

## Software Engineering Tools Laboratory

### Assignment No. 2 (Module 2)

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PRN:2018BTECS00061

- **Study on Software Development Framework/IDE/Software:**

	<b>Eclipse</b>	<b>Android SDK</b>	<b>Node.Js</b>	<b>DotNet</b>	<b>Ruby on Rails</b>
<b>Original author</b>	IBM	Google	Ryan Dahl	Microsoft	David Heinemeier Hansson
<b>Developers</b>	IBM Software Group	Google	Microsoft Corporation, Ryan Dahl, Bryan Cantrill, OpenJS Foundation	Microsoft Corporation	David Heinemeier Hansson
<b>Initial release</b>	7 November 2001	October 2009	May 27 2009	13 February 2002	2004

<b>Stable release</b>	16 December 2020	26.1.1 / September 2017	15.11.0 / March 3, 2021	4.8.0 Build 3928 / July 25, 2019	6.1.3 (17 February 2021)
<b>Preview release</b>	2021-03 release	Android 12 Developer Preview(2021-03-17)	-	-	-
<b>Repository</b>	<a href="https://git.eclipse.org/c/">https://git.eclipse.org/c/</a>  <a href="https://download.eclipse.org/technology/m2e/releases/">https://download.eclipse.org/technology/m2e/releases/</a>	<a href="https://github.com/AndroidSDKSources">https://github.com/AndroidSDKSources</a>	<a href="https://github.com/nodejs">https://github.com/nodejs</a>  <a href="https://nodejs.org/en/download/package-manager/">https://nodejs.org/en/download/package-manager/</a>	<a href="https://github.com/dotnet">https://github.com/dotnet</a>	<a href="https://github.com/rails">https://github.com/rails</a>  <a href="https://rubyonrails.org/">https://rubyonrails.org/</a>
<b>Written in (Languages)</b>	Java, C	Java	C, C++, JavaScript	C++, C#	Ruby

<b>Operating System</b>	Linux, macOS, Windows	Linux (any modern desktop Linux distribution), Mac OS X 10.5. 8 or later, and Windows 7 or later.	z/OS, Linux, macOS, Microsoft Windows, SmartOS, FreeBSD, OpenBSD, IBM AIX	Windows 98 or later, Windows NT 4.0 or later	Mac OS X, Linux, or Microsoft Windows operating systems
<b>Platform</b>	Java Platform, Standard Edition, Standard Widget Toolkit, x86-64	SDK Platform	Chrome's JavaScript runtime	Cross-platform	-
<b>Available in (Total languages)</b>	44	1	2	23	1
<b>List of languages</b>	Ibanian, Arabic, Basque, Bulgarian, Catalan, Chinese (simplified, traditional), Czech, Danish, Dutch, English (Australia, Canada),	English	English and German	Arabic, ChineseChina, ChineseTaiwan, Czech, Danish, German, Greek, Spanish, Finnish, French, Hebrew, Hungarian,	

	Estonian, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian,  Italian, Japanese, Klingon, Korean, Kurdish, Lithuanian, Malayalam, Mongolian, Myanmar, Nepali, Norwegian, Persian, Polish, Portuguese (Portugal, Brazil), Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese			Italian, Japanese, Korean, Dutch, Norwegian, Polish, Portuguese,  Brazil, PortuguesePort ugal, Russian, Swedish and Turkish	
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<b>Type</b> (Programming tool, integrated development environment etc.)	Integrated Development Environment	collection of software development tools and libraries required to develop Android applications	back-end JavaScript runtime environment	framework for building modern cloud-based web applications on Windows, Mac, or Linux	server-side web application framework
<b>Website</b>	<a href="https://www.eclipse.org/">https://www.eclipse.org/</a>	<a href="https://developer.android.com/about">https://developer.android.com/about</a>	<a href="https://nodejs.org/en/">https://nodejs.org/en/</a>	<a href="https://dotnet.microsoft.com/apps/aspnet">https://dotnet.microsoft.com/apps/aspnet</a>	<a href="https://rubyonrails.org/">https://rubyonrails.org/</a>
<b>Features</b>	<ul style="list-style-type: none"> <li>1. a runtime core, a collection of libraries,</li> <li>2. a modelling and control language,</li> <li>3. a development environment,</li> <li>interfaces for embedding into host environments</li> </ul>	<ul style="list-style-type: none"> <li>1. Camera API. ...</li> <li>2. Dynamic markers. ...</li> <li>3. Map padding. ...</li> <li>4. Improved API</li> <li>4.compatibility . ...</li> <li>5. Available now.</li> </ul>	<ul style="list-style-type: none"> <li>1.Asynchronous and Event Driven</li> <li>2.Very Fast</li> <li>3.Single Threaded but Highly Scalable</li> <li>4.No Buffering</li> </ul>	<ul style="list-style-type: none"> <li>1.Interoperability.</li> <li>2.Common Language Runtime engine (CLR)</li> <li>3.Language independence.</li> <li>4.Base Class Library.</li> <li>5.Simplified deployment.</li> <li>6.Security.</li> <li>7.Portability.</li> </ul>	<ul style="list-style-type: none"> <li>1.Convention over configuration</li> <li>2.Automated Testing</li> <li>3.Localization</li> <li>4.Scaffolding Libraries</li> </ul>

	interfaces to third-party solvers.				
<b>Type of software (Open source/License)</b>	Open Source	Open Source	Open Source	Open Source	Open Source
<b>If License- Provide details.</b>	-	SDK License from Google	MIT License	-	MIT License
<b>Latest version</b>	4.19	26.1.1	15.12.0	4.8.0	6.1.3
<b>Drawbacks (if any)</b>	1.Eclipse setup is long, 2.non-intuitive and not user-friendly for beginners	Overheating is a common issue with Android phones	1.Reduces performance when handling 2.Heavy Computing Tasks.  3.Node.js invites a lot of code changes	1.Costly  2.Limited Object-Relational Support  3.Memory leaks	1.Runtime Speed and Boot 2.Speed is slow.  3.It can be hard to find good documentation.

			<p>due to Unstable API.</p> <p>4.difficult to maintain code.</p>		
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