Nebula Lint plugin

https://dev.to/gradle-community/unlocking-configuration-cache-with-gsoc-contributor-374l

PR (partial changes towards a fix): https://github.com/nebula-plugins/gradle-lint-plugin/pull/433

Play Framework (Gradle own)

Repository: https://github.com/Nouran-11/playframework
PR: https://github.com/gradle/playframework/pull/207

Liquibase Gradle Plugin

While testing the Liquibase Gradle plugin, I encountered configuration cache (CC) issues. Specifically, the :update task fails CC compatibility because it accesses project during task execution. For example:

Even using liquibase.activities directly doesn't help, because it still implicitly accesses project.liquibase, which violates configuration cache rules. Gradle expects all configuration to be finalized and immutable before execution starts. Referencing anything from project (like extensions, configurations, or logging) during execution causes CC to break.

Upon reviewing the plugin's source code (<u>lines 59–60</u>), this access pattern occurs within the task action itself. This is repeated in multiple areas, such as runLiquibase(activity) (<u>line 73</u>) and usage of project.configurations, systemProperties, project.liquibase.jvmArgs, and project.logger (<u>line 86</u>). // project.logger doesn't break cc

The LiquibaseExtension used via project.liquibase is added to project.extensions and is initialized during the configuration phase. So there's no need to access it at execution time — doing so is unnecessary and problematic for configuration cache support.

Issue Overview

In LiquibaseTask, the following lines are one of the problematic for **configuration** cache compatibility because they directly access project:

```
def activities = project.liquibase.activities
def runList = project.liquibase.runList
```

Even removing project (i.e., using just liquibase.activities) doesn't solve the problem, as it still implicitly accesses project.liquibase, breaking CC due to project state being queried at execution time.

Why does this break CC?

Accessing project.liquibase (an extension of type LiquibaseExtension) during execution time breaks configuration cache compatibility. Configuration cache expects all configuration-related state to be collected and made immutable during the configuration phase.

How are activities and runList initialized?

They are properties on the LiquibaseExtension, which is added to project.extensions. These properties are configured during the **configuration phase**, so they are already available before task execution.

So why access them during execution?

There's no actual need. These values can and should be captured during configuration time using **providers**, avoiding project access at execution.

Recommended fix:

Use Provider-based inputs to defer the value resolution but still resolve them during the configuration .This approach:

- Captures the necessary state early
- Avoids referencing project during task execution
- Makes the task compatible with the configuration cache

This is similar to what was done in other plugins (e.g., Nebula Lint), where values needed at execution were projected early via providers.

Project instance scope:

It appears that the project instance is not needed at execution time for any other logic, so the dependency can be removed safely.

Js2d-gradle

Error msg when trying to run: ./gradlew generateJsonSchema2DataClassConfigExample

* What went wrong:

Configuration cache problems found in this build.

2 problems were found storing the configuration cache, 1 of which seems unique.

- Task `:generateJsonSchema2DataClassConfigExample` of type
`org.jsonschema2dataclass.js2p.Js2pGenerationTask`: value 'fixed(class org.gradle.api.internal.file.DefaultFileCollectionFactory\$ResolvingFileCollection, file collection)' is not assignable to 'org.gradle.api.NamedDomainObjectProvider'

Test repo link: https://github.com/Nouran-11/js2d-test My changes:

https://github.com/jsonschema2dataclass/js2d-gradle/compare/main...Nouran-11:js2d-gradle:fix-cc

Note: This plugin was solved at their code but not released yet, that what made the conflict

Android plugin version:

First issue I got:

* What went wrong:

Configuration cache state could not be cached: field `__outputFolder__` of task

- `:plugin-gradle:processors:jsonschema2pojo:processorVersion` of type
- `org.jsonschema2dataclass.internal.plugin.lib.ProcessorVersionGeneratorTask`: error writing value of type 'org.gradle.api.internal.file.DefaultFilePropertyFactory\$DefaultDirectoryVar'
- > Extension 'processorVersion' property 'outputFolder' is declared as an output property of extension 'processorVersion' (type ProcessorVersionPExtension) but does not have a task associated with it.

After solving it, I got:

- 1 problem was found storing the configuration cache.
- Task `:plugin-gradle:processors:jsonschema2pojo:processorVersion` of type
- $\verb|`org.jsonschema2dataclass.internal.plugin.lib.ProcessorVersionGeneratorTask`: invocation of the processor of the processo$
- 'Task.project' at execution time is unsupported.

Root Cause

In the current version of the plugin, a task input receives a resolved file collection at configuration time, which violates Gradle's configuration cache requirements. Specifically, the task attempts to assign a value that's not lazily resolved or wrapped in a Provider or NamedDomainObjectProvider.

Strategy Used to Fix It:

Capture the configuration using a local variable typed as FileCollection instead of assigning a resolved value directly to the task input.

Sonar-scanner-gradle

- 1 problem was found storing the configuration cache.
- Plugin 'com.jfrog.artifactory': registration of listener on 'Gradle.addListener' is unsupported

The solution: only update ifrog plugin version to the latest "6.0.0" as we did to PF

The plugin already compatible, the plugin's build was not compatible so that why it was breaking while using composite build

Flyway issue

14 problems were found storing the configuration cache, 2 of which seem unique.

- Task `:flywayClean` of type `org.flywaydb.gradle.task.FlywayCleanTask`: invocation of 'Task.project' at execution time is unsupported.
- Task `:flywayMigrate` of type `org.flywaydb.gradle.task.FlywayMigrateTask`: invocation of 'Task.project' at execution time is unsupported.

Unfortunately flyway doesn't work with gradle :https://github.com/flyway/flyway/issues/3550

Forbidden apis plugin

https://github.com/policeman-tools/forbidden-apis/issues/269

The issue was using Task.project at execution time

From a maintainer there: I **don't want to touch it or fix any bugs**. Gradle Plugin of forbiddenapis is no longer understandable and therefore not maintained anymore. Standard stuff works but caching is not in my priority list. Sorry!

Compose multiplatform localize plugin

https://github.com/hyperether/compose-multiplatform-localize/issues/10

Main issue : GenerateTranslationTask

Error: Task.project invocation at execution time

* What went wrong:

Configuration cache problems found in this build.

2 problems were found storing the configuration cache, 1 of which seems unique.

- Task `:composeApp:generateTranslateFile` of type

`com.hyperether.localization.GenerateTranslationsTask`: invocation of 'Task.project' at execution time is unsupported.

See

https://docs.gradle.org/8.13/userguide/configuration_cache.html#config_cache:requirements:use_project_during_execution

See the complete report at

file:///Users/nouranatef/AndroidStudioProjects/localizeetest/build/reports/configuration-c ache/6xsq9hlemt75nqmi5xn3auo4c/cx65zw03h03xp4rl6o80qt6pd/configuration-cache-report.html

> Invocation of 'Task.project' by task ':composeApp:generateTranslateFile' at execution time is unsupported.

To test this specific task: ./gradlew generateTranslateFile --configuration-cache

My test project repo , note you need to install android studio and xcode to use it , it is a compose multiplatform project:Statues : Done

Rewrite gradle plugin

Initial line:

https://github.com/Nouran-11/rewrite-gradle-plugin/blob/4c6b62c8535d9fc6161b0ae5b1 41843e0e1784c5/plugin/src/main/java/org/openrewrite/gradle/RewriteDryRunTask.java# L52

Line 2:

https://github.com/Nouran-11/rewrite-gradle-plugin/blob/de5dd219f8b87314f6039200fd8 992da3416918b/plugin/src/main/java/org/openrewrite/gradle/AbstractRewriteTask.java# L90

Part 3:

https://github.com/Nouran-11/rewrite-gradle-plugin/blob/de5dd219f8b87314f6039200fd8 992da3416918b/plugin/src/main/java/org/openrewrite/gradle/DelegatingProjectParser.ja va#L44-L83

Part 4:

https://github.com/Nouran-11/rewrite-gradle-plugin/blob/de5dd219f8b87314f6039200fd8 992da3416918b/plugin/src/main/java/org/openrewrite/gradle/DelegatingProjectParser.ja va#L177-L200

```
org.gradle.api.InvalidUserCodeException: Invocation of 'Task.project' by
task ':rewriteDryRun' at execution time is unsupported.
at org.gradle.api.DefaultTask.getProject(DefaultTask.java:59)
at
org.openrewrite.gradle.AbstractRewriteTask.getProjectParser(AbstractRewriteTask.java:90)
at
org.openrewrite.gradle.RewriteDryRunTask_Decorated.getProjectParser(Unknown Source)
at
org.openrewrite.gradle.AbstractRewriteTask.getActiveRecipes(AbstractRewriteTask.java:98)
```

```
at
org.openrewrite.gradle.RewriteDryRunTask_Decorated.getActiveRecipes(Unkno
wn Source)
at
org.gradle.internal.properties.bean.DefaultPropertyWalker$CachedPropertyV
alue.lambda$new$0(DefaultPropertyWalker.java:107)
at
com.google.common.base.Suppliers$NonSerializableMemoizingSupplier.get(Sup
pliers.java:181)
at java.base/java.lang.Thread.run(Thread.java:833)
```

Unlisted Issues:

https://github.com/GTNewHorizons/RetroFuturaGradle/issues/86

https://github.com/architectury/architectury-plugin/issues/55

https://github.com/LFDT-web3j/web3j-build-tools/issues/14

https://github.com/jfrog/gradle-dep-tree/issues/25

https://github.com/digma-ai/digma-intellii-plugin/issues/2729

https://github.com/AppGalleryConnect/agc-android-demos/issues/8