Table 1. Datasets used for model training and final ranking

|  |  |
| --- | --- |
| **Dataset** | **Subcharacteristic** |
| Source code of SF110[[1]](#footnote-1) benchmark projects + 49 popular projects from the Maven repository (Table 3) | **Modularity** |
| Source code of SF110 benchmark projects and corresponding test information[[2]](#footnote-2) | **Testability** |
| 45 popular projects from the Maven repository (Table 3) | **Reusability** |
| Source code of SF110 benchmark projects + 49 popular projects from the Maven repository (Table 3) | **Modifiability** |
| Source code of SF110 benchmark projects + 49 popular projects from the Maven repository (Table 3) | **Analyzability** |

Table 2. Detailed specifications of the SF110 benchmark used for testability assessment

|  |  |
| --- | --- |
| **Value** | **Feature** |
| 110 | Number of Projects |
| 23,886 | Number of Testable Classes |
| 808,056 | Number of Target Branches |
| 27,997 | Number of Java Files |
| 6,628,619 | Number of Lines of Code |

**T**able 3. List of 49 popular projects from the Maven repository used in the benchmark suites

| **GitHub Link** | **No.** |
| --- | --- |
| https://github.com/junit-team/junit5 | 1 |
| https://github.com/google/guava | 2 |
| https://github.com/mockito/mockito | 3 |
| https://github.com/apache/commons-io | 4 |
| https://github.com/qos-ch/logback | 5 |
| https://github.com/apache/commons-lang | 6 |
| https://github.com/FasterXML/jackson-databind | 7 |
| https://github.com/clojure/clojure | 8 |
| https://github.com/apache/log4j | 9 |
| https://github.com/google/gson | 10 |
| https://github.com/scalatest/scalatest | 11 |
| https://github.com/javaee/servlet-spec | 12 |
| https://github.com/assertj/assertj-core | 13 |
| https://github.com/apache/httpcomponents-client | 14 |
| https://github.com/spring-projects/spring-framework | 15 |
| https://github.com/apache/commons-logging | 16 |
| https://github.com/apache/commons-codec | 17 |
| https://github.com/cbeust/testng | 18 |
| https://github.com/findbugsproject/findbugs | 19 |
| https://github.com/FasterXML/jackson-core | 20 |
| https://github.com/FasterXML/jackson-annotations | 21 |
| https://github.com/JodaOrg/joda-time | 22 |
| https://github.com/spring-projects/spring-boot | 23 |
| https://github.com/osgi/osgi | 24 |
| https://github.com/nrepl/nrepl | 25 |
| https://github.com/h2database/h2database | 26 |
| https://github.com/apache/logging-log4j2 | 27 |
| https://github.com/square/okhttp | 28 |
| https://github.com/hamcrest/JavaHamcrest.git | 29 |
| https://github.com/apache/commons-collections | 30 |
| https://github.com/javax-inject/javax-inject | 31 |
| https://github.com/bedatadriven/renjin | 32 |
| https://github.com/mysql/mysql-connector-j.git | 33 |
| https://github.com/easymock/easymock.git | 34 |
| https://github.com/eclipse-ee4j/jaxb-api.git | 35 |
| https://github.com/apache/commons-beanutils.git | 36 |
| https://github.com/Kotlin/kotlinx.reflect.lite.git | 37 |
| https://github.com/apache/maven-plugin-tools.git | 38 |
| https://github.com/vogella/org.json.git | 39 |
| https://github.com/apache/httpcomponents-core.git | 40 |
| https://github.com/square/retrofit.git | 41 |
| https://github.com/apache/commons-cli.git | 42 |
| https://github.com/powermock/powermock.git | 43 |
| https://github.com/apache/maven.git | 44 |
| https://github.com/justinedelson/felix.git | 45 |
| https://github.com/qos-ch/slf4j | 46 |
| https://github.com/hjanetzek/android-support-v7-appcompat | 47 |
| https://github.com/typelevel/scalacheck.git | 48 |
| https://github.com/alibaba/fastjson.git | 49 |

1. <https://www.evosuite.org/experimental-data/sf110/> [↑](#footnote-ref-1)
2. <https://www.evosuite.org/files/1_1_0/results.html> [↑](#footnote-ref-2)