Primes Class

Test: DeepSeek2PrimesTest

```
[INFO] Results:
[INFO]
[ERROR] Failures:
[ERROR] DeepSeek2PrimesTest.nextPrime_ShouldReturnCorrectNextPrime:65 expected: <2147483647> but was: <2147483549>
[ERROR] Tests run: 106, Failures: 1, Errors: 0, Skipped: 0
[INFO]
[INFO] BUILD FAILURE
[INFO] ------
[INFO] Finished at: 2025-04-06T13:18:09-03:00
[INFO] ------
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek3PrimesTest

```
[INFO] Results:
[INFO]
[ERROR] Errors:
[ERROR] DeepSeek3PrimesTest.primeFactors_ShouldHandleProductsOfLargePrimes:164 » MathIllegalArgument -1,915,272,241 is smaller than the minimum (2)
[INFO]
[ERROR] Tests run: 117, Failures: 0, Errors: 1, Skipped: 0
[INFO] ------
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 2.118 s
[INFO] Finished at: 2025-04-06T13:23:59-03:00
[INFO] ------
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms:
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[\hbox{\footnotesize{\it ERROR}}] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek5PrimesTest

```
[INFO] Results:
[INFO]
[ERROR] Failures:
[ERROR] DeepSeek5PrimesTest.nextPrime_ShouldHandleLargeInputs:94 expected: <2147483647> but was: <2147483629>
[ERROR] Errors:
[ERROR] DeepSeek5PrimesTest.nextPrime_ShouldReturnCorrectNextPrime:56 » MathIllegalArgument -1 is smaller than the minimum (0)
[INFO]
[ERROR] Tests run: 111, Failures: 1, Errors: 1, Skipped: 0
[INFO]
[INFO] ------
[INFO] BUILD FAILURE
[INFO] ------
[INFO] Total time: 1.960 s
[INFO] Finished at: 2025-04-06T13:22:04-03:00
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Mayen with the -e switch.
[ERROR] Re-run Mayen using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Hex Class

Test: DeepSeek1HexTest

```
[IMF0] 6 errors
[IMF0] BUILD FAILURE
[IMF0] BUILD FAILURE
[IMF0] Finished at: 2025-04-06712:53:33-03:00
[IMF0] Finished at: 2025-04-06712:53:33-03:00
[IMF0] Finished at: 2025-04-06712:53:33-03:00
[IMF0] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure: Compilation failure: [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [120, 26] incompatible types: byte[] cannot be converted to char[] [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [219, 28] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [279, 30] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [280, 29] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [280, 29] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [280, 29] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [280, 29] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [280, 29] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeekHexTest_java: [280, 29] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex [ERROR] /nome/fernando/Idea
```

Test: DeepSeek2HexTest

```
[INFO] ------
[INFO] ------
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek2HexTest.java:[175,62] incompatible types: byte[] cannot be converted to char[]
[INFO] ------
[INFO] BUILD FAILURE
[INFO] ------
[INFO] Total time: 1.899 s
[INFO] Finished at: 2025-04-06T13:29:39-03:00
[ERROR] Failed to execute goal org.apache.mayen.plugins:mayen.compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes.llms: Compilation failure
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek2HexTest.java:[175,62] incompatible types: byte[] cannot be converted to char[]
[ERROR]
[ERROR] -> [Help 1]
[ERROR] To see the full stack trace of the errors, re-run Mayen with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek3HexTest

```
[INFO] -----
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek3HexTest.java:[198,63] incompatible types: byte[] cannot be converted to char[]
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek3HexTest.java:[251,28] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek2HexTest.java:[175,62] incompatible types: byte[] cannot be converted to char[]
[INFO] 3 errors
[INFO] -----
[INFO] ------
[INFO] BUILD FAILURE
[INFO] Total time: 1.151 s
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure: Compilation failure:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek3HexTest.java:[198,63] incompatible types: byte[] cannot be converted to char[]
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek3HexTest.java:[251,28] DIGITS_LOWER has private access in experimento.deepseek.hex.Hex
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek2HexTest.java:[175,62] incompatible types: byte[] cannot be converted to char[] [ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek4HexTest

```
[INFO] -----
[ERROR] COMPILATION ERROR :
[INFO] ------
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek4HexTest.java:[190,62] incompatible types: byte[] cannot be converted to char[]
[INFO] ------
[INFO] BUILD FAILURE
[INFO] ------
[INFO] Finished at: 2025-04-06T18:03:32-03:00
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek4HexTest.java:[190,62] incompatible types: byte[] cannot be converted to char[]
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek5HexTest

```
[ERROR] COMPILATION ERROR :
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek5HexTest.java:[214,62] incompatible types: byte[] cannot be converted to char[]
[INFO] 1 error
[INFO] ------
[INFO] -----
[INFO] Total time: 1.119 s
[INFO] Finished at: 2025-04-06T18:12:57-03:00
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/hex/DeepSeek5HexTest.java:[214,62] incompatible types: byte[] cannot be converted to char[]
[ERROR]
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

BinaryCodec Class

Test: DeepSeek1BinaryCodecTest

```
[INFO] 7 errors
[INFO] ------
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 1.466 s
[INFO] Finished at: 2025-04-06T20:32:29-03:00
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[21,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCode
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek1BinaryCodecTest.java:[46,58] incompatible types: byte[] cannot be converted to char[]
[ERROR] /home/fernando/IdeaProjects/tests_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek1BinaryCodecTest.java:[59,46] incompatible types: byte[] cannot be converted to char[]
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[60,38] EMPTY_CHAR_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCode
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[76,48] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCode
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[92,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[124,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCode
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek2BinaryCodecTest

Test: DeepSeek3BinaryCodecTest

Test: DeepSeek4BinaryCodecTest

```
[INFO] 9 errors
[INFO] ------
[INFO] ------
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 1.887 s
[INFO] Finished at: 2025-04-06T23:02:46-03:00
[TNED] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure: Compilation failure:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek48inaryCodecTest.java:[43,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[73,58] incompatible types: byte[] cannot be converted to char[]
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[87,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/ideaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/8BinaryCodecTest.java:[109,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[124,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/BinaryCodecTest.java:[139,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/8EinaryCodecTest.java:[154,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/8EinaryCodecTest.java:[169,38] EMPTY_BYTE_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek/8inaryCodecTest.java:[183,38] EMPTY_CHAR_ARRAY has private access in experimento.deepseek.binarycodec.BinaryCodec
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek5BinaryCodecTest

```
[ERROR] COMPILATION ERROR :
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek5BinaryCodecTest.java:[46,46] incompatible types: byte[] cannot be converted to char[]
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek5BinaryCodecTest.java:[156,36] reference to fromAscii is ambiguous
  both method fromAscii(char[]) in experimento.deepseek.binarycodec.BinaryCodec and method fromAscii(byte[]) in experimento.deepseek.binarycodec.BinaryCodec match
[INFO] ------
[INFO] ------
[INFO] Total time: 0.999 s
[INFO] Finished at: 2025-04-06T23:09:00-03:00
[INEO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure: Compilation failure:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek5BinaryCodecTest.java:[46,46] incompatible types: byte[] cannot be converted to char[] [ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/binarycodec/DeepSeek5BinaryCodecTest.java:[156,36] reference to fromAscii is ambiguous
         both method fromAscii(char[]) in experimento.deepseek.binarycodec.BinaryCodec and method fromAscii(byte[]) in experimento.deepseek.binarycodec.BinaryCodec match
[ERROR] -> [Help 1]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

CharRange Class

Test: DeepSeek1CharRangeTest

Test: DeepSeek2CharRangeTest

Test: DeepSeek3CharRangeTest

```
[IRRO] COMPILATION ERROR:
[IRRO] // IRROR COMPILATION ERROR:
[IRRO] // IRROR // IRRO
```

Test: DeepSeek4CharRangeTest

```
[ERROR] COMPILATION ERROR :
 [INFO] -----
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek4CharRangeTest.java:[83,27] CharRange(char, char, boolean) has private access in experimento.deepseek.charrange.CharRa
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek4CharRangeTest.java: [120, 28] CharRange(Char, char, boolean) has private access in experimento.deepseek.charrange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/QeepSeek&CharRangeTest.java:[176,28] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRange
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek/CharRangeTest.java:[177,28] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRang
[INFO] 6 errors
[INFO] BUILD FAILURE
[INFO] Total time: 1.332 s
[INFO] Finished at: 2025-84-10T16:22:12-03:00
[ERROR] Failed to execute goal org.apache.maven.plugins:maven.compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes llms: Compilation failure: Compilation failure:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek/CharRangeTest_java:[83,27] CharRange(char,char,boolean) has private access in experimento.deepseek/charrange/DeepSeek/CharRangeTest_java:[81,27] CharRange(char,char,boolean) 
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek4CharRangeTest.java:[128,28] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRangeTest.java:
[ERROR] /home/fernando/IdeaProjects/testes_llms/arc/test/java/experimento/deepseek/charrange/DeepSeek/CharRangeTest.java:[176,28] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRang
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek4CharRangeTest.java:[177,28] CharRange(char.char.poolean) has private access in experimento.deepseek.charrange.CharRangeTest.java:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek4CharRangeTest.java:[259,27] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.Cha
[ERROR] -> [Help 1]
```

Test: DeepSeek5CharRangeTest

```
[INFO] --
 [ERROR] COMPILATION ERROR :
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek/ScharRangeTest.java:[355,28] CharRange(char.char.boolean) has private access in experimento.deepseek.charrange.DearRange
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek/ScharRangeTest.java:[356,28] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRange
[ERROR] /home/fernando/ideaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeekSCharRangeTest.java:[368,27] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRange
[INFO] -----
[INFO] BUILD FAILURE
[INFO] Total time: 1.083 s
[INFO] Finished at: 2025-04-10T16:26:22-03:00
[INFO] ------
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.8.1:testCompile (default-testCompile) on project testes_llms: Compilation failure: Compilation failure:
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeekSCharRangeTest.java: [355,28] CharRange(char, char, boolean) has private access in experimento.deepseek.charrange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.C
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek/ScharRangeTest.java: [356,28] CharRange(char, char, boolean) has private access in experimento.deepseek.charrange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.CharRange.
[ERROR] /home/fernando/IdeaProjects/testes_llms/src/test/java/experimento/deepseek/charrange/DeepSeek/ScharRangeTest.java:[368,27] CharRange(char,char,boolean) has private access in experimento.deepseek.charrange.CharRange
[ERROR] -> [Help 1]
[ERROR] To see the full stack trace of the errors re-run Mayen with the -e switch
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Range Class

Test: DeepSeek1RangeTest

```
[INFO] Results:
[INFO]
[ERROR] Failures:
[ERROR] DeepSeek1RangeTest$EdgeCaseTests.testCustomComparatorWithNulls:410 expected: <true> but was: <false>
        DeepSeek1RangeTest$VerificationTests.testElementCompareTo:141 expected: <1> but was: <-1>
[ERROR] DeepSeek1RangeTest$VerificationTests.testElementCompareTo:141 expected: <-1> but was: <1>
[ERROR] Tests run: 61, Failures: 3, Errors: 0, Skipped: 0
[INFO] ------
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 2.379 s
[INFO] Finished at: 2025-04-10T19:11:35-03:00
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek2RangeTest

```
[INFO]
[ERROR] Tests run: 80, Failures: 7, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 2.418 s
[INFO] Finished at: 2025-04-10T19:16:59-03:00
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[FRROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[\ensuremath{\mathsf{ERROR}}] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
 \hbox{ [ERROR] [Help 1] $\underline{$h$}$ ttp://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException and the substitution of t
```

Test: DeepSeek5RangeTest

```
[INFO]
[INFO]
[FRROR] Failures:
       DeepSeek5RangeTest$UtilityTests.testToString:269 expected: <Range from 10 to 20 with comparator> but was: <Range from 10 to 20 with comparator INSTANCE>
[ERROR] DeepSeek5RangeTest$VerificationTests.testElementCompareTo:109 expected: <1> but was: <-1>
[ERROR] Tests run: 21, Failures: 2, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Finished at: 2025-04-10T19:24:29-03:00
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Fraction Class

Test: DeepSeek1FractionTest

```
[INFO]
[INFO] Results:
[INFO]
[ERROR] Failures:
        DeepSeek1FractionTest.toString_shouldReturnProperRepresentation:245 expected: <1/2> but was: <1 / 2>
[ERROR] Errors:
[ERROR] DeepSeek!FractionTest.longValue_shouldConvertToLong:189 » FractionConversion illegal state: Overflow trying to convert 4,611,686,818,427,387,998 to fraction (4,611,686,818,427,387,998 to fraction (4,611,686,818,427,387,994/1)
[ERROR] Tests run: 45, Failures: 1, Errors: 1, Skipped: 0
[INFO] -----
[INFO] ------
[INFO] Total time: 2.612 s
[INFO] Finished at: 2025-04-11T15:44:35-03:00
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek2FractionTest

```
[INFO] Results:
[INFO]
[ERROR] Failures:
[ERROR] DeepSeek2FractionTest.testConstructorDoubleNonTerminating:313 Expected experimento.deepseek.fraction.FractionConversionException to be thrown, but nothing was thrown
[ERROR] Tests run: 48, Failures: 1, Errors: 0, Skipped: 0
[INFO] -----
[INFO] BUILD FAILURE
[INFO] ------
[INFO] Total time: 2.585 s
[INFO] Finished at: 2025-04-11T15:48:10-03:00
[INFO] ------
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.8.8-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Mayen using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek3FractionTest

```
[INFO]
[INFO] Results:
[INFO]
        DeepSeek3FractionTest.add_shouldHandleOverflow:335 Expected org.apache.commons.math3.exception.MathArithmeticException to be thrown, but nothing was thrown
        DeepSeek3FractionTest.constructorIntInt_shouldThrowWhenDenominatorZero:41 expected: <ZERO_DENOMINATOR_IN_FRACTION> but was: <zero denominator in fraction 1/8>
       DeepSeek3FractionTest.divide_shouldThrowWhenDividingByZero:141 expected: <ZERO_FRACTION_TO_DIVIDE_BY> but was: <the fraction to divide by must not be zero: 8/1>
[ERROR] DeepSeek3FractionTest.longValue_shouldReturnTruncatedValue:259 » FractionConversion illegal state: Overflow trying to convert 4,611,686,018,427,387,998 to fraction (4,611,686,018,427,387,998/1)
[INFO]
[ERROR] Tests run: 56, Failures: 3, Errors: 1, Skipped: 0
[TNEO] -----
[INFO] Total time: 2.796 s
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms: There are test failures.
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

Test: DeepSeek4FractionTest

```
[INFO] Results:
[INFO]

[ERROR] Errors:
[ERROR] DeepSeek4FractionTest.longValue_shouldConvertToLong:195 » FractionConversion illegal state: Overflow trying to convert 4,611,686,618,427,387,900 to fraction (4,611,686,618,427,387,904/1)
[INFO]
[ERROR] Tests run: 45, Failures: 0, Errors: 1, Skipped: 0
[INFO]
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes_llms:
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date].ymRun[%].dump and [date].dumpstream.
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Ferror Maven using the -X switch to enable full debug logsing.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEM/MojoFailureException
```

Test: DeepSeek5FractionTest

```
[INFO]
[INFO] Results:
[INFO]
[ERROR] Failures:
[ERROR] DeepSeek5FractionTest.add_shouldHandleOverflow:89 Expected org.apache.commons.math3.exception.MathArithmeticException to be thrown, but nothing was throw
[ERROR] Errors:
[ERROR] DeepSeek5FractionTest.constructorIntInt_shouldHandleMinValueEdgeCases:43 » MathArithmetic overflow in fraction -1,873,741,824/-2,147,483,648, cannot nega
[INFO]
[ERROR] Tests run: 48, Failures: 1, Errors: 1, Skipped: 0
[INFO] ------
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 2.570 s
[INFO] Finished at: 2025-04-11T15:54:27-03:00
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.0.0-M7:test (default-test) on project testes llms; There are test failures.
[ERROR]
[ERROR] Please refer to /home/fernando/IdeaProjects/testes_llms/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
\left[ \text{ERROR} \right] To see the full stack trace of the errors, re-run Maven with the \text{-e} switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```