Item 89
git_comments:

1. **comment:** Not clean to call the handleTerminatedQryState method because it signals an error to the listener. The ODBC driver expects this though and the sync API handles this (luckily).
   label: code-design

git_commits:

1. **summary:** DRILL-1955: C++ client should provide a clean method for detecting query completion in the async API.
   message: DRILL-1955: C++ client should provide a clean method for detecting query completion in the async API.

github_issues:

github_issues_comments:

github_pulls:

github_pulls_comments:

github_pulls_reviews:

jira_issues:

1. **summary:** C++ Client - Drill client should provide a clean method for detecting query completion in the async API.
   description: The C++ client swallows the query_completed status message because it has already signaled the end of data thru the ls_last_chunk. However, it may be too early for the application (or odbc driver) to free resources. The API should provide a clean method for detecting the completion of the query. This may include calling the listener callback one more time with no records, but with the query state set to completed.

jira_issues_comments:

1. **body:** From Parth: "For the ODBC driver, would it make more sense to provide an interface in DrillClient to get the query state from the query handle? We are already keeping the query state in DrillClientQueryResult. Seems like the clean thing to do. As an aside, looking thru the code in the sync client, I see that the sync client explicitly depends on is_last_chunk to determine the completion of the query. However I do not free the resources until much, much later and so there is no harm done." Hi Parth, It would still be preferable to have a listener callback because the state may not be set to completed/cancelled/etc when we do the check for it, and it wouldn't make sense to wait until it is set (plus we won't know when Drill Client actually receives the last record batch from the server if it just silently consumes the record batch)
   label: code-design
2. So calling the listener with NULLS should be OK? There is no record batch to return and there is no error, so I would rather return NULLS. Also, an API to check the query state is probably a good idea.
3. Assuming that there's an API to check the query state, calling the listener with a null record batch should be OK.
4. Review link: https://reviews.apache.org/r/29716/ [~norrisl], [~xiaom] can you please review and test this against the ODBC driver and make sure it all works as expected by the driver.
5. +1 LGTM.