

Cloudera Streaming Analytics 1.12.0

## Quick Start

Date published: 2019-12-17

Date modified: 2024-02-12

# CLOUDERA

<https://docs.cloudera.com/>

# Legal Notice

© Cloudera Inc. 2024. All rights reserved.

The documentation is and contains Cloudera proprietary information protected by copyright and other intellectual property rights. No license under copyright or any other intellectual property right is granted herein.

Unless otherwise noted, scripts and sample code are licensed under the Apache License, Version 2.0.

Copyright information for Cloudera software may be found within the documentation accompanying each component in a particular release.

Cloudera software includes software from various open source or other third party projects, and may be released under the Apache Software License 2.0 (“ASLv2”), the Affero General Public License version 3 (AGPLv3), or other license terms. Other software included may be released under the terms of alternative open source licenses. Please review the license and notice files accompanying the software for additional licensing information.

Please visit the Cloudera software product page for more information on Cloudera software. For more information on Cloudera support services, please visit either the Support or Sales page. Feel free to contact us directly to discuss your specific needs.

Cloudera reserves the right to change any products at any time, and without notice. Cloudera assumes no responsibility nor liability arising from the use of products, except as expressly agreed to in writing by Cloudera.

Cloudera, Cloudera Altus, HUE, Impala, Cloudera Impala, and other Cloudera marks are registered or unregistered trademarks in the United States and other countries. All other trademarks are the property of their respective owners.

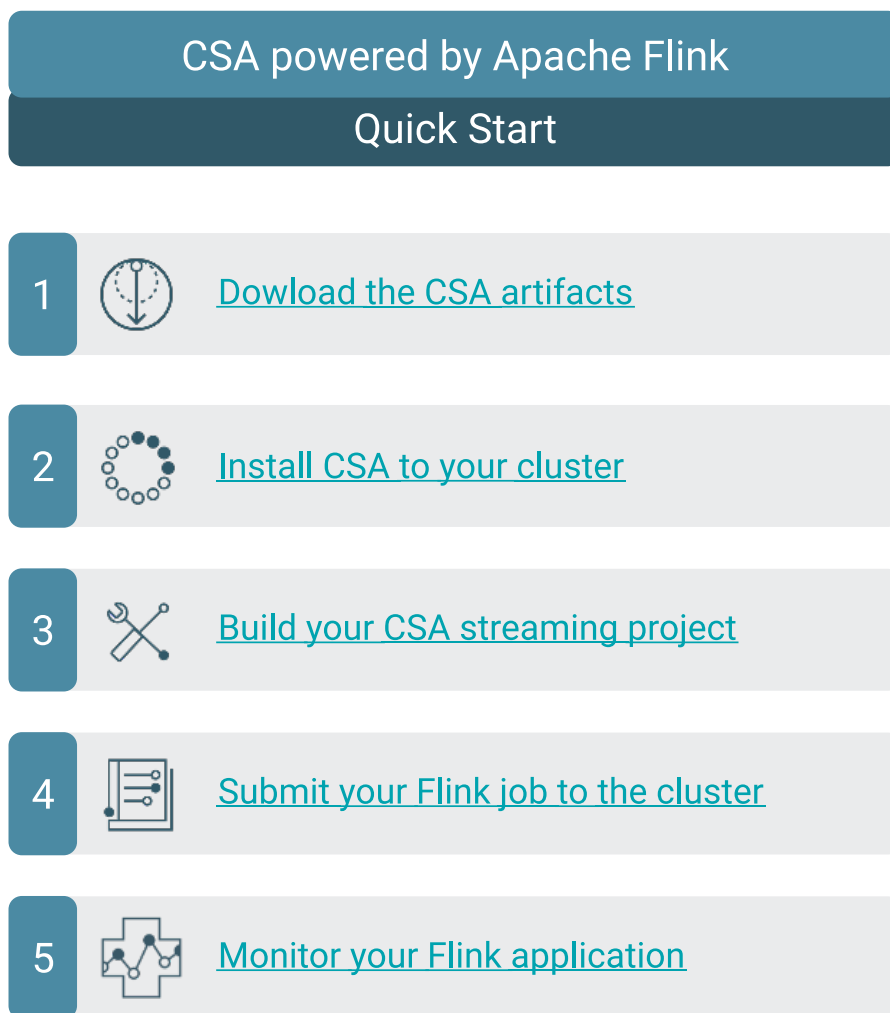
Disclaimer: EXCEPT AS EXPRESSLY PROVIDED IN A WRITTEN AGREEMENT WITH CLOUDERA, CLOUDERA DOES NOT MAKE NOR GIVE ANY REPRESENTATION, WARRANTY, NOR COVENANT OF ANY KIND, WHETHER EXPRESS OR IMPLIED, IN CONNECTION WITH CLOUDERA TECHNOLOGY OR RELATED SUPPORT PROVIDED IN CONNECTION THEREWITH. CLOUDERA DOES NOT WARRANT THAT CLOUDERA PRODUCTS NOR SOFTWARE WILL OPERATE UNINTERRUPTED NOR THAT IT WILL BE FREE FROM DEFECTS NOR ERRORS, THAT IT WILL PROTECT YOUR DATA FROM LOSS, CORRUPTION NOR UNAVAILABILITY, NOR THAT IT WILL MEET ALL OF CUSTOMER’S BUSINESS REQUIREMENTS. WITHOUT LIMITING THE FOREGOING, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CLOUDERA EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, NON-INFRINGEMENT, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION, WARRANTY, OR COVENANT BASED ON COURSE OF DEALING OR USAGE IN TRADE.

# Contents

<b>Quick Start for Flink.....</b>	<b>4</b>
<b>Flink Project Template.....</b>	<b>4</b>
<b>Quick Start for SSF.....</b>	<b>6</b>

## Quick Start for Flink

You can use the Quick Start to easily get familiar with downloading, installing Apache Flink on CDP Private Cloud Base, and also building, submitting and monitoring your Flink application. You can learn more information by clicking on the high level steps covered in the illustration.



## Flink Project Template

The Quickstart Archetype serves as a template for an Apache Flink streaming application. You can use the Archetype to add source, sink and computation to the template. Like this you can practice the development of a simple Flink application, or use the Archetype as the starting point for a more complex application including state, watermark and checkpoint.

### About this task

The Flink quickstart archetype can be used to quickly build a basic Flink streaming project.



**Note:** You need to install the archetype locally on your host as Cloudera does not release maven archetypes to the Maven Central Repository.

## Procedure

1. Perform the following commands to create the archetype locally:

```
git clone https://github.com/cloudera/flink-tutorials
cd flink-tutorials
cd flink-quickstart-archetype
git checkout CSA-1.12.0.0
mvn clean install
cd ..
```



**Note:** The Flink Tutorials repository contains version branches between the CDP Private Cloud Base and CDP Public Cloud deployments of CSA. The branches that use only CSA as a prefix belong to the CDP Private Cloud deployment, and the branches that use CSA-DH as a prefix belong to the CDP Public Cloud Data Hub deployment. Make sure to checkout the branch that is specific for the deployment in which CSA is used.

The following entry should be seen in your local catalog:

```
cat ~/.m2/repository/archetype-catalog.xml
...
<archetypes>
  <archetype>
    <groupId>com.cloudera.flink</groupId>
    <artifactId>flink-quickstart-archetype</artifactId>
    <version>1.18.0</version>
    <description>flink-quickstart-archetype</description>
  </archetype>
</archetypes>
```

2. Generate the project skeleton with the following commands:

```
mvn archetype:generate \
  -DarchetypeGroupId=com.cloudera.flink \
  -DarchetypeArtifactId=flink-quickstart-archetype \
  -DarchetypeVersion=1.18.0
```

3. Provide basic information about the streaming application.

You can choose to customize configurations yourself or use automatically generated information.

- To use automatically generated information, press Enter.
- If you choose to customize configuration, set the following properties:

```
Define value for property 'groupId': com.cloudera.flink
sample-project                               Define value for property 'artifactId':
SNAPSHOT: :                                  Define value for property 'version' 1.0-
om.cloudera.flink: :                         Define value for property 'package' c
Confirm properties configuration:
groupId: com.cloudera.flink
artifactId: sample-project
version: 1.0-SNAPSHOT
package: com.cloudera.flink
```

```
Y: :
```

The generated project will look like this:

```
sample-project
### pom.xml
### src
  ### main
    ### java
      #   ### com
      #     ### cloudera
      #       ### flink
      #         ### StreamingJob.java
    ### resources
      ### log4j.properties
```

#### 4. Open StreamingJob.java file.

The archetype application will look like this:

```
public class StreamingJob {
  public static void main(String[] args) throws Exception {
    final StreamExecutionEnvironment env = StreamExecutionEnvironment.getEx
ecutionEnvironment();
    DataStream<Integer> ds = env.fromElements(1,2,3,4);
    ds.printToErr();
    env.execute("Flink Streaming Java API Skeleton");
  }
}
```

#### 5. Customize the archetype application by adding source, stream transformation and sink to the Datastream class.

#### 6. Run the application with env.execute command.

### Results

You have built your Flink streaming project.

### What to do next

You can further develop your application, or you can run the Flink application archetype.

## Quick Start for SSB

You can use the Quick Start to easily get familiar with downloading, installing SQL Stream Builder (SSB) on CDP Private Cloud Base, and also building, running, and monitoring your SSB application. You can learn more information by clicking on the high level steps covered in the illustration.

## SQL Stream Builder

### Quick Start

1



[Download the SSB artifacts](#)

2



[Configure your databases](#)

3



[Install SSB to your cluster](#)

4



[Set up a data provider in SSB](#)

5



[Create a table in SSB](#)

6



[Execute your SQL statements](#)

7



[Monitor your SQL Stream application](#)