

Eclipse Shortcuts

Work with ease



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Revision History				
Version	Date	Author/Contributor	Reviewer	Comments
0.1	20-Dec-2012	Vaibhav Shukla	Kuldeep Singh	Released First version of Eclipse useful shortcuts
1.0	28-Jan-13	Vaibhav Shukla		Updated with some more useful shortcuts (no. 28 to 36)
1.1	18-03-2013	Vaibhav Shukla		Updated with 'show print margin' editor preference
1.2	17-07-2013	Vaibhav Shukla		Updated with 'automatic code cleanup and formatting on save'

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Introduction

This document is built to make you aware of the useful eclipse shortcuts. As a developer, this will help you to explore eclipse and use it in more interactive way, because, as they say “the less you touch the mouse, the more you can write the code”.

Shortcuts

Top 10 Shortcuts

1) CTRL + D

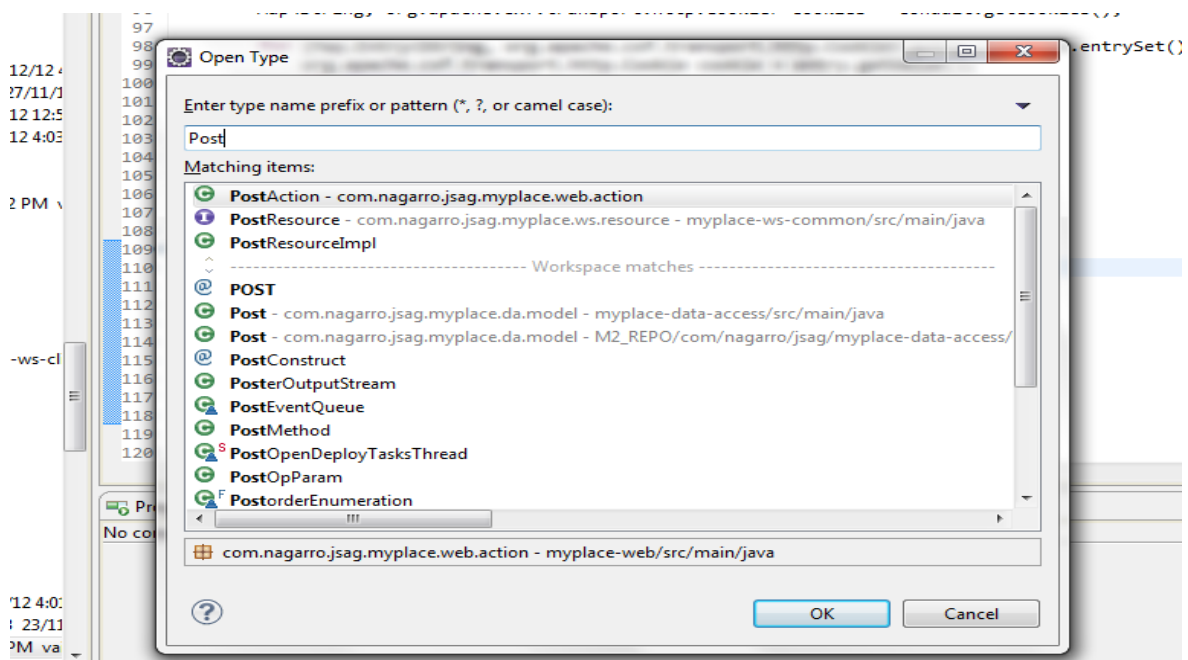
Delete the row! No more selecting the whole line and pressing Delete key, this shortcut will remove the line you want. Try it.

2) CTRL + SHIFT + O

Organize import statements. Very common to use. Imports all missing classes used in your class and removes all unused imports.

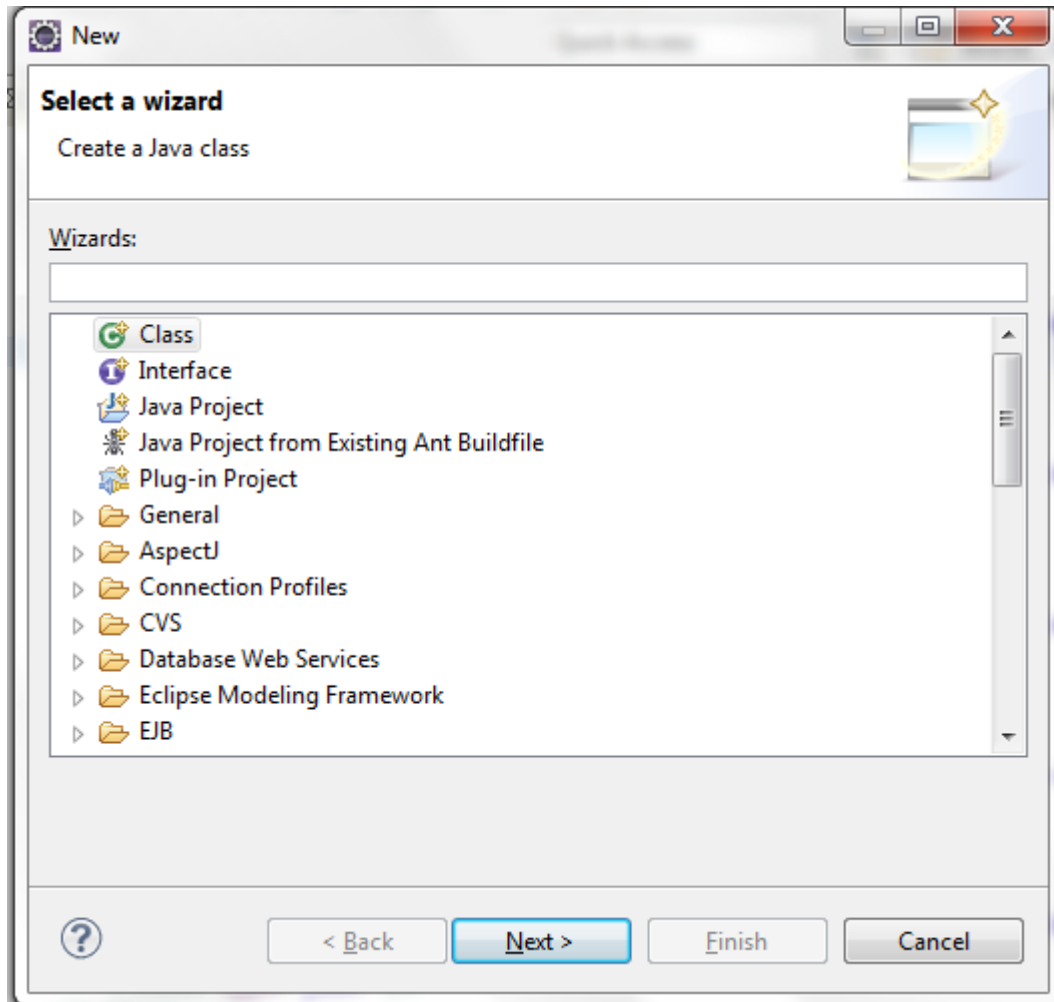
3) CTRL + SHIFT + T

Open Type. Will help you locate any class of your application, you need to look for. No Need to explore the packages and folders, just use this combination and type the class name.



4) CTRL + N

Opens the 'New Type' wizard. No need to right click the project and select New. This combination will open the wizard. Just enter the type and go on.



5) CTRL + F11

Runs the application. The launch resource will depend on your settings. By Default, it will launch the currently selected resource.

6) CTRL + SHIFT + F

Most widely used eclipse shortcut. This formats and beautifies your code. You can add your own formatting style under

Window-> Preferences-> Java-> Code style-> Formatter.

7) CTRL + SPACE

Most favorite of all. Type in something and press ctrl + space and chances are the eclipse will have some hint for you to generate the code.

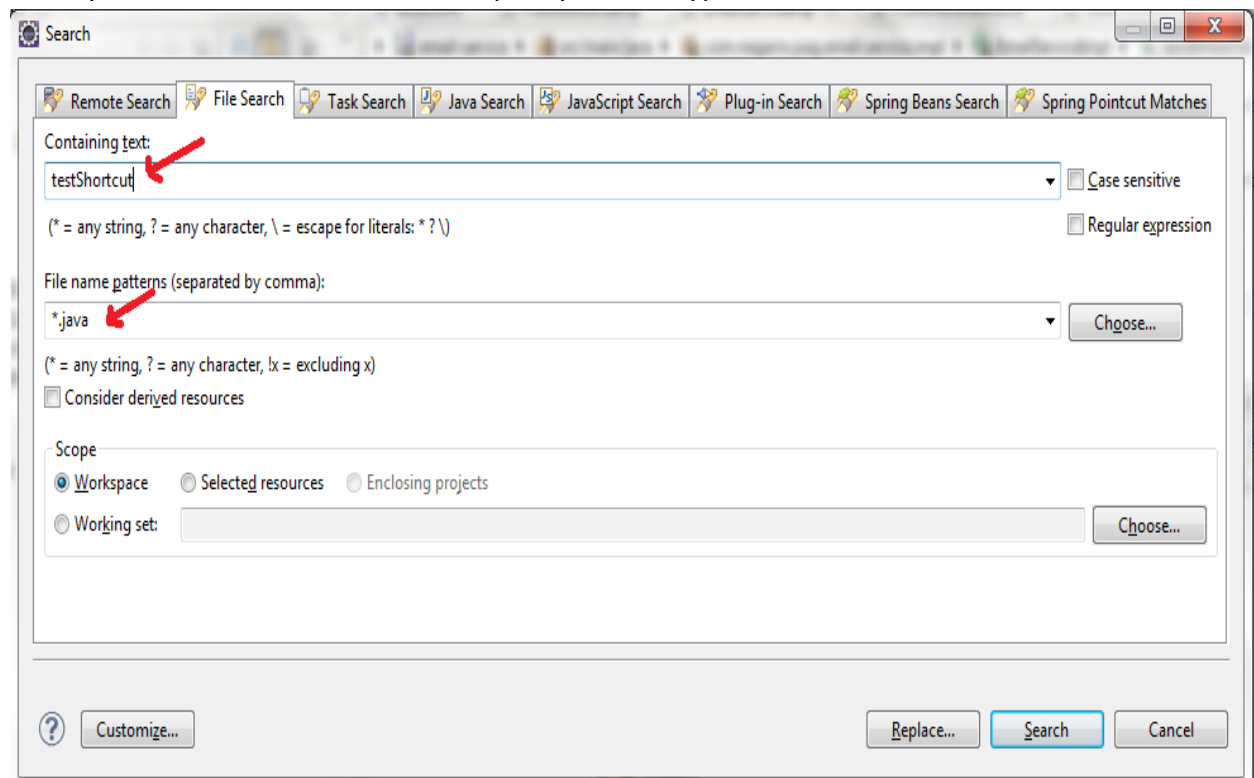
For example,

- you type “main” and hit “ctrl+space”, eclipse will show you the dialog to generate *main method*
- Write “for” and hit “ctrl+space” and it will show you the dialog to generate for loops etc.
- Write class name and use this combination, it will ask you to generate default constructor for the class.

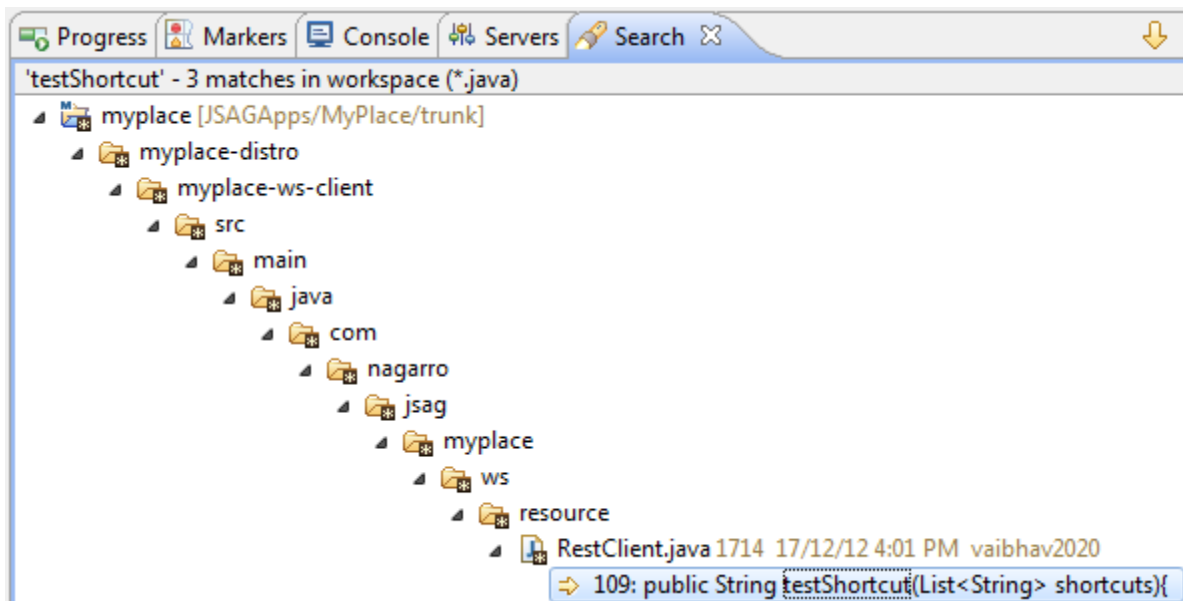
8) CTRL + H

Opens the search wizard. You can search for the text you need and also can specify the type of file where you need to search the text.

Suppose you are looking for the method name “testShortcut” which is in some java class, you can use this combination, specify the file type and can search for it.

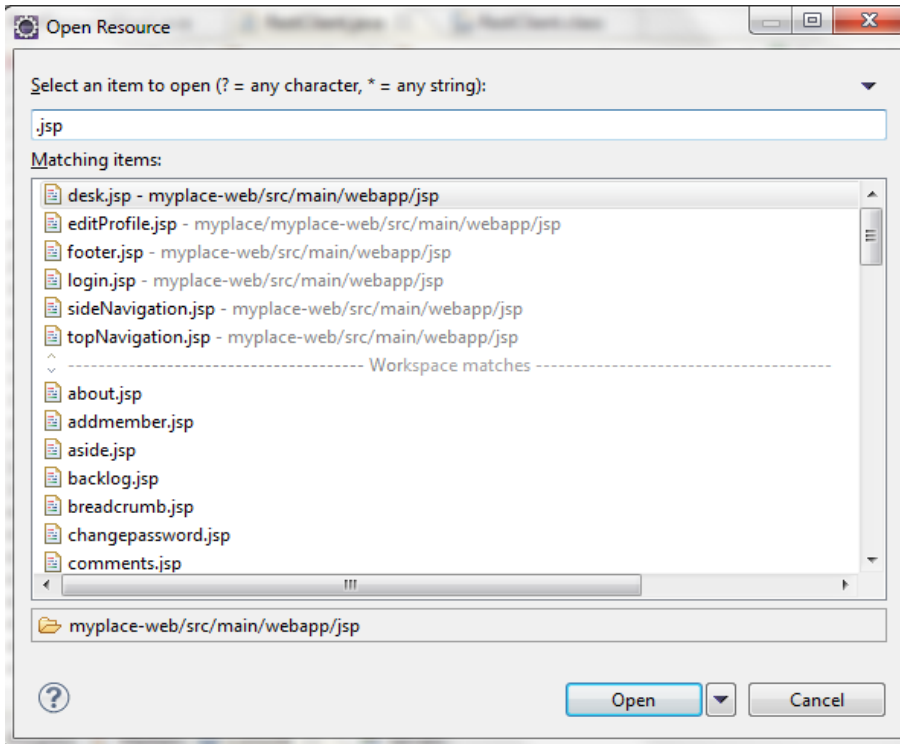


And your search result will be



9) CTRL + SHIFT + R

Similar to CTRL+SHIFT+T. Open resource wizard to help you look for any resource.

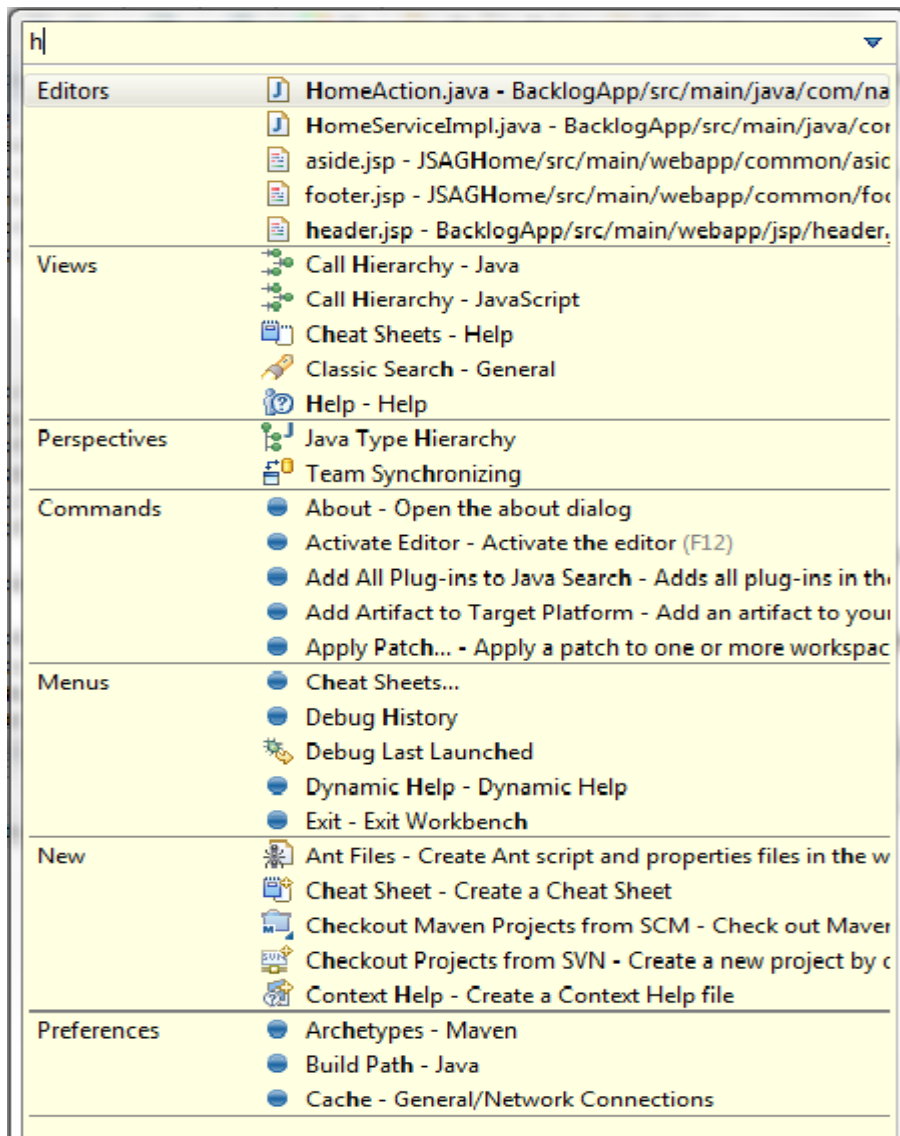


10) CTRL + 3

A quick access to almost everything in eclipse. The latest eclipse “JUNO” has a search bar named “quick access”



While in other versions of eclipse, this combination proves to be the “Entry Point” to almost everything in eclipse.



Other Shortcuts

11) ALT + Up/Down Arrow

Move the line or the selected code up or down. Very helpful while re-arranging the and aligning the code.

```
112    */
113    public String userPosts() {
114        userActivities();
115        filterPosts(postList);
116        while (postList.isEmpty()) {
117            fetchOldPost();
118            filterPosts(postList);
119        }
120        isDesk = true;
121        return SUCCESS;
122    }
```

```
112    */
113    public String userPosts() {
114        while (postList.isEmpty()) {
115            userActivities();
116            filterPosts(postList);
117            fetchOldPost();
118            filterPosts(postList);
119        }
120        isDesk = true;
121        return SUCCESS;
122    }
123
```

12) ALT + Left/Right Arrow

One of the most useful shortcuts for eclipse. Alt+left arrow will take you to the class you last edited while Alt+right arrow will bring you back to the current class you were working.

Suppose, you are working on class “Foo” and want to look for the changes you did in class “Bar” just before coming to Foo. For this, no need to look into your project explorer to find the class Bar and then scrolling to the line where you made the changes. Just press **alt+left arrow**, and it will take you to the exact line where you need to see and then **alt+right arrow** will bring you back.

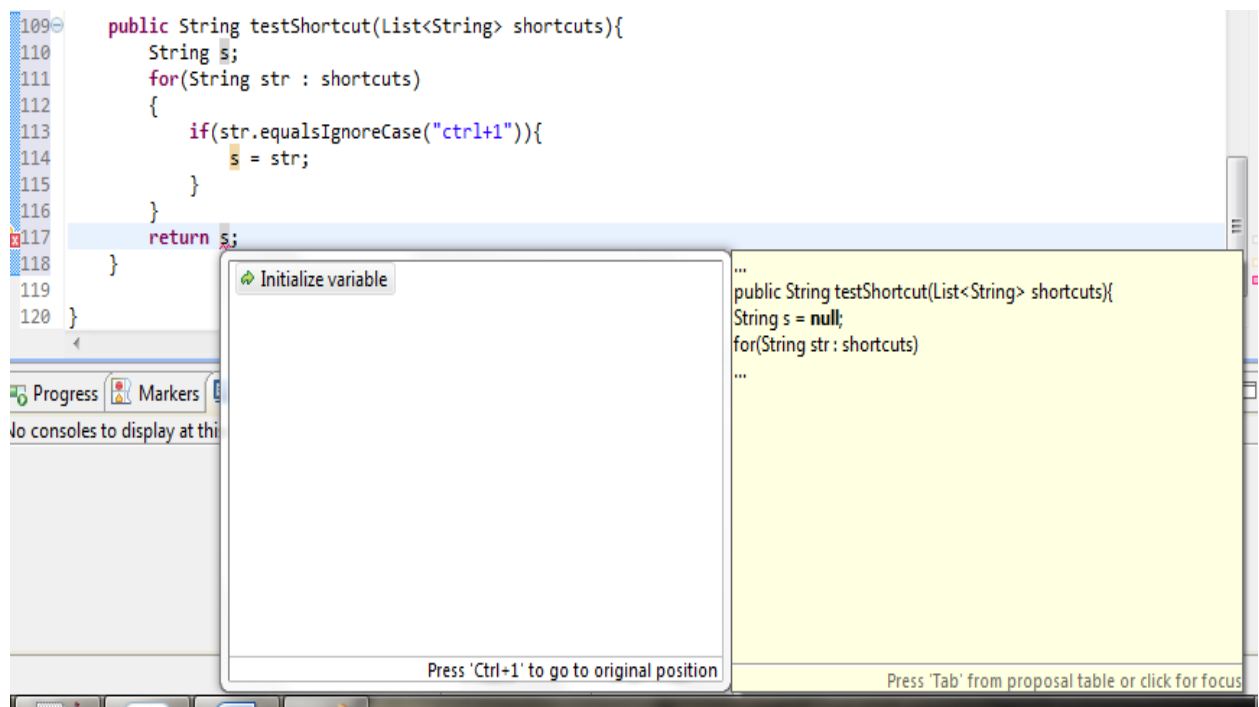
13) CTRL + 1

The most useful shortcut. This activates the quick fix. Reach to the line where you are getting some error and press this combination, this will fix the issue.

Suppose you create a local variable and have not initialized it before using. Then reach to the line where you are prompted for error, try this combination and it will activate the quick fix

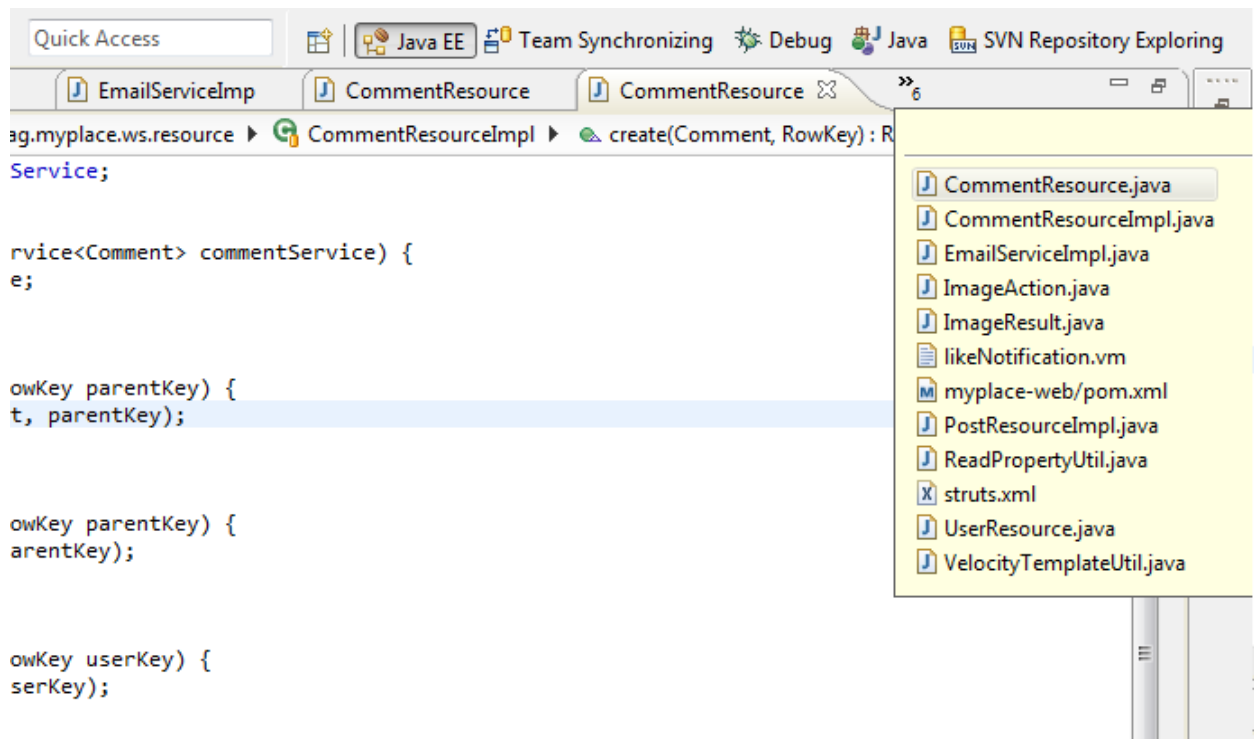
```
108
109 public String testShortcut(List<String> shortcuts){
110     String s;
111     for(String str : shortcuts)
112     {
113         if(str.equalsIgnoreCase("ctrl+1")){
114             s = str;
115         }
116     }
117     return s;
118 }
```

Now when you press **ctrl + 1**, you get



14) CTRL + E

Shows you the list of all open editors.

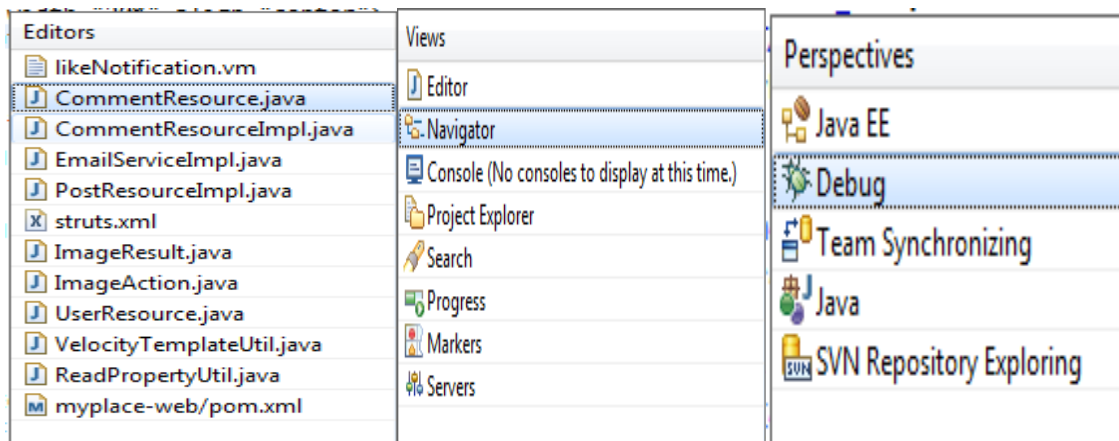


15) CTRL + F6 , CTRL + F7 , CTRL+F8

Ctrl+F6 - Move between open editors

Ctrl+F7 - Move between views

Ctrl+F8 - Move between perspectives



16) CTRL + M

Maximize or Un-maximize the current tab.

17) CTRL + I

Corrects indentation. Highlight the code, you want to correct the indentation for, and use this combination.

```
45 @Override
46 public void sendEmail(String emailIdTo, String emailIdFrom, String subject, String content) {
47     MimeMessage message = mailSender.createMimeMessage();
48     try{
49         MimeMessageHelper helper = new MimeMessageHelper(message, true);
50
51         helper.setFrom(emailIdFrom);
52         helper.setTo(emailIdTo);
53         helper.setSubject(subject);
54         helper.setText(content, true);
55         mailSender.send(message);
56     }catch (MessagingException e){
57         throw new MailParseException(e);
58     }
59 }
60
61 /**
```

And after you use this combination you get

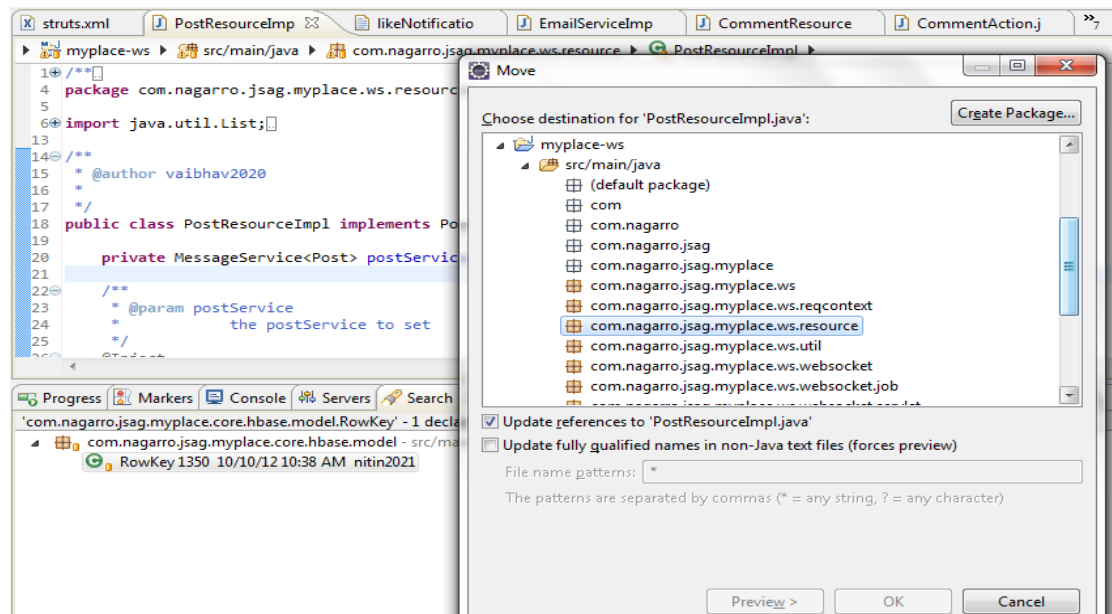
```
45 @Override
46 public void sendEmail(String emailIdTo, String emailIdFrom, String subject, String content) {
47     MimeMessage message = mailSender.createMimeMessage();
48     try{
49         MimeMessageHelper helper = new MimeMessageHelper(message, true);
50
51         helper.setFrom(emailIdFrom);
52         helper.setTo(emailIdTo);
53         helper.setSubject(subject);
54         helper.setText(content, true);
55         mailSender.send(message);
56     }catch (MessagingException e){
57         throw new MailParseException(e);
58     }
59 }
```

18) CTRL + G

Searches for the highlighted text in workspace.

19) ALT + SHIFT + V

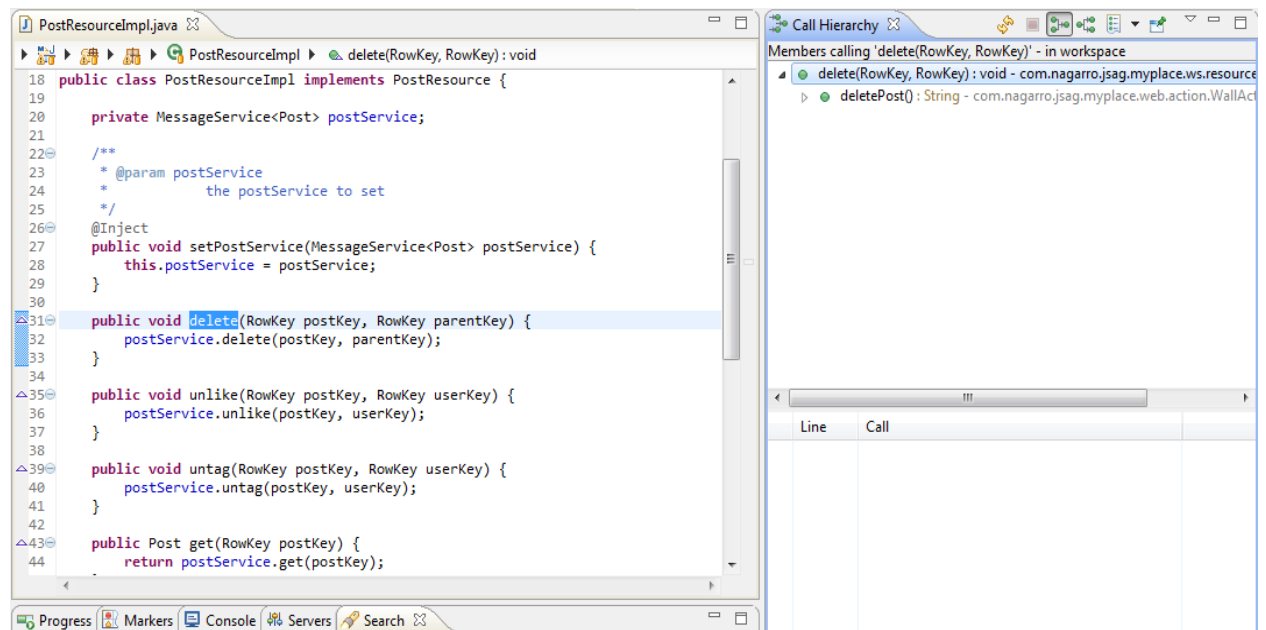
Move your resource to correct destination.



You can move your class to a new package, or any other existing package and eclipse will automatically update the references to your resource.

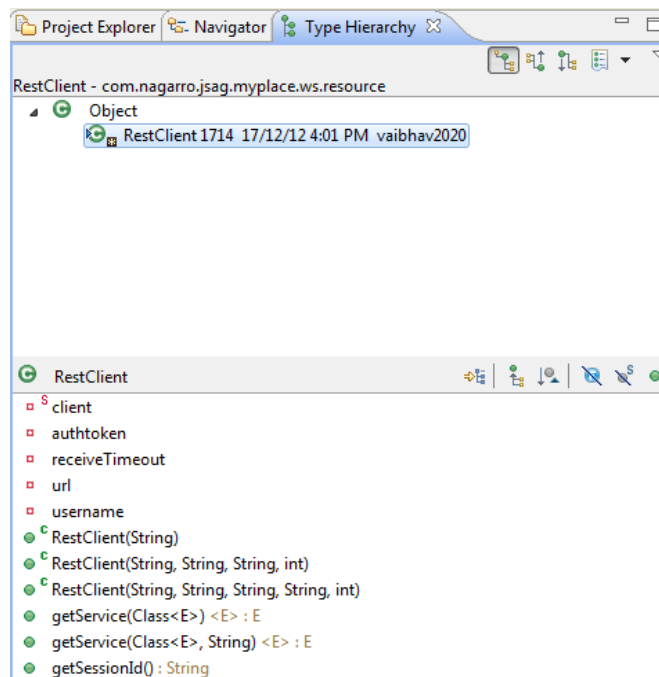
20) CTRL + ALT + H

Opens call hierarchy. Highlight the method and use this combination to find out where the method is called.



21) F4

Opens type hierarchy.

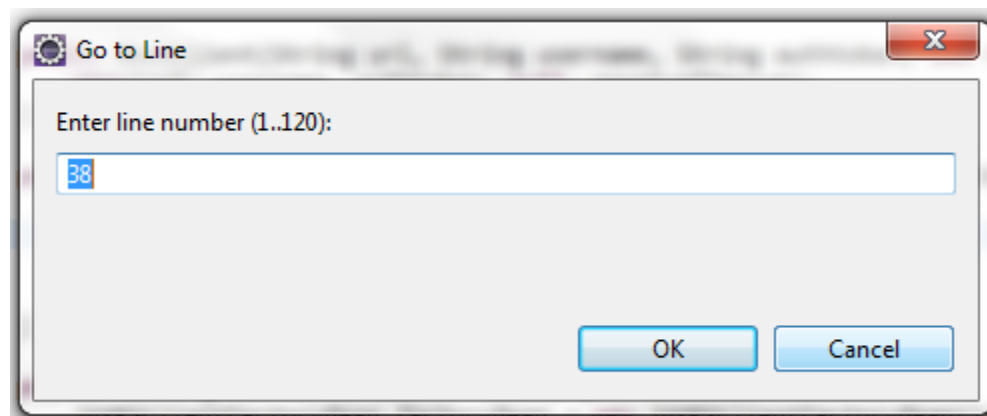


22) F3

Takes you to the declaration of the method, variable or class. Use this while the cursor is on the method, variable or class name.

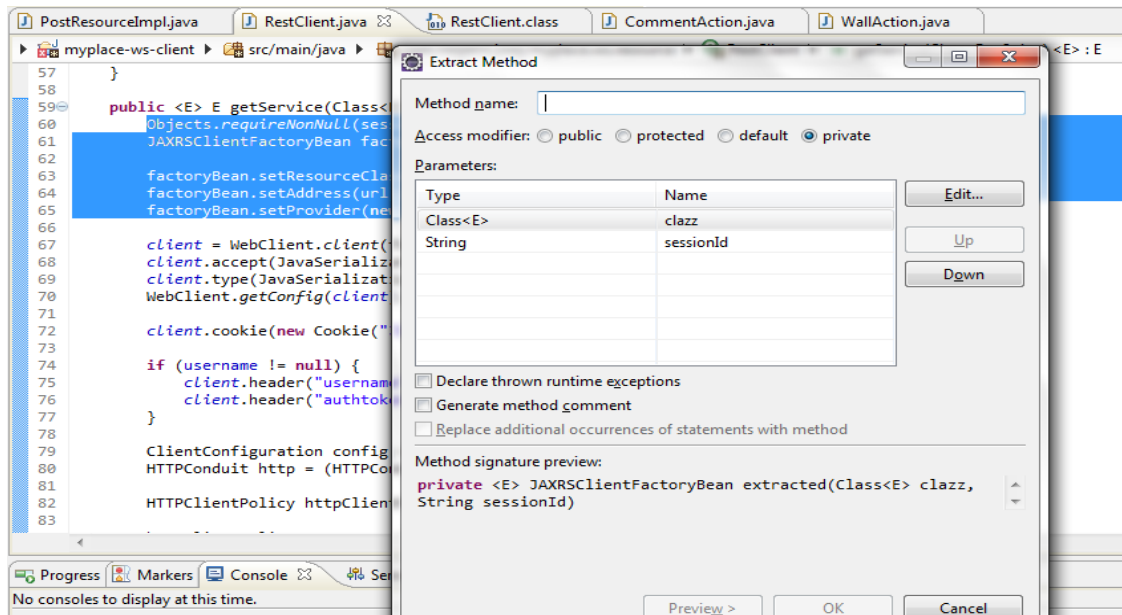
23) CTRL + L

Makes you reach to a line number.



24) ALT + SHIFT + M

Most wonderful shortcuts of all. Helps you extract the highlighted code as a *separate method*.



It breaks up that monolithic code, takes the selection and tries to make it into a method. Will optionally find duplicate code blocks and use the new method there as well.

25) CTRL + W

Use this combination to close the current editor.

26) CTRL + SHIFT+ W

This combination will close all the open editors in eclipse.

27) CTRL + SHIFT+ C

To comment out the current line where the cursor is. This combination can also be used to un-comment any commented line

28) CTRL + ALT + UP

Copy current line above

```
for (String qname : qualifiers) {  
    Friend friend = new Friend();  
    Friend friend = new Friend();  
    friend.setUsername(qname);  
    friends.add(friend);  
}
```

29) CTRL + ALT + DOWN

Copy the line below the current line.

30) CTRL + SHIFT + DELETE

Delete the from the cursor position till the end.

31) CTRL + SHIFT + P

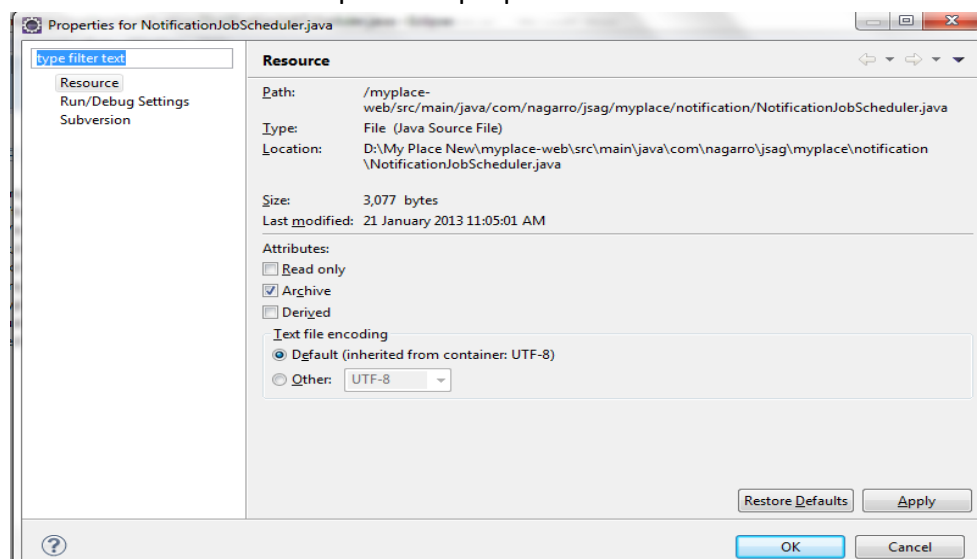
A good shortcut to use. It matches the correct brace. From opening brace, when you use this shortcut, it takes you to the matching closing bracket and vice-versa.

32) CTRL+SHIFT+ UP/DOWN

Move among class members. Be it variables or method. Using these shortcuts, you can walk through class members sequentially up or down by pressing the corresponding arrow keys.

33) ALT+ENTER

Most useful shortcut. It opens the properties tab of the class.



34) CTRL + DELETE

Delete the next word of the line from cursor position.

35) CTRL + BACKSPACE

Delete the previous word of the line.

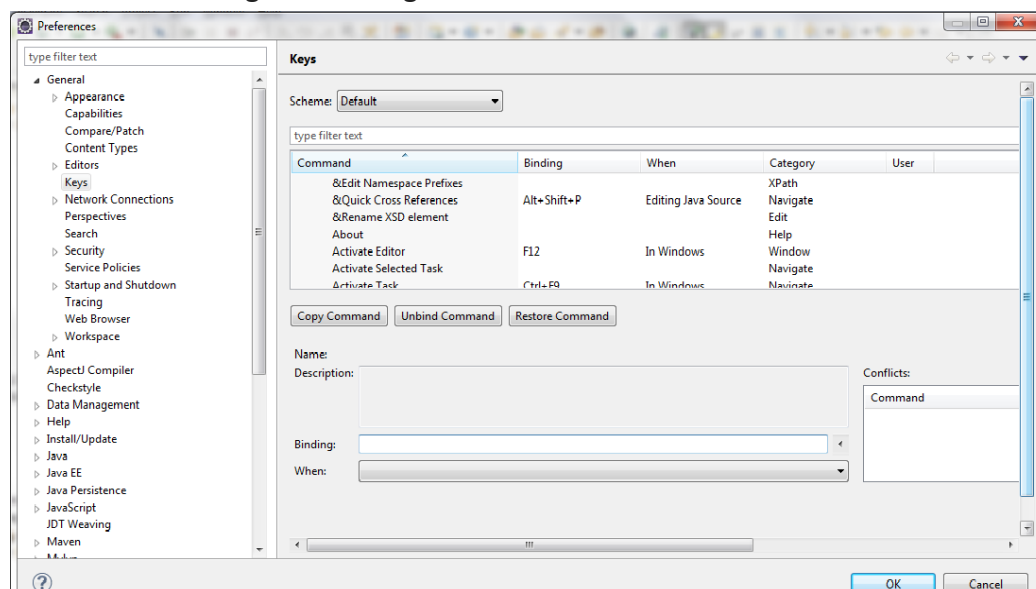
36) ALT + UP/DOWN

Shifts the current line up or down.

Customizing Shortcuts

You can always change the bindings to match them to your preference.

Open **Windows->Preferences->General->Keys**. Now you can use the filter to find your shortcut and change its binding.



Code Templates

Code templates are certain user defined (some are available by default) templates which can assist in rapid code writing. Not only code templates increase your code writing speed, but it also adds consistency across the code.

Code template can be generated by writing few characters and pressing "**CTRL + SPACE**". For example, you write "tr" and press ctrl+space and you'll have a try-catch block.

Top 10 Templates

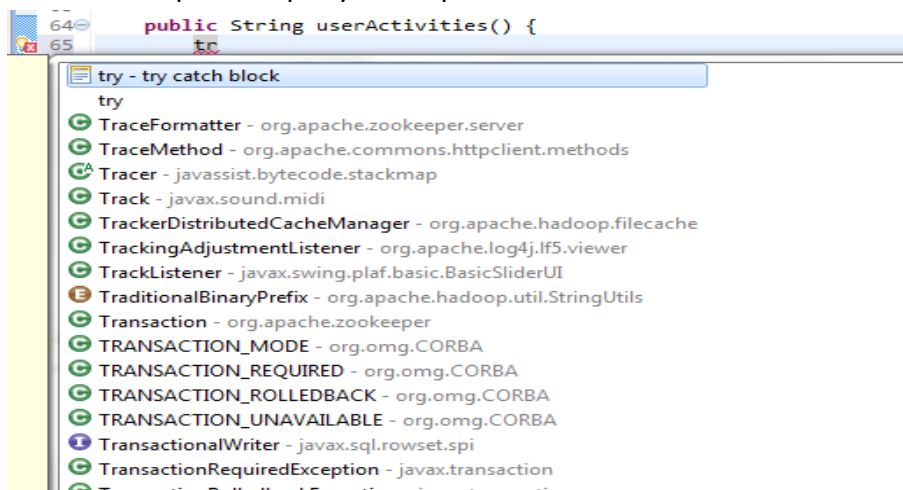
Most widely used templates are

1) syso

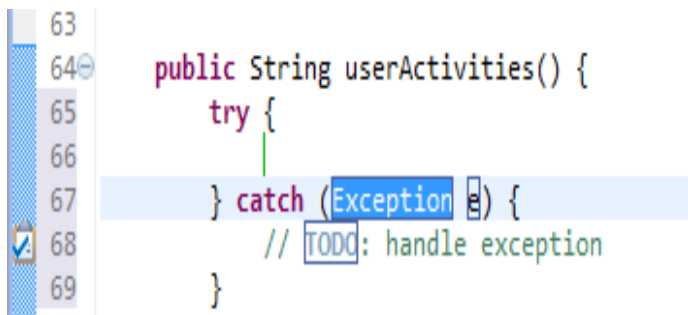
This will generate a print statement i.e “System.out.println()”. No need write it completely.

2) tr

This will generate the try-catch block. The cursor will be at the Exception so that you can edit the Exception as per your requirement.

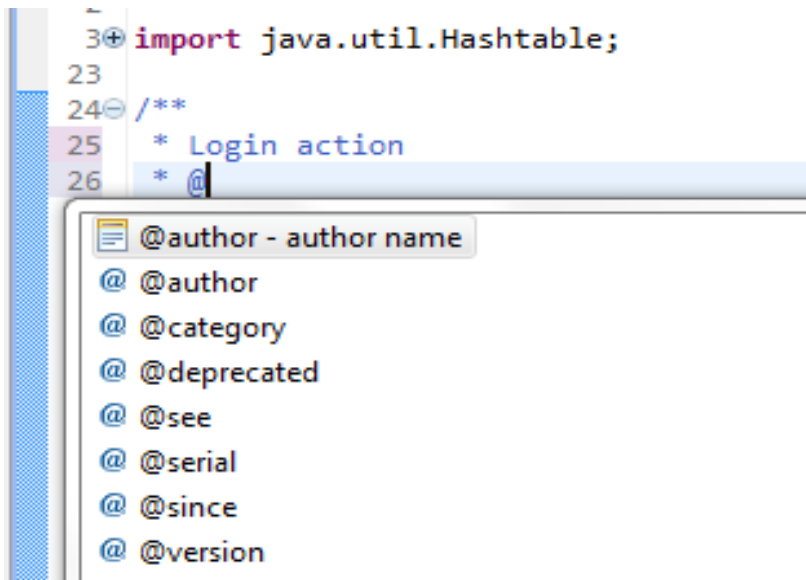


and after pressing enter you get

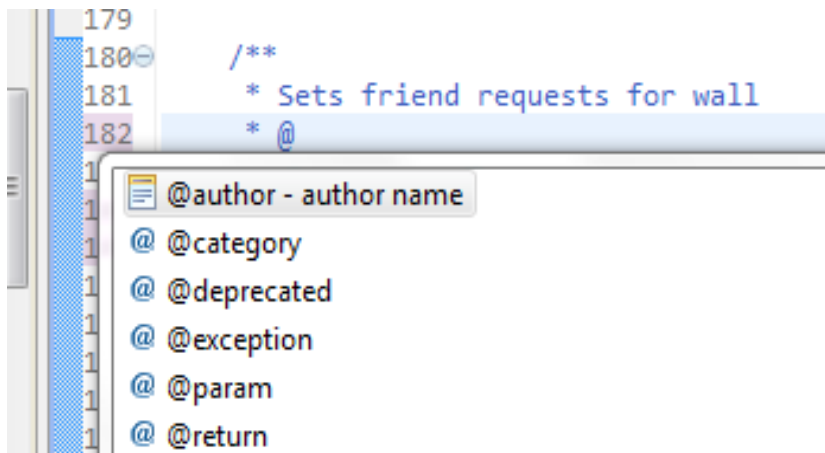


3) @

Very useful code template. Use this on class comment block to set author name.



Provides various annotations such as author, version etc. Using this over the method's comment block will allow you to add 'param', 'return', 'Exception' annotations as well



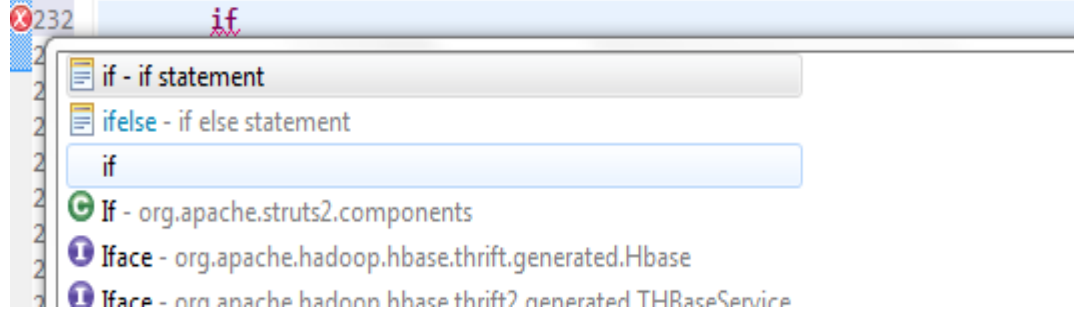
4) If, If/Else

This will allow you to generate If/else block in your code.

```

222     */
223     private <T> void shrinkListTo(List<T> list, int newSize) {
224         try {
225             list.retainAll(list.subList(0, newSize));
226         } catch (UnsupportedOperationException e) {
227             for (int i = list.size() - 1; i >= newSize; --i) {
228                 list.remove(i);
229             }
230         }
231
232         if

```



After generation, the cursor will point to the if condition to allow you to edit the condition as per your requirement.

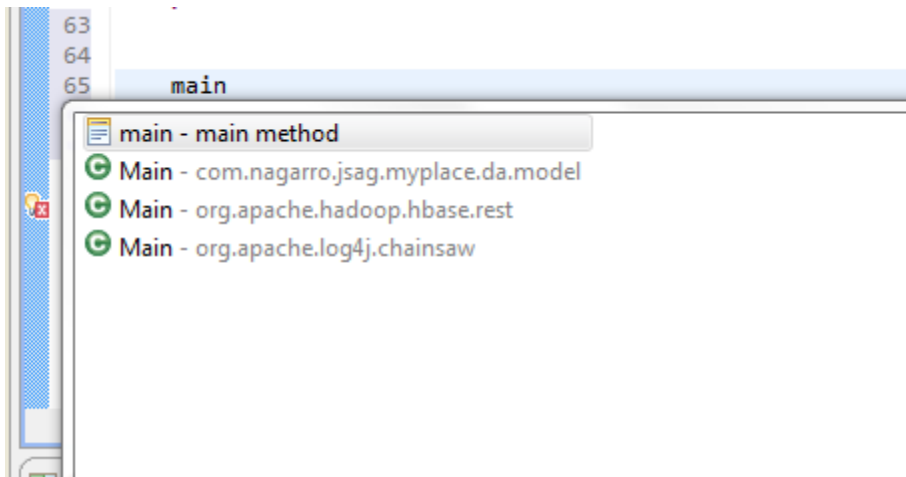
```

217     /**
218      * Shrinks list to a given size
219      *
220      * @param list
221      * @param newSize
222      */
223     private <T> void shrinkListTo(List<T> list, int newSize) {
224         try {
225             list.retainAll(list.subList(0, newSize));
226         } catch (UnsupportedOperationException e) {
227             for (int i = list.size() - 1; i >= newSize; --i) {
228                 list.remove(i);
229             }
230         }
231
232         if (isDesk) {
233
234         } else {
235
236         }
237     }

```

5) main

This code template will generate the main method.



6) loop statements

a. for

This will allow you to generate the “for loop” statement, and will give you the option whether you need to iterate over an array or over a collection and will

generate the code accordingly.

```

227  */
228  private <T> void shrinkListTo(List<T> list, int newSize) {
229      try {
230          list.retainAll(list.subList(0, newSize));
231      } catch (UnsupportedOperationException e) {
232          for (int i = list.size() - 1; i >= newSize; --i) {
233              list.remove(i);
234          }
235      }
236  }
237  for
  
```

for (int i = 0; i < array.length; i++) {
}

- for - iterate over array
- for - iterate over array with temporary variable
- for - iterate over collection
- foreach - iterate over an array or Iterable

If you select option “foreach”, you’ll have something like

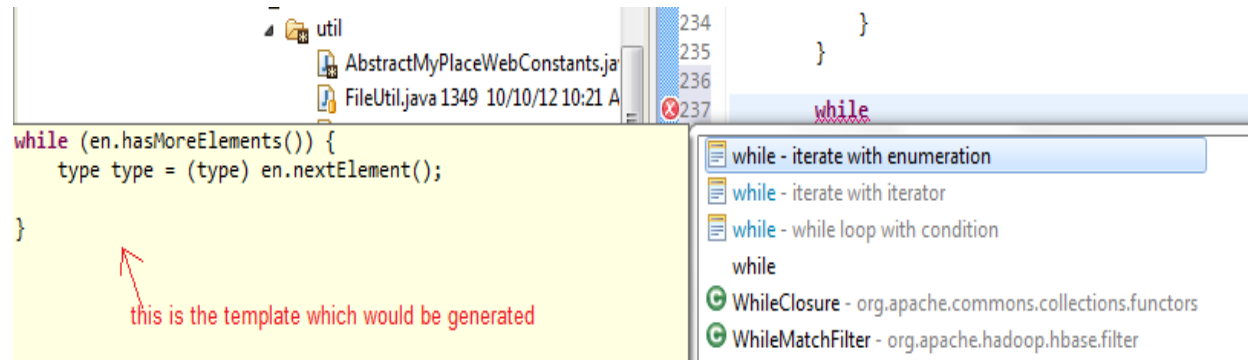
```

227  */
228  private <T> void shrinkListTo(List<T> list, int newSize) {
229      try {
230          list.retainAll(list.subList(0, newSize));
231      } catch (UnsupportedOperationException e) {
232          for (int i = list.size() - 1; i >= newSize; --i) {
233              list.remove(i);
234          }
235      }
236  }
237  for (T t : list) {
238      }
239  }
240  }
  
```

with cursor over the type to allow you to edit according to your requirement.

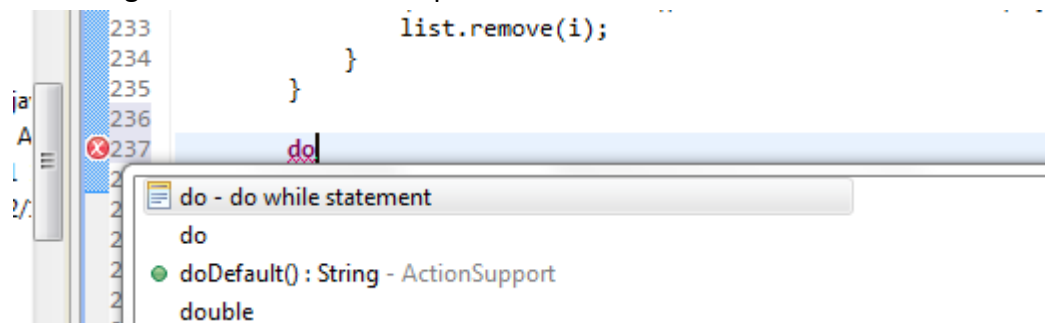
b. while

This will provide you with the options of iterating with an enum, or iterating over an iterator or iterating with a while loop condition.



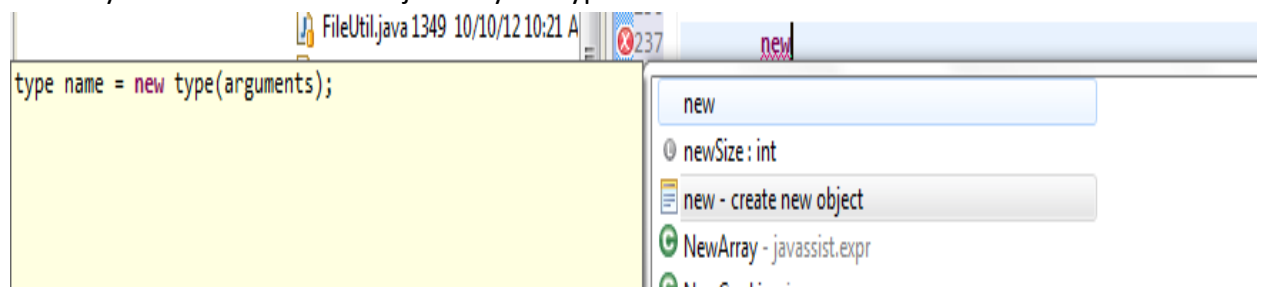
c. do-while

This will generate a do-while loop statement.



7) new

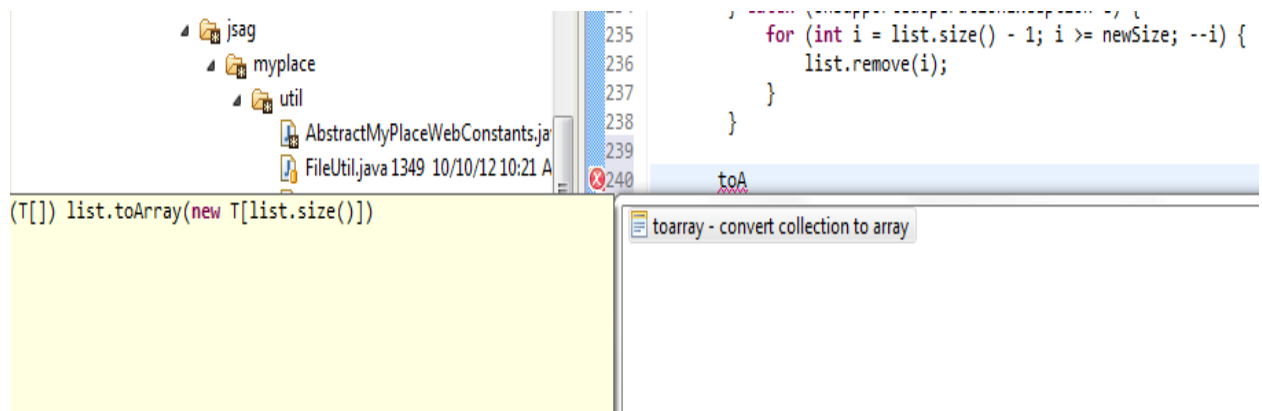
Allows you to create a new object of your type.



8) toArray

If you require to convert your collection to an array, you simply need to type these two or three characters and hit “ctrl+space”, this will generate a toArray statement for your

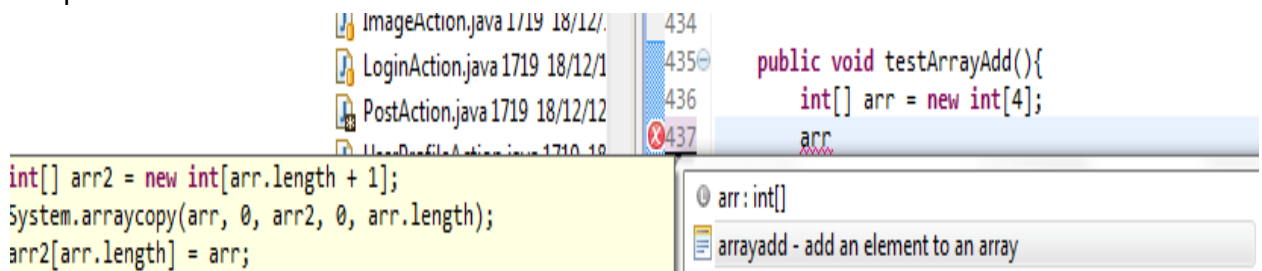
collection.



With cursor over the type T which you need to edit according to your need.

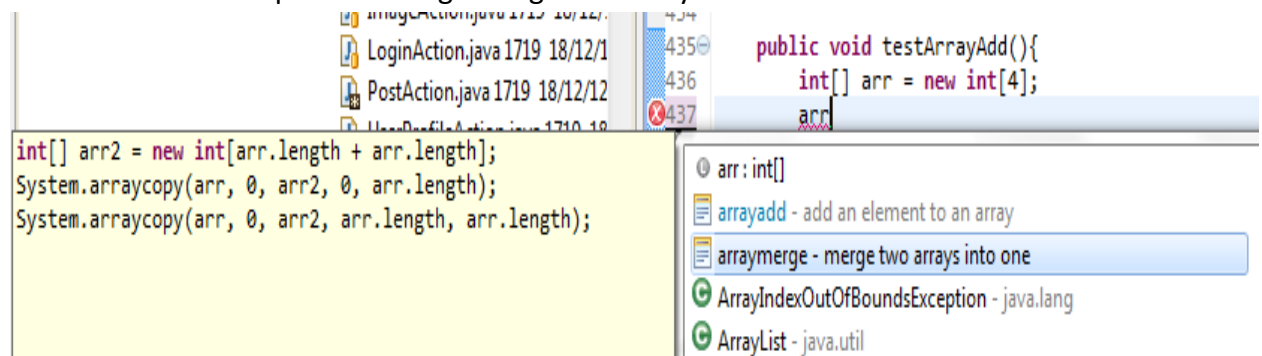
9) arrayadd

Allows you to add an element to your array. Type `arr` and “ctrl+space” will show you the template



10) arraymerge

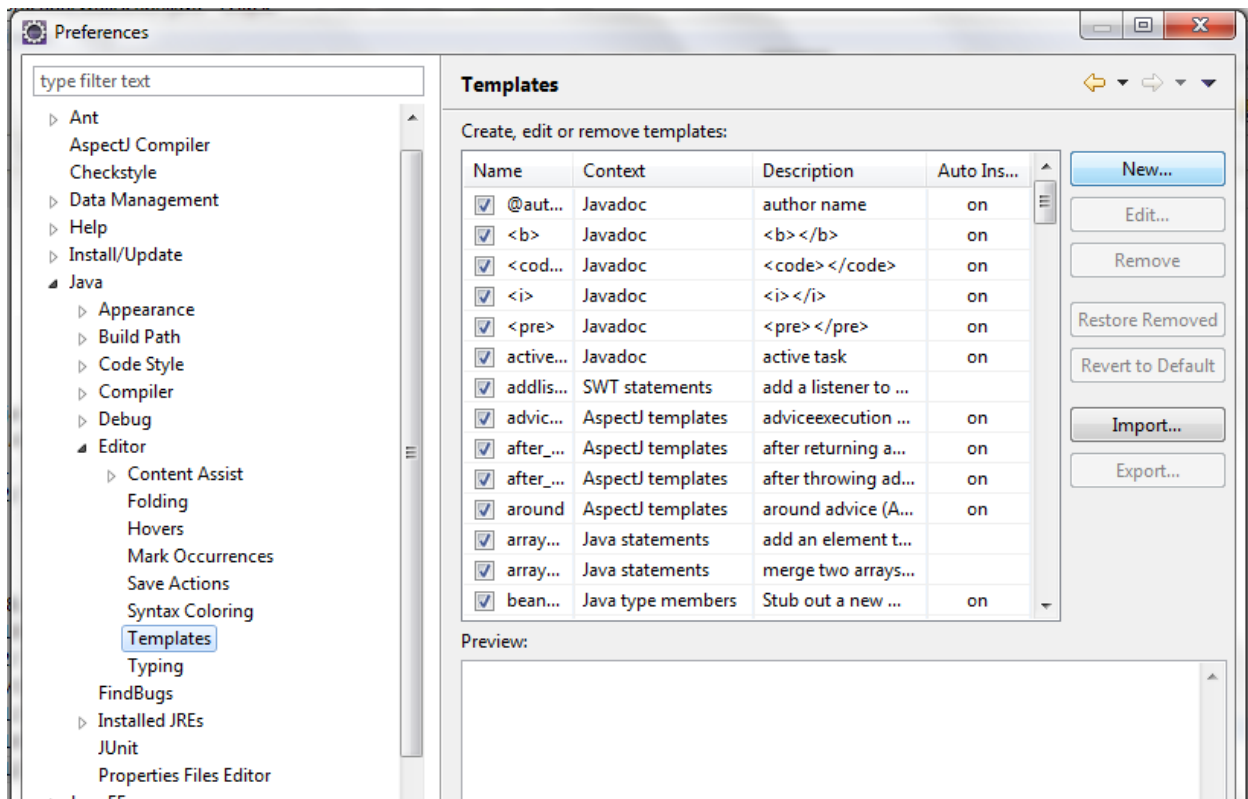
You'll also find the option to merge merge two arrays into one.



Customizing Templates

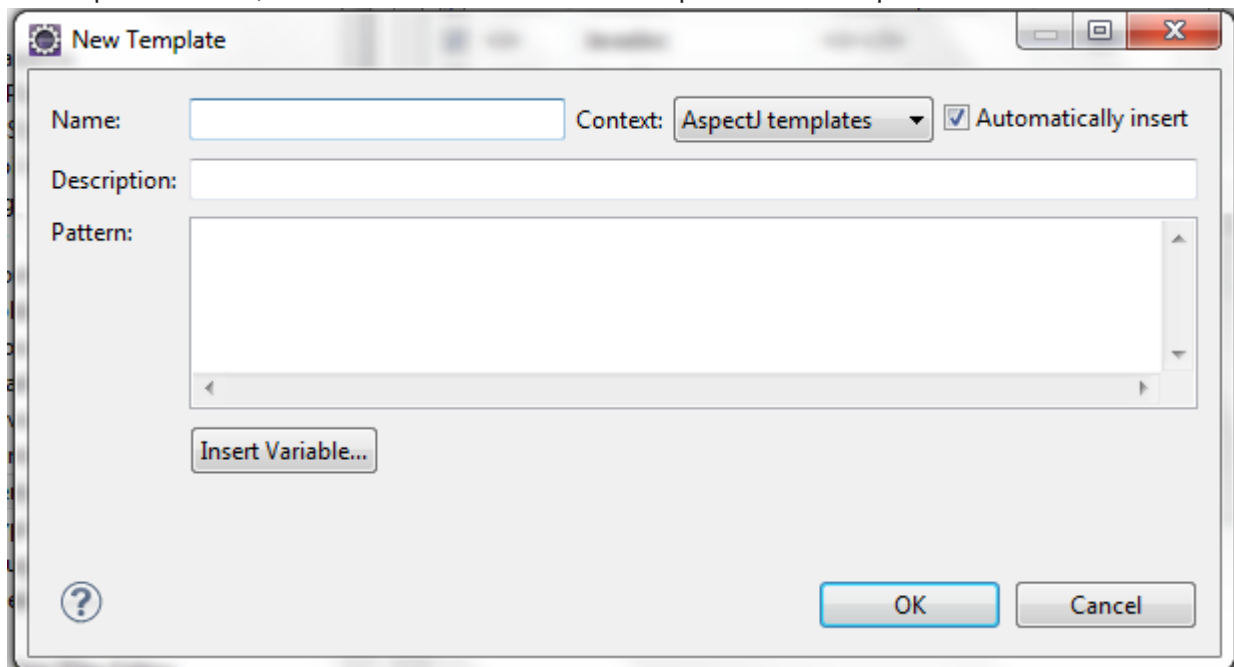
Apart from the default template provided in eclipse, you can also write your custom template in order to generate it easily using “*ctrl+space*”. Here is how you can do it.

Just go to **Windows > Preferences > Java > Editor > Templates**.



We will create a template which will check if a local variable is null or not. If it is null, then throw “*NullPointerException*”.

In Template window, click on new to add the code template and description.

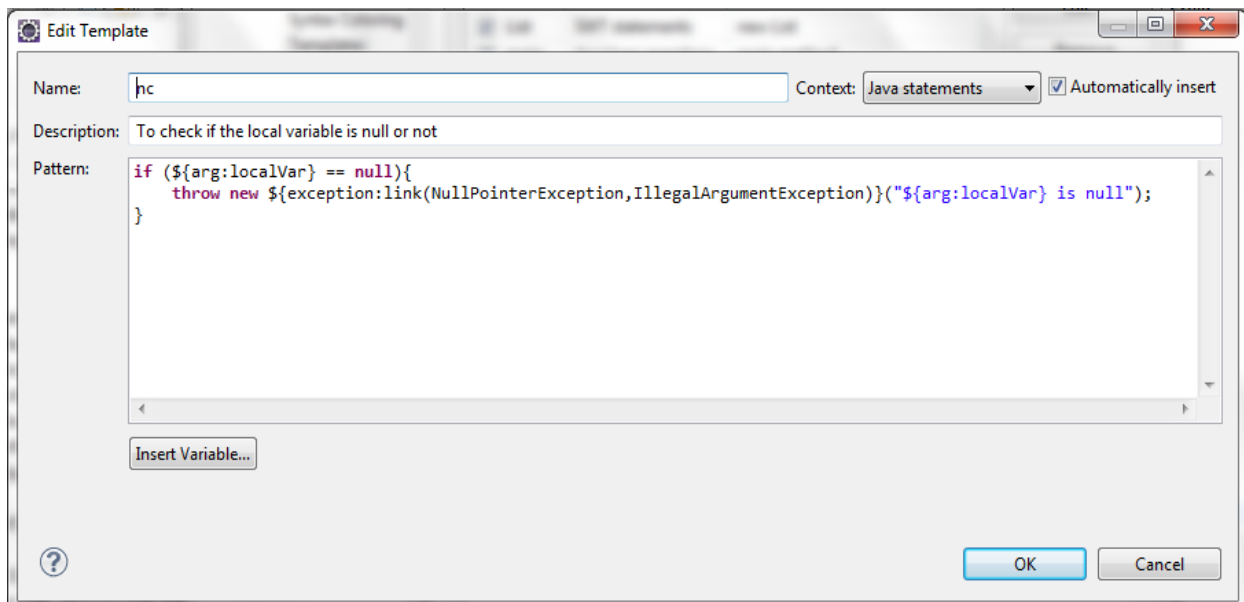


Fill up the details as following

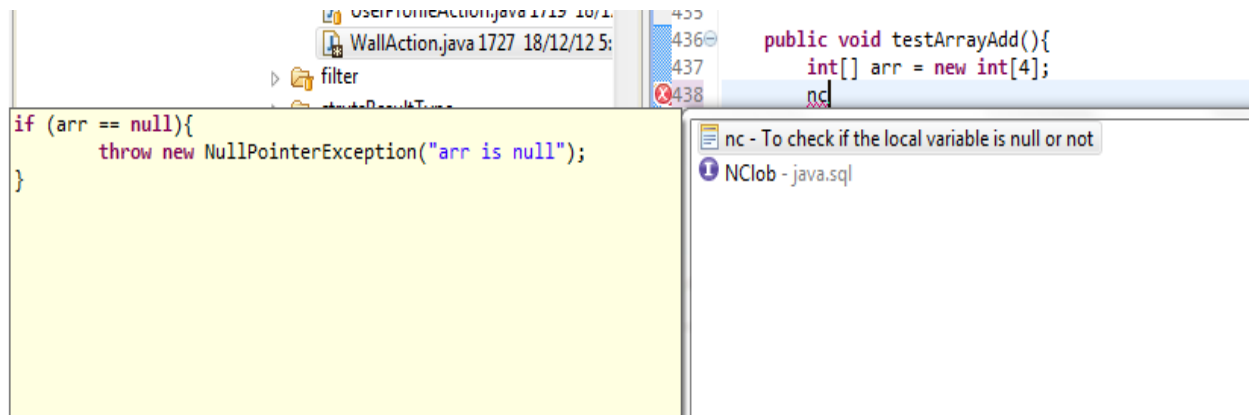
Name: nc (let's call it 'null check')

Description: To check if the local variable is null or not.

Pattern : Enter as shown below



Click Ok to save your template. Now, go to any editor and type nc and hit “ctrl+space”, you’ll have something like



This way, you can add your own code templates to ease your work.

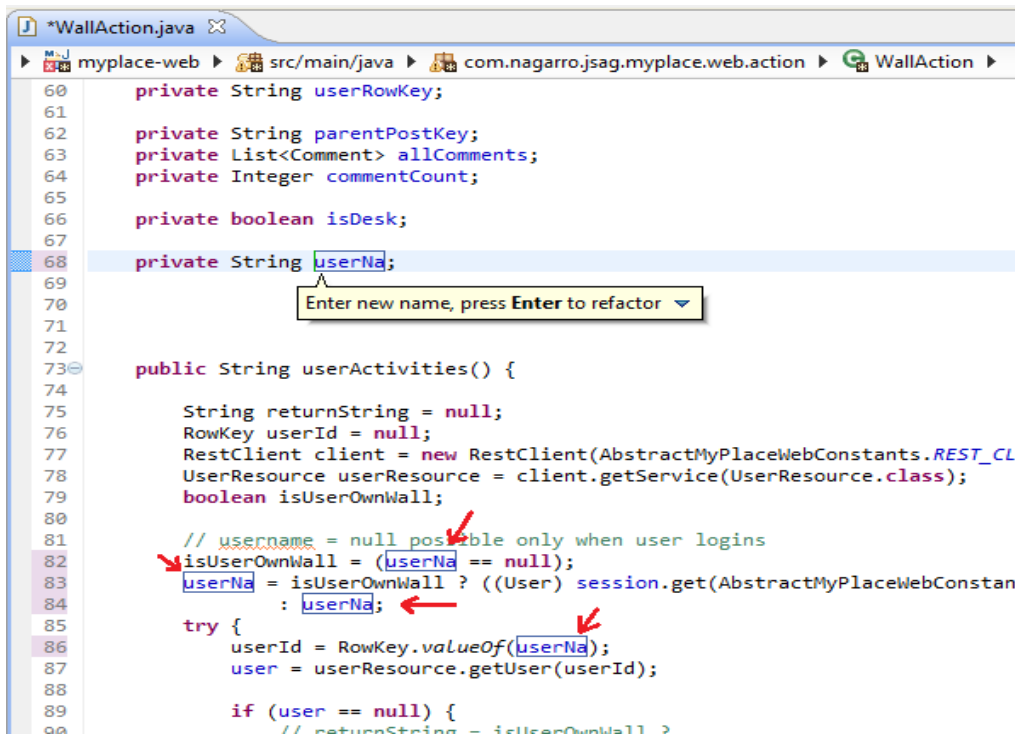
Usage Tips

Refactoring

Many a times it happens that we need to refactor our code or rename method or variable or even class. For this, there is an easy shortcut to do so.

ALT+SHIFT+R

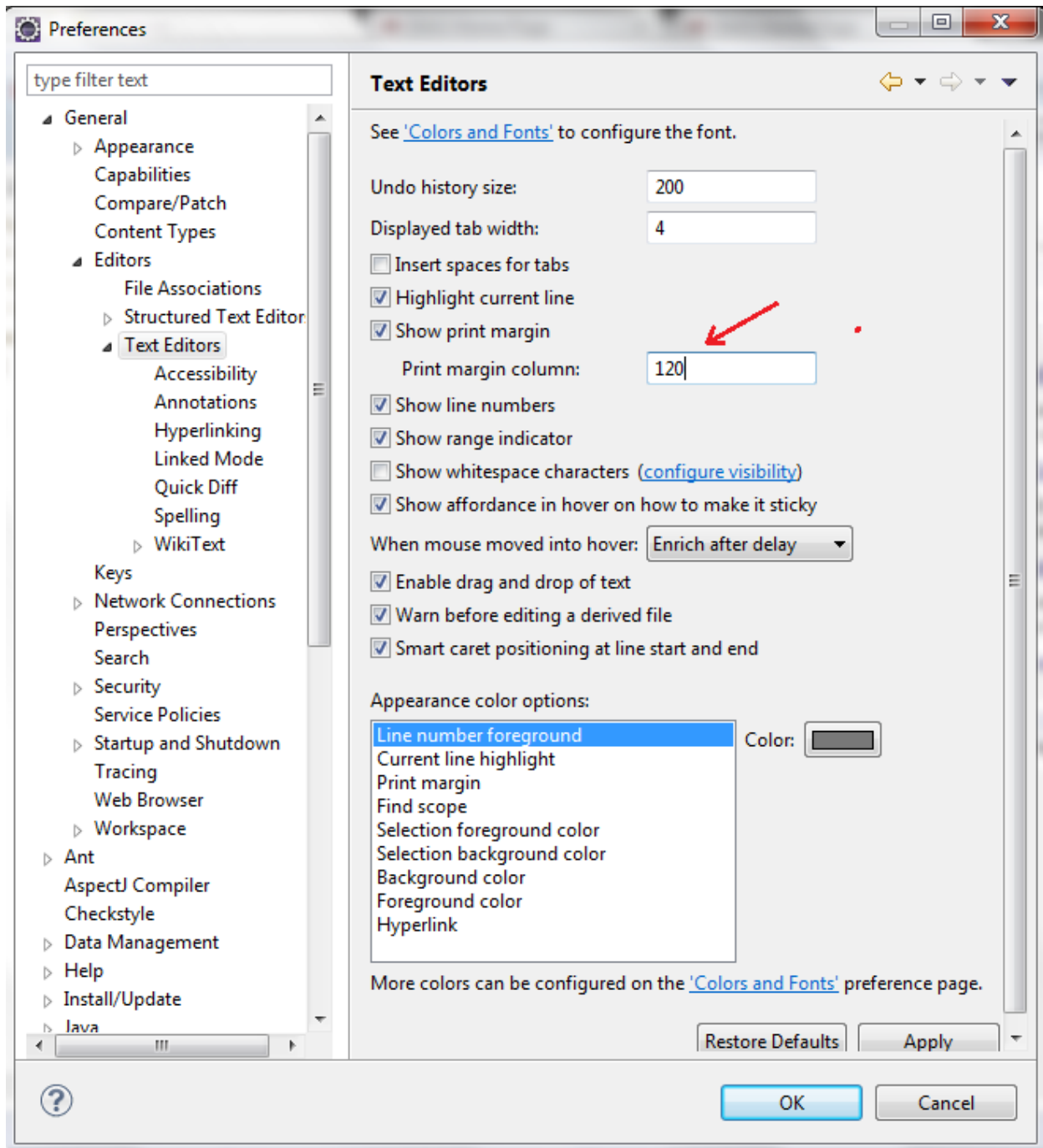
Just highlight the thing you need to refactor, and use this combination, it will refactor all the references in the class or entire project as well.



Show Print Margin

Now, you can write code without worrying about the standard '**120 character line**' margin. Under preferences, we can make setting to show margin after 120 characters and by that we can easily take care that we do not violate this standard coding guideline.

Go to **windows->preferences->general->editors->Text Editors**



Click ok and you will see the margin after 120 characters, like below



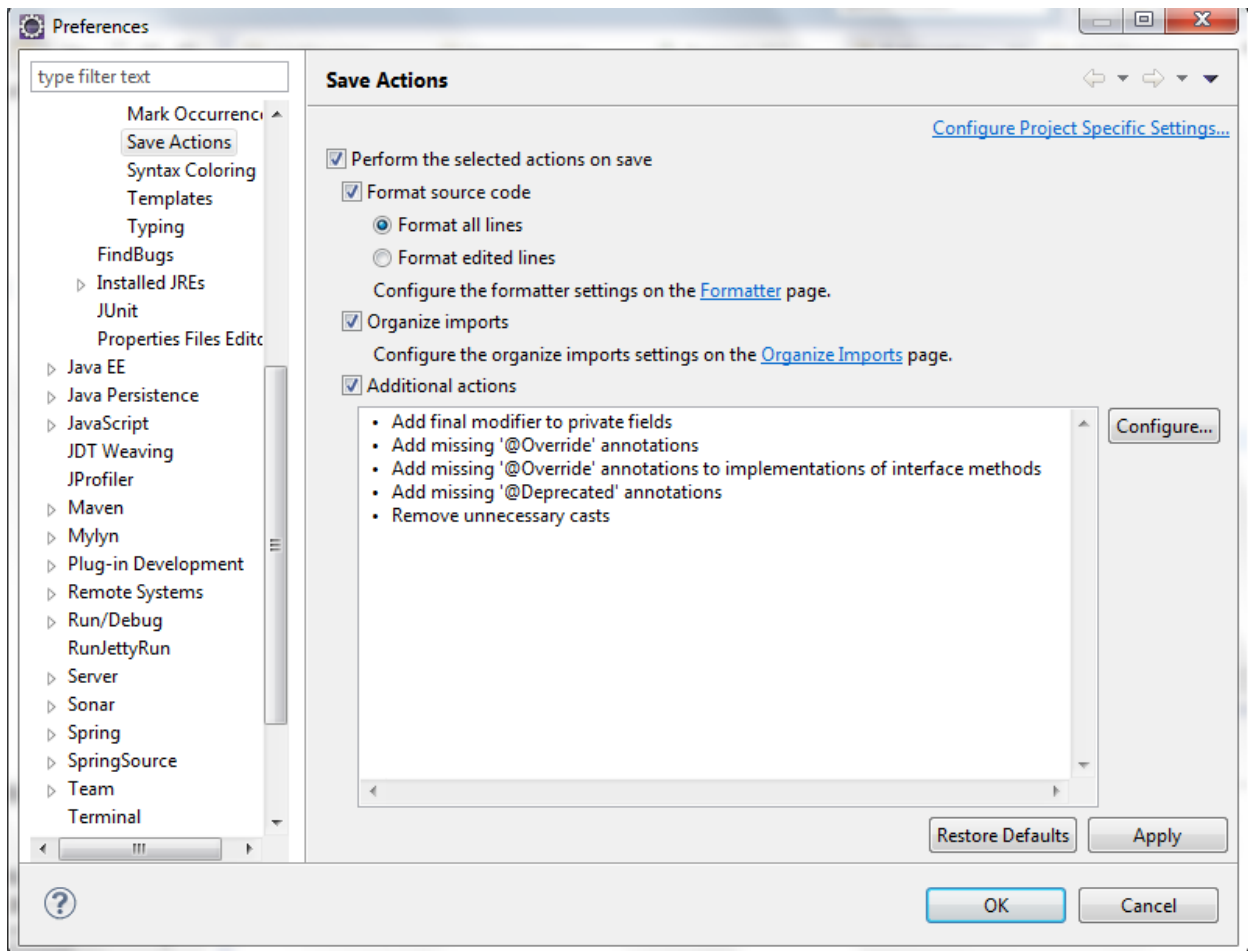
```
1  /**
4  package com.nagarro.framework.filter;
5
6  import java.io.IOException;
19
20  /**
21   * @author ankit1863
22   *
23   */
24  public class URLFilter implements Filter {
25
26      /* (non-Javadoc)
27       * @see javax.servlet.Filter#destroy()
28       */
29      public void destroy() {
30          // empty
31      }
32
33
34      /* (non-Javadoc)
35       * @see javax.servlet.Filter#doFilter(javax.servlet.ServletRequest, javax.servlet.ServletResponse, javax.servlet.FilterChain)
36       */
37      public void doFilter(ServletRequest req, ServletResponse res,
38                          FilterChain chain) throws IOException, ServletException {
39
40          HttpServletRequest request = (HttpServletRequest)req;
41          String urlString = request.getRequestURL().toString();
42          if (urlString.contains(Constants.EXTN_JSP) ) {
43              int index = urlString.indexOf(Constants.EXTN_JSP )-1;
44              StringBuilder keyBuilder = new StringBuilder(Constants.EMPTY_STRING);
```

Automatic Code cleanup and formatting

Eclipse also provides a feature called **Save Actions** which allows you to format your code every time when you save. You don't have to press different shortcuts for formatting, organizing imports and other clean ups, just enable the Save Actions and eclipse will do it for you when you save your file.

Below are the steps to enable auto code formatting:

1. Go to **Window > Preferences > Java > Editor > Save Actions**.
2. Select **Perform the selected actions on save**.
3. Select **Format Source code**. Make sure Format all lines is selected.
4. Make sure **Organize imports** is selected.
5. Select **Additional actions**. You can also configure additional actions to set up according to your need.
6. Click Ok, edit some code, save it and watch Eclipse format it automatically.

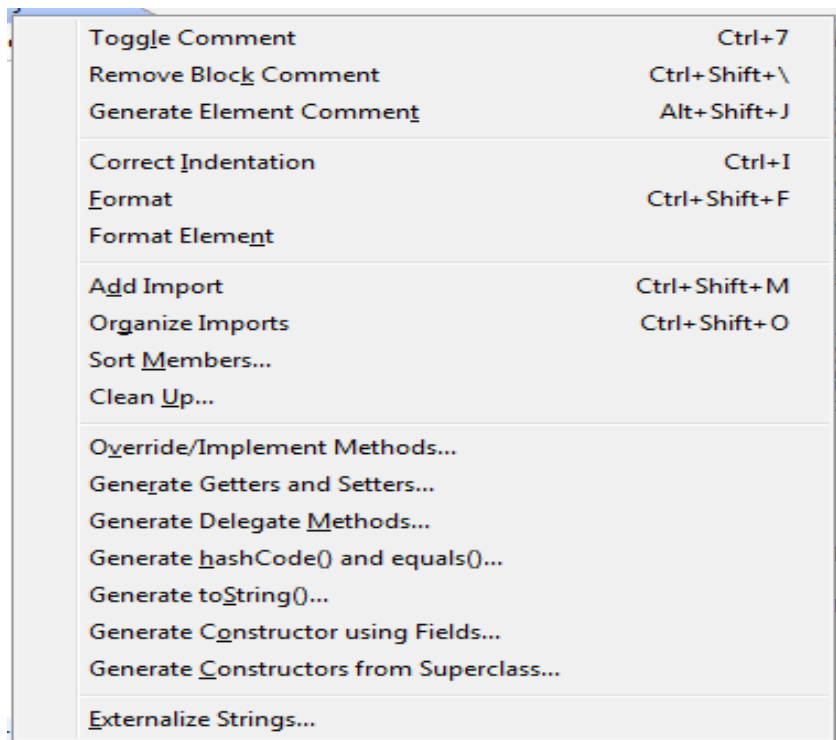


Code generation

There is a shortcut which will open a source window which provide few instant functionalities like generating getters and setters for instance fields, generating hashcode and equals method, generate toString method etc etc.

Alt + SHIFT + S

By using this combination, you'll see something like below where you can select functions of your choice.



Toggle Comment	Ctrl+7
Remove Block Comment	Ctrl+Shift+\
Generate Element Comment	Alt+Shift+J
Correct Indentation	Ctrl+I
Format	Ctrl+Shift+F
Format Element	
Add Import	Ctrl+Shift+M
Organize Imports	Ctrl+Shift+O
Sort Members...	
Clean Up...	
Override/Implement Methods...	
Generate Getters and Setters...	
Generate Delegate Methods...	
Generate hashCode() and equals()...	
Generate toString()...	
Generate Constructor using Fields...	
Generate Constructors from Superclass...	
Externalize Strings...	

References

You can find more stuff using these references

- 1) <http://stackoverflow.com/questions/1028858/useful-eclipse-java-code-templates>
- 2) <http://www.vogella.com/articles/EclipseShortcuts/article.html>
- 3) <http://www.shortcutworld.com/en/win/Eclipse.html>
- 4) <http://eclipseone.wordpress.com/2009/12/13/automatically-format-and-cleanup-code-every-time-you-save/>