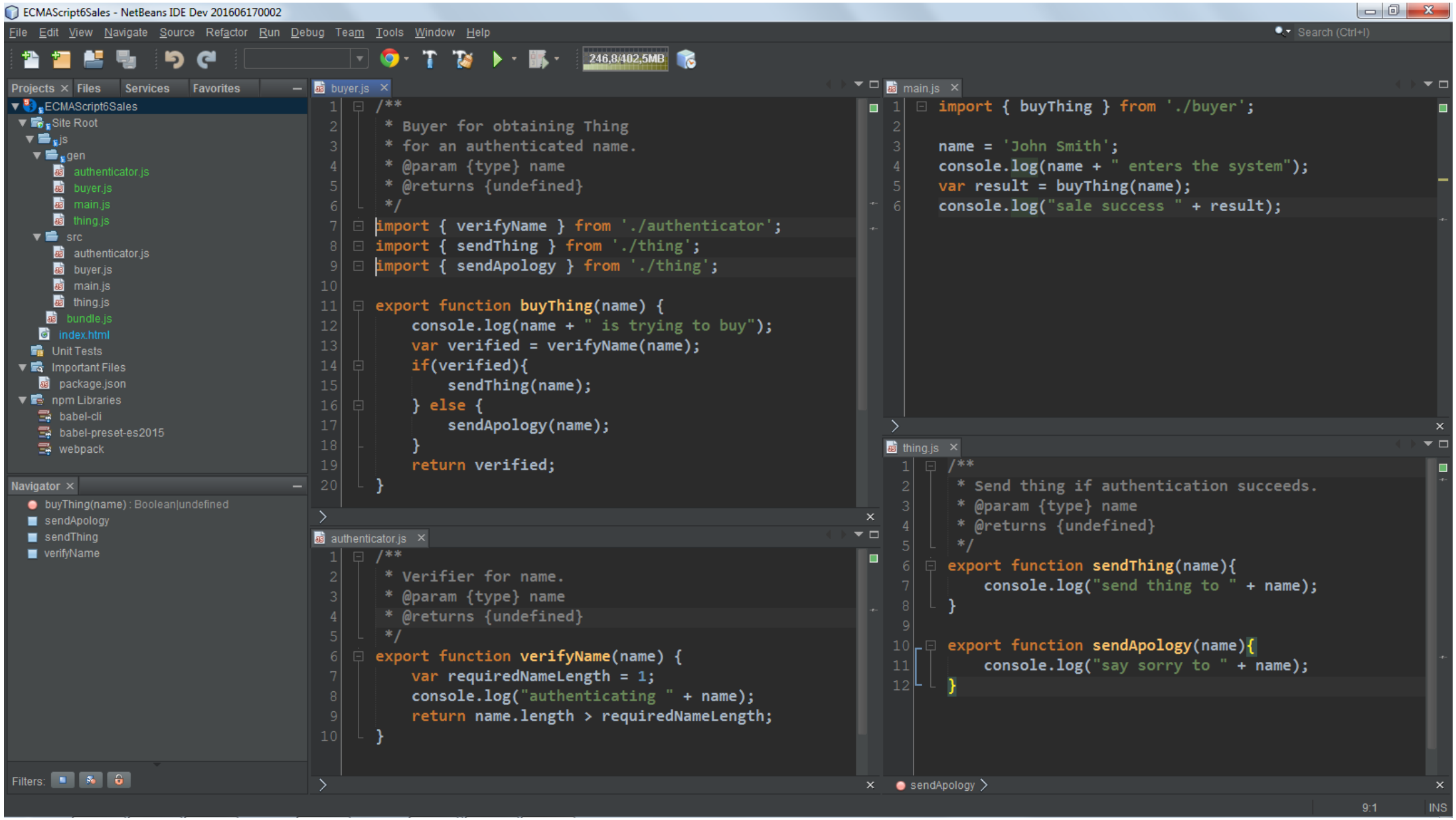
# Web Development Environment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Projects Files Services Favorites
ECMAScript6Sales
Site Root
js
gen
authenticator.js
buyer.js
main.js
thing.js
src
authenticator.js
buyer.js
main.js
thing.js
bundle.js
index.html
Unit Tests
Important Files
package.json
npm Libraries
babel-cli
babel-preset-es2015
webpack
Navigator
buyThing(name) : Boolean|undefined
sendApology
sendThing
verifyName
Filters:
buyer.js
/**
* Buyer for obtaining Thing
* for an authenticated name.
* @param {type} name
* @returns {undefined}
*/
import { verifyName } from './authenticator';
import { sendThing } from './thing';
import { sendApology } from './thing';
export function buyThing(name) {
console.log(name + " is trying to buy");
var verified = verifyName(name);
if(verified){
sendThing(name);
} else {
sendApology(name);
}
return verified;
}
main.js
import { buyThing } from './buyer';
name = 'John Smith';
console.log(name + " enters the system");
var result = buyThing(name);
console.log("sale success " + result);
authenticator.js
/**
* Verifier for name.
* @param {type} name
* @returns {undefined}
*/
export function verifyName(name) {
var requiredNameLength = 1;
console.log("authenticating " + name);
return name.length > requiredNameLength;
}
thing.js
/**
* Send thing if authentication succeeds.
* @param {type} name
* @returns {undefined}
*/
export function sendThing(name){
console.log("send thing to " + name);
}
export function sendApology(name){
console.log("say sorry to " + name);
}
sendApology
9:1
INS

# Web Development Environment

The keyword **environment** usually refers to a number of things, rather than just a single one (e.g. code editor or IDE)

Web Development Environment

Operating System (SO)

**Code Editor/IDE**

Browser

….

# Web Development Environment

- **Operating System:** it can greatly impact the availability of dev tools.
- **Code editor / IDE:** it is essential for every programmer, with a number of additional functionalities, it can both boost, but also decrease one's productivity if not chosen correctly.
- **Browser:** the most important part of web development workflow, useful for accessing knowledge, testing and so on.
- **Other tools:** browser extensions, repositories, services, and standard/often-used libraries. (Developer's preference).

Operating System

Windows
Linux
MacOS

Chrome
Android
iOS

Operating System

Windows

Linux

MacOS

# Web Browsers

- Dev-tools (Developer edition)
- Include built-in tools to help you with your design, prototype, and code
- Extensions store
- MDN

- Development tools
- Extensions
- Very popular
- Developed by Google

# Code editor / IDE

- **IDE,** an integrated environment gives you the ability to do everything in a single editor
  - Visual Studio Code, WebStorm, Eclipse, NetBeans, Komodo IDE, PyCharm
- **Code editor** - simple, lightweight and fast editor, often with great extendibility options
  - Atom, Text Sublime, Vim, Emacs,…

# Collaborative Development

# Collaborative Development

- Project/task Management
- Team Management
- Team Communication
- Collective code sharing and editing
- Documentation

# Collaborative Development

Project/Task Management

- **Jira** is created by developers for developers and incorporates Scrum and Agile methodology perfectly
- **Asana** allows setting detailed to-do lists with automatic notifications, linking a member to the task
- **Trello** includes all essential collaboration features (deadlines, prioritizing regular and urgent tasks, adding tasks, and creating folders)
- **Teamworks** offers multiple time-saving, collaboration-enhancing features to make project management quicker and more efficient.

Collaborative Development

# Team Communication

- **Slack** is a team chat app that keeps teams in the know.
- **Skype** and **Google hangouts** are chat and videoconference apps.
- MS Teams
- Zooms

# Collaborative Development

Collective code sharing and editing

- **GIT** has excellent branching & merging capabilities and lets me commit, branch & merge all locally, offline, without needing to be online to a server
- **Mercurial** is a distributed revision-control tool for software developers
- **Bazaar** is a decentralized version control system designed to be easy to use and intuitive, able to adapt to many workflows, reliable, and easily extendable.

# Collaborative Development

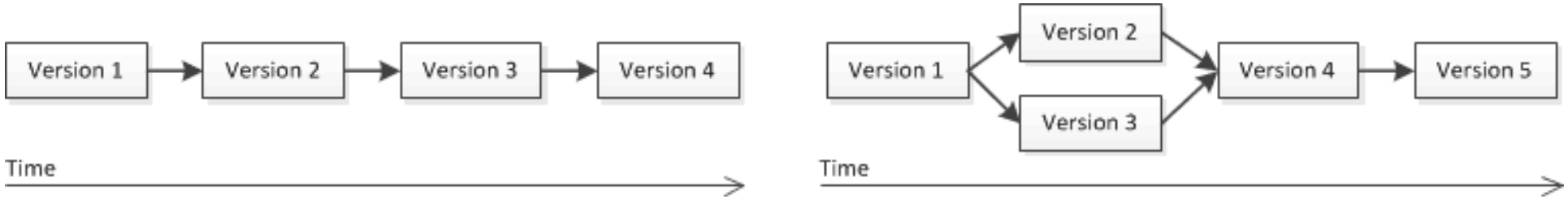
Documentation

- **Sphinx +  reStructuredText / Markdown**
- **Readthedocs**
- **Wiki**

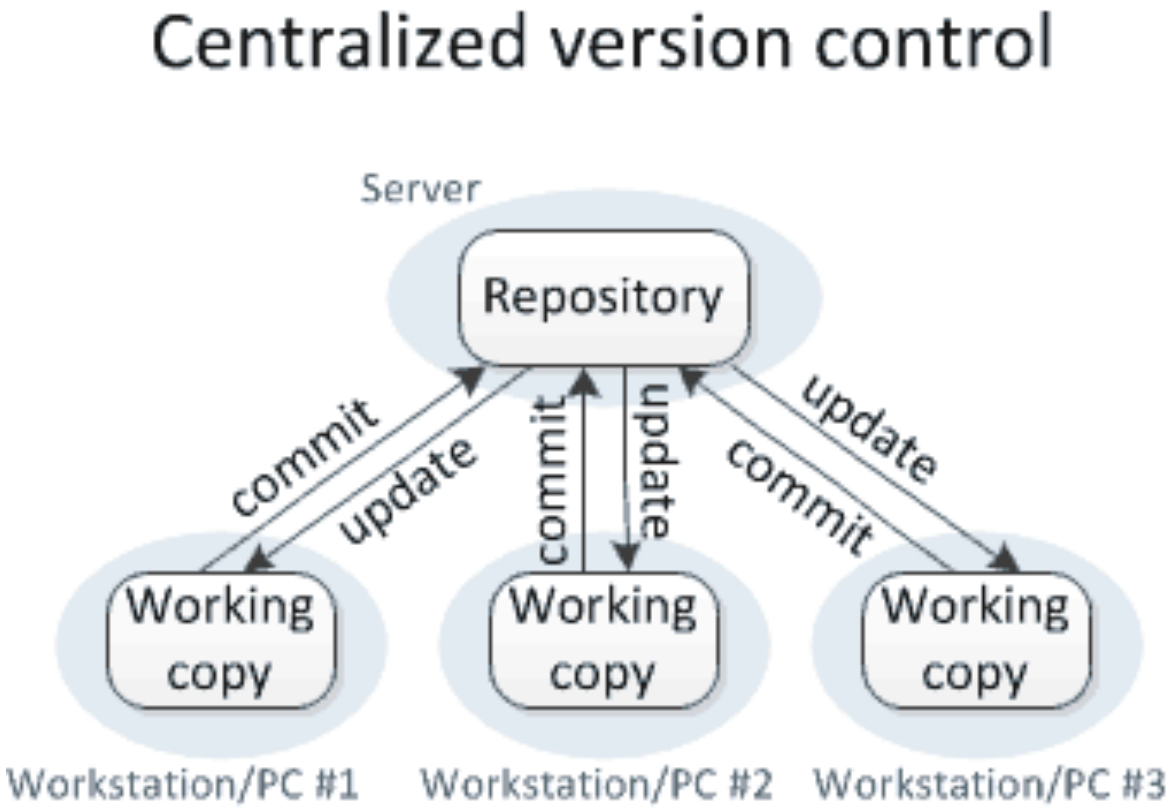
# Collective code sharing and editing

**Purpose of version control**

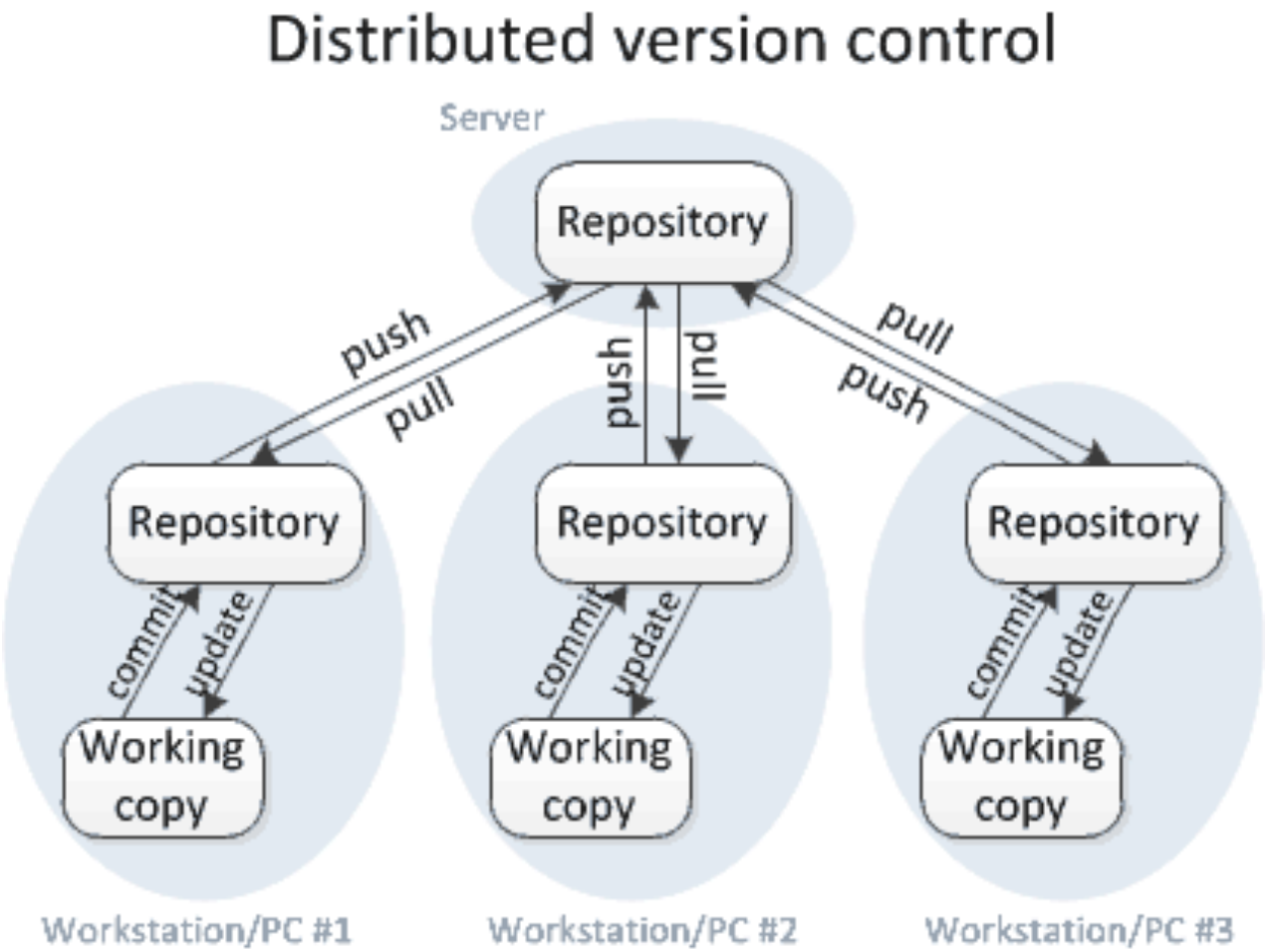
- Multiple people can work simultaneously on a single project
- It also enables one person to use multiple computers to work on a project
- It integrates the work that is done simultaneously
- Version control provides access to the historical versions of a project



# Collective code sharing and editing



# Collective code sharing and editing



# GIT: Branch and Merge