KIP-137: Enhance TopicCommand --describe to show topics marked for deletion

Status

Current state: *Adopted*

Discussion thread: *here*

JIRA: *KAFKA-4291*

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

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Motivation

When using `TopicCommand --describe`, it does not show if a topic is marked for deletion. Such information is only displayed when using `--list`. It would be helpful to have the `--describe` command include all details instead of having to go back and forth between multiple commands.

Moreover when using `TopicCommand --describe` with `--under-replicated-partitions` or `--unavailable-partitions`, topics marked for deletion are listed without being marked appropriately which can be confusing!

Public Interfaces

The change would only be in the **output** of TopicCommand when using the `--describe` flag. This is the class called by the `kafka-topics.sh` script.

Proposed Changes

If a topic is marked for deletion, `--describe` will return the following:

```
 Topic:testtopic     PartitionCount:1     ReplicationFactor:1     Configs:cleanup.policy=compact,flush.ms=1000     Mar
kedForDeletion:true
 Topic: testtopic     Partition: 0     Leader: none     Replicas: 0     Isr:
```

When running with --unavailable-partitions or --under-replicated-partitions, the topic header is not displayed. In this case, the marker will be added on each partition:

```
Topic: testtopic     Partition: 0     Leader: none     Replicas: 0     Isr:     MarkedForDeletion:true
```

Compatibility, Deprecation, and Migration Plan

- *What impact (if any) will there be on existing users?*

There is a concern that people may be parsing the raw output as there is no structured output from this command. In that case, people will need to adjust their parsing logic.

Rejected Alternatives

We tried reusing the same string used by `--list` ("- marked for deletion") but we found the output inconsistent compared to the other fields in `--describe`.

```
Topic:testtopic    PartitionCount:1    ReplicationFactor:1    Configs:cleanup.policy=compact,flush.ms=1000    -
marked for deletion
Topic: testtopic    Partition: 0    Leader: none    Replicas: 0    Isr:
```