

Randomized Testing

Gotta Catch 'em all!

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elastic

| The Search
AI Company

FScrawler

You know, for files!

Summary

Jobs

✓ build

✗ unit

✓ build-docker

○ it

○ it-es7

○ it-es6

○ it-cloud

○ it-serverless

Run details

Usage

Workflow file

unit

failed 3 weeks ago in 38s

Search logs

Explain error

Refresh

Settings

Run all the unit tests30s

340 **Error:**

341 **Error:** To see the full stack trace of the errors, re-run Maven with the `-e` switch.

342 **Error:** Re-run Maven using the `-X` switch to enable full debug logging.

343 **Error:**

344 **Error:** For more information about the errors and possible solutions, please read the following articles:

345 **Error:** [Help 1] <http://cwiki.apache.org/confluence/display/MAVEN/MojoExecutionException>

346 **Error:**

347 **Error:** After correcting the problems, you can resume the build with the command

348 **Error:** `mvn <args> -rf :fscrawler-settings`

349 **Error:** Process completed with exit code 1.

> ✓ Post Set up JDK 211s

> ✓ Post Run actions/checkout@v40s

> ✓ Complete job0s

<https://github.com/dadoonet/fscrawler/actions/runs/14357866984/job/40251514398#step:4:296>

 elastic

Throwable #1: `java.lang.NullPointerException`: Cannot invoke "`Elasticsearch.setIndex(String)`" because the return value of "`FsSettings.getElasticsearch()`" is `null`

```
@Test
public void settingsValidation() {
    FsSettings settings = FsSettingsLoader.load();
    settings.getElasticsearch().setIndex(getCurrentTestName());

    // ...
}
```



```
@Test
public void settingsValidation() {
    FsSettings settings = FsSettingsLoader.load();
    settings.getElasticsearch().setIndex(getCurrentTestName());

    // ...
}
```

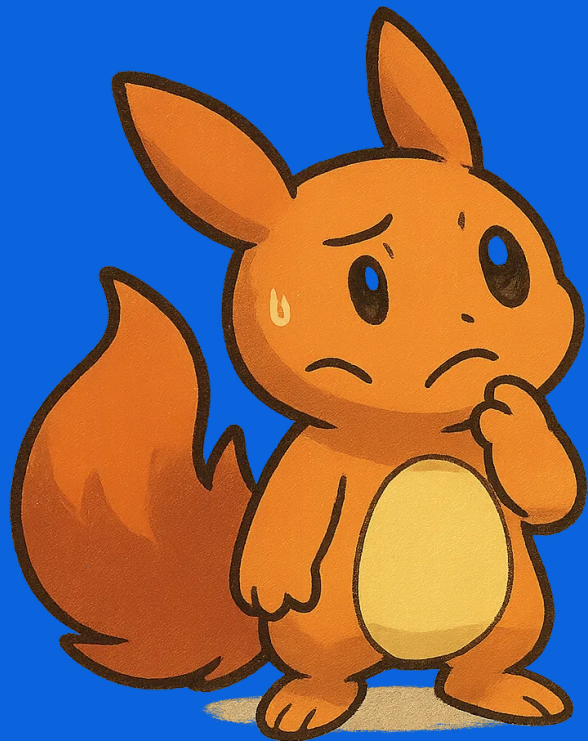


REPRODUCE WITH:

mvn integration-test -Dtests.locale=az

Throwable #1: java.lang.NullPointerException: Cannot invoke "Elasticsearch.setIndex(String)" because the return value of "FsSettings.getElasticsearch()" is null

It depends!



Randomized Testing



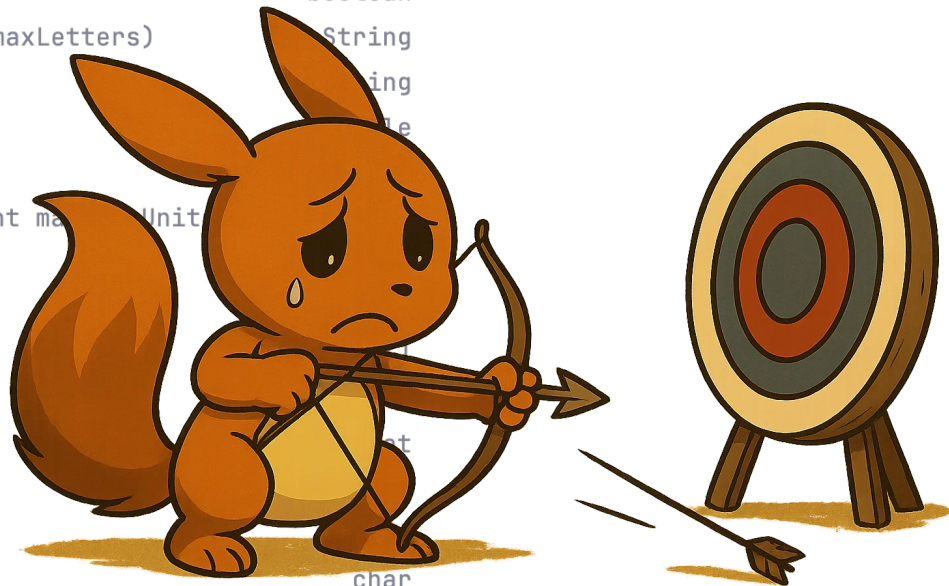
```
@Test new *
public void testCreateClusterAndIndex() {
    int numberOfNodes = randomIntBetween(1, 20);
    int numberOfShards = randomIntBetween(1, 30);
    int numberOfReplicas = randomIntBetween(0, numberOfNodes - 1);
    String indexName = randomAsciiAlphanumOfLength(randomIntBetween(5, 20));

    // Create a cluster with the specified number of nodes
    startCluster(numberOfNodes);

    // Create an index with the specified number of shards and replicas
    createIndex(indexName, numberOfShards, numberOfReplicas);

    // Run tests here
    // ...
}
```

 <code>randomIntBetween(int min, int max)</code>	<code>int</code>
 <code>randomInt()</code>	<code>int</code>
 <code>randomInt(int max)</code>	<code>int</code>
 <code>randomAsciiAlphanumOfLength(int codeUnits)</code>	<code>String</code>
 <code>randomLongBetween(long min, long max)</code>	<code>long</code>
 <code>randomLong()</code>	<code>long</code>
 <code>randomLong(long max)</code>	<code>long</code>
 <code>randomBoolean()</code>	<code>boolean</code>
 <code>randomAsciiLettersOfLengthBetween(int minLetters, int maxLetters)</code>	<code>String</code>
 <code>randomAsciiLettersOfLength(int codeUnits)</code>	<code>String</code>
 <code>randomLocale()</code>	<code>Locale</code>
 <code>randomTimeZone()</code>	<code>TimeZone</code>
 <code>randomAsciiAlphanumOfLengthBetween(int minCodeUnits, int maxCodeUnits)</code>	<code>String</code>
 <code>randomByte()</code>	<code>byte</code>
 <code>randomBytesOfLength(int length)</code>	<code>byte[]</code>
 <code>randomBytesOfLength(int minLength, int maxLength)</code>	<code>byte[]</code>
 <code>randomDouble()</code>	<code>double</code>
 <code>randomFloat()</code>	<code>float</code>
 <code>randomFrom(int[] array)</code>	<code>int</code>
 <code>randomFrom(byte[] array)</code>	<code>byte</code>
 <code>randomFrom(char[] array)</code>	<code>char</code>
 <code>randomFrom(long[] array)</code>	<code>long</code>





Seed



REPRODUCE WITH:

```
mvn integration-test -Dtests.seed=489581FE40712E4A  
-Dtests.locale=az -Dtests.timezone=Asia/Ashkhabad
```

```
@Test  
@Seed("489581FE40712E4A")  
public void settingsValidationForLocaleAz() {  
    // ...  
}
```



```

@Test @Repeat(iterations = 10)
public void repeatMe() {
    Locale locale = randomLocale();
    DateTimeFormatter dateTimeFormatter =
        DateTimeFormatter.ofLocalizedDate(FormatStyle.FULL).withLocale(locale);
    String format = dateTimeFormatter.format(LocalDate.now());
    System.out.println("date is [" + format + "] with locale [" +
        locale.toLanguageTag() + "]);
}

```



Run RandomTest.repeatMe



Stopped. 10 of 21 tests passed - 1s 443ms

repeatMe	
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:ABE85B69E20B2515]}	1s 443ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:1FBEE795D6C9EE39]}	1s 66ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:91577149870DA6F2]}	52ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:A0B9DAACEBF3FDD8]}	31ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:435CE8D825776066]}	35ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:EC785F014AFB3D60]}	18ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:7D828C5E37477060]}	18ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:435CE8D825776066]}	9ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:DFEF72A20663F4C8]}	56ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:ED4397CC71A8E392]}	91ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:3AC8C17615FFD4C0]}	67ms

/Library/Java/JavaVirtualMachines/jdk1.8.0_60.jdk/Contents/Home/bin/java ...

```

date is [2016. ožujka 11] with locale [hr]
date is [viernes 11 de marzo de 2016] with locale [es-CU]
date is [viernes 11 de marzo de 2016] with locale [es-US]
date is [11. mars 2016] with locale [no-NO]
date is [piątek, 11 marca 2016] with locale [pl]
date is [11 2016 مآرس] with locale [ar-QA]
date is [Petek, 11. marec 2016] with locale [sl-SI]
date is [11 2016 مآرس] with locale [ar-BH]
date is [viernes 11 de marzo de 2016] with locale [es-CO]
date is [piątek, 11 marca 2016] with locale [pl]

```

Process finished with exit code 0

```
@RunWith(RandomizedRunner.class)

public class RandomTest {
    @Test
    public void stopYourThreads() {
        new Thread(new Runnable() {
            public void run() {
                while (true) {
                    try { Thread.sleep(1000L); } catch (InterruptedException e) { } }
                } }, "friendly-zombie").start();
    }
}
```

ZOMBIE THREADS

```
@RunWith(RandomizedRunner.class)
```

```
public class RandomTest {  
    @Test  
    public void stopYourThreads() {  
        new Thread(new Runnable() {  
            public void run() {  
                while (true) {  
                    try { Thread.sleep(1000L); } catch (InterruptedException e) { } }  
                } }, "friendly-zombie").start();  
    }  
}
```



```
com.carrotsearch.randomizedtesting.ThreadLeakError: 1 thread leaked from SUITE scope at  
fr.pilato.demo.testframework.RandomTest:
```

```
1) Thread[id=12, name=Thread-1, state=TIMED_WAITING, group=TGRP-RandomTest]  
    at java.lang.Thread.sleep(Native Method)  
    at fr.pilato.demo.testframework.RandomTest$1.run(RandomTest.java:180)  
    at java.lang.Thread.run(Thread.java:745)
```

```
at __randomizedtesting.SeedInfo.seed([1CD01D6C55CD93C0]:0)
```

ZOMBIE THREADS

```
@RunWith(RandomizedRunner.class)
@ThreadLeakFilters(filters = { FriendlyZombieFilter.class })
public class RandomTest extends RandomizedTest {
    @Test
    public void identifyYourThreads() {
        new Thread(new Runnable() {
            public void run() {
                while (true) {
                    try { Thread.sleep(1000L); } catch (InterruptedException e) { } }
                } }, "friendly-zombie").start();
    }
}

public class FriendlyZombieFilter implements ThreadFilter {
    public boolean reject(Thread t) {
        if ("friendly-zombie".equals(t.getName())) { return true; }
        return false;
    }
}
```



<https://github.com/gestalt-config/gestalt/issues/242>

```
@Test
public void testLocaleAz() throws Exception {
    Locale.setDefault(new Locale.Builder().setLanguageTag("az").build());
    Gestalt gestalt = new GestaltBuilder()
        .addSource(MapConfigSourceBuilder.builder()
            .addCustomConfig("elasticsearch.index", "foo")
            .build())
        .build();
    gestalt.loadConfigs();
    assertThat(gestalt.getConfigOptional("elasticsearch", Elasticsearch.class)).isPresent();
}
```

```
@Test
public void testLocaleFr() throws Exception {
    Locale.setDefault(new Locale.Builder().setLanguageTag("fr").build());
    Gestalt gestalt = new GestaltBuilder()
        .addSource(MapConfigSourceBuilder.builder()
            .addCustomConfig("elasticsearch.index", "foo")
            .build())
        .build();
    gestalt.loadConfigs();
    assertThat(gestalt.getConfigOptional("elasticsearch", Elasticsearch.class)).isPresent();
}
```

https://github.com/gestalt-config/gestalt/issues/242



credmond-git on Apr 11 · edited by credmond-git

Edits ▾ Collaborator ⋮

I found the root cause of the issue.

Gestalt uses the following pattern to tokenize a path.

```
pattern: ^((?<name>[\w .,+=\~!@#$$%^&*()\<>]+)(?<array>\[[(?<index>\d*)\])?)?$
```

When presented with the word: 'flushinterval'

the following doesn't find a match in the PathLexer: `Matcher matcher = pathPattern.matcher(word);`

It seems to work in every other Locale, but Az?

I need to look into why this is happening, and how to fix it.



credmond-git mentioned this on Apr 11

[fix: specify the root locale when using toLower. #243](#)



credmond-git on Apr 11

Collaborator ⋮

I also made a fix so we can support different languages Unicode characters for object field names. [#244](#)





POKÉMON

Gotta catch 'em all!

