

INTRODUCTION

During this task, you will be acting as one of the developers of **Navajo Commons Lang**, a small library of Java utility classes. This library extends and improves on the Java core functionality by providing additional data structures and utility functions for the core types.

You may take a few minutes to familiarise yourself with the codebase by browsing the code in the provided IDE, running tests or asking your interviewer any questions you have.

During this experiment, you will be given three tasks. The goals described in the tasks will include removing functionality and improving code organization.

For each task, you will be asked to *first describe to your interviewer* how you will change the source code to achieve the goal. You may explore, run and change the code, or ask the interviewer any questions at any point. You may use any tools you want.

After describing the change, the interviewer will ask you to change the code in order to reach the goal and think out loud while you do so. You do not need to follow the plan you previously described.

For the purpose of this experiment, you will be asked to think out loud while interacting with the tasks and the code. It is more important to describe how you would solve the tasks than finishing the code changes.

Your interviewer will prompt you to think out loud and elaborate on choices or comments and to switch tasks.

Please indicate to your interviewer when you are ready to begin the first task.

TASK 1 :

Motivation: Developers working on methods for empty and blank strings in

`StringUtils.java` have a hard time running only the relevant tests. To make it easier to find and run the tests related to this functionality they should be collected into a single test class that only tests empty and blank.

Preparation: Locate the following tests in the package `org.navajo.commons.lang`

From `StringUtilsTest.java`

testIsAnyEmpty
testIsAnyNotEmpty
testIsNoneEmpty
testIsAllEmpty
testIsAnyBlank
testIsAnyNotBlank
testIsNoneBlank
testIsAllBlank

From `StringUtilsTrimEmptyTest.java`

testIsEmpty
testIsNotEmpty
testIsBlank
testIsNotBlank

Goal: the tests listed above should be moved into a single test class that only tests empty and blank.

TASK 2 :

Motivation: The new methods `isAnyNotBlank` and `isAnyNotEmpty` bloat the API and are awkward to use with the double negated names. The team decides to keep the methods `isAllBlank` and `isAllEmpty`, and remove `isAnyNotBlank` and `isAnyNotEmpty`.

Preparation: Locate the methods `isAllBlank` and `isAllEmpty` in `org.navajo.commons.lang.StringUtils.java`

Goal: Remove methods `isAnyNotBlank` and `isAnyNotEmpty` found in `StringUtils.java`

TASK 3:

Motivation: FieldUtils.java provides an API for reading and editing fields.

As described in the JavaDoc, the ability is provided to break the scoping restrictions coded by the programmer. This can allow fields to be changed that shouldn't be.

As part of the API evolution, this facility should be removed. Users access the functionality through a flag; methods take this flag as a boolean argument `forceAccess`. The option to force access should no longer be available and all code should perform as if the flag is `false`.

The upcoming release notes will inform clients of this breaking change, but you do not need to change the notes.

Preparation: Locate the code and tests that you will be working on in this task:

Src/org.navajo.commons.lang.reflect.FieldUtils.java

Test/org.navajo.commons.lang.reflect.FieldUtilsTest.java

Goal: remove the option to force access from FieldUtils.java