

Evolution of Visual Studio Code Java Ecosystem

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Dec. 21, 2019



What's Visual Studio Code

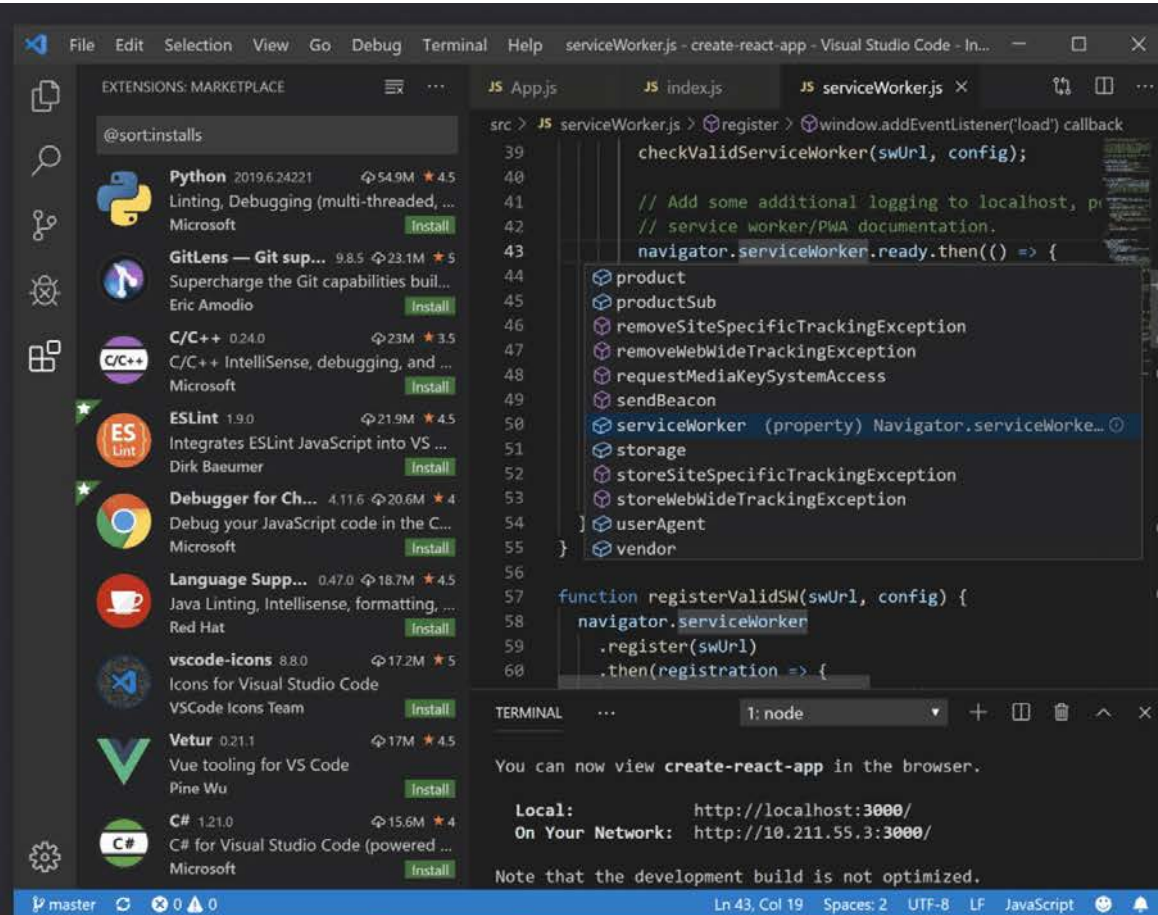
Code editing. Redefined.

Free. Built on open source. Runs everywhere.

Download for Windows
Stable Build

Other platforms and Insiders Edition

By using VS Code, you agree to its
[license](#) and [privacy statement](#).



IntelliSense



Debugging



Built-in Git



Extensions

Why Visual Studio Code?



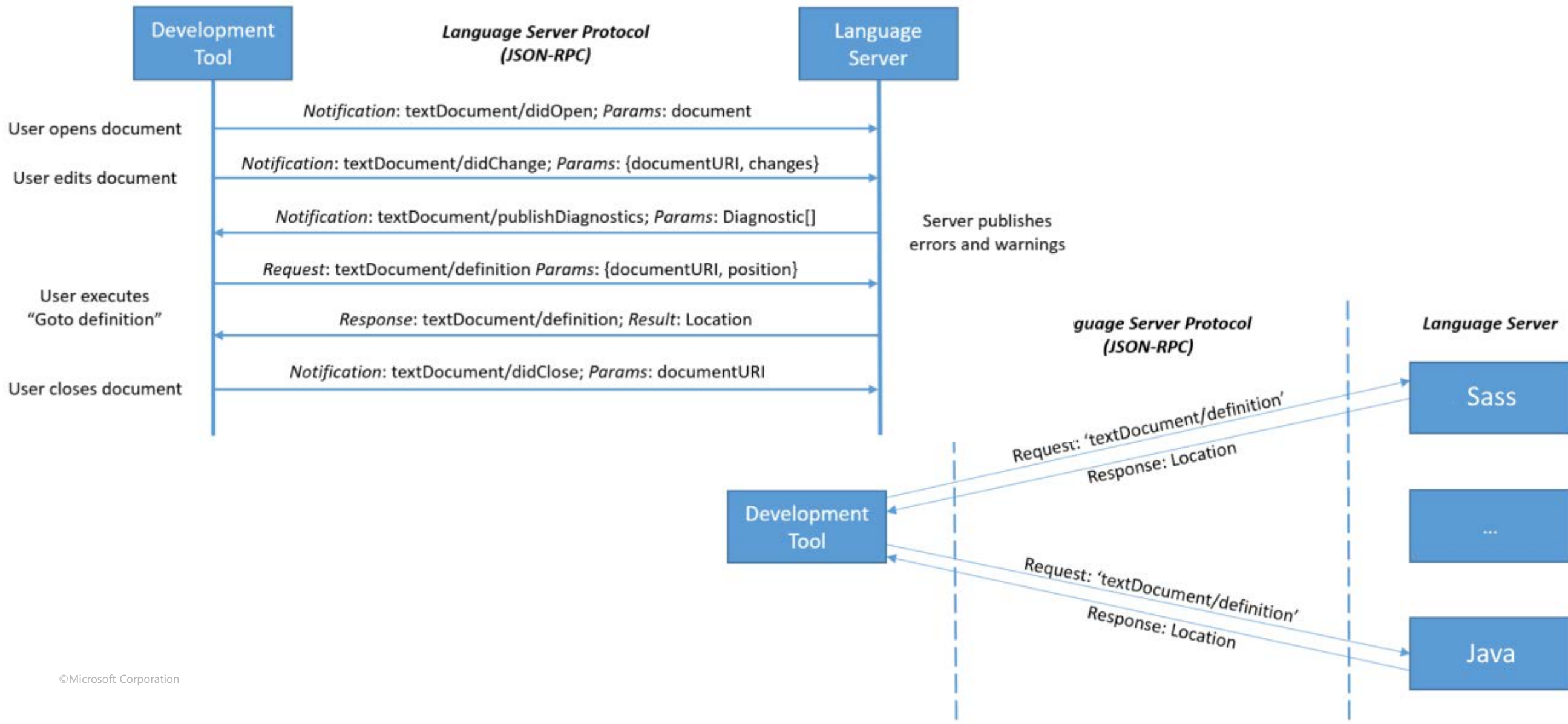
IDEs

- Keyboard centric
- Lightweight/fast
- File/folders
- Polyglot

- Keyboard centric
- Lightweight/fast
- File/folders
- Polyglot
- Code understanding
- Debug

- Project systems
- Integrated build
- Code understanding
- Debug
- Templates/wizards
- Designers
- ALM integration

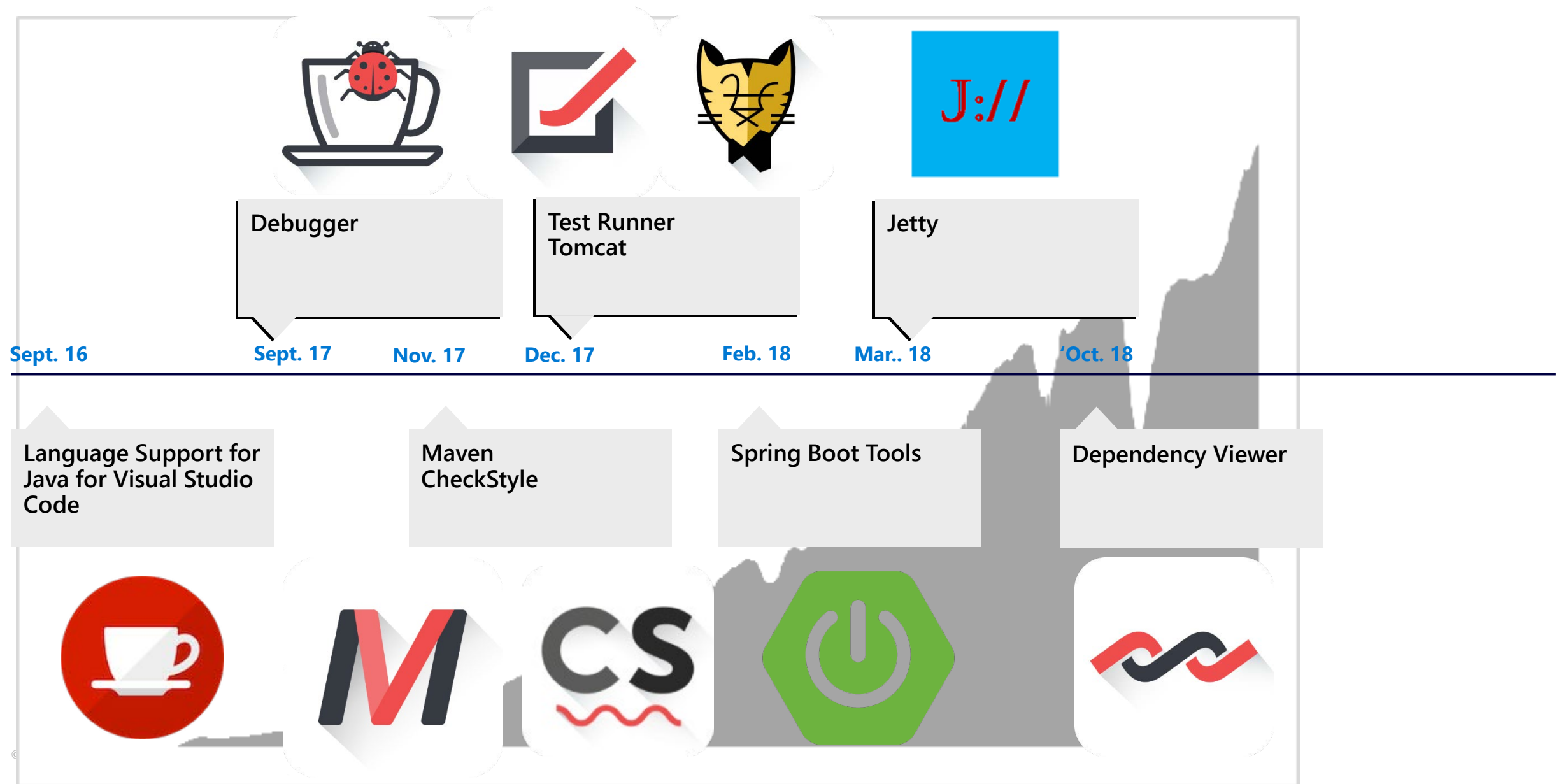
Language Server Protocol



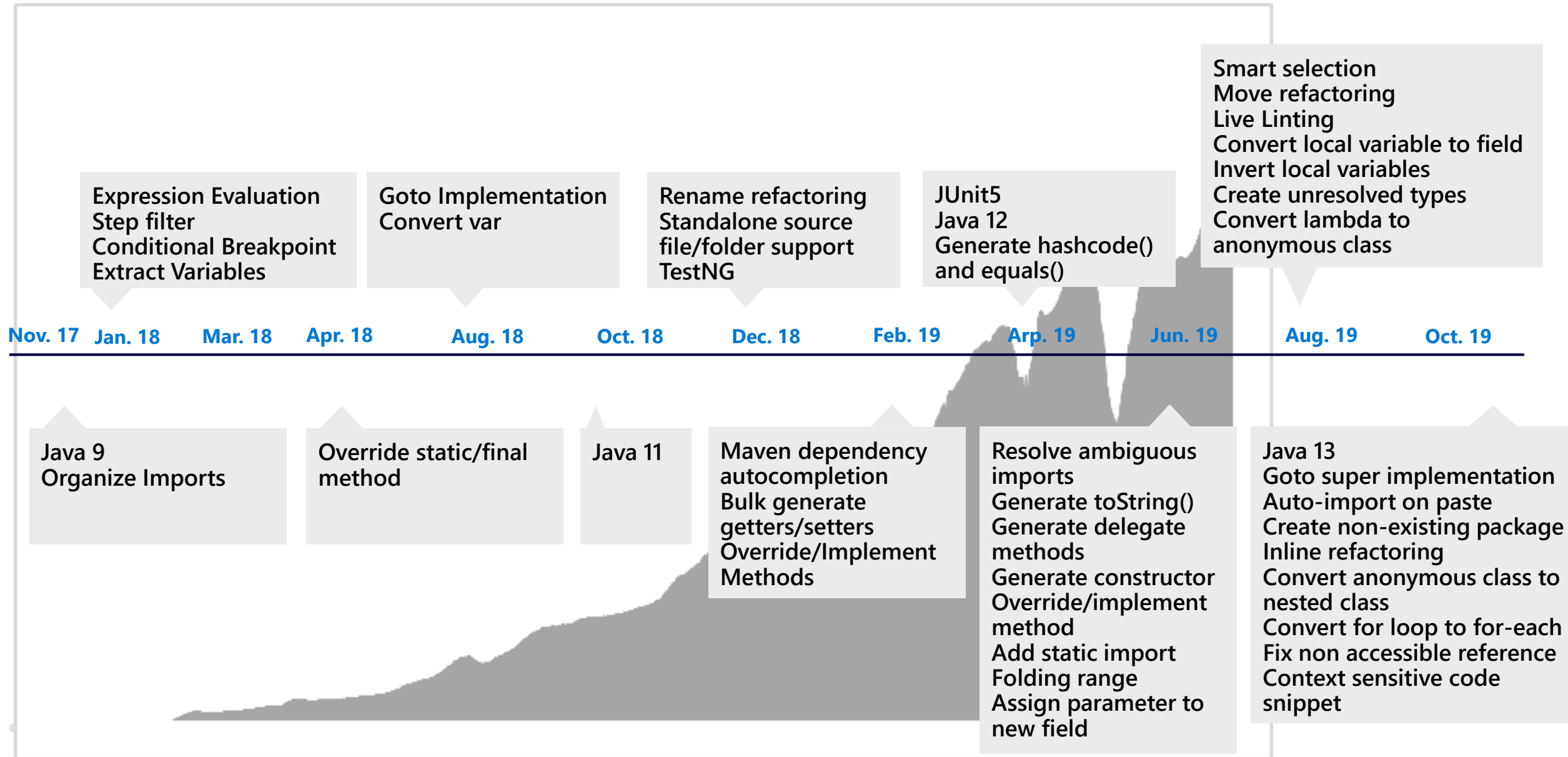
It's all begins with a Hackathon



Then come more extensions...



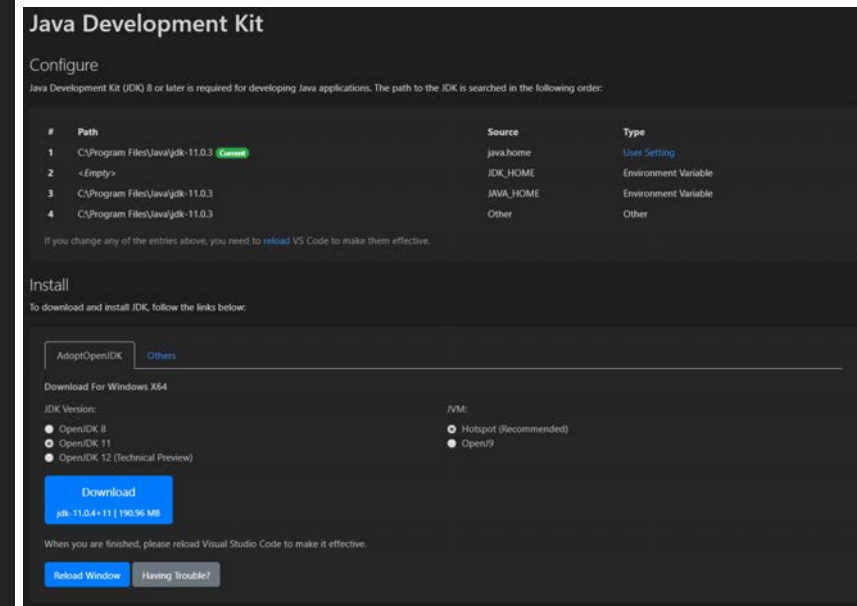
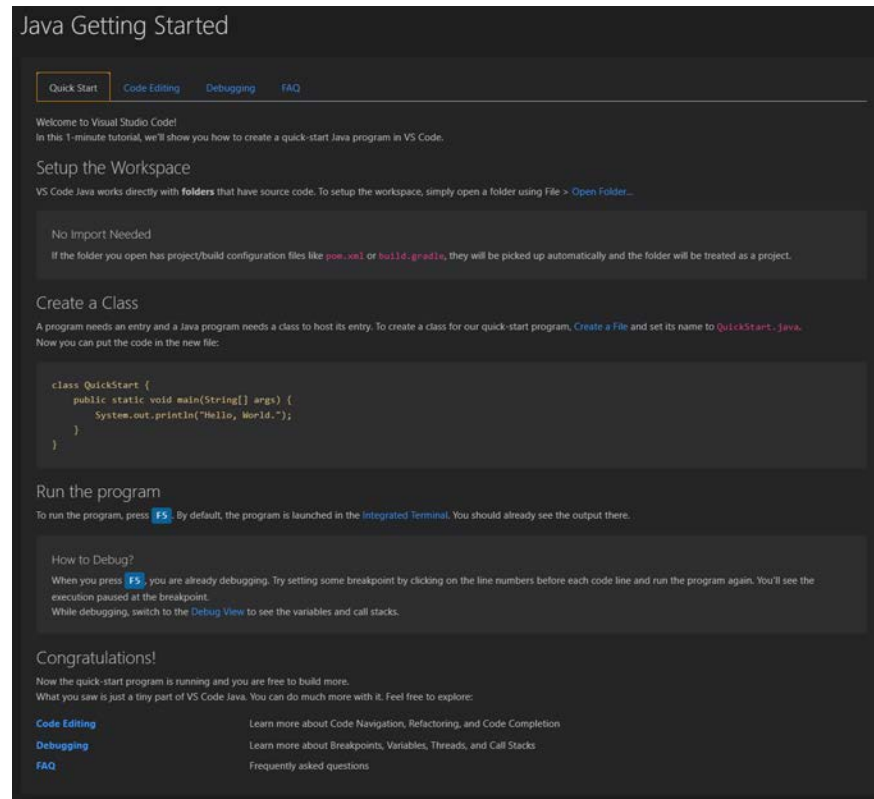
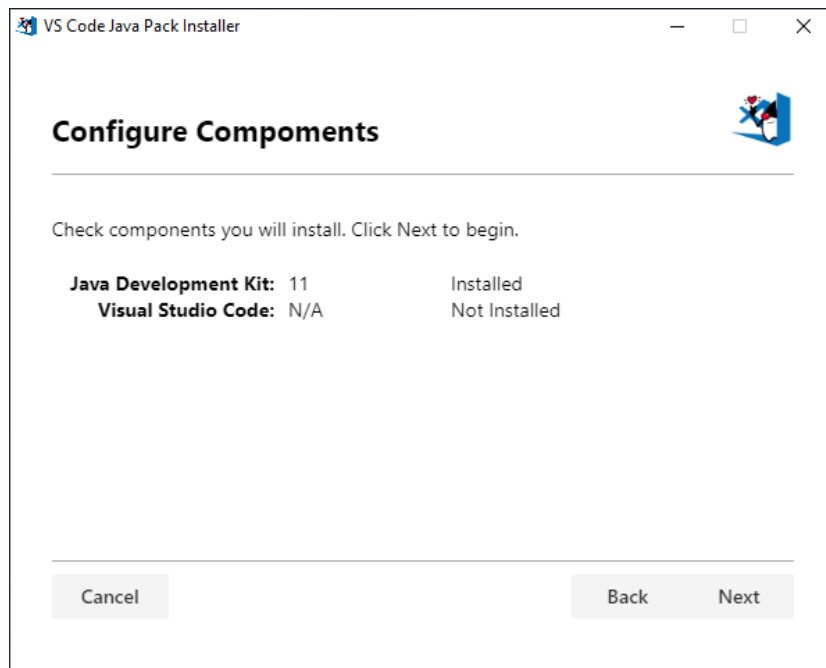
And more features



Demo

Basic Features available for Java in VS Code

Getting Started – Installer, Tutorials and Helper



Developer/Community Driven

Tag: Java from Visual Studio Blog

October 18, 2019

Visual Studio Code for Java

code action implementation, better refactoring and more code actions, better code snippet Java 13 support along with more improvements in Debugger, Maven, Checkstyle and Test Runner.

VS CodeMicrosoft

Java on Visual Studio Code October Update

Xiaokai He

October 18, 2019

Welcome to the October update of Java on Visual Studio Code! This month, we're bringing some new features for code navigation, code actions and refactoring, code snippet along with Java 13 support. There's also improvements in debugger, maven, checkstyle and Test Runner.

September 16, 2019

Visual Studio Code for Java

Move Refactoring, More Code Actions, Live Linting, New Getting Started Experience and more updates for Debugger and Test Runner extensions.

VS CodeMicrosoft

Java on Visual Studio Code September Update

Xiaokai He

September 16, 2019

September update for Java on Visual Studio Code. Including move refactoring, more code actions, live linting, new getting started experience and more updates for debugger and test runner extensions.

July 22, 2019

Visual Studio Code for Java

More code actions, semantic selection and updates for Maven, Gradle and Checkstyle extensions.

VS CodeMicrosoft

Java on Visual Studio Code July Update

Xiaokai He

July 22, 2019

Welcome to the July update of Java on Visual Studio Code!
In this update, we'd like to share a couple new refactoring features, semantic selection as well as some other enhancements we delivered during last few weeks.
Refactoring
Trigger rename after extract to variable/constant/method
After performing extract to variable/constant/method refactoring.

June 24, 2019

Visual Studio Code for Java

More code actions and snippets, improved performance, debugger improvements and updates for Maven and Test Runner extensions.

VS CodeMicrosoft

Java on Visual Studio Code June Update

Xiaokai He

June 24, 2019

Welcome to the June update of Java on Visual Studio Code!
Earlier this month, we shared our new Java Installer for Visual Studio Code, which aims to help new Java developers to get their environment ready and start coding in just a few clicks.

1. Overall, how satisfied or dissatisfied are you with Java on Visual Studio Code?

Extremely dissatisfied

Moderately dissatisfied

Slightly dissatisfied

Neither satisfied nor dissatisfied

Slightly satisfied

Moderately satisfied

Extremely satisfied

2. How likely is it that you would recommend Visual Studio Code for Java development to a friend or colleague?

Not at all likely

Extremely likely

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3. (Optional) What, if anything, do you find frustrating or unappealing about Java on Visual Studio Code? What new capabilities or improvements would you like to see for Java on Visual Studio Code?

4. (Optional) What do you like best about Java on Visual Studio Code?

Next

Java on Visual Studio Code

Visual Studio Code Java Developer Interview

30 minutes

October 22

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October 2019

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1:30 pm

7:30 pm

8:00 pm

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All times are in (UTC-08:00) Pacific Time (US & Canada)

Add your details

Name

Email

Please let us know if you have any special requests. Thank you.

Notes (optional)

©Microsoft Corporation

Why VS Code?

1. New or polyglot developers
2. Lightweight projects

Or as a companion tool...

VS code's fast startup make it more responsive, so you can use it for









1. Peek into someone else's project
2. Navigate a foreign code base
3. Do some small tasks such as git operations and PR review
4. and more...




What's Next?

Cloud Development


Visual Studio Code Marketplace

There are many VS Code extensions on the [Marketplace](#) that make it easy to build and host applications on Azure.

 Docker ms-azuretools 3.1M Adds syntax highlighting, commands, hover tips, a...	 Azure Functions ms-azuretools 283.9K An Azure Functions extension for Visual Studio...	 Azure CLI Tools ms-vscode 227.0K Tools for developing and running commands of the ...	 Azure Resource Manag.. msazurermttools 221.2K Language server and editing tools for Azure Resou...
 Azure App Service ms-azuretools 219.2K An Azure App Service management extension for...	 Azure Cosmos DB ms-azuretools 191.8K Create, browse, and update globally distributed, ...	 Azure Storage ms-azuretools 135.0K Manage your Azure Storage accounts including Blob...	 Azure Machine Learni... ms-toolsai 103.6K Visual Studio Code extension for Azure Machi...


	AWS Toolkit for Visual Studio Co Amazon Web Services 53,431 installs ★★ An extension for working with Amazon Web Services in Visu Install Trouble Installing?
	Cloud Code Preview Google Cloud 28,795 installs ★★★★★ Makes working with Kubernetes feel like editing and debugg Google Cloud, tools for Cloud Native development. Install Trouble Installing?
	OpenShift Extension Pack Red Hat 2,915 installs ★★★★★ (0 The ultimate collection of extensions for working with Install Trouble Installing?

Microservices Development




Docker

Preview


Microsoft |  3,089,192 installs | ★★★★★ (41) | Free

Adds syntax highlighting, commands, hover tips, and linting for Dockerfile and docker files.

[Install](#) [Trouble Installing?](#)




Quarkus


Red Hat |  706 installs | ★★★★★ (0) | Free

Quarkus Tools for Visual Studio Code

[Install](#) [Trouble Installing?](#)




Kubernetes


Microsoft |  303,456 installs | ★★★★★ (17) | Free

Develop, deploy and debug Kubernetes applications

[Install](#) [Trouble Installing?](#)




Spring Boot Tools

Pivotal |  296,014 installs | ★★★★★ (1) | Free


Provides validation and content assist for Spring Boot `application.properties`, `application.yml` properties files. As well as Boot-specific support for `java` files.

[Install](#) [Trouble Installing?](#)




Remote Development

Preview

Microsoft |  285,896 installs | ★★★★★ (57) | Free


An extension pack that lets you open any folder in a container, on a remote machine and take advantage of VS Code's full feature set.

[Install](#) [Trouble Installing?](#)



MicroProfile Starter

Preview

MicroProfile community |  79 installs | ★★

VS Code extension starter for Eclipse MicroProfile

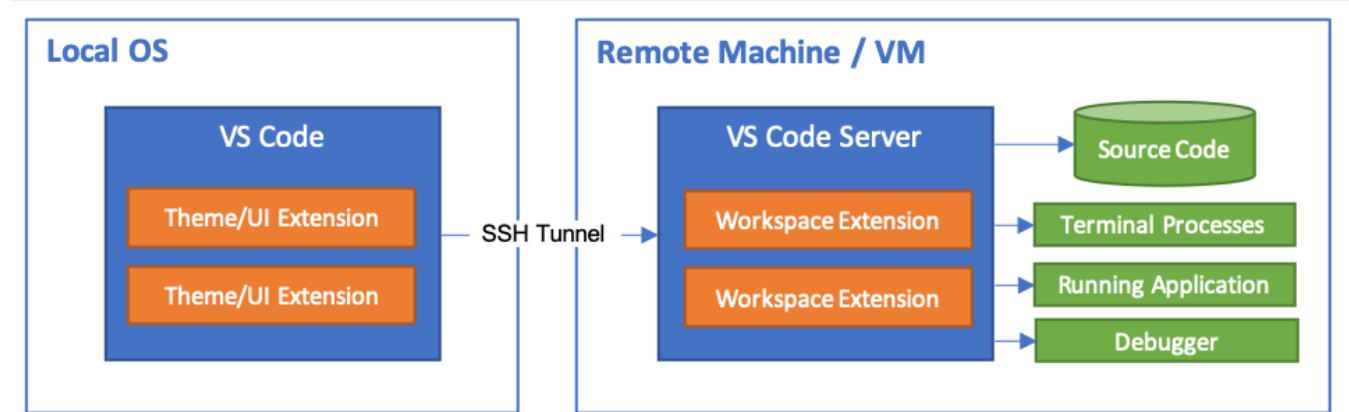
[Install](#) [Trouble Installing?](#)

Demo

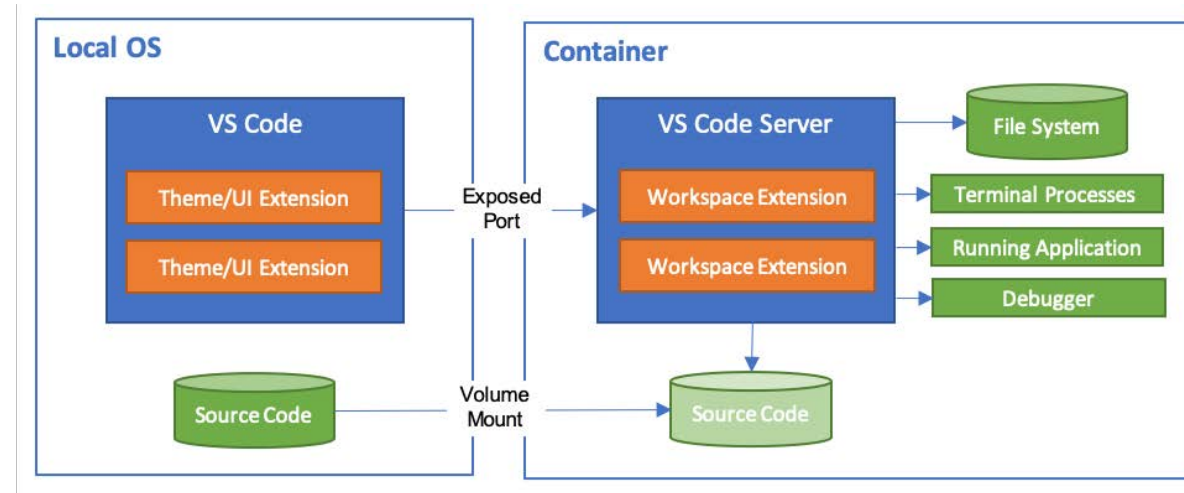
Microservice Support

Remote Development

SSH



Container



Demo

Remote (Container/SSH)



Visual Studio IntelliCode

Microsoft | 2,815,536 installs | (36)

AI-assisted development

[Install](#)

[Trouble Installing?](#)

```
GuestbookGrid.js
import { signatures } from "../signatures";

const COLUMNS = 30;
const ROWS = 20;

const matrix = [];
for (let x = 0; x < COLUMNS; x++) {
  for (let y = 0; y < ROWS; y++) {
    const cellNumber = y + (x * ROWS) + 1;
    const isBonus = isBonusCell(cellNumber);
    const isSpecial = isSpecialCell(cellNumber);

    const signature = signatures.shift();
    matrix.push({ isBonus, isSpecial, signature });
  }
}

export default matrix;
```

Name	Value	Type
Local		
this	Object	Object
__webpack_export...	Object {}	Object
__WEBPACK_IMPO...	Object {a, b: }	Object
__WEBPACK_IMPO...	Object {a: <accessor>}	Object
__webpack_requir...	function(request) { ... }	Function
cellNumber	undefined	undefined
COLUMNS	30	number
isBonus	undefined	undefined

DEBUG Chrome

VARIABLES

Local

this: Object

__webpack_exports__: Object

__WEBPACK_IMPORTED_MODULE_0__

__WEBPACK_IMPORTED_MODULE_1__

__webpack_require__: functio...

cellNumber: undefined

COLUMNS: 30

CALL STACK PAUSED ON BREAKPO...

./src/model/signatureMatrix.js

__webpack_require__ bootstr...

fn bootstrap be75207a53ef...

./src/components/Grid/Guestbook

__webpack_require__ bootstr...

fn bootstrap be75207a53ef...

./src/components/App.js bu...

__webpack_require__ bootstr...

fn bootstrap be75207a53ef...

./src/index.js bundle.js

__webpack_require__ bootstr...

fn bootstrap be75207a53ef...

0 bundle.js 41765:18

__webpack_require__ bootstr...

(anonymous function) bootst...

(anonymous function) bundl...

signatureMatrix.js

1 import { isBonusCell, isSpecialCell } from "../bonusCells"

2 import { signatures } from "../signatures";

3

4 const COLUMNS = 30;

5 const ROWS = 20;

6

7 const matrix = [];

8 for (let x = 0; x < COLUMNS; x++) {

9 for (let y = 0; y < ROWS; y++) {

10 const cellNumber = y + (x * ROWS) + 1;

11 const isBonus = isBonusCell(cellNumber);

12 const isSpecial = isSpecialCell(cellNumber);

13

14 const signature = signatures.shift();

15 matrix.push({ isBonus, isSpecial, signature });

16 }

17 }

18

19 export default matrix;

```
11 ▶ Run | Debug
12 public static void main(String[] args) {
13     ApplicationContext ctx = SpringApplication.run(Application.class, args);
14
15     System.out.println("Welcome to Visual Studio IntelliCode!");
16
17     String[] names = ctx.getBeanDefinitionNames();
18     Arrays.sort(names);
19     for (String name : names) {
20         System.
21     }
22 }
23
24 }
25
```

★ currentTimeMillis() : long

★ arraycopy(Object src, int srcPos, ...

★ getProperty(String key) : String

★ nanoTime() : long

★ exit(int status) : void

class : Class<java.lang.System>

err : PrintStream

in : InputStream

out : PrintStream

clearProperty(String key) : String

console() : Console

gc() : void

System

Returns the current time in milliseconds. Note that while the unit of time of the return value is a millisecond, the granularity of the value depends on the underlying operating system and may be larger. For example, many operating systems measure time in units of tens of milliseconds.

See the description of the class `Date` for a discussion of slight discrepancies that may arise between "computer time" and coordinated



Live Share Extension Pack

Preview

Microsoft | 170,147 installs | (18)

Collection of extensions that enable real-time collaborative development

[Install](#)

[Trouble Installing?](#)

Demo

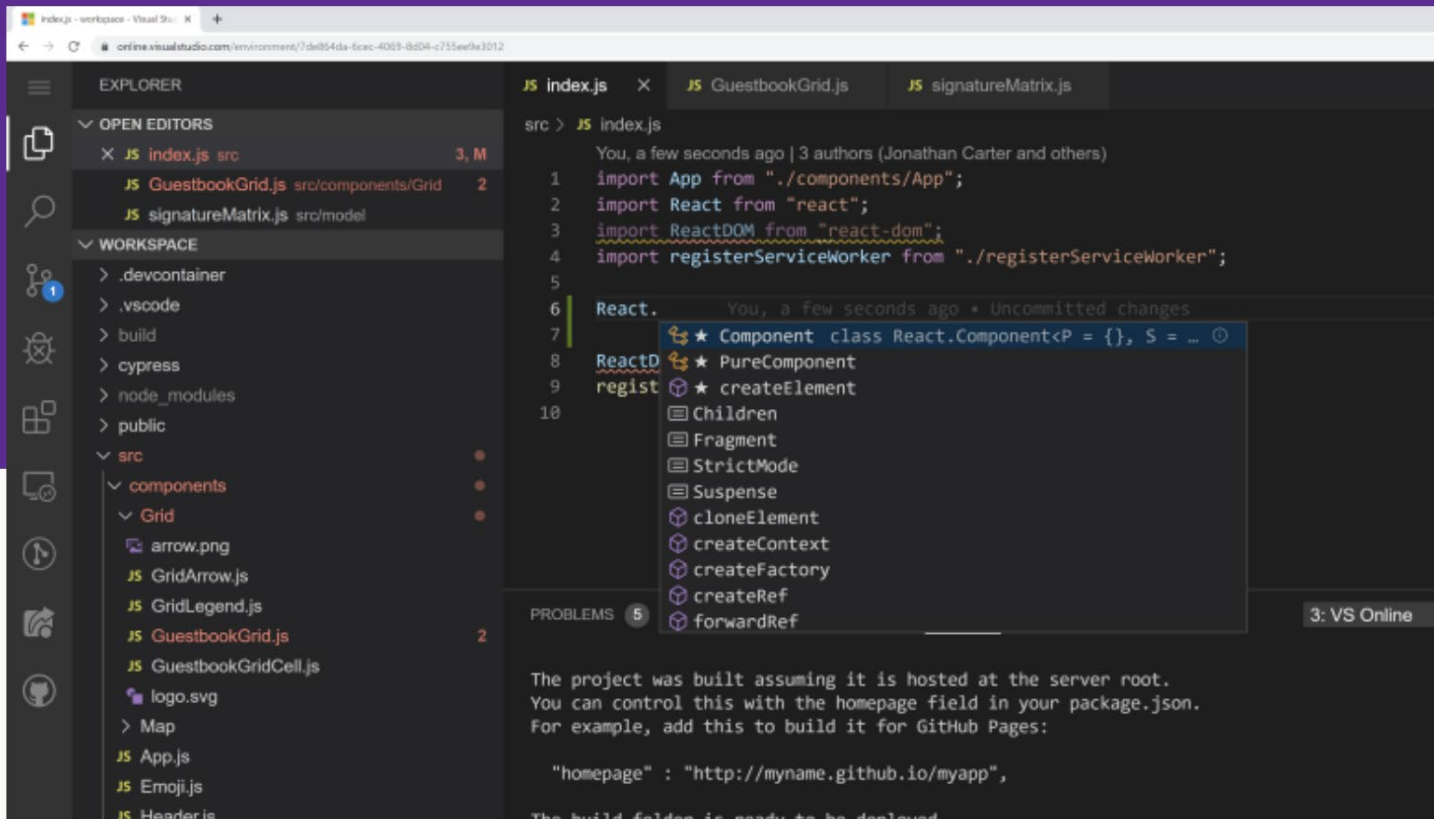
IntelliCode and Live Share

Visual Studio Online

Cloud-powered dev environments accessible from anywhere

Sign up for the public preview

Get started >



Cloud-powered

Managed environment

Self-hosted

Any language/project

Develop from anywhere

Feel at home anywhere

Collaborative development

Demo

IntelliCode and Live Share

Resources

Java in VS Code Overview	https://code.visualstudio.com/docs/languages/java
Java in VS Code Tutorial	https://code.visualstudio.com/docs/java/java-tutorial
VS Code Remote Development	https://code.visualstudio.com/docs/remote/remote-overview
Live Share	https://visualstudio.microsoft.com/services/live-share
IntelliCode	https://visualstudio.microsoft.com/services/intellicode
Visual Studio Online	https://visualstudio.microsoft.com/services/visual-studio-online

@XiaokaiHe @akalirong



Thank you!

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