



# Kafka Producer CLI Tutorial

How to send data into Kafka?

The Kafka console producer CLI, `kafka-console-producer` is used to read data from standard input and publish it to Kafka. Make sure you have [started Kafka](#) beforehand.

## CLI Extensions

Use CLI commands with appropriate extensions for your platform, e.g., `kafka-console-producer.bat` for windows, `kafka-console-producer.sh` for Linux and Mac

## How to Produce a Message into a Kafka Topic using the CLI?

To produce to a Kafka topic, we need to provide the mandatory parameters:

Find your Kafka hostname and port e.g., `localhost:9092`

If Kafka v2.5+, use the `--bootstrap-server` option

If older version of Kafka, use the `--broker-list` option

Provide the mandatory parameters: topic name

Use the `kafka-console-producer.sh` CLI as outlined below

## Example

Make sure the topic `first_topic` is already created with 3 partitions and a replication factor of 1:

```
.sh
```

```
1 kafka-topics.sh --bootstrap-server localhost:9092 --topic first_topic --create
```

Start producing to the topic:

### Kafka v2.5+:

```
.sh
```

```
1 kafka-console-producer.sh --bootstrap-server localhost:9092 --topic first_topic
```

### Kafka v2.4 or less:

```
.sh
```

```
1 kafka-console-producer.sh --broker-list localhost:9092 --topic first_topic
```

To exit the Kafka console producer, use the keyboard combination `Ctrl+C`.

## Command Output

```
1 >
```

After the producer is opened, you should see a `>` sign. Then any line of text you write afterwards will be sent to the Kafka topic (when pressing `Enter`)

```
1 $ kafka-console-producer --bootstrap-server localhost:9092 --topic first_topic
2 >Hello World
3 >My name is Conductor
```

```
4  >I love Kafka
5  >^C (<- Ctrl + C is used to exit the producer)
```

## Gotchas

Here are the common mistakes and caveats with the `kafka-console-producer.sh` command:

Messages are sent with the `null` key by default (see below for more options)

### If the topic does not exist, it can be auto-created by Kafka:

A topic with the name provided should exist. If you specify a topic that does not exist yet, a new topic with the name provided will be created with the **default number of partitions and replication factor**.

These are controlled by the broker-side settings (in your `config/server.properties` file), with the following defaults:

```
1  auto.create.topics.enable=true
2  num.partitions=1
3  default.replication.factor=1
```

## Extra Important options you can set (advanced)

`--compression-codec`

To enable message compression, default `gzip`, possible values `'none'`, `'gzip'`, `'snappy'`, `'lz4'`, or `'zstd'`

`--producer-property`

To pass in any producer property, such as the `acks=all` setting

```
--request-required-acks
```

An alternative to set the `acks` setting directly

## How to produce messages from a file with the Kafka Console Producer CLI?

Example file `topic-input.txt` (make sure each message is on a new line)

```
1 Hello World
2 My name is Stephane
```

Produce messages to the topic from the file (see the end of the command)

```
.sh
```

```
1 kafka-console-producer.sh --bootstrap-server localhost:9092 --topic first_topic
```



## How to produce messages with key in the Kafka Console Producer CLI?

By default messages sent to a Kafka topic will result in messages with `null` keys.

We must use the properties `parse.key` and `key.separator` to send the key alongside messages.

In this example, the separator between the key and the value is: `:`

```
.sh
```

```
1 kafka-console-producer.sh --bootstrap-server localhost:9092 --topic first_topic
```

Example input:

```
1 >example key:example value
2 >name:Stephane
```

Do not forget to always include your key/value separator otherwise you will get an exception.

Was this content helpful? 



**PREVIOUS**

**NEXT**

Share this page.



Apache, Apache Kafka, Kafka and the Kafka logo are trademarks of the **Apache Software Foundation**. All other trademarks, servicemarks, and copyrights are the property of their respective owners.

© 2023 Conductor Inc. All Rights Reserved.

[Privacy Policy](#)[Terms of Service](#)[Cookie Policy](#)[DPA](#)[EULA](#)[EULA Enterprise](#)

Status: All Systems Operational