# An Introduction to IntelliJ

## IntelliJ IDE for Java Developers

## Produced Dr. Siobhán Drohan by: Mr. Colm Dunphy Mr. Diarmuid O'Connor Dr. Frank Walsh



Waterford Institute *of* Technology

Department of Computing and Mathematics http://www.wit.ie/



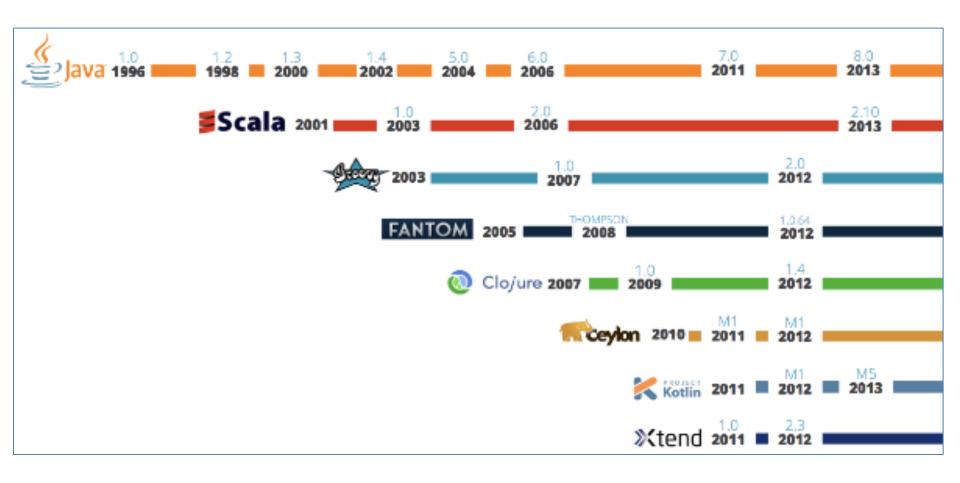
" Most people talk about Java the language, and this may sound odd coming from me, but I could hardly care less. At the core of the Java ecosystem is the JVM. "

### James Gosling,

Creator of the Java Programming Language(2011, TheServerSide)

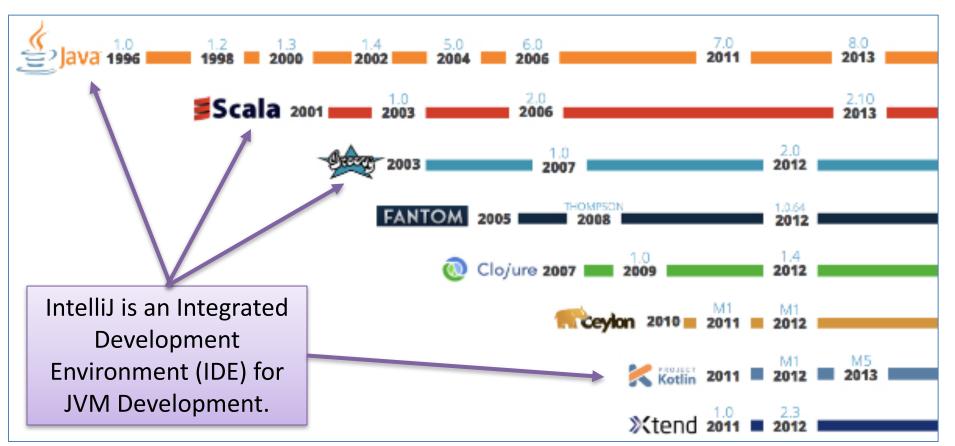


# JVM Language History



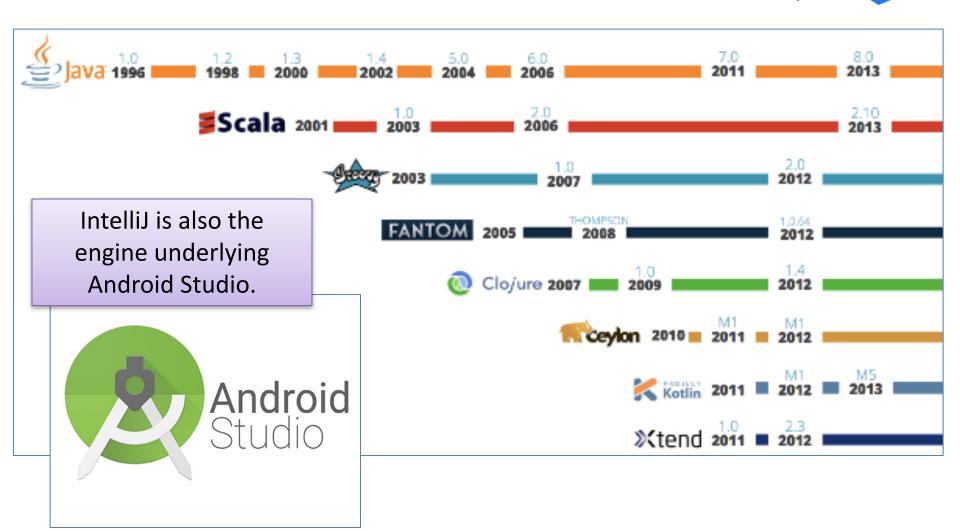
### <u>Source</u>

# IntelliJ and the JVM





# IntelliJ and the JVM



## Installing IntelliJ

**BEFORE** you install IntelliJ Download and Install the **JDK** first using IE on windows or Safari on OSX!

## **2 IntelliJ Editions:**

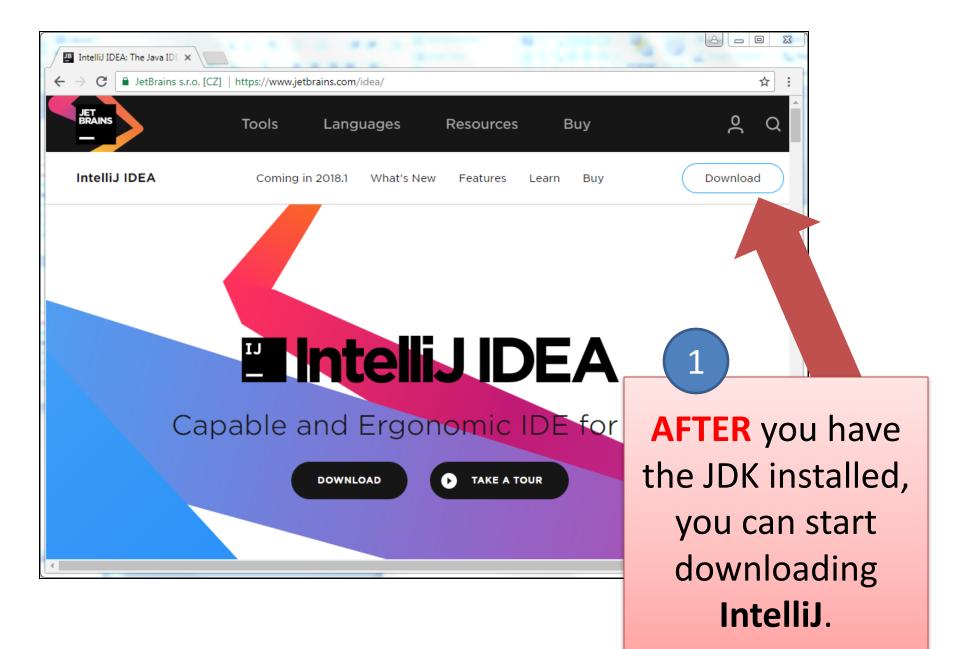
- **Community** (free) is a subset of
- Ultimate (paid)

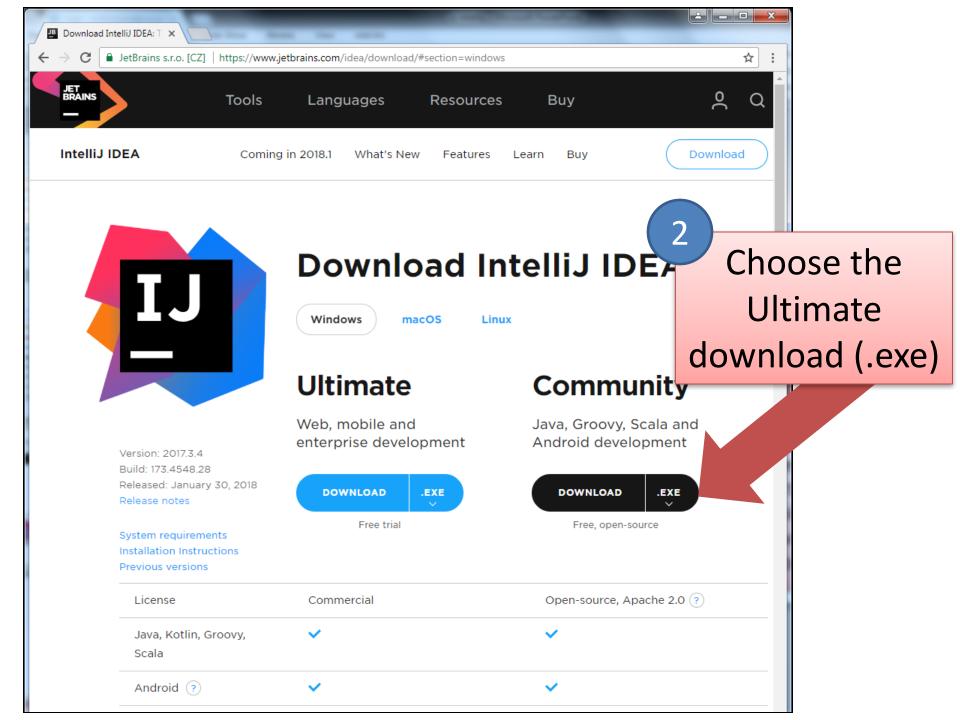
## As a WIT student you can use **ULTIMATE**

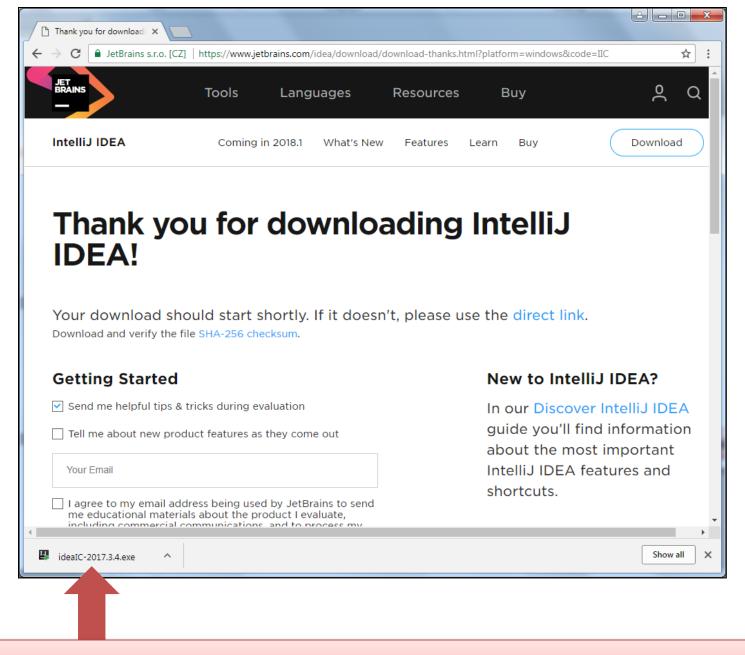
The following slides show how to install Community Edition. Lab 07a demonstrates similar steps to install Ultimate instead. Use Ultimate!







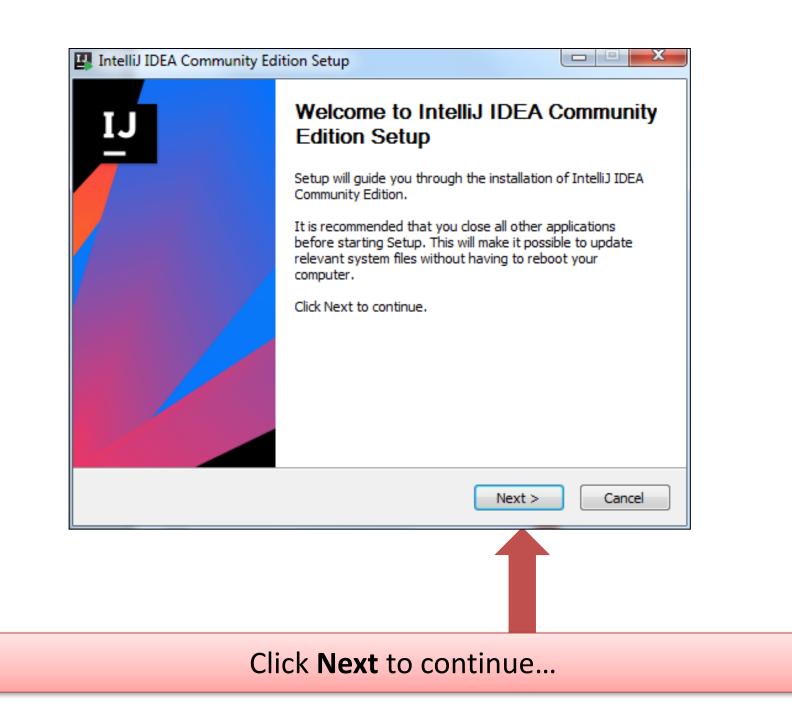




Click on the downloaded file to start the installation.



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1		u want to allow Jes to this comp	the following pro outer?	ogram to mak	æ	
	鄄	Program name: Verified publisher File origin:	ideaIC-173.4548.28.ex : <b>JetBrains s.r.o.</b> Downloaded from th			
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Edition. Setup will install IntelliJ IDEA Community Edition in the following folder. To install in a diff folder, click Browse and select another folder. Click Next to continue. Destination Folder C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2017 Browse Space required: 828.9MB Space available: 788.9GB		Choose Install Location
C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2017 Browse Space required: 828.9MB Space available: 788.9GB	-	Choose the folder in which to install IntelliJ IDEA Community Edition.
C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2017 Browse Space required: 828.9MB Space available: 788.9GB		
C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2017 Browse Space required: 828.9MB Space available: 788.9GB		
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# Accept the default destination folder (you can change this if you prefer) and click **Next**.

8	IntelliJ IDEA Community Edition Setup	
	Configure your Intellij IDEA Community Ed	dition installation
	Create Desktop Shortcut 32-bit launcher 64-bit launcher Create Associations Java .groovy .kt Download and install JRE x86 by JetBrains < Back Next	t > Cancel
т	ick the <b>.java</b> box to create a file	
	Click the <b>Next</b> buttor	n.



#### Choose Start Menu Folder

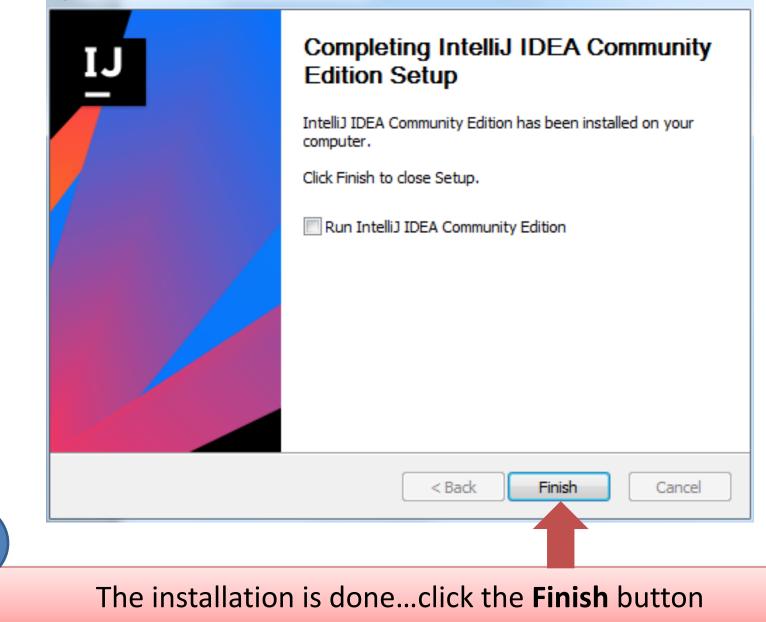
Choose a Start Menu folder for the IntelliJ IDEA Community Edition shortcuts.

Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.

JetBrains		
Accessories Administrative Tools		<u>^</u>
Android Studio		
Archi		E
Atlassian		
CCleaner		
Eclipse		
Games		
Git		
IBM SPSS Statistics		
Java		
Java Development Kit		*
	< Back Install	Cancel
Click	Install to continue	

IntelliJ IDEA Commu	unity Edition Setup	
1	<b>Installing</b> Please wait while IntelliJ IDEA Commun installed.	ity Edition is being
Extract: idea.jar 23 Show details	3%	
	< Back N	ext > Cancel
0		
Т	he installation is in pro	gress





Now that you have installed the JDK and IntelliJ, let's create and run our first project.

We will print **HelloWorld!** to the console.



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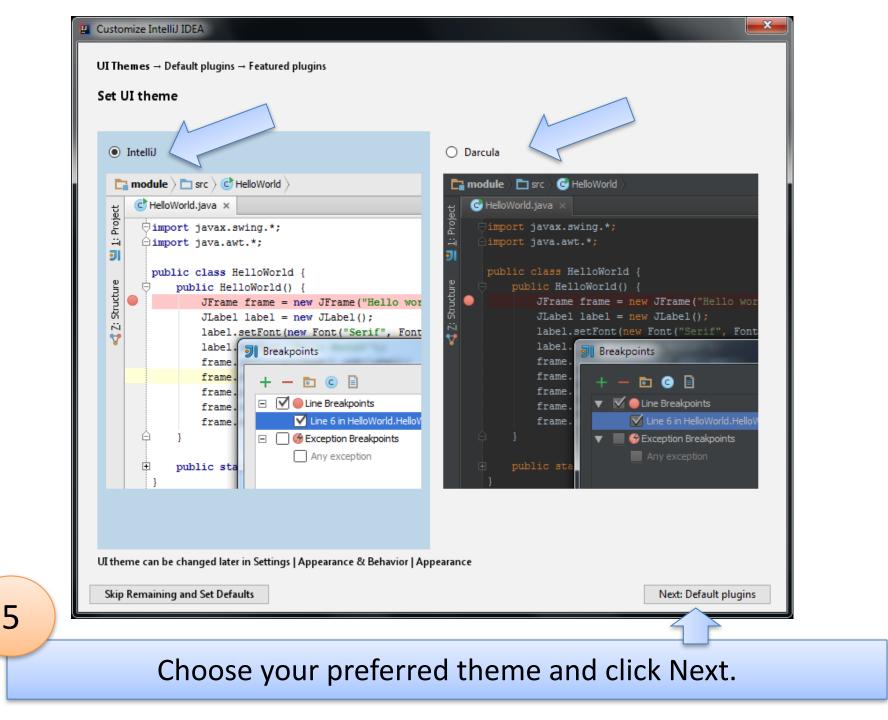
Cancel

- \* Information about which product features are used
- \* General statistics (number of files, file types) of the projects I am working on
- \* General information about my hardware configuration (for example, amount of RAM, CPU speed and number of cores)

\* General information about my software configuration (for example, OS version)

I can revoke my consent at any time in this Data Sharing Options dialog available at Help | Data Sharing Options

# Decide if you want to share anonymous data with Jetbrains and click the OK button.



Customize IntelliJ IDEA				×
UI Themes → <b>Default plugins</b> → I	eatured plugins			
Tune IDEA to your tasks				
IDEA has a lot of tools enabled by	default. You can set only one	es you need or leave them all.		_
		11A		
Build Tools	Ve	ersion Controls	Test Too	ols
Ant, Maven, Gradle	CVS, Git, G	itHub, Mercurial, Subversion	JUnit, TestNG-J, (	Coverage
Customize Disable	All Cus	tomize Disable All	Customize Di	sable All
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Swing		Android	Other To	ols
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Disable		Disable	Customize Di	sable All
<u>ۆ</u>				
Plugin Developm	ent			
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Skip Remaining and Set Default	Back to UI Themes	]	Ne	ext: Featured plugins

You will come across a lot of these plugins, in some form or other, during the course.

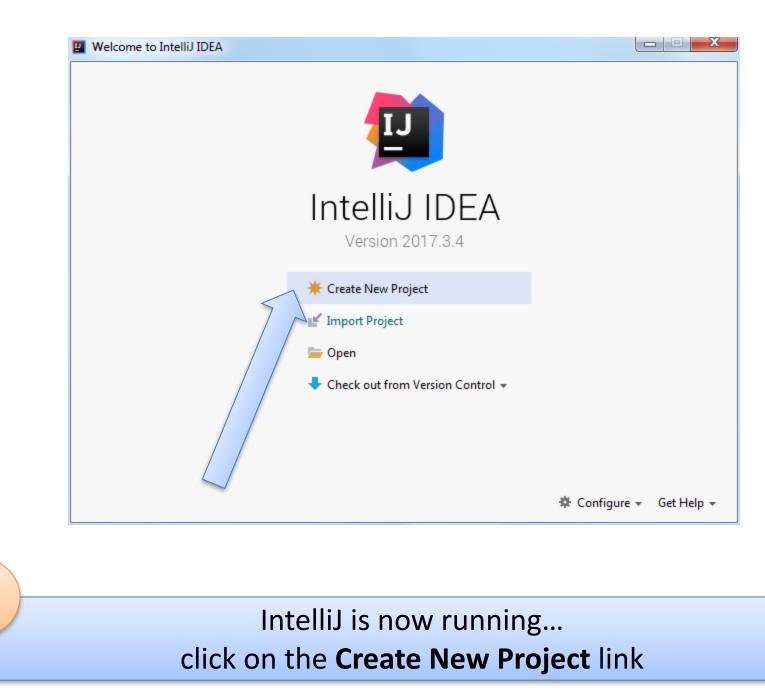
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At the moment, we won't be using them, so click Next.

Download featured plugins		
	at most users like to download. Perhaps, you need	them too?
Scala	IdeaVim	IDE Features Trainer
Custom Languages	Editor	Code tools
Plugin for Scala language support	Emulates Vim editor	Learn basic shortcuts and essential IDE features with quick interactive exercises
	A Recommended only if you are familiar with Vim.	
Install	Install and Enable	Install
New plugins can also be downloaded in Se	ettings   Plugins	
	ettings   Plugins Back to Default plugins	Start using IntelliJ I

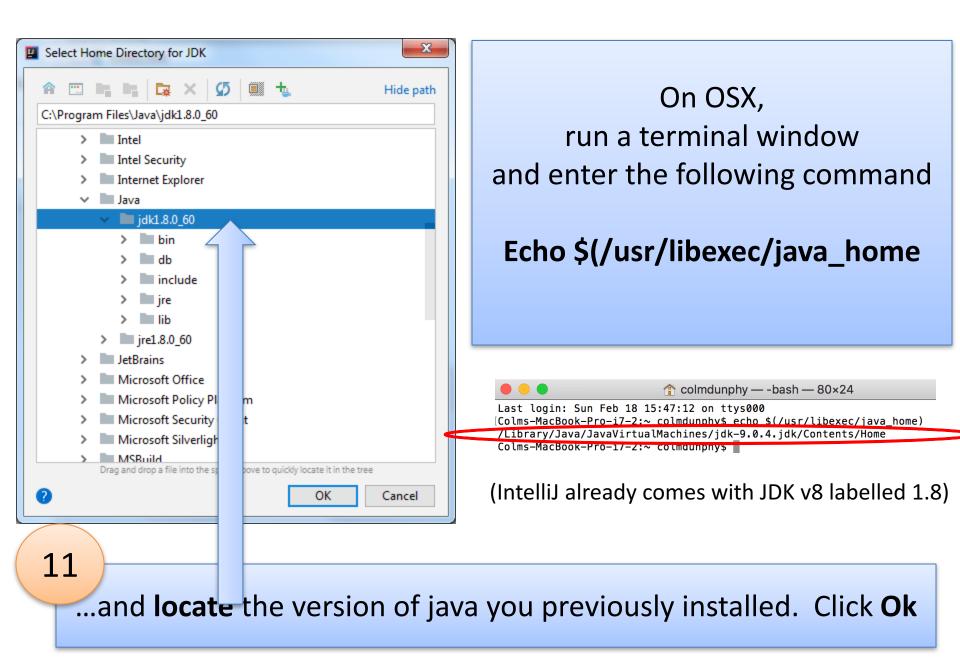


You will see this splash screen and then...



### You may get this...no SDK. If so, click on the "New..." button

📱 New Project	
lava	New
📑 Java FX	Project SDK: Download JDK
👾 Android	Additional Libraries and Frameworks:
🔚 IntelliJ Platform Plugin	G Groovy
<i>m</i> Maven	🗌 📉 Kotlin/JVM
📀 Gradle (Kotlin DSL)	C Kotlin/JS
📀 Gradle	
G Groovy	
Griffon     Griffon	
Kotlin	
Empty Project	
	Use library: [No library selected]
	Use library: [No library selected]
	Error: library is not specified
	Previous Next Cancel Help

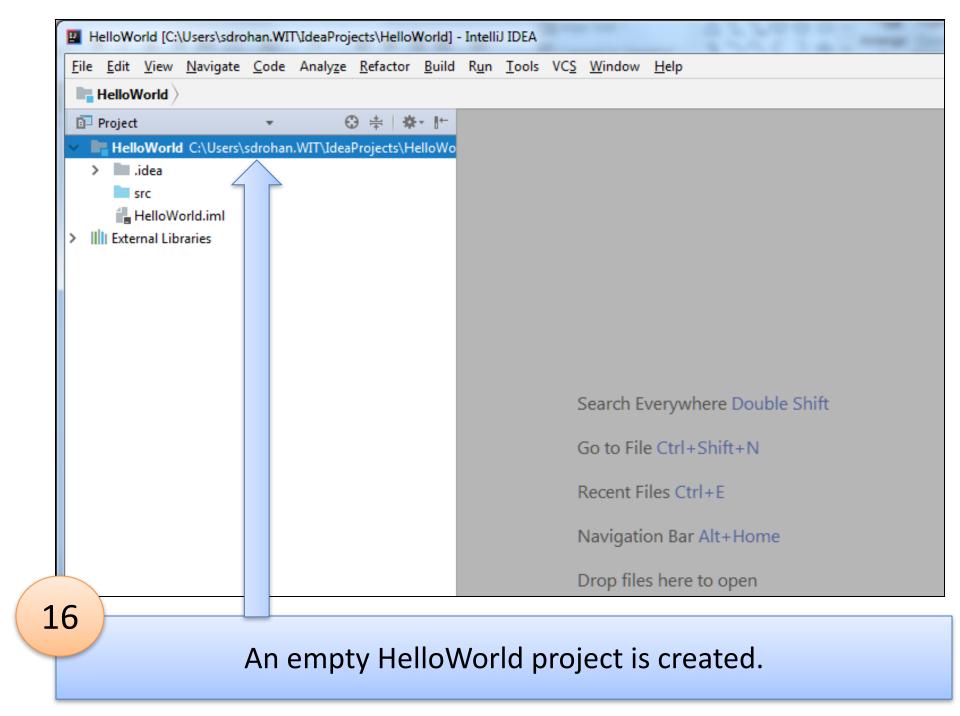


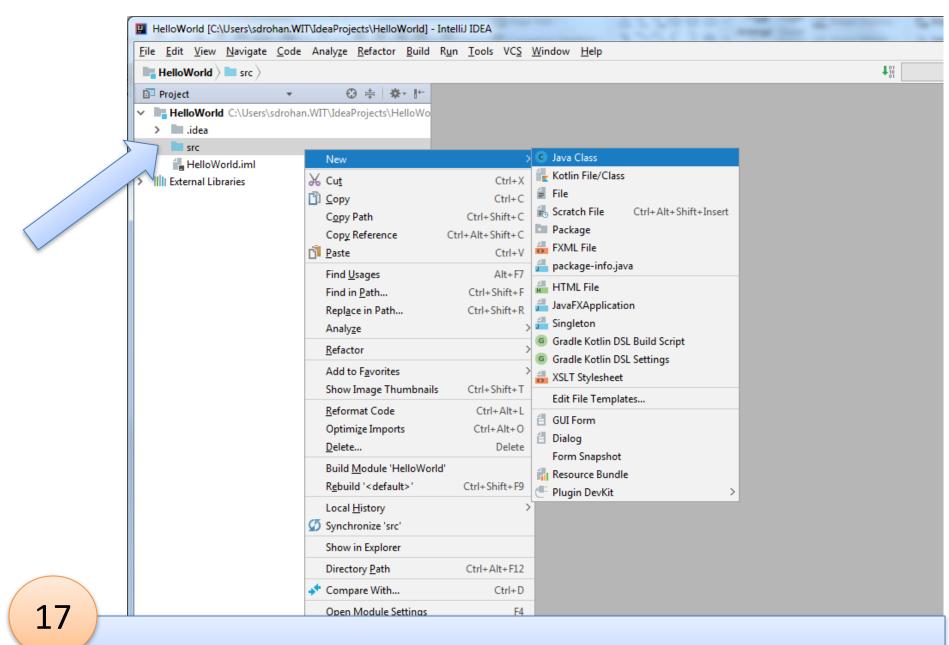
<ul> <li>Java FX</li> <li>Android</li> <li>IntelliJ Platform Plugin</li> <li>Maven</li> <li>Gradle (Kotlin DSL)</li> <li>Gradle</li> </ul>	Additional Libraries and Frameworks:
<ul> <li>Groovy</li> <li>𝔅 Griffon</li> <li>𝔆 Kotlin</li> </ul>	
	Use library: [No library selected]  Create Error: library is not specified
	Previous Next Cancel Help

Create project from template Command Line App		Command Line App         Image: Command Line App
Command Line App		Previous Next Cancel Help
	Previous Next Cancel Help	
	Previous Next Cancel Help	

🛛 New Project		
Project n <u>a</u> me:	HelloWorld	
Project <u>l</u> ocation	: C:\Users\sdrohan.WIT\IdeaProjects\HelloWorld	
Mor <u>e</u> Setting	Previous Finish Cancel Help	
	Previous Prinish Cancer Prep	
r project	name (HelloWorld) and if you are	happy with
	the default location, click Finish.	,

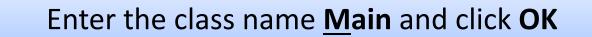
<u>File Edit View Navigate Code Analyze Refactor</u>	<u>B</u> uild R <u>u</u> n <u>T</u> ools VC <u>S</u> <u>W</u> indow <u>H</u> elp	
HelloWorld		
🗊 Project 🔹 😨 崇 🕸		
> 📑 HelloWorld C:\Users\sdrohan.WIT\IdeaProjects\H	elloWo	
> IIII External Libraries	Tip of the Day Welcome to IntelliJ IDEA 2017 You can quickly get familiar with the main features of the IDE by reading these tips. You may try out the features described in the tips while this dialog stays open on the screen. If you close the dialog, you can always get back to it from the Help   Tip of the Day main menu item.	
	Show tips on startup Previous Tip Next Tip Close	
15		
Decide who	ether you want to see tips each time you start IntelliJ. Then close the tip window.	

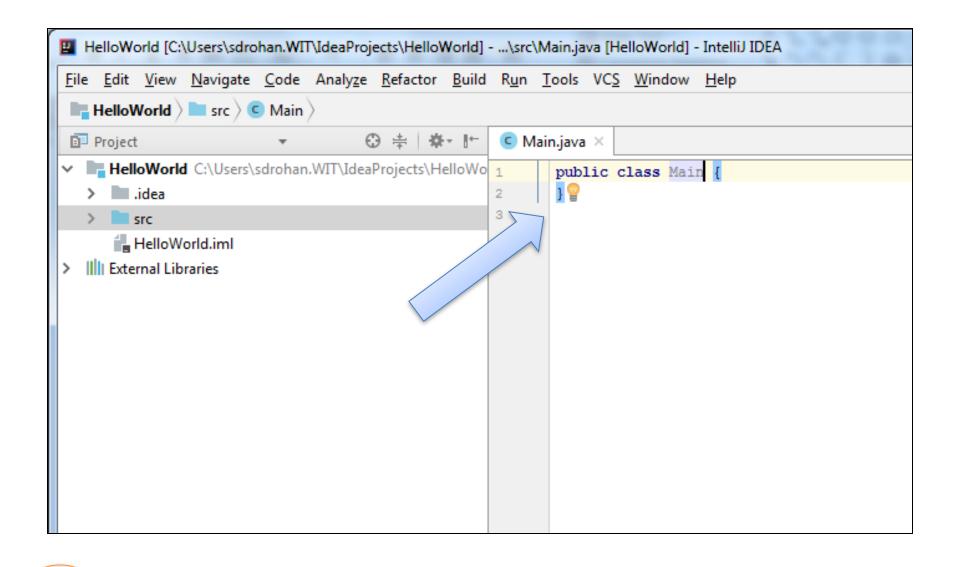


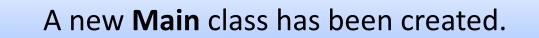


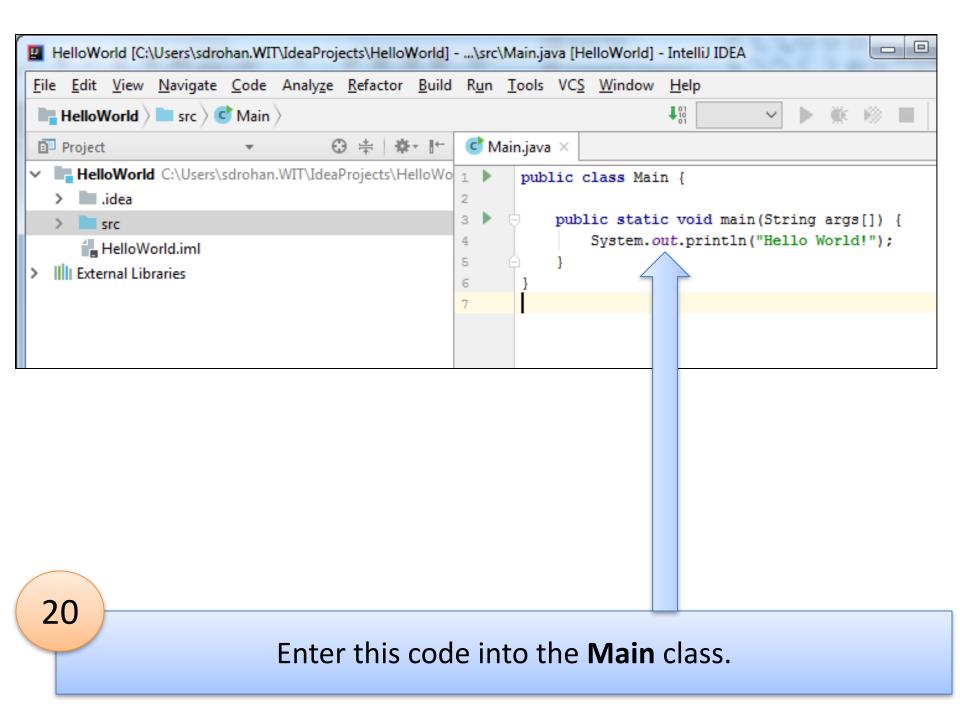
Right click on **src** folder....select **New** → **Java Class** 

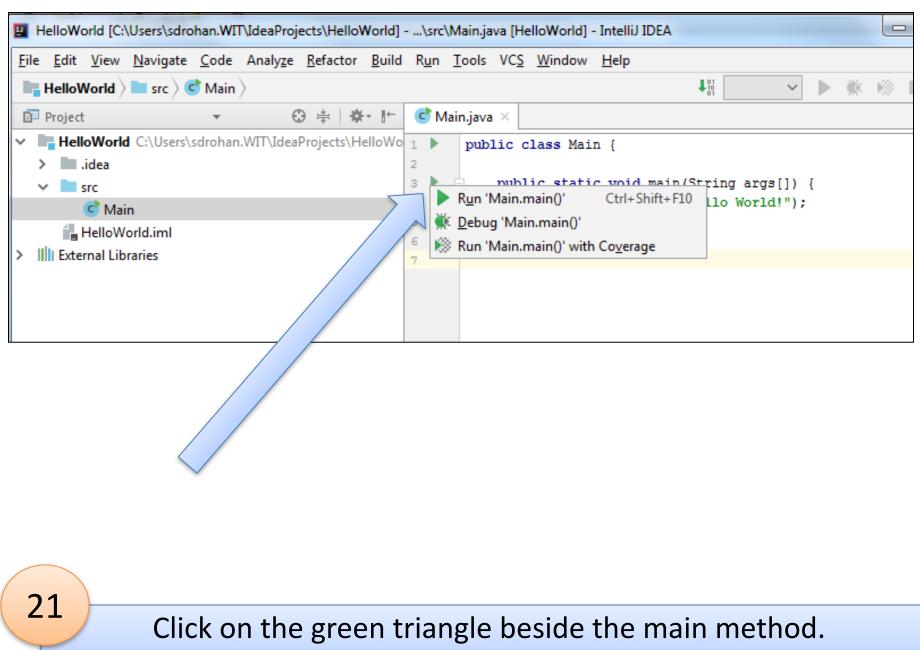
	🛛 Create	New Class	×
	<u>N</u> ame:	Main	†↓
	Kind:	Class	~
			OK Cancel









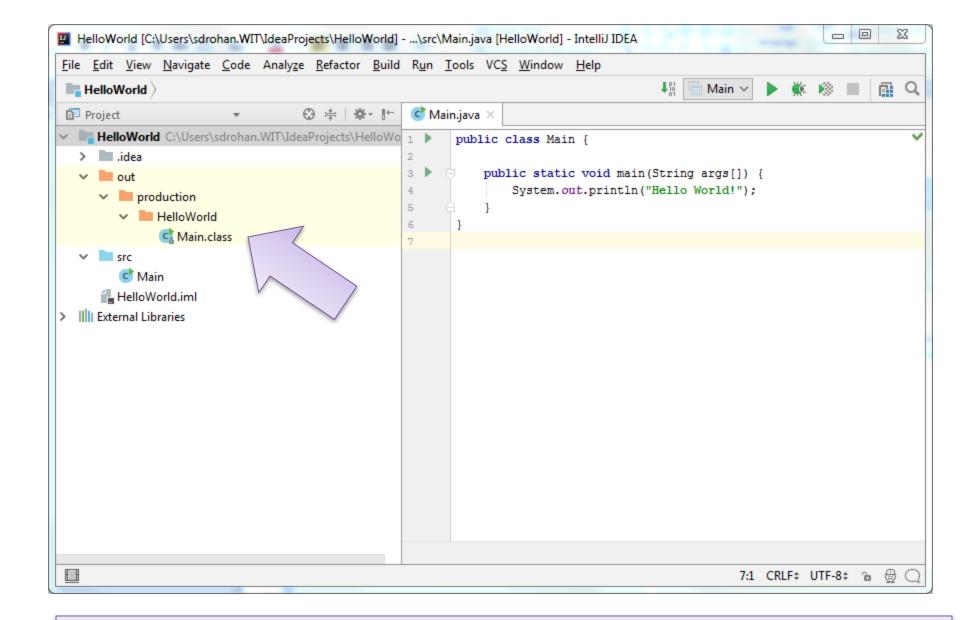


Then select Run 'Main.main()'

HelloWorld [C:\Users\sdrohan.WIT\IdeaProjects\HelloWorld]	\src\Main.java [HelloWorld] - IntelliJ IDEA			
<u>File Edit View Navigate Code Analyze Refactor Build</u>	R <u>u</u> n <u>T</u> ools VC <u>S</u> <u>W</u> indow <u>H</u> elp			
HelloWorld > Src > C Main >	↓ <sup>01</sup> 🔂 Main ∨	•	× –	n Q
🗊 Project 🔻 😗 寺 🖗	😅 Main.java 🗵			
✓ ■ HelloWorld C:\Users\sdrohan.WIT\IdeaProjects\HelloWorld	1 > public class Main {			~
> 🛄 .idea	2			
> out	3 public static void main(String args[]) 4 System.out.println("Hello World!");			
✓ Src C Main	5 A }			
HelloWorld.iml	6 }			
Ill External Libraries	7			
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Run 🖶 Main	ava"			\$÷ ±
Hello World!				
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Compilation completed successfully in 6s 305ms (moments	ago) 7:1	CRLF\$	UTF-8¢	ъ ⊕ Q
22				

Hello World! is printed to console.

# Let's look at where our Main.class file lives...



#### Main.class is the bytecode of Main.Java

# Questions?

