

KIP-165: Extend Interactive Queries for return latest update timestamp per key

- [Motivation](#)
- [Public Interfaces](#)
 - [ReadOnlyKeyValueStoreWithKeyContext](#)
- [Rejected Alternatives](#)

Status

Current state: *Discarded* (covered via [KIP-258](#))

Discussion thread: [here](#)

JIRA: [KAFKA-4304](#)

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

Motivation

Taken from related issue:

Currently, when querying state store, it is not clear when the key was updated last. The ides of this JIRA is to make the latest update timestamp for each key-value-pair of the state store accessible.

For example, this might be useful to

- check if a value was update but did not changed (just compare the update TS)
- if you want to consider only recently updated keys

Public Interfaces

▪ `ReadOnlyKeyValueStoreWithKeyContext`

```
public interface ReadOnlyKeyValueStoreWithKeyContext<K, V> extends ReadOnlyKeyValueStore<K, V> {  
    KeyContext<K, V> getWithKeyContext(K key);  
    KeyValueIterator<KeyContext<K, V>, V> rangeWithKeyContext(K from, K to);  
    KeyValueIterator<KeyContext<K, V>, V> allWithKeyContext();  
}
```

Proposed Changes

We propose add a new interface `KeyContext` which will keep info about key. We can include more methods inside this context as well.

```
public interface KeyContext<K, V> { // more key/value context can be added here as well.  
    K key();  
    V value();  
    long lastUpdated();  
}
```

Compatibility, Deprecation, and Migration Plan

Not yet

Rejected Alternatives

Not yet