

Eclipse Introduction

- ✓ What is the integrated development environment (IDE) ?

Lets consider the scenario shopping ,

- 1) Start from home
- 2) First need to go to fruits and vegetables shop
- 3) And travel to next shop for cloths
- 4) Again Travel to grocery shop
- 5) Again need to go toys shop
- 6) Back to home



What if have a place where all the things will be available . That is nothing but shopping mall .

Shopping mall is integrating all small shops together as big unit .



In the same way

In order to develop any software application we need the following components .

- 1) Editor to write the code
- 2) Need to compile and execute the code .
- 3) Connecting to data base
- 4) Testing environment
- 5) Servers
- 6) Supporting files
- 7) Supporting jar and plug ins
- 8) Rest of all ,etc.

So , IDE is the place , Where it can have all above individual components integrated under on software .

For each and every programming language we will have the different types of IDE specific to them .

 What are all different IDE to create java application ?

Eclipse (RAD ,STS other IDE built on top of Eclipse too)

Netbeans

BlueJ

JCreator

IntelliJ IDEA

Borland JBuilder

Dr. Java

History of eclipse :-

- Eclipse was inspired by the Smalltalk-based **VisualAge** (IDE) .
- Although fairly successful, a major drawback of the VisualAge products was code of any software is compressed as lump (somewhat like a zip file but in a proprietary format called .dat).
- Individual classes could not be easily accessed, certainly not outside the tool .

A team primarily at the IBM Cary NC lab developed the new product as a **Java-based** replacement.

In November 2001, a consortium was formed with a board of stewards to further the development of Eclipse as open-source software. It is estimated that IBM had already invested nearly \$40 million by that time.

In January 2004, the **Eclipse Foundation** was created.

 **Eclipse is built on which programming language ?**

Eclipse Versions

- ✓ First version of eclipse release on 2001 by IBM which is commercial software . Sine 2014 the software open source .
- ✓ All version names of the eclipse software is related to scientific names such as stars ,planets ,basic elements .particles in atoms .

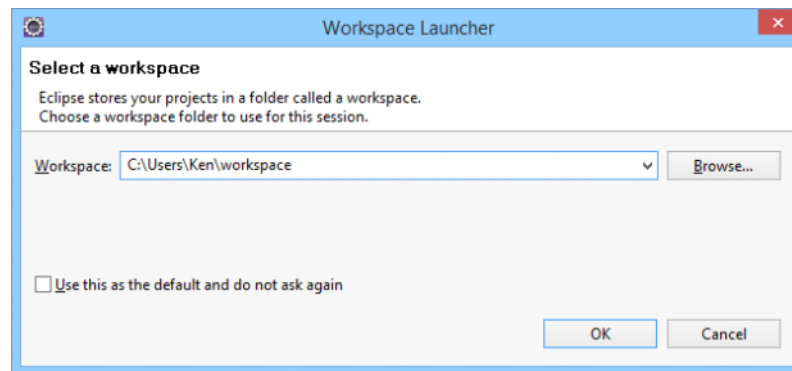
Version name	Date	Platform version
N/A	21 June 2004	3.0
N/A	28 June 2005	3.1
Calisto	30 June 2006	3.2
Europa	29 June 2007	3.3
Ganymede	25 June 2008	3.4
Galileo	24 June 2009	3.5
Helios	23 June 2010	3.6
Indigo	22 June 2011	3.7
Juno	27 June 2012	3.8 and 4.2
Kepler	26 June 2013	4.3
Luna	25 June 2014	4.4
Mars	24 June 2015	4.5
Neon	22 June 2016	4.6
Oxygen	28 June 2017 ^l	4.7
Photon	June 2018	4.8
Neon	September 2018	4.9
2018-12	December 2018	4.10
2019-03	March 2019	4.11
2019-06	June 2019	4.12
2019-09	September 2019	14.13
2019-12	December 2019	14.14
2020-03	March 2020	14.15
2020-06	June 2020	14.16
2020-09	September 2020	14.17
Every Quarterly release

Elements In Eclipse

Work Space :-

A workspace is a concept of grouping together:

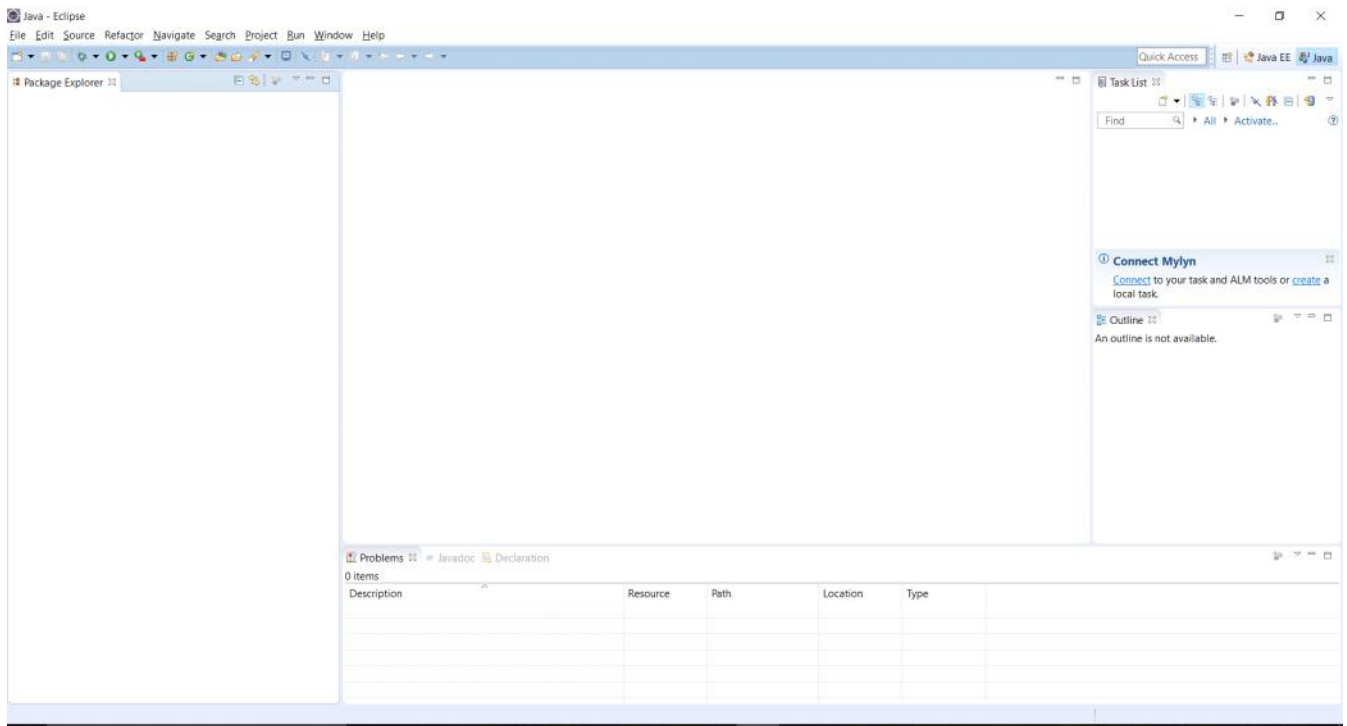
1. a set of related projects
2. some configuration pertaining to all these projects
3. some settings for Eclipse itself



Opening Windows :-



Once you close above window



Current perspective :-

Java - Eclipse



Current Perspective

Java - Eclipse



Minimize
Maximize
close

An eclipse perspective is the name given to an initial collection and arrangement of views and an editor area. The default perspective is called java.

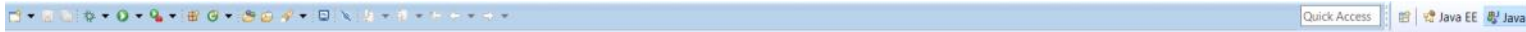
Menu Bar :-

File Edit Navigate Search Project Run Window Help

- ☒ File menu
- ☒ Edit menu
- ☒ Navigate menu
- ☒ Search menu
- ☒ Project menu
- ☒ Run menu
- ☒ Window menu
- ☒ Help menu

Tools Bar :-

It contains all quick tools used to development



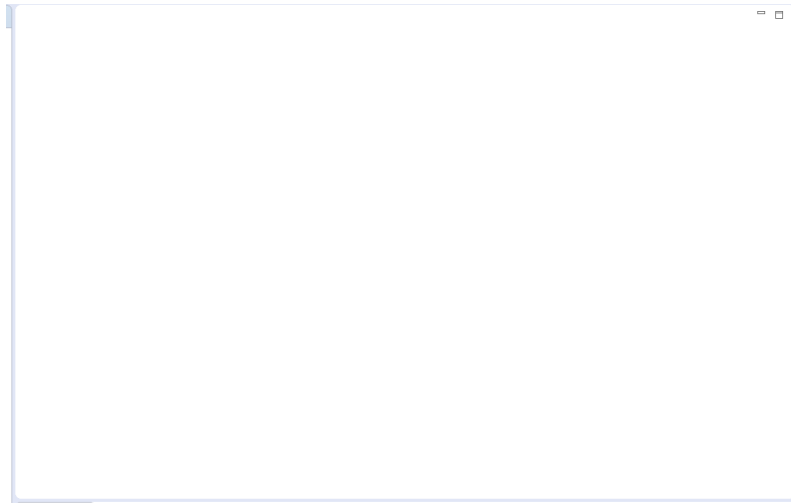
Project Explore View :-

It contains the all projects under that work space .



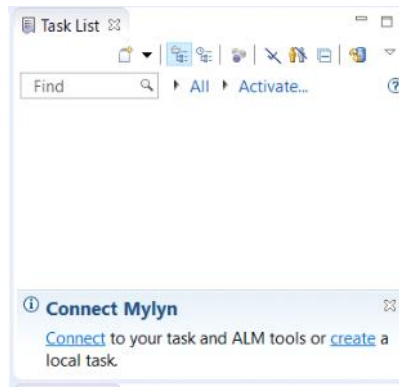
Editor Area :-

It's a code editor ,where we write the code .



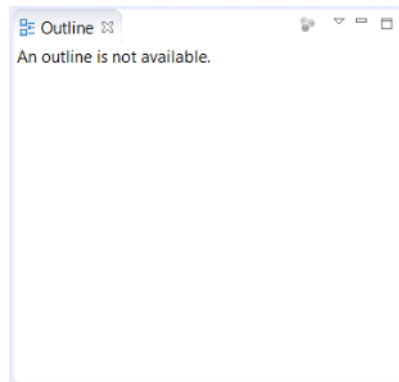
Task List

All pending and to comments will be displayed here .



Outline View :-

The Outline view displays an outline of a structured file that is currently open in the editor area, and lists structural elements.



Detachable View :-

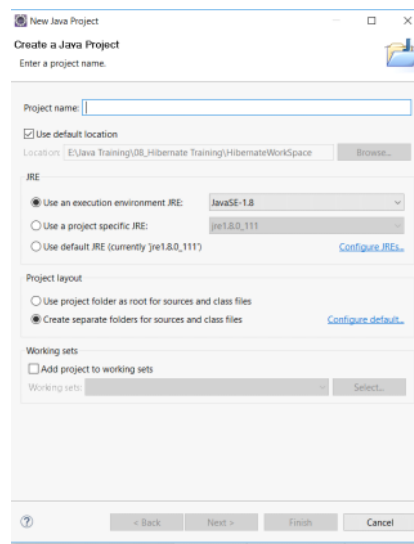
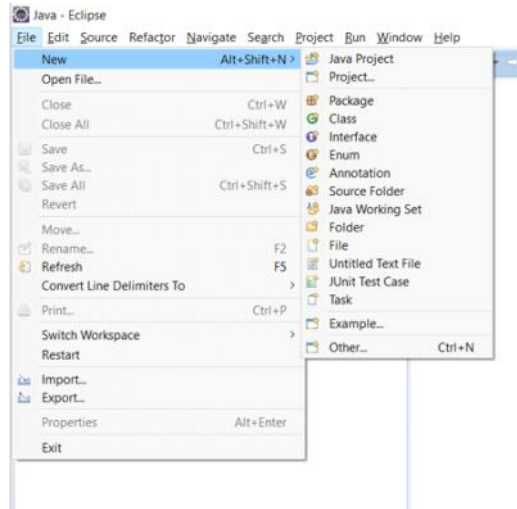
We will be having the different view based on the perspective .

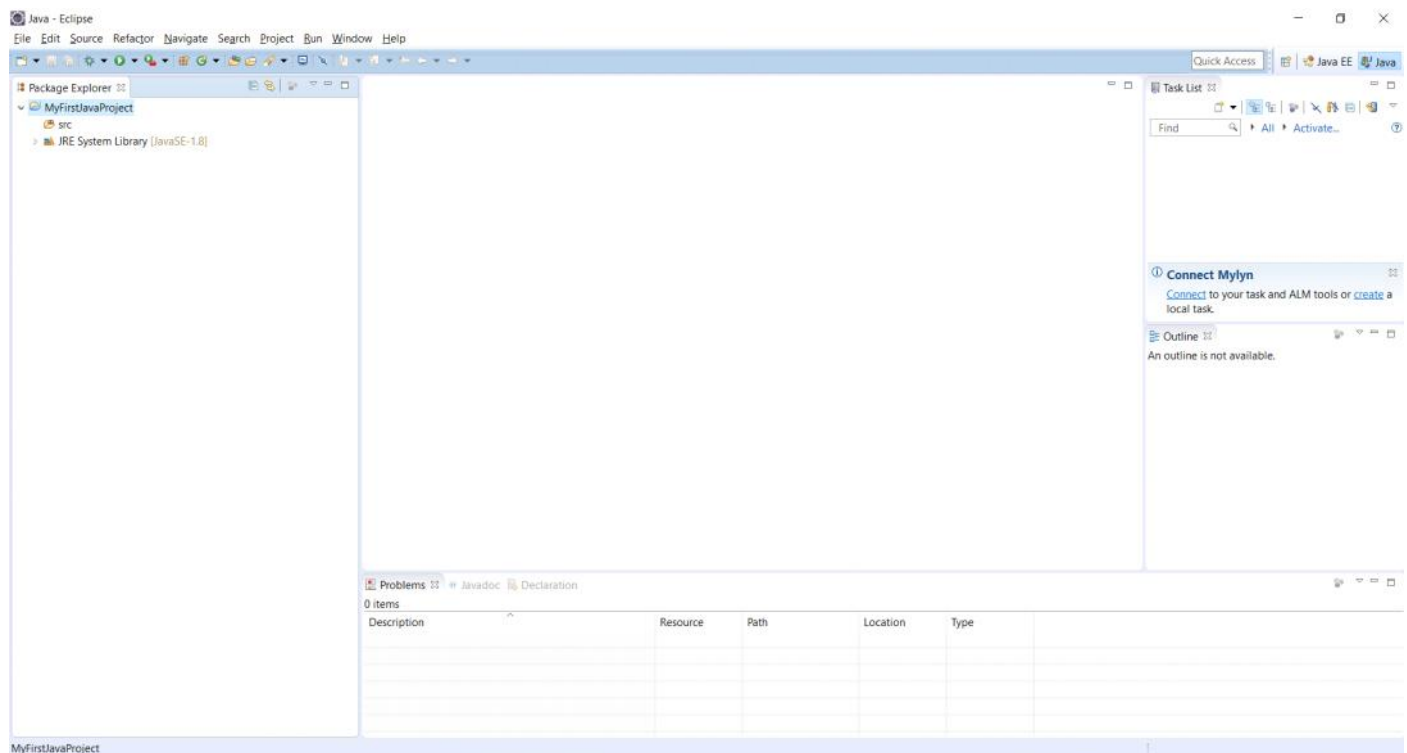
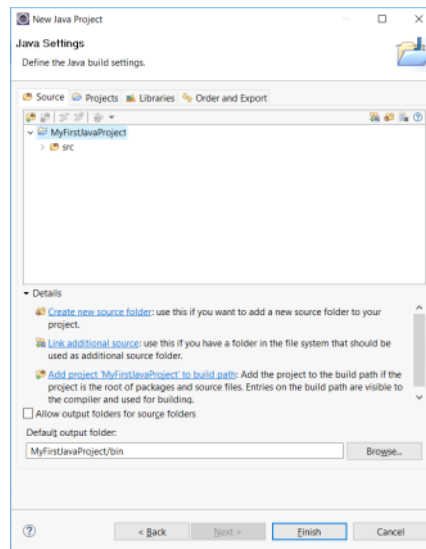
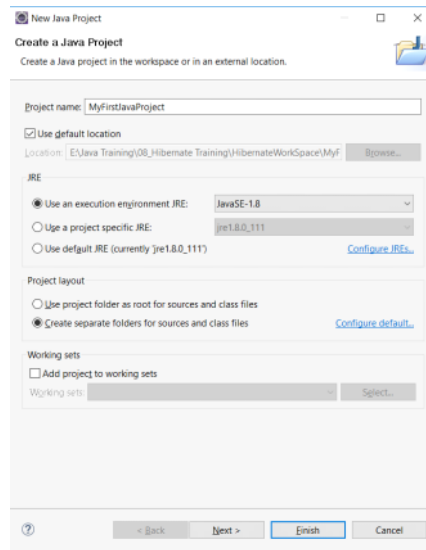
Problems					
0 items					
Description	Resource	Path	Location	Type	

Creating A Java Project

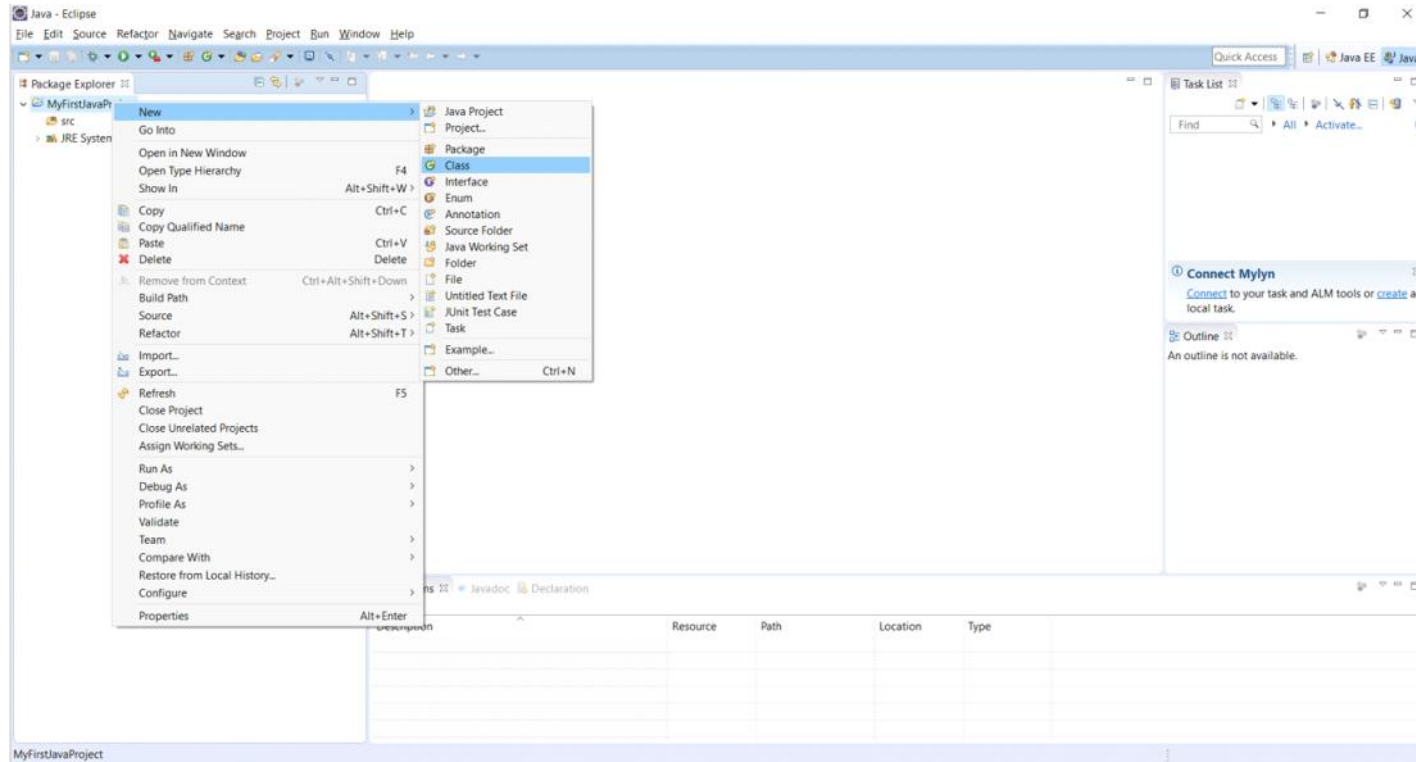
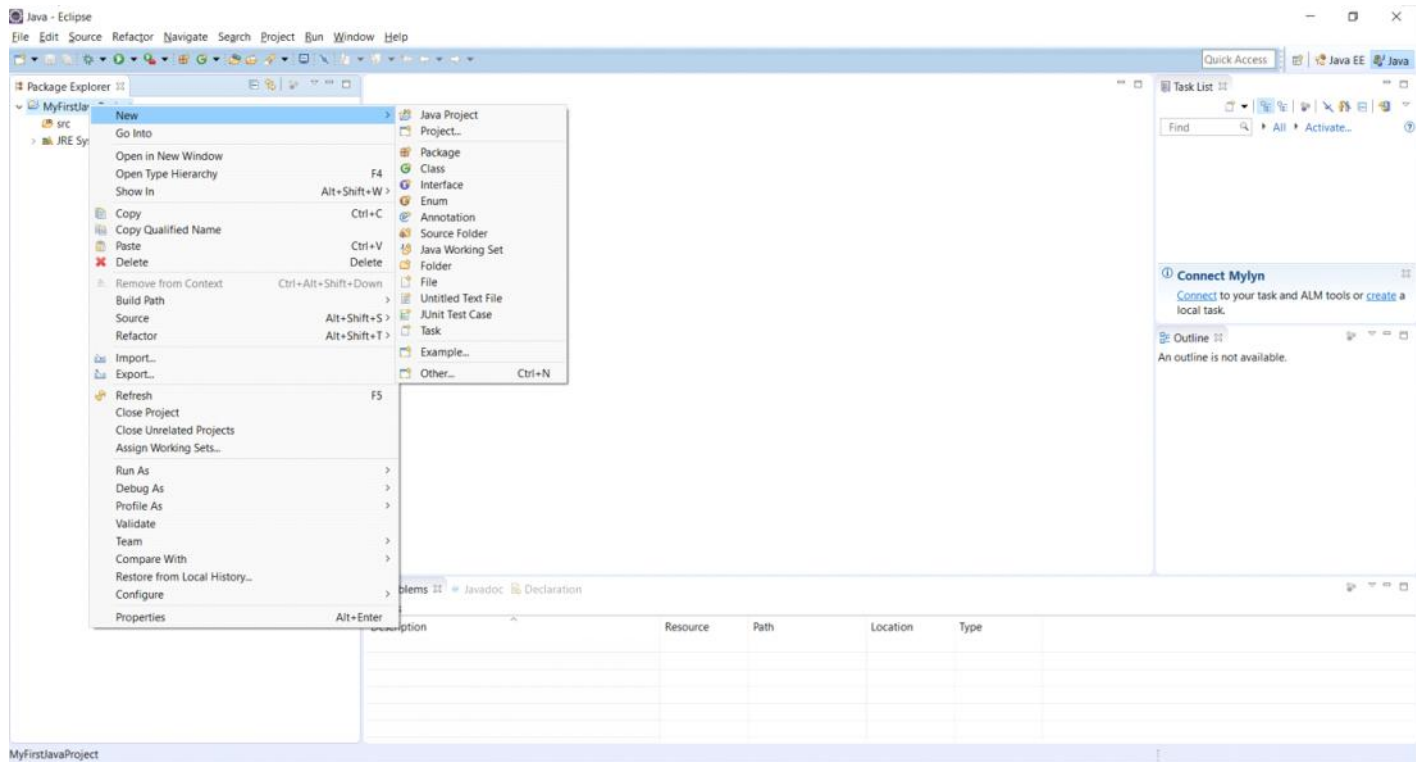
By using eclipse we create any type of java project and other programming projects .Like simple java ,web application ,web service ,EJB ,maven project .

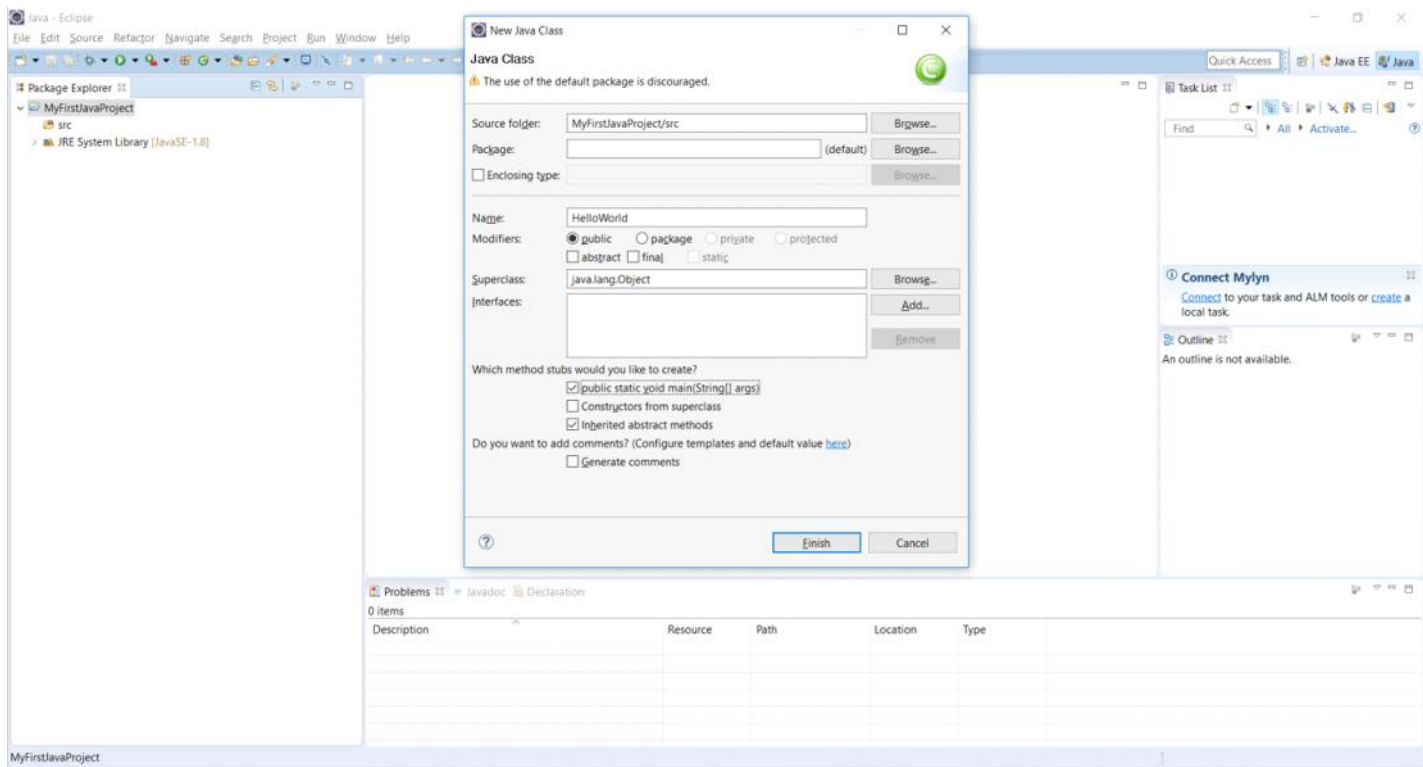
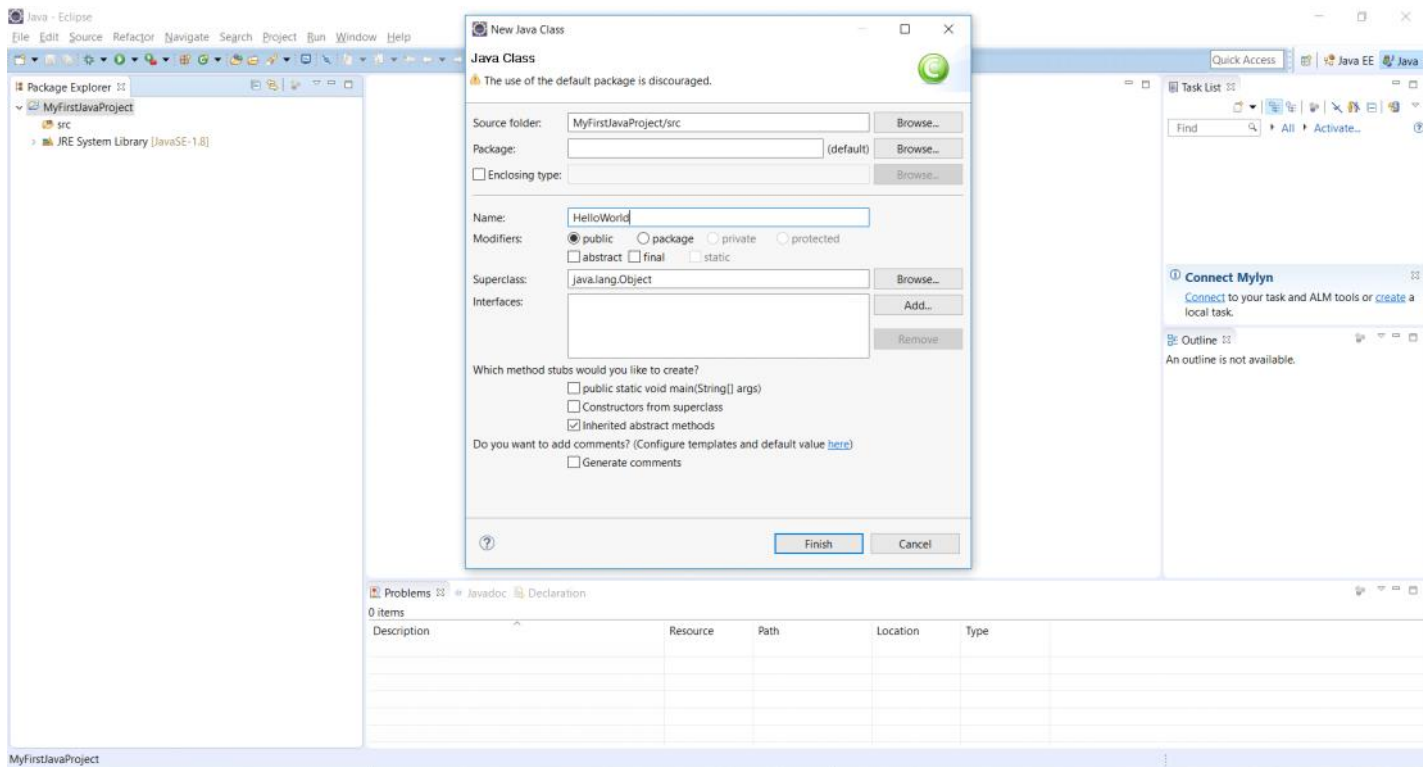
Lets create the Java project by using Eclipse .

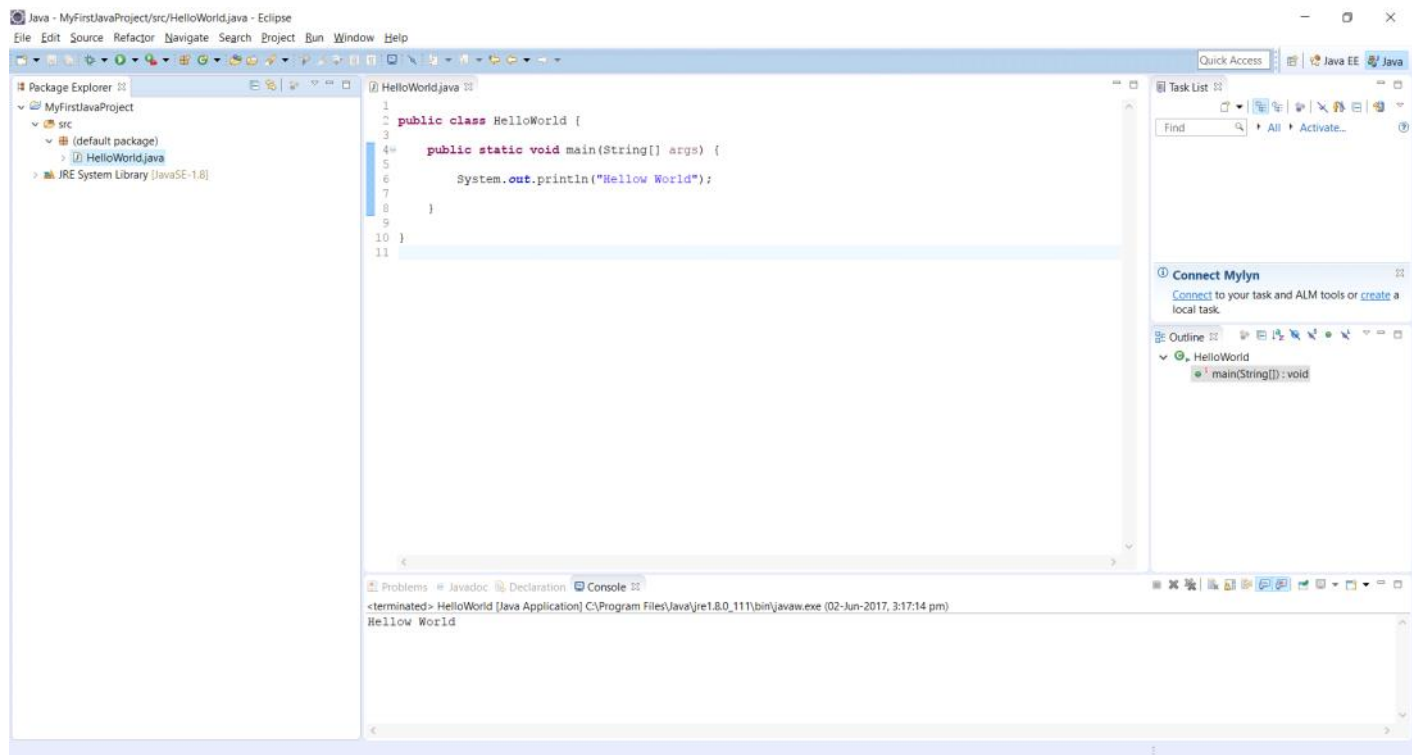
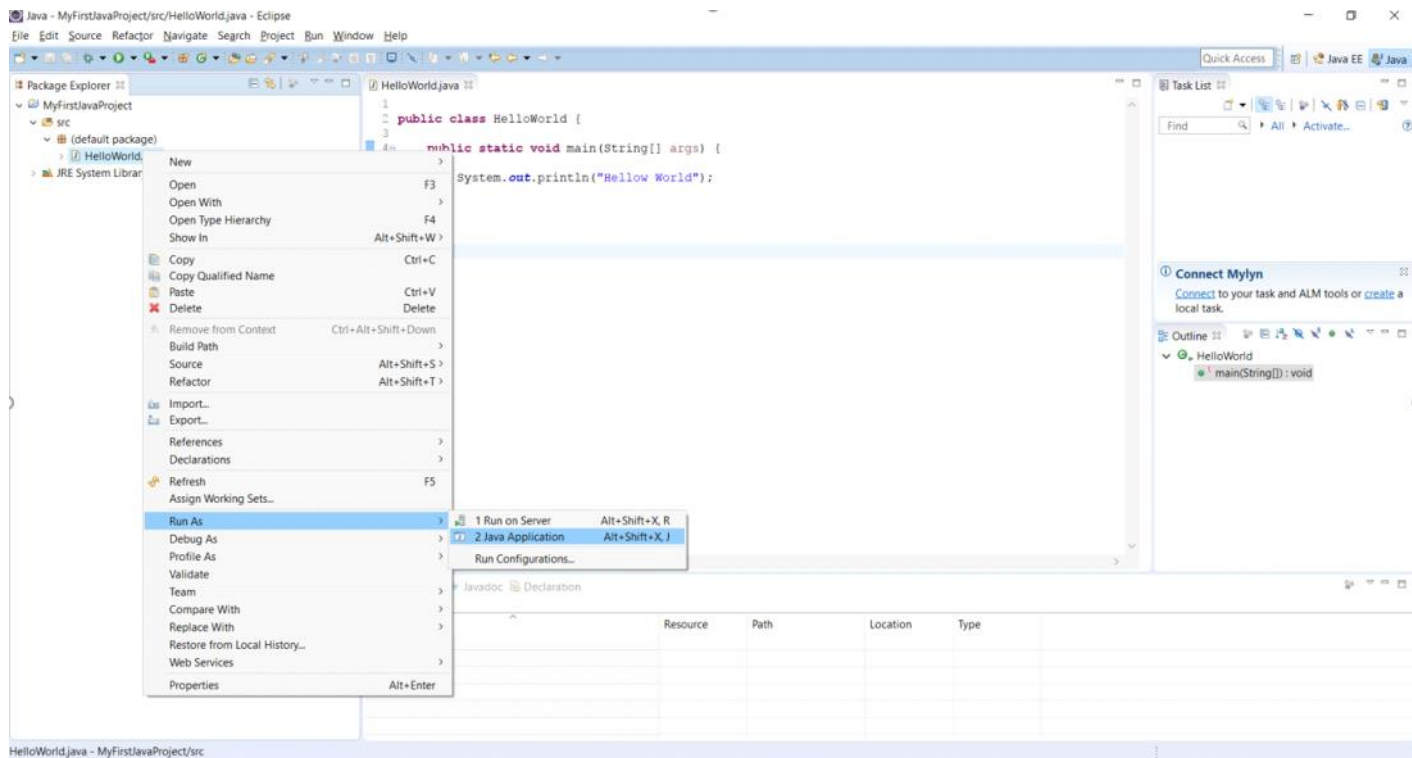




Now Lets create the Java File .



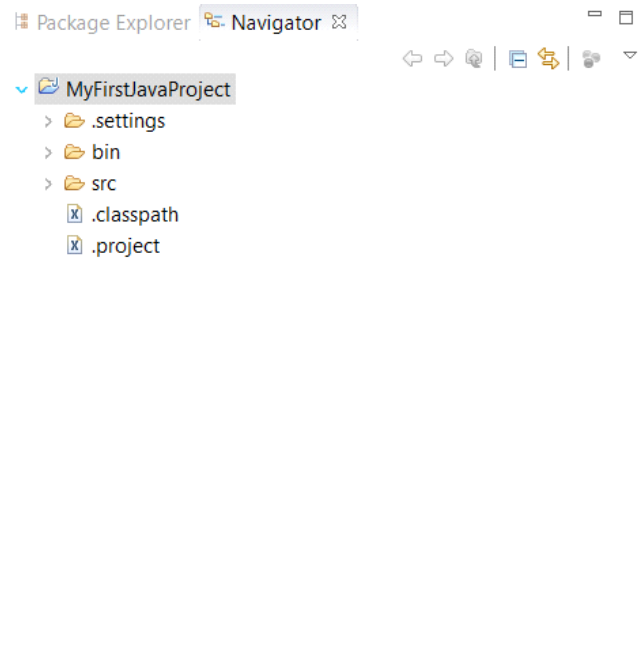




Eclipse important points

Real time we use two views for folder management .

Apart from package explore we have navigator .



- ☒ All java files will be stored in the src
- ☒ All generated .class files will be stored in bin .
- ☒ Eclipse builds the java file automatically and creates the .class file .
- ☒ Eclipse Uses the ANT build tool internally to build java project .

Eclipse Short Cuts

To Know the all short cuts press ctrl+shift+L

Activate Editor	F12
Activate Task	Ctrl+F9
Add Artifact to Target Platform	Ctrl+Alt+Shift+A
Add Block Comment	Ctrl+Shift+/
Add Import	Ctrl+Shift+M
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	Ctrl+Numpad_Subtract
Collapse All	Ctrl+Shift+Numpad_Divide
Commit...	Ctrl+#
Content Assist	Ctrl+Space
Context Information	Ctrl+Shift+Space
Copy	Ctrl+Insert
Copy Lines	Ctrl+Alt+Down
Correct Indentation	Ctrl+I
Cut	Shift+Delete

Deactivate Task	Ctrl+Shift+F9
Debug	F11
Debug Ant Build	Alt+Shift+D, Q
Debug Eclipse Application	Alt+Shift+D, E
Debug JUnit Plug-in Test	Alt+Shift+D, P
Debug JUnit Test	Alt+Shift+D, T
Debug Java Applet	Alt+Shift+D, A
Debug Java Application	Alt+Shift+D, J
Debug OSGi Framework	Alt+Shift+D, O
Debug XSLT Transformation	Alt+Shift+D, X
Debug on Server	Alt+Shift+D, R
Declaration in Workspace	Ctrl+G
Delete	Delete
Delete Line	Ctrl+D
Delete Next Word	Ctrl+Delete
Delete Previous Word	Ctrl+Backspace
Delete to End of Line	Ctrl+Shift+Delete
Display	Ctrl+Shift+D
Duplicate Lines	Ctrl+Alt+Up
Execute	Ctrl+U
Expand	Ctrl+Numpad_Add

Expand All	Ctrl+Shift+Numpad_Multiply
Extract Local Variable	Alt+Shift+L
Extract Method	Alt+Shift+M
Find Next	Ctrl+K
Find Previous	Ctrl+Shift+K
Find Text in Workspace	Ctrl+Alt+G
Find and Replace	Ctrl+F
Focus on Active Task	Alt+Shift+H
Force Return	Alt+Shift+F
Format	Ctrl+Shift+F
Forward History	Alt+Right
Generate Code	Alt+Shift+G
Go to Line	Ctrl+L
Go to Matching Bracket	Ctrl+Shift+P
Go to Next Member	Ctrl+Shift+Down
Go to Previous Member	Ctrl+Shift+Up
Incremental Find	Ctrl+J
Incremental Find Reverse	Ctrl+Shift+J
Inline	Alt+Shift+I
Insert Line Above Current Line	Ctrl+Shift+Enter
Insert Line Below Current Line	Shift+Enter

Inspect	Ctrl+Shift+I
Join Lines	Ctrl+Alt+J
Last Edit Location	Ctrl+Q
Line End	End
Line Start	Home
Make Landmark	Ctrl+Alt+Shift+Up

Inspect	Ctrl+Shift+I
Join Lines	Ctrl+Alt+J
Last Edit Location	Ctrl+Q
Line End	End
Line Start	Home
Make Landmark	Ctrl+Alt+Shift+Up
Make Less Interesting	Ctrl+Alt+Shift+Down
Maximize Active View or Editor	Ctrl+M
Move - Refactoring	Alt+Shift+V
Move Lines Down	Alt+Down
Move Lines Up	Alt+Up
New	Ctrl+N
New menu	Alt+Shift+N
Next	Ctrl+,
Next Editor	Ctrl+F6
Next Page	Alt+F7
Next Perspective	Ctrl+F8
Next Sub-Tab	Alt+PageDown
Next View	Ctrl+F7
Next Word	Ctrl+Right
Open Attached Javadoc	Shift+F2

Open Declaration	F3
Open Local Terminal on Selection	Ctrl+Alt+T
Open Manifest	Ctrl+Alt+Shift+M
Open Maven POM	Alt+Shift+P
Open Plug-in Artifact	Ctrl+Shift+A
Open Remote Task	Ctrl+Alt+Shift+F12
Open Resource	Ctrl+Shift+R
Open Search Dialog	Ctrl+H
Open Structure	Ctrl+F3
Open Task	Ctrl+F12
Open Terminal	Ctrl+Alt+Shift+T
Open Type	Ctrl+Shift+T
Open Type Hierarchy	F4
Open Type in Hierarchy	Ctrl+Shift+H
Organize Imports	Ctrl+Shift+O
Paste	Shift+Insert
Plug-in Menu Spy	Alt+Shift+F2
Plug-in Selection Spy	Alt+Shift+F1
Previous	Ctrl+,
Previous Editor	Ctrl+Shift+F6
Previous Page	Alt+Shift+F7

Previous Perspective	Ctrl+Shift+F8
Previous Sub-Tab	Alt+PageUp
Previous View	Ctrl+Shift+F7
Previous Word	Ctrl+Left
Print	Ctrl+P
Properties	Alt+Enter
Quick Access	Ctrl+3
Quick Assist - Assign to field	Ctrl+2, F
Quick Assist - Assign to local variable	Ctrl+2, L
Quick Assist - Extract method	Ctrl+2, M
Quick Assist - Rename in file	Ctrl+2, R
Quick Diff Toggle	Ctrl+Shift+Q
Quick Fix	Ctrl+1
Quick Hierarchy	Ctrl+T
Quick Outline	Ctrl+O
Quick Switch Editor	Ctrl+E
Redo	Ctrl+Y
References in Workspace	Ctrl+Shift+G
Refresh	F5
Remove All Visible Results	Shift+Delete
Remove Block Comment	Ctrl+Shift+\\

Remove Occurrence Annotations	Alt+Shift+U
Remove Result	Ctrl+Delete
Rename	F2
Rename - Refactoring	Alt+Shift+R
Reset Structure	Ctrl+Shift+Numpad_Multiply
Restore Last Selection	Alt+Shift+Down
Run	Ctrl+F11
Run Ant Build	Alt+Shift+X, Q
Run Eclipse Application	Alt+Shift+X, E
Run JUnit Plug-in Test	Alt+Shift+X, P
Run JUnit Test	Alt+Shift+X, T
Run Java Applet	Alt+Shift+X, A
Run Java Application	Alt+Shift+X, J
Run Maven Build	Alt+Shift+X, M
Run OSGi Framework	Alt+Shift+X, O
Run XSLT Transformation	Alt+Shift+X, X
Run on Server	Alt+Shift+X, R
Save	Ctrl+S
Save All	Ctrl+Shift+S
Scroll Line Down	Ctrl+Down
Scroll Line Up	Ctrl+Up

Search Repository for Task	Ctrl+Shift+F12
Select All	Ctrl+A
Select Enclosing Element	Alt+Shift+Up
Select Line End	Shift+End
Select Line Start	Shift+Home
Select Maven Profiles	Ctrl+Alt+P
Select Next Element	Alt+Shift+Right
Select Next Word	Ctrl+Shift+Right
Select Previous Element	Alt+Shift+Left
Select Previous Word	Ctrl+Shift+Left
Show Context Quick View	Ctrl+Alt+Shift+Right
Show Contributing Plug-in	Alt+Shift+F3
Show In Breadcrumb	Alt+Shift+B
Show In...	Alt+Shift+W
Show Key Assist	Ctrl+Shift+L
Show Occurrences in File Quick Menu	Ctrl+Shift+U
Show Refactor Quick Menu	Alt+Shift+T
Show Ruler Context Menu	Ctrl+F10
Show Source Quick Menu	Alt+Shift+S
Show System Menu	Alt+-
Show Tooltip Description	F2

Show View	Alt+Shift+Q, Q
Show View ()	Alt+Shift+Q, D
Show View (Breakpoints)	Alt+Shift+Q, B
Show View (Cheat Sheets)	Alt+Shift+Q, H
Show View (Console)	Alt+Shift+Q, C
Show View (Error Log)	Alt+Shift+Q, L
Show View (History)	Alt+Shift+Q, Z
Show View (Javadoc)	Alt+Shift+Q, J
Show View (Outline)	Alt+Shift+Q, O
Show View (Package Explorer)	Alt+Shift+Q, P
Show View (Problems)	Alt+Shift+Q, X
Show View (Search)	Alt+Shift+Q, S
Show View (Synchronize)	Alt+Shift+Q, Y
Show View (Task List)	Alt+Shift+Q, K
Show View (Type Hierarchy)	Alt+Shift+Q, T
Show View (Variables)	Alt+Shift+Q, V
Show View Menu	Ctrl+F10
Skip All Breakpoints	Ctrl+Alt+B
Surround With Quick Menu	Alt+Shift+Z
Switch to Editor	Ctrl+Shift+E
Terminate Result	Ctrl+Break

Terminate Result	Ctrl+Break
Text End	Ctrl+End
Text Start	Ctrl+Home
To Lower Case	Ctrl+Shift+Y
To Upper Case	Ctrl+Shift+X
Toggle Block Selection	Alt+Shift+A
Toggle Breakpoint	Ctrl+Shift+B
Toggle Comment	Ctrl+Shift+C
Toggle Folding	Ctrl+Numpad_Divide
Toggle Insert Mode	Ctrl+Shift+Insert
Toggle Mark Occurrences	Alt+Shift+O
Toggle Overwrite	Insert
Toggle Split Editor (Horizontal)	Ctrl+_
Toggle Split Editor (Vertical)	Ctrl+{
Undo	Ctrl+Z
Update Project	Alt+F5
Use Step Filters	Shift+F5
Word Completion	Alt+/
Zoom In	Ctrl+=
Zoom Out	Ctrl+-