

 免費電子書

學習

solr

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1: solr

solr。

solr。 solr。

Examples

SolrRESTAPI。 JSONXMLCSV[™]。 HTTP GETJSONXMLCSV。 SolrLucene。

solr

-

Lucene[™]Solr

-

Solr

- - XMLJSONHTTP

Solr

-

SolrSolr

-

SolrJMX

-

SolrApache Zookeeper。 Solr。

-

Solr's

-

SolrLucene

-

Solr。 Apache

solr

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Solr

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SolrPDFWord

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-

Solr

-

Solr

-

SolrApache TikaAdobe PDFMicrosoft Word

SOLR

RedhatSolr 6.1.0AWS

1. RedHatFedora

```
cat /etc/redhat-release
```

```
[ec2-user@ip-172-31-28-149 ~]$ cat /etc/redhat-release  
Red Hat Enterprise Linux Server release 7.2 (Maipo)
```

2. java 1.6

```
which java
```

```
[ec2-user@ip-172-31-28-149 ~]$ which Java  
/usr/bin/which: no Java in (/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/home/ec2-user/.local/bin:/home/ec2-user/bin)
```

3. Java

```
sudo yum list available java*
```

```
[ec2-user@ip-172-31-28-149 ~]$ sudo yum list available java*  
Loaded plugins: amazon-id, rhui-lb, search-disabled-repos  
Available Packages  
java-1.6.0-openjdk.x86_64                1:1.6.0.40-1.13.12.5.el7_2  
java-1.6.0-openjdk-devel.x86_64        1:1.6.0.40-1.13.12.5.el7_2  
java-1.7.0-openjdk.x86_64              1:1.7.0.111-2.6.7.2.el7_2  
java-1.7.0-openjdk-devel.x86_64        1:1.7.0.111-2.6.7.2.el7_2  
java-1.7.0-openjdk-headless.x86_64     1:1.7.0.111-2.6.7.2.el7_2  
java-1.8.0-openjdk.x86_64              1:1.8.0.111-1.b15.el7_2
```

```
sudo yum install java-1.8.0-openjdk.x86_64
```

4.

```
which javaJava
java -versionJava
```

```
[ec2-user@ip-172-31-28-149 ~]$ which java
/usr/bin/java
[ec2-user@ip-172-31-28-149 ~]$ java -version
openjdk version "1.8.0_111"
OpenJDK Runtime Environment (build 1.8.0_111-b15)
OpenJDK 64-Bit Server VM (build 25.111-b15, mixed mode)
```

5. SOLR。

```
sudo adduser solr
```

6. ◦

```
sudo passwd solr
```

```
[ec2-user@ip-172-31-28-149 ~]$ sudo adduser solr
[ec2-user@ip-172-31-28-149 ~]$ sudo passwd solr
Changing password for user solr.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
```

7. SOLRsudovisudo

```
sudo visudo
```

8.

```
## Allows people in group wheel to run all commands
# %wheel ALL=(ALL) ALL
```

9. %wheel◦

```
%wheel ALL=(ALL) ALL
```

```
## Allows people in group wheel to run all commands
%wheel ALL=(ALL) ALL
```

10. :wq:q◦

11. solrwheel◦

```
sudo usermod -aG wheel solr
```

12. rootsolr

```
su solr -
sudo whoami
```

```
[ec2-user@ip-172-31-28-149 ~]$ sudo usermod -aG wheel solr
[ec2-user@ip-172-31-28-149 ~]$ su solr
Password:
[solr@ip-172-31-28-149 ec2-user]$ groups
solr wheel
[solr@ip-172-31-28-149 ec2-user]$ sudo whoami

We trust you have received the usual lecture from the local
Administrator. It usually boils down to these three things:

    #1) Respect the privacy of others.
    #2) Think before you type.
    #3) With great power comes great responsibility.

[sudo] password for solr:
root
```

SOLR

13. <http://www.apache.org/dyn/closer.lua/lucene/solr/>
<http://www.apache.org/dyn/closer.lua/lucene/solr/>

14. `opt`
`cd /opt/`

- 15.

```
sudo curl -O http://www.trieuvan.com/apache/lucene/solr/6.1.0/solr-6.1.0.tgz
```

```
[solr@ip-172-31-28-149 opt]$ sudo curl -O http://www.trieuvan.com/apache/lucene/solr/6.2.0/solr-6.2.0.tgz
```

% Total Time		% Received Current		% Xferd	Average Speed		Time	Time	
Left	Speed				Dload	Upload	Total	Spent	
0	0	0	0	0	0	0	--:--:--	--:--:--	
3	142M	3	5343k	0	0	5501k	0	0:00:26	--:--:--
9	142M	9	13.5M	0	0	7041k	0	0:00:20	0:00:01
13	142M	13	19.3M	0	0	6656k	0	0:00:21	0:00:02
16	142M	16	23.4M	0	0	6028k	0	0:00:24	0:00:03
19	142M	19	27.4M	0	0	5656k	0	0:00:25	0:00:04

- 16.

```
sudo tar zxvf solr-6.1.0.tgz
```

- 17.

```
sudo cp /opt/solr-6.1.0/bin/install_solr_service.sh .
```

- 18.


```
sudo rm -rf solr-6.1.0
```

1. `sudo ./install_solr_service.sh solr-6.1.0.tgz`

```
Started Solr server on port 8983 (pid=9607). Happy searching!

Found 1 Solr nodes:

Solr process 9607 running on port 8983
{
  "solr_home":"/var/solr/data",
  "version":"6.2.0 764d0f19151dbff6f5fcd9fc4b2682cf934590c5 - mi
ke - 2016-08-20 05:41:37",
  "startTime":"2016-10-20T04:02:37.028Z",
  "uptime":"0 days, 0 hours, 0 minutes, 15 seconds",
  "memory":"85.4 MB (%17.4) of 490.7 MB"}

Service solr installed.
```

2. SOLR.

```
sudo chkconfig --add solr
```

```
chkconfig | grep solr
```

```
[solr@ip-172-31-28-149 ec2-user]$ sudo chkconfig --add solr
[sudo] password for solr:
[solr@ip-172-31-28-149 ec2-user]$ chkconfig |grep solr

Note: This output shows SysV services only and does not include native
systemd services. SysV configuration data might be overridden by native
systemd configuration.

If you want to list systemd services use 'systemctl list-unit-files'.
To see services enabled on particular target use
'systemctl list-dependencies [target]'.

solr          0:off  1:off  2:on   3:on   4:on   5:off
n             6:off
```

3. `sudo chown -R solr:solr /var/solr/`

1. `sudo su - solr -c "/opt/solr/bin/solr create -c NewCore1 -n data_driven_schema_configs"`

```
[solr@ip-172-31-28-149 ec2-user]$ sudo su - solr -c "/opt/solr/bin/solr create -c NewCore1 -n data_driven_schemas"

Copying configuration to new core instance directory:
/var/solr/data/NewCore1

Creating new core 'NewCore1' using command:
http://localhost:8983/solr/admin/cores?action=CREATE&name=NewCore1&instanceDir=NewCore1

{
  "responseHeader": {
    "status": 0,
    "QTime": 2856},
  "core": "NewCore1" }
```

2. http://<solr_server>:8983/solr/#/

The screenshot shows the Solr Admin web interface. On the left is a navigation menu with options: Dashboard, Logging, Core Admin, Java Properties, Thread Dump, and a Core Selector dropdown. The main content area displays the configuration for the 'NewCore1' instance.

Instance	
Start	7 minutes ago
Versions	
solr-spec	6.2.0
solr-impl	6.2.0 764d0f19151dbff6f5fcd9fc4b2682cf934590c5 - mike - 2016-
lucene-spec	6.2.0
lucene-impl	6.2.0 764d0f19151dbff6f5fcd9fc4b2682cf934590c5 - mike - 2016-
JVM	
Runtime	Oracle Corporation OpenJDK 64-Bit Server VM 1.8.0_111 25.111-b1
Processors	1
Args	-DSTOP.KEY=solrrocks -DSTOP.PORT=7983 -Djetty.home=/opt/solr/server -Djetty.port=8983 -Dlog4j.configuration=file:/var/solr/log4j.properties

3. NewCore1.

4. `sudo service solr restart`

5. Admin

`http://<solr_server>:8983/solr/#/`

6. `sudo service solr status`

7. Web Admin

`cd var/solr/data/`

```

[solr@ip-172-31-28-149 bin]$ pwd
/opt/solr/bin
[solr@ip-172-31-28-149 bin]$ cd ../../..
[solr@ip-172-31-28-149 /]$ pwd
/
[solr@ip-172-31-28-149 /]$ cd var/solr/data/
[solr@ip-172-31-28-149 data]$ ll
total 4
drwxrwxr-x. 4 solr solr  50 Oct 20 22:54 NewCore1
-rw-r-----. 1 solr solr 2117 Oct 20 00:02 solr.xml
[solr@ip-172-31-28-149 data]$ ll NewCore1/
total 8
drwxrwxr-x. 3 solr solr 4096 Oct 20 00:02 conf
-rw-rw-r--. 1 solr solr  78 Oct 20 22:54 core.properties
drwxrwxr-x. 5 solr solr  53 Oct 20 22:54 data

```

8. ll

9. conf

```
ll NewCore1/
```

10. Web Admin

```
mkdir CoreFromWebAdmin
```

11. conf

```
sudo cp -R NewCore1/conf/ CoreFromWebAdmin
```

12. Web Admin

13.

14. CoreFromWebAdmin.

Solr Admin interface showing the 'Add Core' dialog box. The dialog contains the following fields:

- name: CoreFromWebAdmin
- instanceDir: CoreFromWebAdmin
- dataDir: data
- config: solrconfig.xml
- schema: schema.xml

A message below the fields states: "instanceDir and dataDir need to exist before you can create the core".

Buttons: Add Core (green), Cancel (red).

Background terminal window shows file permissions for a directory named 'eFromWebAdmin/':

```

[solr@ip-172-31-10-100 ~]$ ls -ld eFromWebAdmin/
total 4
drwxrwxr-x. 4 solr solr 4096 Jun 14 10:00 eFromWebAdmin/
-rw-r-----. 1 solr solr 4096 Jun 14 10:00 eFromWebAdmin/
[solr@ip-172-31-10-100 ~]$ ls -ld eFromWebAdmin/
total 8
drwxrwxr-x. 3 solr solr 4096 Jun 14 10:00 eFromWebAdmin/
-rw-rw-r--. 1 solr solr 4096 Jun 14 10:00 eFromWebAdmin/
drwxrwxr-x. 5 solr solr 4096 Jun 14 10:00 eFromWebAdmin/
[solr@ip-172-31-10-100 ~]$ ls -ld eFromWebAdmin/
total 4
drwxr-xr-x. 3 root root 4096 Jun 14 10:00 eFromWebAdmin/
[solr@ip-172-31-10-100 ~]$ ls -ld eFromWebAdmin/
total 4
drwxr-xr-x. 3 root root 4096 Jun 14 10:00 eFromWebAdmin/
[solr@ip-172-31-10-100 ~]$ ls -ld eFromWebAdmin/
total 4
drwxr-xr-x. 3 root root 4096 Jun 14 10:00 eFromWebAdmin/

```

- 15. ◦
- 16. ◦
- 17. XML

```

<add><doc>
  <field name="id">F9V7464-APL-KIT</field>
  <field name="name">Belkin Mobile Power Cord for iPod w/ Dock</field>
  <field name="manu">Belkin</field>
  <!-- Join -->
  <field name="manu_id_s">belkin</field>
  <field name="cat">electronics</field>
  <field name="cat">connector</field>
  <field name="features">car power adapter, white</field>
  <field name="weight">4.0</field>
  <field name="price">19.95</field>
  <field name="popularity">1</field>
  <field name="inStock">>false</field>
  <!-- Buffalo store -->
  <field name="store">45.18014,-93.87741</field>

```

```

    <field name="manufacturedate_dt">2005-08-01T16:30:25Z</field>
</doc>

<doc>
  <field name="id">IW-032</field>
  <field name="name">iPod & iPod Mini USB 2.0 Cable</field>
  <field name="manu">Belkin</field>
  <!-- Join -->
  <field name="manu_id_s">belkin</field>
  <field name="cat">electronics</field>
  <field name="cat">connector</field>
  <field name="features">car power adapter for iPod, white</field>
  <field name="weight">2.0</field>
  <field name="price">11.50</field>
  <field name="popularity">1</field>
  <field name="inStock">>false</field>
  <!-- San Francisco store -->
  <field name="store">37.7752,-122.4232</field>
  <field name="manufacturedate_dt">2006-02-14T23:55:59Z</field>
</doc>

<doc>
  <field name="id">F887464-APL-KIT</field>
  <field name="name">Belkin Mobile Power Cord for iPod w/ Dock</field>
  <field name="manu">Belkin</field>
  <!-- Join -->
  <field name="manu_id_s">belkin</field>
  <field name="cat">electronics</field>
  <field name="cat">connector</field>
  <field name="features">car power adapter, black</field>
  <field name="weight">4.0</field>
  <field name="price">19.95</field>
  <field name="popularity">1</field>
  <field name="inStock">>true</field>
  <!-- Buffalo store -->
  <field name="store">45.18014,-93.87741</field>

</doc>

<doc>
  <field name="id">FAV7464-APL-KIT</field>
  <field name="name">Belkin Mobile Power Cord for iPod w/ Dock</field>
  <field name="manu">Belkin</field>
  <!-- Join -->
  <field name="manu_id_s">belkin</field>
  <field name="cat">electronics</field>
  <field name="cat">connector</field>
  <field name="features">car power adapter, blue</field>
  <field name="weight">4.0</field>
  <field name="price">15.95</field>
  <field name="popularity">2</field>
  <field name="inStock">>true</field>
  <!-- Buffalo store -->
  <field name="store">45.18014,-93.87741</field>
  <field name="manufacturedate_dt">2015-09-21T16:30:25Z</field>
</doc></add>

```

SOLR。



- Dashboard
- Logging
- Core Admin
- Java Properties
- Thread Dump
- NewCore1
- Overview
- Analysis
- Dataimport
- Documents
- Files
- Ping
- Plugins / Stats
- Query
- Replication
- Schema
- Segments info

Request-Handler (qt)

Document Type

Document(s)

```
<add>
<doc>
  <field name="id">F9V7464-APL-KIT</field>
  <field name="name">Belkin Mobile Power Cord for iPod w/ Dock</field>
  <field name="manu">Belkin</field>
  <!-- Join -->
  <field name="manu_id_s">belkin</field>
  <field name="cat">electronics</field>
  <field name="cat">connector</field>
  <field name="features">car power adapter, white</field>
</doc>
</add>
```

Commit Within

Overwrite

Status: success
Response:
{
 "response":
 "status":
 "queryString":
 }
}

Solr



- Dashboard
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Request-Handler (qt)

/select

— common —

q
:

fq
publisher_s="Bantam"

sort
pubyear_i desc

start, rows
0 3

fl
title_t, pubyear_i

df

Raw Query Parameters
key1=val1&key2=val2

wt
json

indent
 debugQuery
 dismax

```
http://localhost:8983/solr/demo/select?fl=title_t, puby
{
  "responseHeader":{
    "status":0,
    "QTime":1,
    "params":{
      "q":"*:*",
      "indent":"on",
      "fl":"title_t, pubyear_i",
      "fq":"publisher_s=\\"Bantam\\"",
      "sort":"pubyear_i desc",
      "rows":"3",
      "wt":"json",
      "_":"1498631813496"}},
  "response":{"numFound":5,"start":0,"docs":[
    {
      "pubyear_i":1999,
      "title_t":["A Clash of Kings"]},
    {
      "pubyear_i":1996,
      "title_t":["A Game of Thrones"]},
    {
      "pubyear_i":1992,
      "title_t":["Snow Crash"]}]}
}}
```

[solr https://riptutorial.com/zh-TW/solr/topic/1015/solr](https://riptutorial.com/zh-TW/solr/topic/1015/solr)

2: Apache Solr

Examples

Solr

JavaJRESolr。 LinuxOS XMicrosoft Windows。 Java Runtime EnvironmentJRE1.8。 Java

```
$ java -version
```

SolrSolr<http://lucene.apache.org/solr/>。 Solr

Solr

Solrbin / solrSolrSolr8983。

```
$ bin / solr start
```

Solr-p

```
$ bin / solr start -p 8984
```

SolrUnix / Linux。 Solr

```
$ bin / solr start -f
```

Solr-fCtrl-c。 stop

```
$ bin / solr stop -p 8983
```

stopSolr-allSolr。

Solrstatus

```
$ bin / solr
```

Apache Solr <https://riptutorial.com/zh-TW/solr/topic/9635/apache-solr>

3: Lucene

Examples

name:"john doe"~1

~1 johndoejohn second name doe

name:john

joe

+firstname:john +surname:doe

firstnamejohndoe. **+ predixAND.**

+firstname:john -surname:doe

firstnamejohndoe. **- predixNOT.**

+firstname:john surname:(doe bloggs)

firstnamejohndoebloggs.

name:"john doe"

o

name:(john doe^5)

^doejohn

name:john*

***john0johnjohnsonjohn'sjohnny.**

name:do?

doedogdot.

age:[50 TO 60]

50605060

age:{50 TO 60}

50605060

age:[* TO 60]

60

age:[50 TO *]

50

age:{50 to 60]

◦ 5060

```
{!join from=personid to=id fromIndex=AddressCore}address:Address1
```

PersonCore - idname

AddressCore - idaddresspersonid

PersonCore

Lucene <https://riptutorial.com/zh-TW/solr/topic/2242/lucene>

4: Solr

copyFieldcopyField。

Examples

。 。 。 。

Admin UISchema1。 23。 。 4/。



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Add Field Add Dynamic Field Add Copy Field

cat

2

Field
cat
Copied to
text
Type
string
delete field

×

Unique Key Field
id

3

Field: cat

Field-Type: org.apache.solr.schema.StrField
Docs: 20

Flags:	Indexed	Tokenized	Stored
Properties	✓		✓
Schema	✓		✓
Index	✓	✓	✓

Index Analyzer: org.apache.solr.schema.Fie

Query Analyzer: org.apache.solr.schema.Fie

Load Term Info

Autoload

10 / 16 Top-Terms

12	electronics
4	currency
3	memory
2	search
	connector
	software
	hard drive
	graphics card
1	electronics and s
	electronics and c

。 。

Solr <https://riptutorial.com/zh-TW/solr/topic/1969/solr>

5: SOLR DIHSOLRHIVE2

SOLRSOLR。。

8000CPU。

。

Examples

hive2 jarjava。

1. Hadoop-2.7.0-MAPR-1703.jar
2. -2.1.1-MAPR-1703-r1.jar
3. -JDBC-2.1.1-MAPR-1703-R1-standalone.jar

SOLR CloudjarSOLRVMsolrconfig.xml

solrconfig.xml

```
<lib dir ="/ users / path_to_folder_with_jar"regex =". * . jar"/>
```

hive

```
<dataConfig> <dataSource name =“ABC”driver =“org.apache.hive.jdbc.HiveDriver”url =“jdbc:hive2 //...connectionString”user =“username”password =“password”/>
```

```
<document name =“collection_name”>
```

```
<entity name =“collection_lookup”query =“select unique_key as table from table_name”>
```

```
</ entity>
```

```
</ document>
```

```
</ dataConfig>
```

zookeeper

```
server / scripts / cloud-scripts / zkcli.sh -zkhost host12181host22181 -cmd upconfig -confname  
configName -confdir server / solr / configsets / folder /
```

[http// host8983 / solr // collection_name / dataimport // dataimport1020](http://host8983/solr//collection_name/dataimport//dataimport1020)。

。 CH !!。。

SOLR DIHSOLRHIVE2 <https://riptutorial.com/zh-TW/solr/topic/10697/solr-dihsolrhive2>

6: fieldType

Java

[Solr](#) [Solr](#).

Solr

Apache - [o](#)

Examples

JavaSolr

[solr](#).

```
<!-- Source: solr/example/.../conf/schema.xml -->
<?xml version="1.0" encoding="UTF-8" ?>
<schema name="adam" version="1.3">
  <types>
    ...
    <fieldType name="rank_t" class="org.apache.solr.schema.ext.RankFieldType"/>
  </types>
  <fields>
    ...
    <field name="rank" type="rank_t" indexed="true" stored="true"/>
  </fields>
  ...
</schema>
```

Java

```
// Source: src/java/org/apache/solr/schema/ext/RankFieldType.java
package org.apache.solr.schema.ext;

import java.io.IOException;

import org.apache.lucene.document.Fieldable;
import org.apache.lucene.search.SortField;
import org.apache.solr.response.TextResponseWriter;
import org.apache.solr.schema.FieldType;
import org.apache.solr.schema.SchemaField;
import org.apache.solr.search.ext.RankFieldComparatorSource;

public class RankFieldType extends FieldType {

    @Override
    public SortField getSortField(SchemaField field, boolean top) {
        return new SortField(field.getName(), new RankFieldComparatorSource(), top);
    }

    @Override
    // copied verbatim from GeoHashField method
```

```
public void write(TextResponseWriter writer, String name, Fieldable f) throws IOException
{
    writer.writeStr(name, f.stringValue(), false);
}
}
```

o o o o

```
<fieldType name="alphaOnlySort" class="solr.TextField" sortMissingLast="true"
omitNorms="true">
  <analyzer>
    <tokenizer class="solr.KeywordTokenizerFactory"/>
    <filter class="solr.LowerCaseFilterFactory"/>
    <filter class="solr.TrimFilterFactory"/>
    <filter class="solr.PatternReplaceFilterFactory" replace="all" replacement=""
pattern="([^a-z])"/>
  </analyzer>
</fieldType>
```

```
<fieldType name="lowercase_text" class="solr.TextField" positionIncrementGap="150">
  <analyzer>
    <tokenizer class="solr.KeywordTokenizerFactory" />
    <filter class="solr.LowerCaseFilterFactory" />
  </analyzer>
</fieldType>
```

```
<fieldType name="text_stem" class="solr.TextField">
  <analyzer>
    <tokenizer class="solr.StandardTokenizerFactory"/>
    <filter class="solr.StandardFilterFactory"/>
    <filter class="solr.LowerCaseFilterFactory"/>
    <filter class="solr.EnglishPorterFilterFactory"/>
  </analyzer>
</fieldType>
```

Solr。 Solr。 o Porter。 o ““““““。 “”。“““““”。

```
<field name="keywords" type="text_stem" indexed="true" stored="true" />
```

tokenizertokenizer

fieldType <https://riptutorial.com/zh-TW/solr/topic/7409/fieldtype>

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