

KIP-810: Allow producing records with null values in Kafka Console Producer

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Status

Current state: Accepted

Discussion thread: [here](#)

JIRA: [KAFKA-13595](#)

Please keep the discussion on the mailing list rather than commenting on the wiki (wiki discussions get unwieldy fast).

Motivation

Currently it is not possible to produce records with a null value when using the kafka-console-producer. The kafka-console-producer is an important debugging tool and this would allow producing tombstone records from the CLI rather than depending on external tools such as kcat.

Public Interfaces

ConsoleProducer will be updated to accept a new property: `null.marker`. By default, it will not be set to keep the existing behavior. When set, if any of the fields, key, value or headers (including individual header values, but not header keys) in the input match the marker, a record with that field set to null will be produced. The

Example:

```
$ ./bin/kafka-console-producer.sh --bootstrap-server localhost:9092 --topic test --property null.marker=NULL
>NULL (1)
>NULL more content (2)
```

1. This will result in a record with value=null.
2. The record will have its value set to "NULL more content". The value has to exactly match the marker to be replaced by null.

Example with key and headers:

```
$ ./bin/kafka-console-producer.sh --bootstrap-server localhost:9092 --topic test --property null.marker=NULL --
property parse.key=true --property parse.headers=true
>h0:v0,h1:v1 NULL myvalue (1)
>NULL mykey NULL (2)
>h0:,h1:v1 NULL NULL (3)
>h0:NULL,h1:v1 mykey NULL (4)
>NULL:v0 mykey myvalue (5)
```

1. This will result in a record with key=null, value="myvalue" and headers={"h0": "v0", "h1": "v1"}
2. This will result in a record with key="mykey", value=null and headers=null
3. This will result in a record with key=null, value=null and headers={"h0": "", "h1": "v1"}
4. This will result in a record with key="mykey", value=null and headers={"h0": null, "h1": "v1"}
5. This will return an error because headers cannot have a null key.

In case the specified null.marker value collides with any of the other flags, an error message will be returned to the user.

Proposed Changes

This will require small changes in ConsoleProducer/LineMessageReader to accept the new flag and update the generated ProducerRecord accordingly.

Compatibility, Deprecation, and Migration Plan

This is backwards compatible as the new flag will not be set by default.

Rejected Alternatives

None