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VOTING**



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Java Coding Standards

Version: 1.0
4/6/2015



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Revision History

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Changes

Date	Version	Author	Changes
4/6/2015	1.0	IC	Initial version

Introduction

The aim of this document is to establish the coding standard and set of tools to be used to verify and enforce the usage.

Coding standard proposal

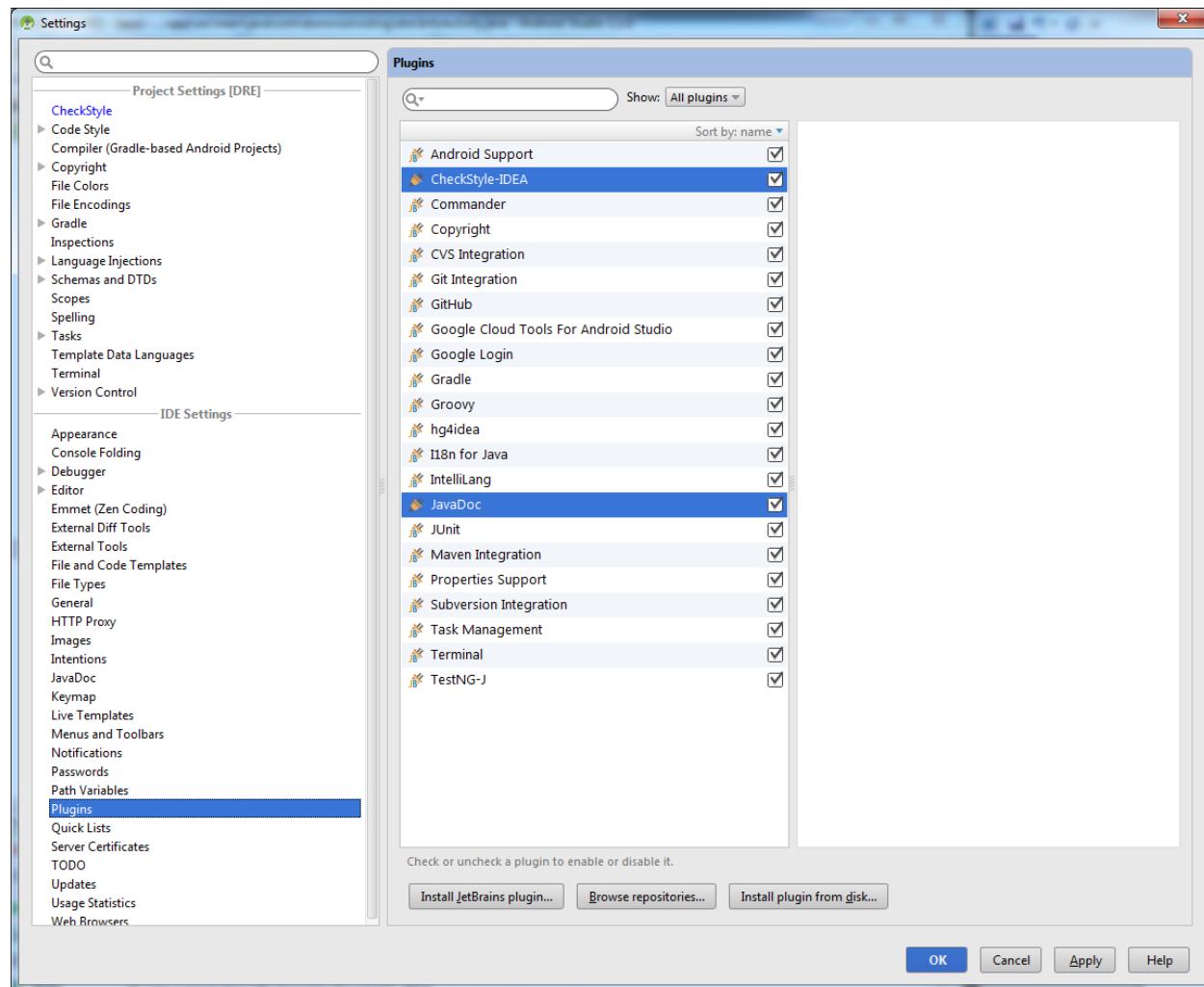
Proposed document standard can be found here:

<https://google-styleguide.googlecode.com/svn/trunk/javaguide.html>

Development Tools

There are two IntelliJ (Android Studio) plugins:

- JavaDoc
- CheckStyle-IDEA



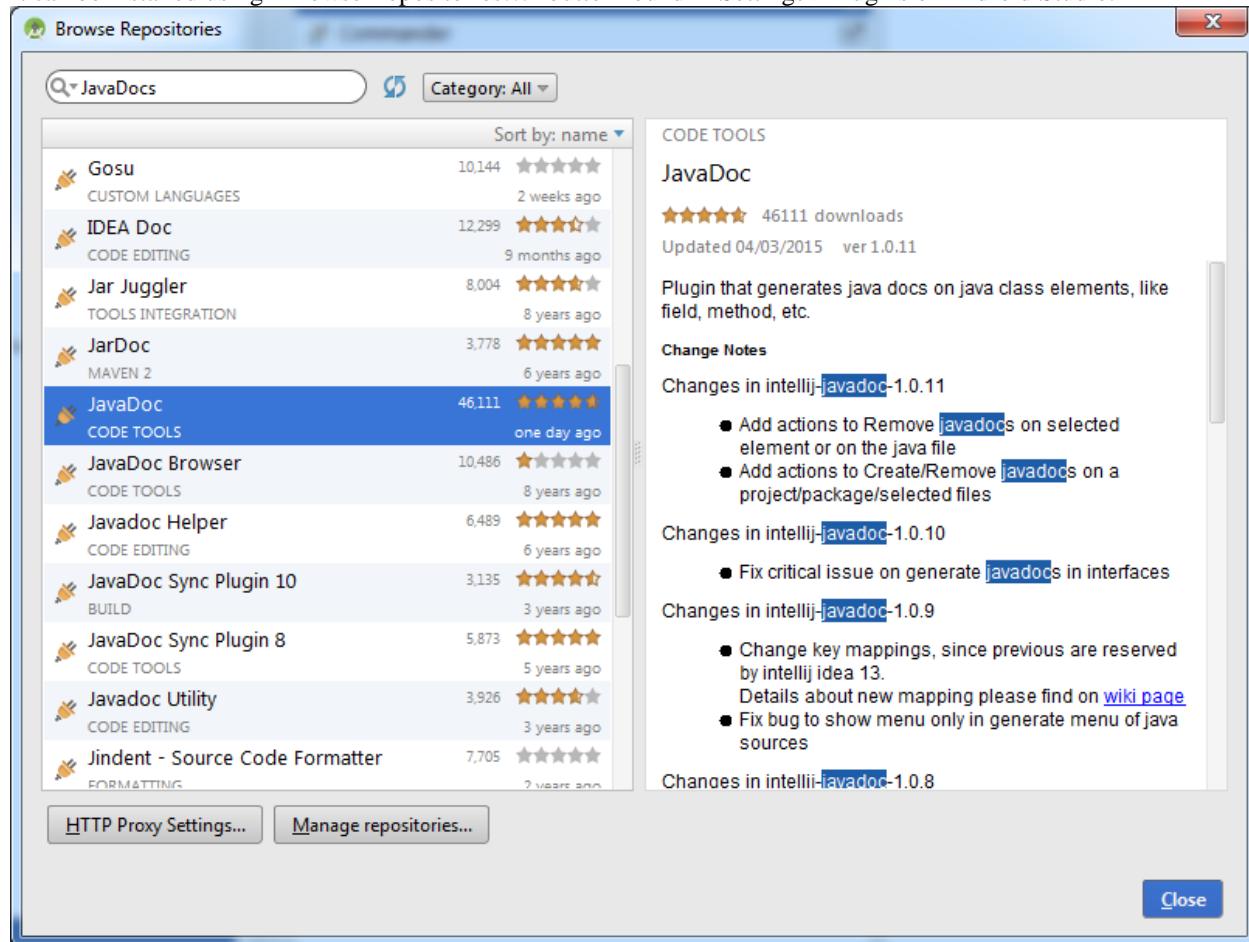
JavaDoc – IntelliJ (Android Studio) plugin

This tool is used to generate JavaDoc comments for public methods.

<http://setial.github.io/intellij-javadocs/>

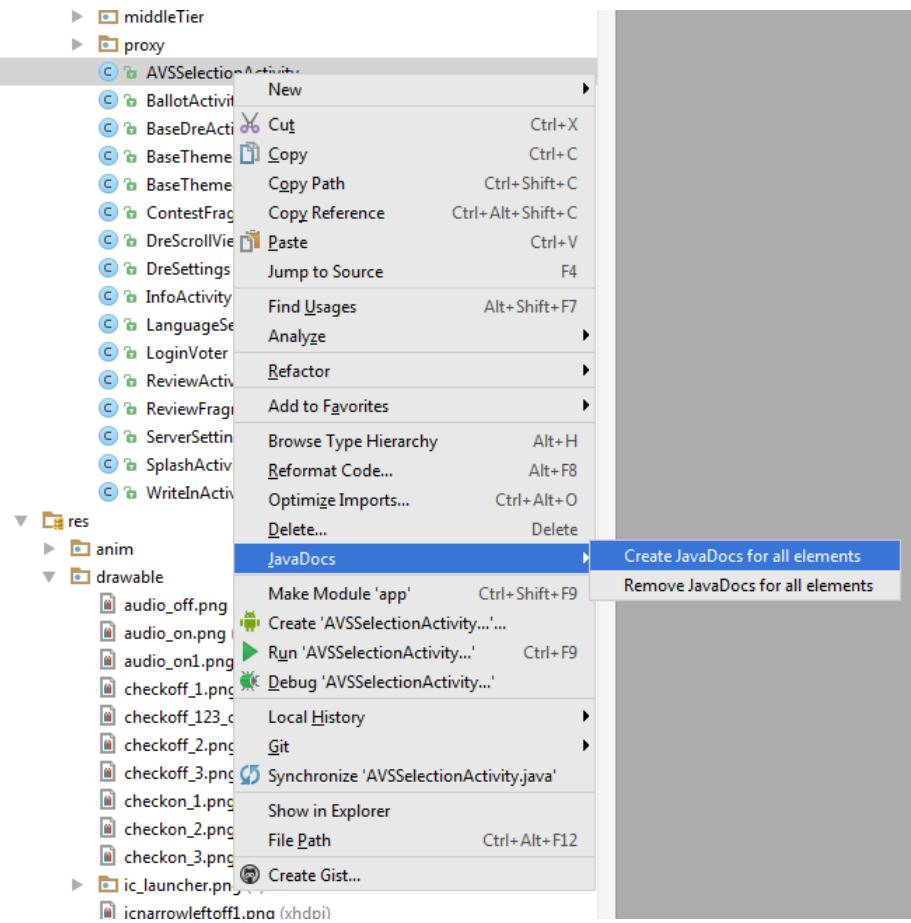
Installation

It can be installed using “Browse Repositories...” button found in Settings->Plugins of Android Studio.



Usage

Right click on file, there is the menu option “**JavaDocs ->Create JavaDocs for all elements**”



JavaDoc comments will be generated based on file name.

```

AVSSelectionActivity.java
import com.dominionvoting.dre.DTO.Ballot;
import com.dominionvoting.dre.enums.AVSMMode;
import com.dominionvoting.dre.gestures.AnimationManager;
import com.dominionvoting.dre.middleTier.SessionSettingsManager;

public class AVSSelectionActivity extends BaseDreActivity
    implements AnimationManager.AnimationInterface {

    private AnimationManager al;
    private boolean _buttonClicked = false;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        _hasActionBar = false;
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_avs_selection);

        overridePendingTransition(R.anim.enter_from_right, R.anim.exit_to_left);

        if (Session.GetIsAVSMode() == false) {
            Intent intent = new Intent(this, BallotActivity.class);
            startActivity(intent);
            return;
        }

        al = new AnimationManager();
        AnimateHeaderFooter();
    }

    public void onPaddlesClicked(View view) {
        if (_buttonClicked) {
            return;
        } else {
            _buttonClicked = true;
        }
    }
}

BallotActivity.java
import com.dominionvoting.dre.middleTier.SessionSettingsManager;

/**
 * The type AVS selection activity.
 */
public class AVSSelectionActivity extends BaseDreActivity
    implements AnimationManager.AnimationInterface {

    private AnimationManager al;
    private boolean _buttonClicked = false;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        _hasActionBar = false;
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_avs_selection);

        overridePendingTransition(R.anim.enter_from_right, R.anim.exit_to_left);

        if (Session.GetIsAVSMode() == false) {
            Intent intent = new Intent(this, BallotActivity.class);
            startActivity(intent);
            return;
        }

        al = new AnimationManager();
        AnimateHeaderFooter();
    }

    /**
     * On paddles clicked.
     *
     * @param view the view
     */
    public void onPaddlesClicked(View view) {
    }
}

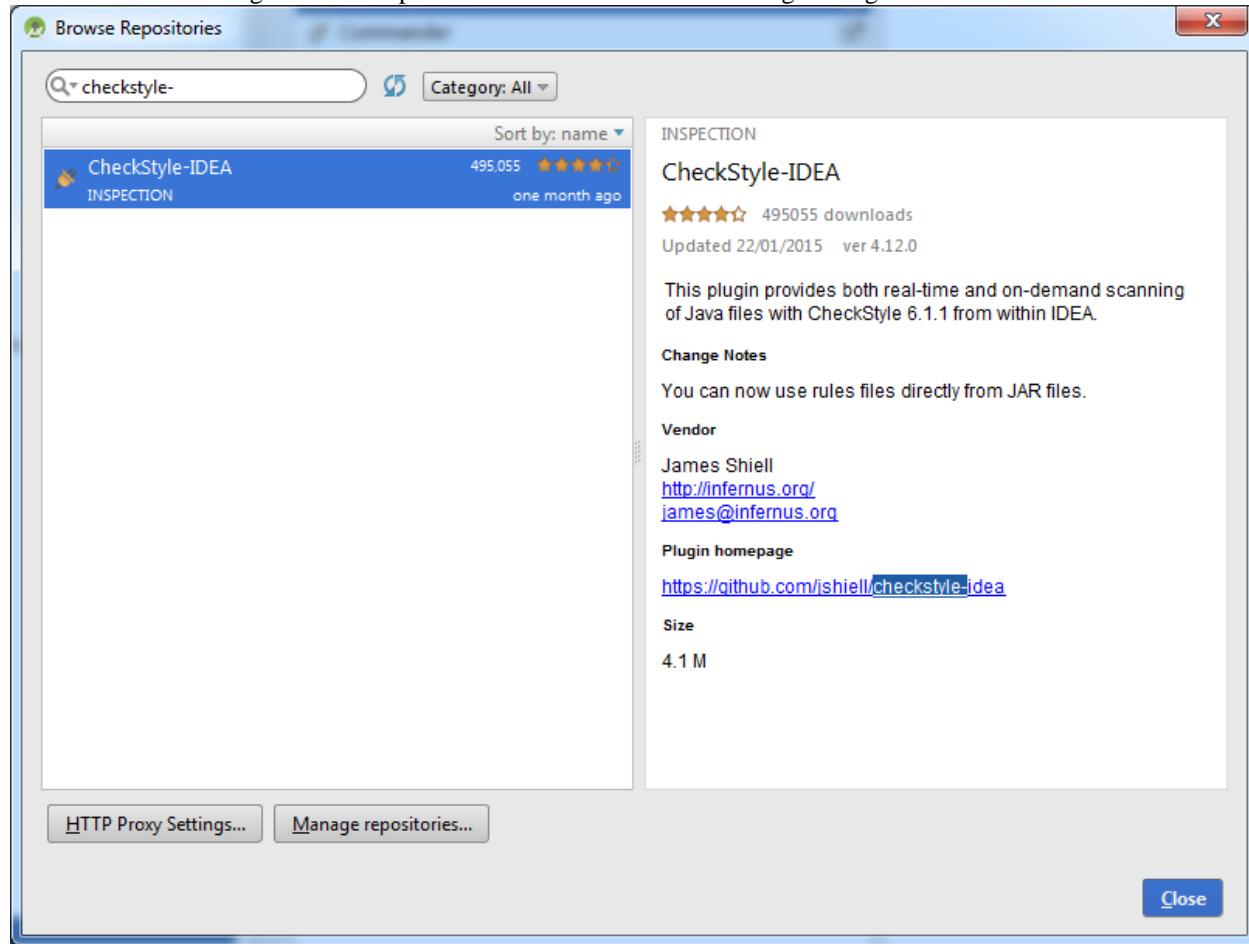
```

CheckStyle-IDEA – IntelliJ (Android Studio) plugin

This plugin provides both real-time and on-demand scanning of Java files with CheckStyle from within the IDEA IDE.

Installation

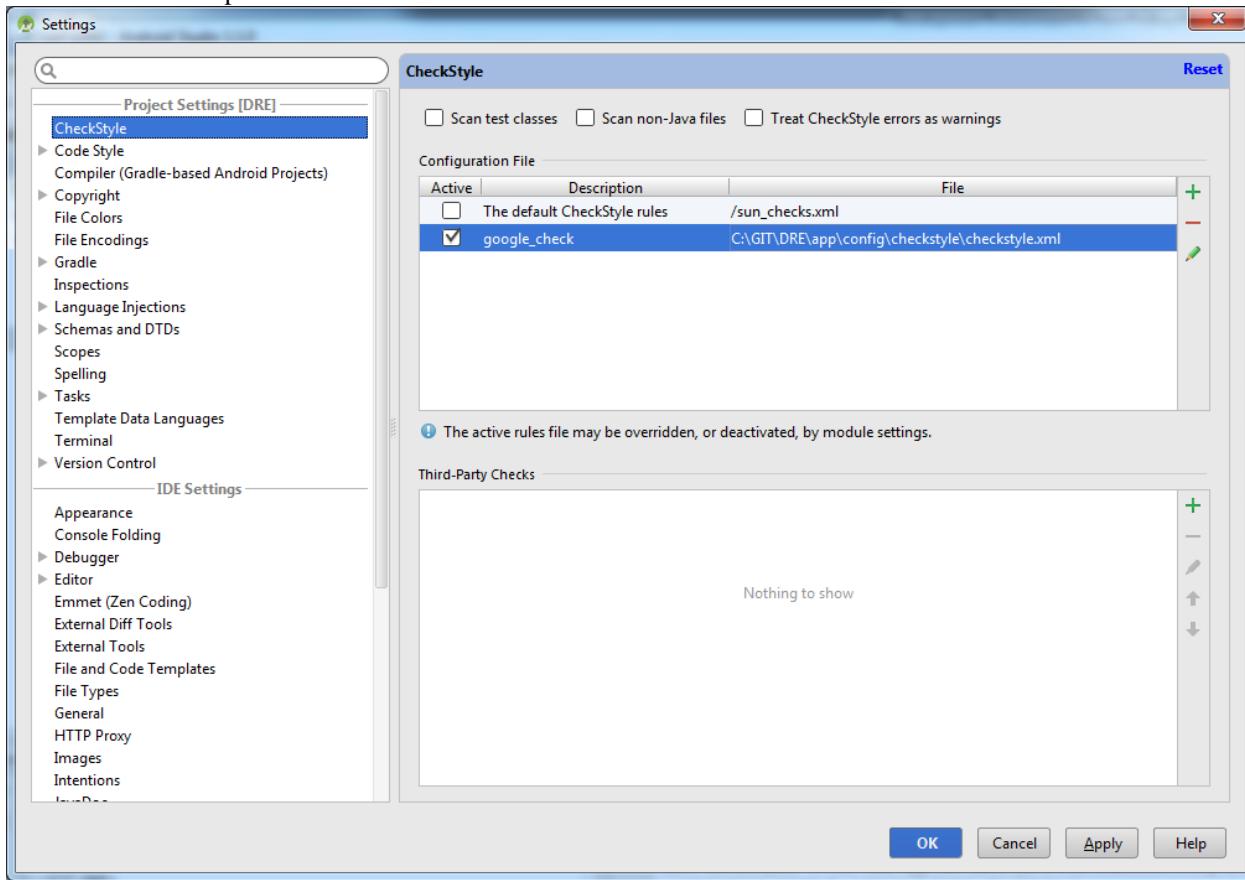
It can be installed using “Browse Repositories...” button found in Settings->Plugins of Android Studio.



Configuration

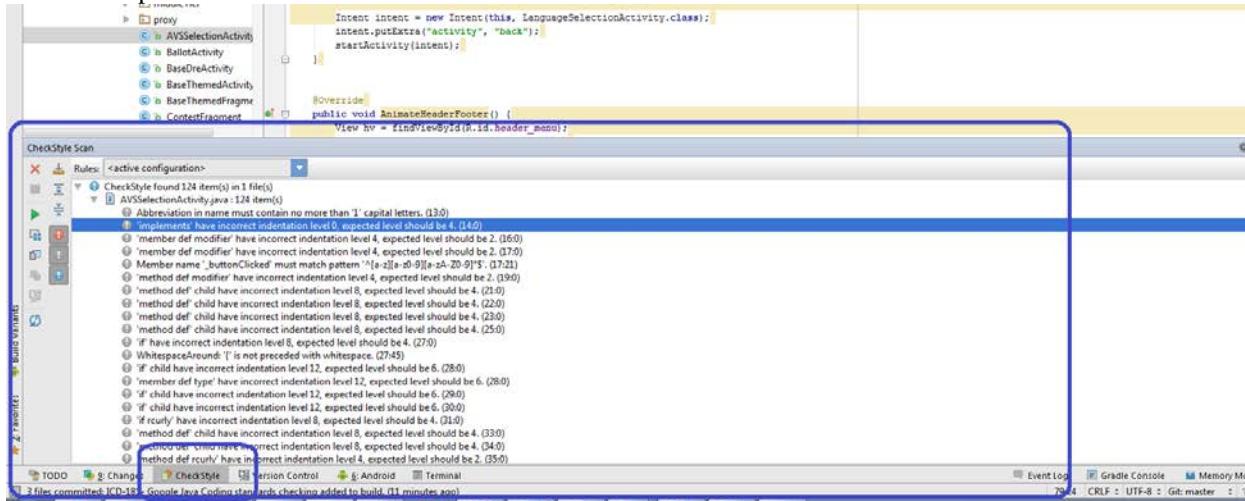
In Settings window, there is new menu-item called “**CheckStyle**” were configuration file is set.

There is configuration file called **google_checks.xml** that is configures checker according to Google Java Style guide. That file is copied in out folder”\DRE\app\config\checkstyle\checkstyle.xml” in order to be used for Android Studio plugin, as well in the build script.



Usage

There is the panel to see all errors:



You can also check current file using right-click menu, under “**Check Current File**” option.

```
overridePendingTransition(R.anim.enter_from_right, R.anim.exit_to_left)

if (Session.GetIsAVSMode() == false) {
    Intent intent = new Intent();
    startActivity(intent);
    return;
}

al = new AnimationManager();
AnimateHeaderFooter();

public void onPaddlesClicked() {
    if (_buttonClicked) {
        return;
    } else {
        _buttonClicked = true;
    }
}

13:0)
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$-zA-Z0-9]*$'. (17:21)
vel should be 2. (19:0)
should be 4. (21:0)
should be 4. (22:0)
should be 4. (23:0)
should be 4. (25:0)
```

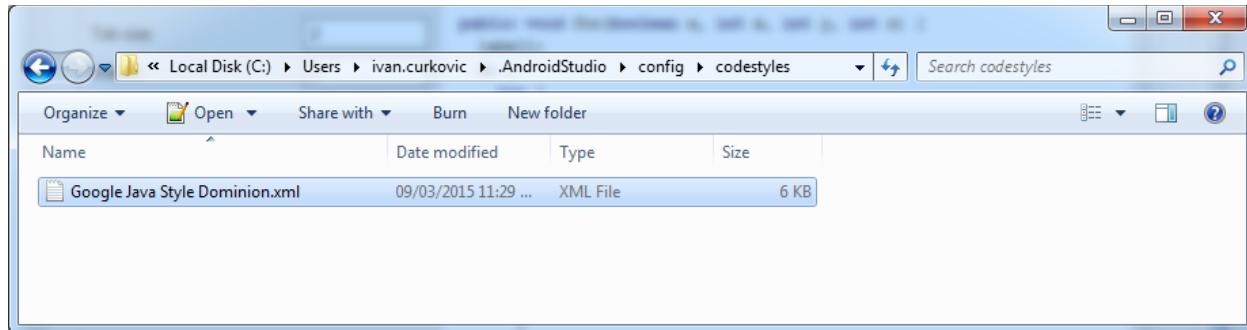
A screenshot of an Android Studio code editor. A context menu is open over a block of Java code. The menu items include: Copy Reference (Ctrl+Alt+Shift+C), Paste (Ctrl+V), Paste from History... (Ctrl+Shift+V), Paste Simple (Ctrl+Alt+Shift+V), Column Selection Mode (Alt+Shift+Insert), Find Usages (Alt+Shift+F7), Analyze, Refactor, Folding, Go To, Generate... (Ctrl+N), Add to Watches, Create 'AVSSelectionActivity...'..., Run 'AVSSelectionActivity...' (Ctrl+F9), Debug 'AVSSelectionActivity...'..., Local History, Git, Compare with Clipboard, File Encoding, Check Current File (highlighted in blue), and Create Gist... (disabled).

Configure Code Style Scheme for Android Studio

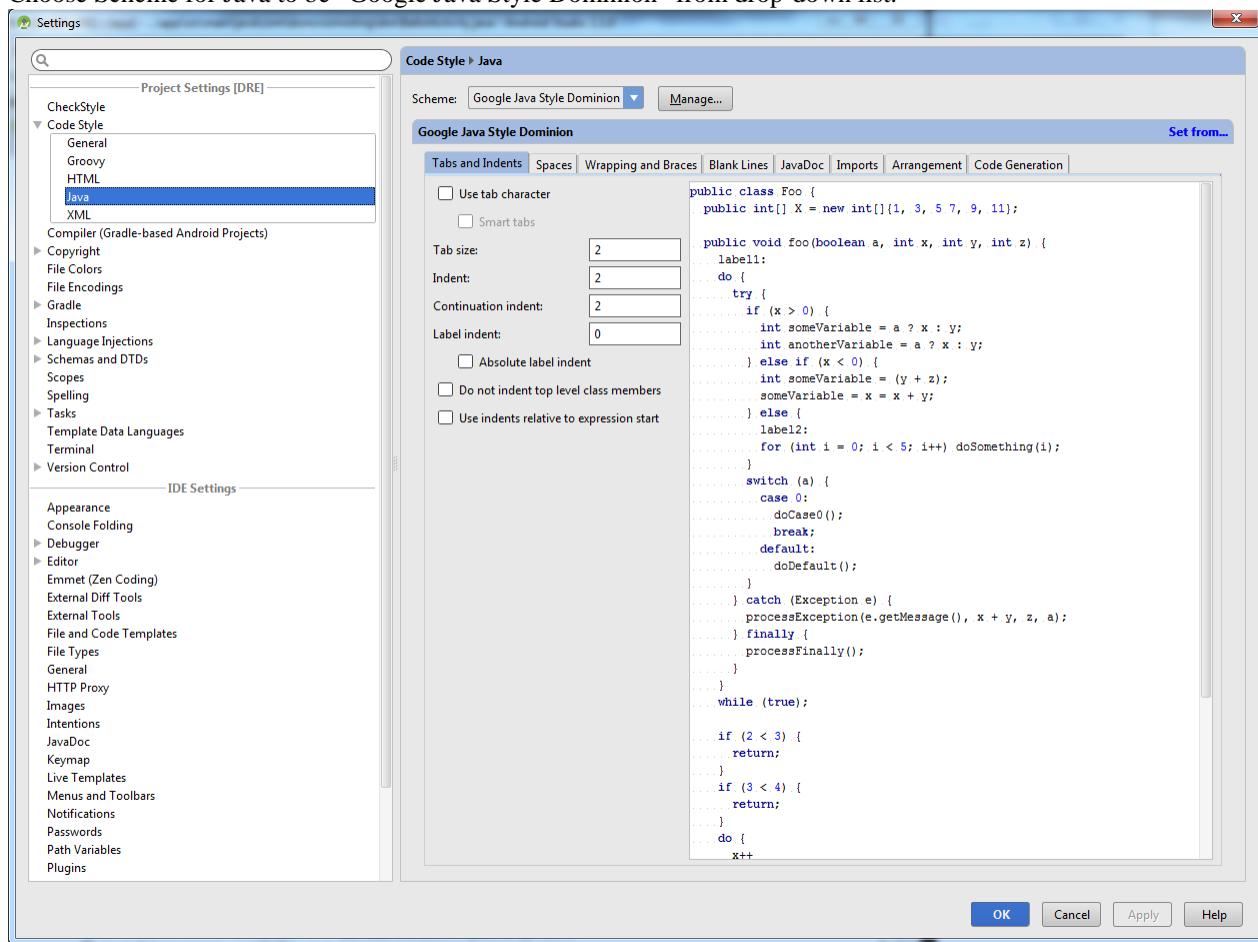
There is the Code Style Scheme xml file (“Google Java Style Dominion.xml”) that has all configurations for Java Code Style.

Copy xml configuration to Android Studio configuration folder (for windows: “C:\Users\ivan.curkovic\AndroidStudio\config\codestyles”).

For Mac: /Users/<USERNAME>/Library/Preferences/AndroidStudio/codestyles



Choose Scheme for Java to be “Google Java Style Dominion” from drop-down list.



Now you can reformat code using “Code > Reformat Code...” command in Android Studio.