

PMD User Manual

Step 1: Import the application jar into the work space

Step 2: Fix build path errors if any

The application consists of three packages

1. com.catp.pmd.theory
2. com.catp.pmd.lab.app1
3. com.catp.pmd.lab.app2

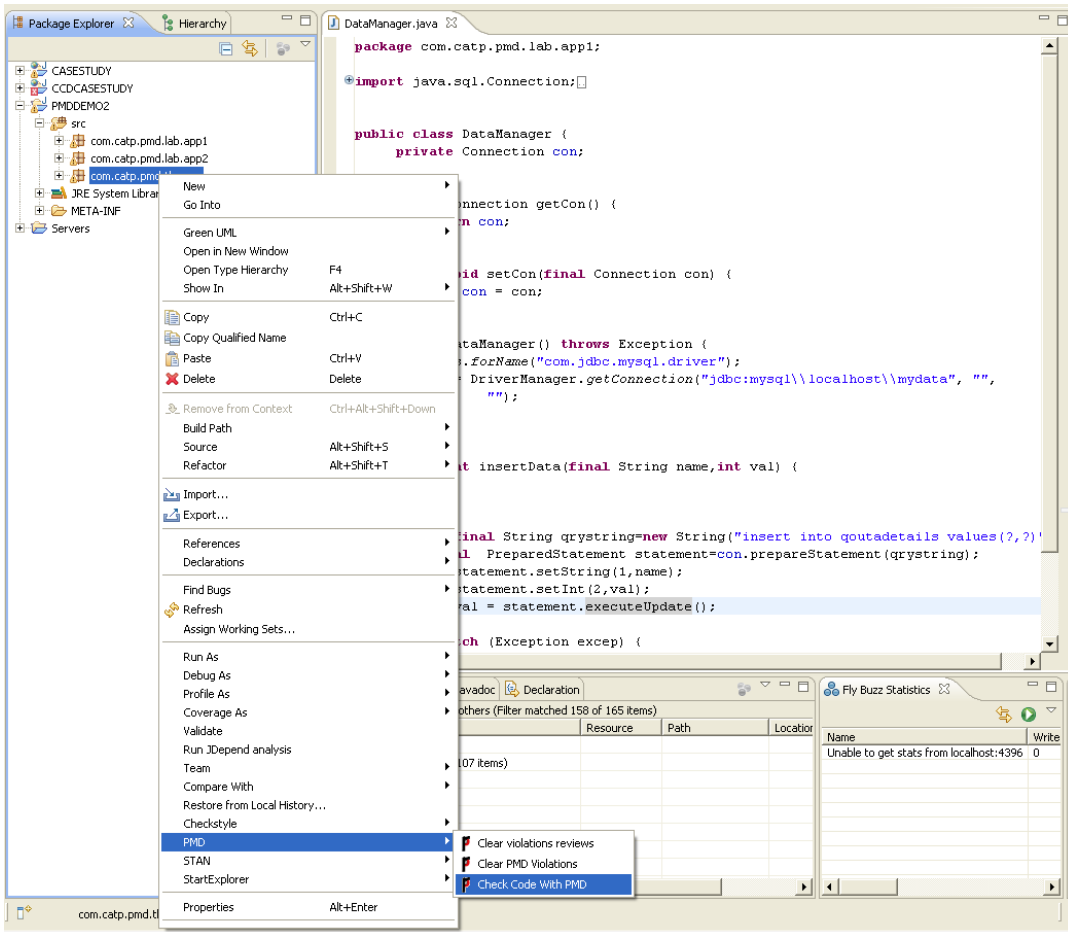
PMD can be run for a single class, package or for the entire project.

While delivering the session the trainer will be showing how to run PMD check on the **com.catp.pmd.theory** package.

The CATs can work and fix the violations in the other two packages.

1. How to Run PMD?

Right click the package → PMD → Check Code with PMD



2. How to View the Violations?

The violation categories will be listed in the violation overview window.

VIOLATION OVERVIEW

The screenshot shows the 'Violations Overview' window in the IDE. It contains a table with columns: Element, # Violations, # Violations/LOC, # Violatio..., and Project. The table lists various elements and their associated violations. A red box highlights the window's title bar and the 'Violations Overview' tab.

Element	# Violations	# Violations/LOC	# Violatio...	Project
com.casestudy.constants	9	187.5 / 1000	N/A	CASESTUDY
UIConstants.java	1	333.3 / 1000	N/A	CASESTUDY
SuccessConstants.java	1	111.1 / 1000	N/A	CASESTUDY
ErrorConstants.java	1	50.0 / 1000	N/A	CASESTUDY
DataBaseConstants.java	6	375.0 / 1000	N/A	CASESTUDY
com.casestudy.login.controller	5	N/A	N/A	CASESTUDY
com.casestudy.pharma.dao.factory	2	N/A	N/A	CASESTUDY
com.casestudy.pharma.bo	26	60.6 / 1000	1.08	CASESTUDY
com.casestudy.login.bo	5	N/A	N/A	CASESTUDY
com.casestudy.customtags	15	N/A	N/A	CASESTUDY
com.casestudy.pharma.delegate	1	N/A	N/A	CASESTUDY
com.casestudy.pharma.locator	1	N/A	N/A	CASESTUDY
com.casestudy.login.dao	12	N/A	N/A	CASESTUDY
com.casestudy.login.model	1	N/A	N/A	CASESTUDY
com.casestudy.pharma.dao	25	N/A	N/A	CASESTUDY

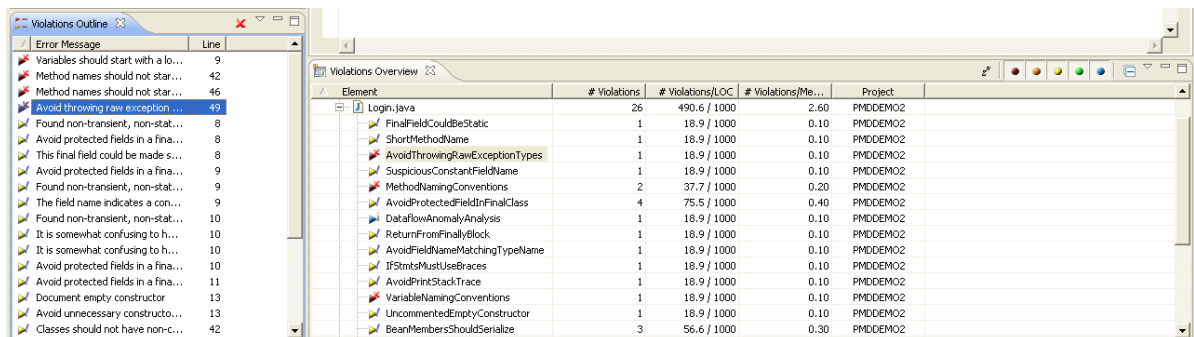
The different levels of violation can be viewed by selecting the appropriate colored buttons at the top of the view (the buttons inside the rectangle in the above diagram). One or more buttons can be selected at a time.

The classes inside the package can be viewed by expanding the package

Expand the class to view the type of violations inside the class.

Select the particular type of violation to see all violations of that type which can be viewed in the violation outline window as shown below

VIOLATION OVERVIEW



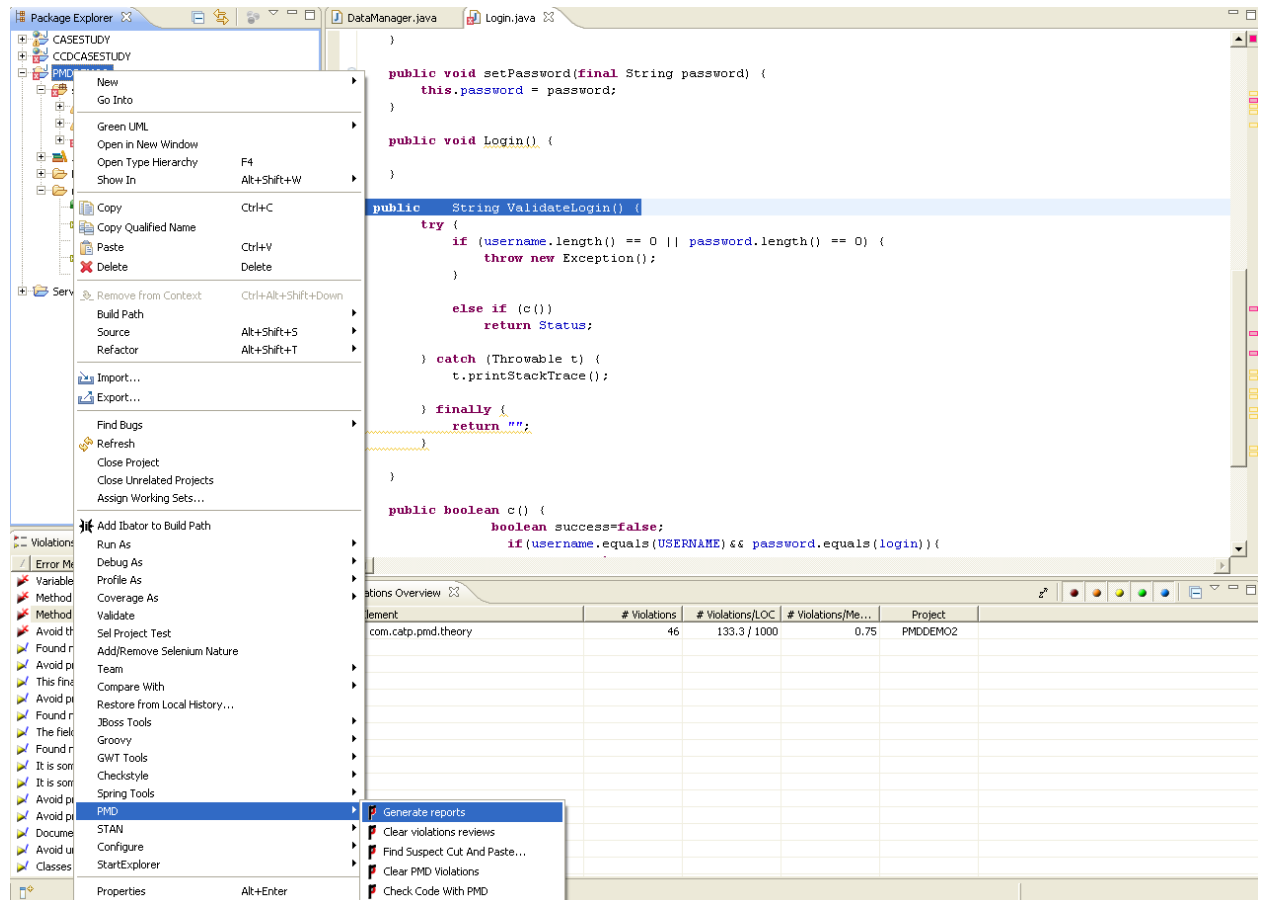
Element	# Violations	# Violations/LOC	# Violations/Me...	Project
Login.java	26	490.6 / 1000	2.60	PMDDemo2
FinalFieldCouldBeStatic	1	18.9 / 1000	0.10	PMDDemo2
ShortMethodName	1	18.9 / 1000	0.10	PMDDemo2
AvoidThrowingRawExceptionTypes	1	18.9 / 1000	0.10	PMDDemo2
SuspiciousConstantFieldName	1	18.9 / 1000	0.10	PMDDemo2
MethodNamingConventions	2	37.7 / 1000	0.20	PMDDemo2
AvoidProtectedFieldInFinalClass	4	75.5 / 1000	0.40	PMDDemo2
DataFlowAnomalyAnalysis	1	18.9 / 1000	0.10	PMDDemo2
ReturnFromFinallyBlock	1	18.9 / 1000	0.10	PMDDemo2
AvoidFieldNameMatchingTypeName	1	18.9 / 1000	0.10	PMDDemo2
IfStmtsMustUseBraces	1	18.9 / 1000	0.10	PMDDemo2
AvoidPrintStackTrace	1	18.9 / 1000	0.10	PMDDemo2
VariableNamingConventions	1	18.9 / 1000	0.10	PMDDemo2
UncommentedEmptyConstructor	1	18.9 / 1000	0.10	PMDDemo2
BeanMembersShouldSerialize	3	56.6 / 1000	0.30	PMDDemo2

Clicking on violation in the violation outline window takes the control to the corresponding violation in the code.

3. How to Generate PMD report?

Reports can be generated only for a project as whole. To generate the report

Right Click Project→PMD→Generate reports



The reports will be created in a folder named reports in the following formats

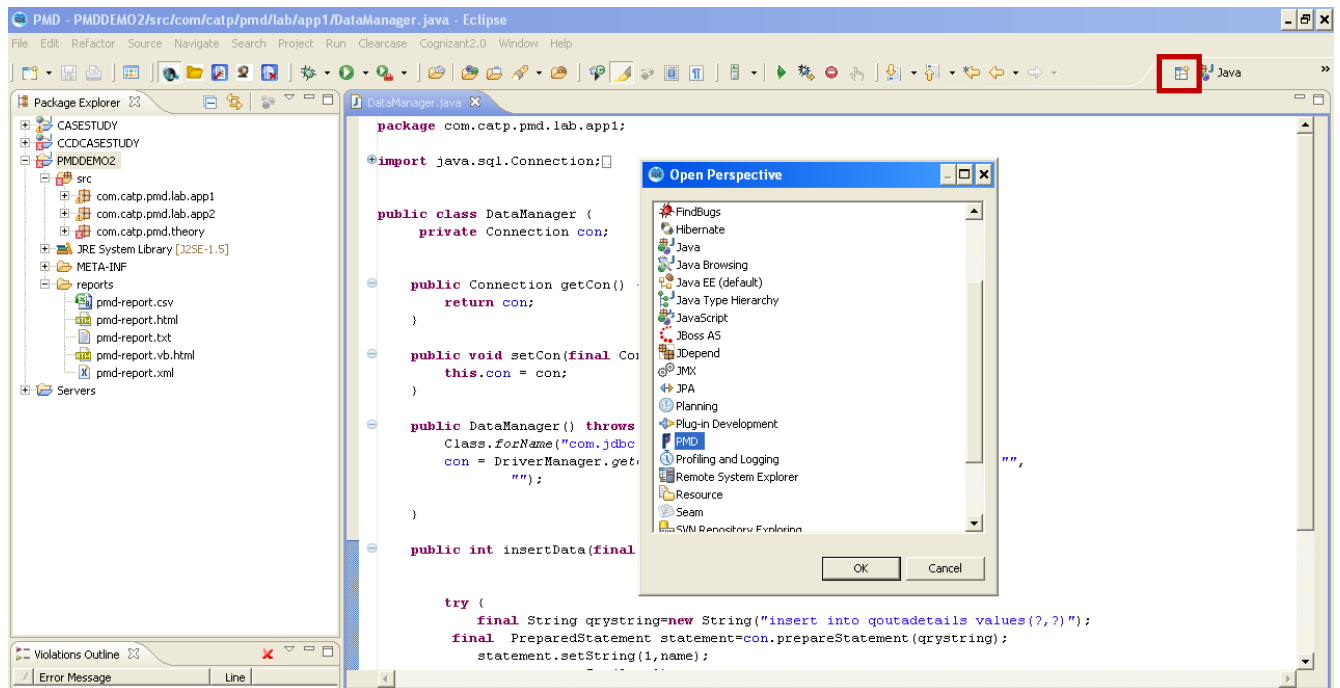
1. csv
2. html
3. vb.html
4. xml
5. txt

Important Note:

What happens if any of the PMD views (outline/overview) are invisible? How to make it visible?

This can be done by changing the perspective to PMD as shown

1. Click the icon mark inside the rectangle in the diagram below.
2. Select the option PMD in the pop up window



If still not visible, select the view from the windows view option as shown below

Windows→show view→other

Select the views under the PMD option

