

2324288 - NullPointerException occurred when adding a new language in solr

Component: CEC-COM-CPS-SER (Search), Version: 4, Released On: 14.12.2017

Symptom

After adding a new language in solr with ISO code en_SG, the indexing is successful. But when searching in the storefront, the below NullPointerException occurred.

```
INFO | jvm 1 | main | 2016/05/26 16:20:09.816 | ERROR [hybrisHTTP6] [SolrSearchRequestResponsePopulator] Exception while executing SOLR search
INFO | jvm 1 | main | 2016/05/26 16:20:09.816 | de.hybris.platform.solrfacetsearch.search.FacetSearchException: Error from server at http://localhost:8983/solr/master\_electronics\_Product: java.lang.NullPointerException
INFO | jvm 1 | main | 2016/05/26 16:20:09.816 | at org.apache.solr.handler.component.SpellCheckComponent.process(SpellCheckComponent.java:146)
INFO | jvm 1 | main | 2016/05/26 16:20:09.816 | at org.apache.solr.handler.component.SearchHandler.handleRequestBody(SearchHandler.java:277)
INFO | jvm 1 | main | 2016/05/26 16:20:09.817 | at org.apache.solr.handler.RequestHandlerBase.handleRequest(RequestHandlerBase.java:143)
INFO | jvm 1 | main | 2016/05/26 16:20:09.817 | at org.apache.solr.core.SolrCore.execute(SolrCore.java:2068)
INFO | jvm 1 | main | 2016/05/26 16:20:09.817 | at org.apache.solr.servlet.HttpSolrCall.execute(HttpSolrCall.java:669)
INFO | jvm 1 | main | 2016/05/26 16:20:09.817 | at org.apache.solr.servlet.HttpSolrCall.call(HttpSolrCall.java:462)
INFO | jvm 1 | main | 2016/05/26 16:20:09.817 | at org.apache.solr.servlet.SolrDispatchFilter.doFilter(SolrDispatchFilter.java:210)
INFO | jvm 1 | main | 2016/05/26 16:20:09.817 | at org.apache.solr.servlet.SolrDispatchFilter.doFilter(SolrDispatchFilter.java:179)
.....
INFO | jvm 1 | main | 2016/05/26 16:20:09.903 | Caused by: org.apache.solr.client.solrj.impl.HttpSolrClient$RemoteSolrException: Error from server at http://localhost:8983/solr/master\_electronics\_Product: java.lang.NullPointerException
INFO | jvm 1 | main | 2016/05/26 16:20:09.903 | at org.apache.solr.handler.component.SpellCheckComponent.process(SpellCheckComponent.java:146)
INFO | jvm 1 | main | 2016/05/26 16:20:09.904 | at org.apache.solr.handler.component.SearchHandler.handleRequestBody(SearchHandler.java:277)
INFO | jvm 1 | main | 2016/05/26 16:20:09.904 | at org.apache.solr.handler.RequestHandlerBase.handleRequest(RequestHandlerBase.java:143)
INFO | jvm 1 | main | 2016/05/26 16:20:09.904 | at org.apache.solr.core.SolrCore.execute(SolrCore.java:2068)
INFO | jvm 1 | main | 2016/05/26 16:20:09.905 | at org.apache.solr.servlet.HttpSolrCall.execute(HttpSolrCall.java:669)
INFO | jvm 1 | main | 2016/05/26 16:20:09.906 | at org.apache.solr.servlet.HttpSolrCall.call(HttpSolrCall.java:462)
INFO | jvm 1 | main | 2016/05/26 16:20:09.906 | at org.apache.solr.servlet.SolrDispatchFilter.doFilter(SolrDispatchFilter.java:210)
INFO | jvm 1 | main | 2016/05/26 16:20:09.906 | at org.apache.solr.servlet.SolrDispatchFilter.doFilter(SolrDispatchFilter.java:179)
.....
```

Environment

- hybris Commerce Suite 5.7
- hybris Commerce Suite 6.5

Reproducing the Issue

1. Create a language with the following information
 - isoCode: en_SG
 - Active: Yes
 - Fallback languages: en
 - BaseStore: electronics
 - Facet search configurations: electronicsIndex
2. Add the corresponding configuration on the schema.xml and solrconfig.xml files to add the language en_sg
 - a. schema.xml

```

<fieldType name="text_spell_en_sg" class="solr.TextField" positionIncrementGap="100">
  <analyzer>
    <tokenizer class="solr.StandardTokenizerFactory" />
    <filter class="solr.EnglishMinimalStemFilterFactory" />
    <filter class="solr.StopFilterFactory" words="lang/stopwords_en_sg.txt" ignoreCase="true" />
    <filter class="solr.ManagedStopFilterFactory" managed="en_sg" />
    <filter class="solr.SynonymFilterFactory" ignoreCase="true" synonyms="synonyms.txt"/>
    <filter class="solr.ManagedSynonymFilterFactory" managed="en_sg" />
    <filter class="solr.LowerCaseFilterFactory" />
    <filter class="solr.TrimFilterFactory" />
    <filter class="solr.RemoveDuplicatesTokenFilterFactory" />
  </analyzer>
</fieldType>

<fieldType name="text_en_sg" class="solr.TextField" positionIncrementGap="100">
  <analyzer>
    <tokenizer class="solr.StandardTokenizerFactory" />
    <filter class="solr.StopFilterFactory" words="lang/stopwords_en_sg.txt" ignoreCase="true" />
    <filter class="solr.ManagedStopFilterFactory" managed="en_sg" />
    <filter class="solr.SynonymFilterFactory" ignoreCase="true" synonyms="synonyms.txt"/>
    <filter class="solr.ManagedSynonymFilterFactory" managed="en_sg" />
    <filter class="solr.WordDelimiterFilterFactory" preserveOriginal="1"
      generateWordParts="1" generateNumberParts="1" catenateWords="1"
      catenateNumbers="1" catenateAll="0" splitOnCaseChange="1" />
    <filter class="solr.LowerCaseFilterFactory" />
    <filter class="solr.ASCIIFoldingFilterFactory" />
    <filter class="solr.SnowballPorterFilterFactory" language="English" />
  </analyzer>
</fieldType>

<field name="autosuggest_en_sg" type="text_spell_en_sg" indexed="true" stored="true" multiValued="true" />
<copyField source="autosuggest" dest="autosuggest_en_sg" />
<field name="spellcheck_en_sg" type="text_spell_en_sg" indexed="true" stored="true" multiValued="true" />
<copyField source="spellcheck" dest="spellcheck_en_sg" />
<field name="fulltext_en_sg" type="text_en_sg" indexed="true" stored="false" multiValued="true" />
<copyField source="*_text_en_sg" dest="fulltext_en_sg" />

<dynamicField name="*_text_en_sg" type="text_en_sg" indexed="true" stored="true" />
<dynamicField name="*_text_en_sg_mv" type="text_en_sg" indexed="true" stored="true" multiValued="true"/>

```

b. solrconfig.xml

```

<lst name="spellchecker">
  <str name="name">en_sg</str>
  <str name="classname">solr.DirectSolrSpellChecker</str>
  <str name="field">spellcheck_en_sg</str>
</lst>

<lst name="spellchecker">
  <str name="name">en_sg</str>
  <str name="classname">org.apache.solr.spelling.suggest.Suggester</str>
  <str name="lookupImpl">org.apache.solr.spelling.suggest.tst.TSTLookup</str>
  <str name="field">autosuggest_en_sg</str>
  <str name="buildOnCommit">true</str>
  <str name="buildOnOptimize">true</str>
  <str name="accuracy">0.35</str>
</lst>

```

3. Restart server
4. Do full index on electronicsIndex
5. Search product in the storefront

Cause

In order to support a new language like en_SG in solr, some changes are necessary in schema.xml and solrconfig.xml files with the following rules:

- for field/type names, convert ISO code to lowercase(e.g. en_SG should become en_sg)
- for everywhere else, use the ISO code (e.g. en_SG)

Resolution

For the changing in solrconfig.xml, the name field value should be **en_SG** according to the rules.

```
<lst name="spellchecker">
  <str name="name">en_SG</str>
  <str name="classname">solr.DirectSolrSpellChecker</str>
  <str name="field">spellcheck_en_sg</str>
</lst>
<lst name="spellchecker">
  <str name="name">en_SG</str>
  <str name="classname">org.apache.solr.spelling.suggest.Suggester</str>
  <str name="lookupImpl">org.apache.solr.spelling.suggest.tst.TSTLookup</str>
  <str name="field">autosuggest_en_sg</str>
  <str name="buildOnCommit">true</str>
  <str name="buildOnOptimize">true</str>
  <str name="accuracy">0.35</str>
</lst>
```

Keywords

en_sg, en_SG, language, solr, NullPointerException

Products

Products
SAP Hybris Commerce 6.5
SAP hybris Commerce 5.7

This document refers to

SAP Note/KBA	Title
	Internationalization by Country.

This document is referenced by

SAP Note/KBA	Title
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