

# Praktikum „SEP: Java-Programmierung“ SS 2019

Eclipse und IntelliJ IDEA

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1. Grundlegende Fähigkeiten von Eclipse + IntelliJ verstehen
2. „Sprungbrett“ für eigenes Erlernen der IDEs schaffen

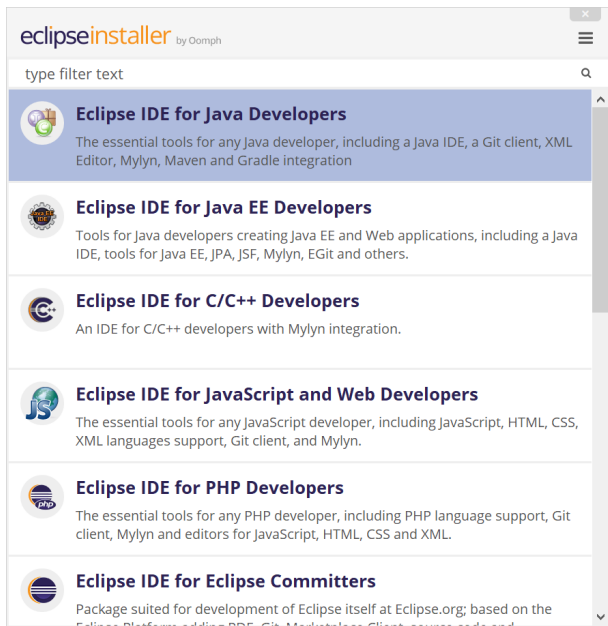
Unterstützung von:

- ▶ Programmierung
  - ▶ Code Completion
  - ▶ Code Navigation
    - ▶ Springe zu Definition
    - ▶ Zeige/Springe zu Benutzung
    - ▶ Zeige Klassen-Hierarchie
  - ▶ Hinweise auf (mögliche) Fehler/Verbesserungen
    - ▶ Syntaxfehler
    - ▶ Semantische Fehler (z.B. Zugriff auf null)
    - ▶ ...
  - ▶ Formatierung
  - ▶ Refactoring

- ▶ Projektverwaltung
  - ▶ Build-Tools
  - ▶ Dateiverwaltung
  - ▶ Versionsverwaltung (Git)
  
- ▶ Ausführung und Debugging
  - ▶ Konsole
  - ▶ (Conditional) Breakpoints
  - ▶ Auswertung von eigenen Befehlen auf aktuellem Programmzustand

- ▶ Immer gewünschte Warnungen und gewählte Formatierung prüfen!
- ▶ Plugin für Formatierung:  
`https://github.com/google/google-java-format`

# Eclipse: Installation



The screenshot shows the Eclipse Installer application window. At the top, it says "eclipseinstaller by Oomph". Below that is a search bar with the placeholder text "type filter text" and a magnifying glass icon. The main content area displays a list of IDE options, each with an icon, a title, and a description. The first option, "Eclipse IDE for Java Developers", is highlighted with a blue background. The list includes:

- Eclipse IDE for Java Developers**  
The essential tools for any Java developer, including a Java IDE, a Git client, XML Editor, Mylyn, Maven and Gradle integration
- Eclipse IDE for Java EE Developers**  
Tools for Java developers creating Java EE and Web applications, including a Java IDE, tools for Java EE, JPA, JSF, Mylyn, EGit and others.
- Eclipse IDE for C/C++ Developers**  
An IDE for C/C++ developers with Mylyn integration.
- Eclipse IDE for JavaScript and Web Developers**  
The essential tools for any JavaScript developer, including JavaScript, HTML, CSS, XML languages support, Git client, and Mylyn.
- Eclipse IDE for PHP Developers**  
The essential tools for any PHP developer, including PHP language support, Git client, Mylyn and editors for JavaScript, HTML, CSS and XML.
- Eclipse IDE for Eclipse Committers**  
Package suited for development of Eclipse itself at Eclipse.org; based on the Eclipse Platform adding PDE, Git, Mylyn, Client, source code and...

At the bottom right of the window, there are several navigation icons: a checkmark, a copy icon, a left arrow, a right arrow, a list icon, a search icon, and a refresh icon.

Live-Demo

# Eclipse Cheatsheet

<b>Strg+Shift+L</b>	Cheatsheet
<b>Strg+1</b>	Quick-Fix
<b>Strg+Space</b>	Code-Completion
<b>Strg+Klick</b>	Springe zu Definition
<b>Strg+Alt+H</b>	Zeige Benutzungen
<b>Strg+T</b>	Typ-Hierarchie
<b>Strg+O</b>	Datei-Outline
<b>Strg+Shift+T</b>	Suche Java-Klasse
<b>Strg+Shift+F</b>	Formatieren

Activate Editor	F12
Activate Task	Ctrl+F9
Add Javadoc Comment	Alt+Shift+J
All Instances	Ctrl+Shift+N
Backward History	Alt+Left
Build All	Ctrl+B
Change Method Signature	Alt+Shift+C
Close	Ctrl+F4
Close All	Ctrl+Shift+F4
Collapse All	Ctrl+Shift+Numpad_Divide
Commit...	Ctrl+#
Content Assist	Ctrl+Space
Context Information	Ctrl+Shift+Space
Copy	Ctrl+Insert
Coverage	Ctrl+Shift+F11
Coverage Eclipse Application	Alt+Shift+E, E
Coverage JUnit Plug-in Test	Alt+Shift+E, P
Coverage JUnit Test	Alt+Shift+E, T

Press "Ctrl+Shift+L" to open the preference page.

Universalshortcut: **Strg+3**



- ▶ Kurze Tutorials in Eclipse:  
Help -> Cheat Sheets
- ▶ Einführung in Debugging mit Eclipse:  
[https://www.eclipse.org/community/eclipse\\_newsletter/2017/june/article1.php](https://www.eclipse.org/community/eclipse_newsletter/2017/june/article1.php)
- ▶ Offizielle Webseite:  
[https://www.eclipse.org/getting\\_started/](https://www.eclipse.org/getting_started/)
- ▶ Ausführliche Cheat Sheets:  
<https://github.com/pellaton/eclipse-cheatsheet>



Version: 2018.2.5  
Build: 182.4892.20  
Released: October 16, 2018  
[Release notes](#)

[System requirements](#)  
[Installation Instructions](#)  
[Previous versions](#)

## Download IntelliJ IDEA

Windows

macOS

Linux

### Ultimate

For web and enterprise development

DOWNLOAD

.EXE

Free trial

### Community

For JVM and Android development

DOWNLOAD

.EXE

Free, open-source

License

Commercial

Open-source, Apache 2.0 [?](#)

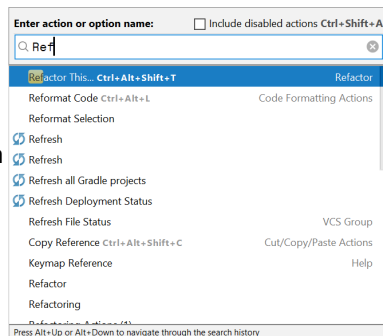
Java, Kotlin, Groovy,  
Scala



Live-Demo

# IntelliJ Cheatsheet

<b>Strg+Shift+A</b>	Befehlssuche
<b>Alt+Enter</b>	Quick-Fix
<b>Strg(+Shift)+Space</b>	(Smart-)Code-Completion
<b>Strg+Klick</b>	Springe zu Definition
<b>Strg+Klick</b>	Zeige Benutzungen
<b>Strg+H</b>	Typ-Hierarchie
<b>Strg+F12</b>	Datei-Outline
<b>Strg+N</b>	Suche Java-Klasse
<b>Strg+Alt+L</b>	Formatieren



Universalshortcut: **Shift,Shift** (hintereinander)

- ▶ Getting started: <https://www.jetbrains.com/help/idea/creating-and-running-your-first-java-application.html>
- ▶ Debugging: <https://www.jetbrains.com/help/idea/debugging-your-first-java-application.html>
- ▶ Ausführliches Cheatsheet:  
[https://resources.jetbrains.com/storage/products/intellij-idea/docs/IntelliJIDEA\\_ReferenceCard.pdf](https://resources.jetbrains.com/storage/products/intellij-idea/docs/IntelliJIDEA_ReferenceCard.pdf)