Item 97
git_comments:

git_commits:

1. **summary:** [SPARK-33414][SQL] Migrate SHOW CREATE TABLE command to use UnresolvedTableOrView to resolve the identifier
   message: [SPARK-33414][SQL] Migrate SHOW CREATE TABLE command to use UnresolvedTableOrView to resolve the identifier ### What changes were proposed in this pull request? This PR proposes to migrate `SHOW CREATE TABLE` to use `UnresolvedTableOrView` to resolve the table identifier. This allows consistent resolution rules (temp view first, etc.) to be applied for both v1/v2 commands. More info about the consistent resolution rule proposal can be found in [JIRA] (https://issues.apache.org/jira/browse/SPARK-29900) or [proposal doc] (https://docs.google.com/document/d/1hvLjGA8y_W_hhilpngXVub1Ebv8RsMap986nENCFnrg/edit?usp=sharing). Note that `SHOW CREATE TABLE` works only with a v1 table and a permanent view, and not supported for v2 tables. ### Why are the changes needed? The changes allow consistent resolution behavior when resolving the table identifier. For example, the following is the current behavior: ```scala sql("CREATE TEMPORARY VIEW t AS SELECT 1") sql("CREATE DATABASE db") sql("CREATE TABLE t (key INT, value STRING) USING hive") sql("USE db") sql("SHOW CREATE TABLE t AS SERDE") // Succeeds ``` With this change, `SHOW CREATE TABLE ... AS SERDE` above fails with the following: ``` org.apache.spark.sql.AnalysisException: t is a temp view not table or permanent view.; line 1 pos 0 at org.apache.spark.sql.catalyst.analysis.package$AnalysisErrorAt.failAnalysis(package.scala:42) at org.apache.spark.sql.catalyst.analysis.Analyzer$ResolveTempViews$$anonfun$apply$7.$anonfun$applyOrElse$43(Analyzer.scala:883) at scala.Option.map(Option.scala:230) ``` , which is expected since temporary view is resolved first and `SHOW CREATE TABLE ... AS SERDE` doesn't support a temporary view. Note that there is no behavior change for `SHOW CREATE TABLE` without `AS SERDE` since it was already resolving to a temporary view first. See below for more detail. ### Does this PR introduce _any_ user-facing change? After this PR, `SHOW CREATE TABLE t AS SERDE` is resolved to a temp view `t` instead of table `db.t` in the above scenario. Note that there is no behavior change for `SHOW CREATE TABLE` without `AS SERDE`, but the exception message changes from `SHOW CREATE TABLE is not supported on a temporary view` to `t is a temp view not table or permanent view`. ### How was this patch tested? Updated existing tests. Closes #30321 from imback82/show_create_table. Authored-by: Terry Kim <yuminkim@gmail.com> Signed-off-by: Wenchen Fan <wenchen@databricks.com>

github_issues:

github_issues_comments:

github_pulls:

1. **title:** [SPARK-33414][SQL] Migrate SHOW CREATE TABLE command to use UnresolvedTableOrView to resolve the identifier
   body: <!-- Thanks for sending a pull request! Here are some tips for you: 1. If this is your first time, please read our contributor guidelines: https://spark.apache.org/contributing.html 2. Ensure you have added or run the appropriate tests for your PR: https://spark.apache.org/developer-tools.html 3. If the PR is unfinished, add '[WIP]' in your PR title, e.g., '[WIP][SPARK-XXXX] Your PR title ...'. 4. Be sure to keep the PR description updated to reflect all changes. 5. Please write your PR title to summarize what this PR proposes. 6. If possible, provide a concise example to reproduce the issue for a faster review. 7. If you want to add a new configuration, please read the guideline first for naming configurations in 'core/src/main/scala/org/apache/spark/internal/config/ConfigEntry.scala'. --> ### What changes were proposed in this pull request? <!-- Please clarify what changes you are proposing. The purpose of this section is to outline the changes and how this PR fixes the issue. If possible, please consider writing useful notes for better and faster reviews in your PR. See the examples below. 1. If you refactor some codes with changing classes, showing the class hierarchy will help reviewers. 2. If you fix some SQL features, you can provide some references of other DBMSes. 3. If there is design documentation, please add the link. 4. If there is a discussion in the mailing list, please add the link. --> This PR proposes to migrate `SHOW CREATE TABLE` to use `UnresolvedTableOrView` to resolve the table identifier. This allows consistent resolution rules (temp view first, etc.) to be applied for both v1/v2 commands. More info about the consistent resolution rule proposal can be found in [JIRA](https://issues.apache.org/jira/browse/SPARK-29900) or [proposal doc] (https://docs.google.com/document/d/1hvLjGA8y_W_hhilpngXVub1Ebv8RsMap986nENCFnrg/edit?usp=sharing). Note that `SHOW CREATE TABLE` works only with a v1 table and a permanent view, and not supported for v2 tables. ### Why are the changes needed? <!-- Please clarify why the changes are needed. For instance, 1. If you propose a new API, clarify the use case for a new API. 2. If you fix a bug, you can clarify why it is a bug. --> The changes allow consistent resolution behavior when resolving the table identifier. For example, the following is the current behavior: ```scala sql("CREATE TEMPORARY VIEW t AS SELECT 1") sql("CREATE DATABASE db") sql("CREATE TABLE t (key INT, value STRING) USING hive") sql("USE db") sql("SHOW CREATE TABLE t AS SERDE") // Succeeds ``` With this change, `SHOW CREATE TABLE ... AS SERDE` above fails with the following: ``` org.apache.spark.sql.AnalysisException: t is a temp view not table or permanent view.; line 1 pos 0 at org.apache.spark.sql.catalyst.analysis.package$AnalysisErrorAt.failAnalysis(package.scala:42) at org.apache.spark.sql.catalyst.analysis.Analyzer$ResolveTempViews$$anonfun$apply$7.$anonfun$applyOrElse$43(Analyzer.scala:883) at scala.Option.map(Option.scala:230) ``` , which is expected since temporary view is resolved first and `SHOW CREATE TABLE ... AS SERDE` doesn't support a temporary view. Note that there is no behavior change for `SHOW CREATE TABLE` without `AS SERDE` since it was already resolving to a temporary view first. See below for more detail. ### Does this PR introduce _any_ user-facing change? <!-- Note that it means *any* user-facing change including all aspects such as the documentation fix. If yes, please clarify the previous behavior and the change this PR proposes - provide the console output, description and/or an example to show the behavior difference if possible. If possible, please also clarify if this is a user-facing change compared to the released Spark versions or within the unreleased branches such as master. If no, write 'No'. --> After this PR, `SHOW CREATE TABLE t AS SERDE` is resolved to a temp view `t` instead of table `db.t` in the above scenario. Note that there is no behavior change for `SHOW CREATE TABLE` without `AS SERDE`, but the exception message changes from `SHOW CREATE TABLE is not supported on a temporary view` to `t is a temp view not table or permanent view`. ### How was this patch tested? <!-- If tests were added, say they were added here. Please make sure to add some test cases that check the changes thoroughly including negative and positive cases if possible. If it was tested in a way different from regular unit tests, please clarify how you tested step by step, ideally copy and paste-able, so that other reviewers

can test and check, and descendants can verify in the future. If tests were not added, please describe why they were not added and/or why it was difficult to add. --> Updated existing tests.

github_pulls_comments:

1. Kubernetes integration test starting URL: https://amplab.cs.berkeley.edu/jenkins/job/SparkPullRequestBuilder-K8s/35496/
2. Kubernetes integration test status failure URL: https://amplab.cs.berkeley.edu/jenkins/job/SparkPullRequestBuilder-K8s/35496/
3. cc @cloud-fan (GA passed)
4. **[Test build #130890 has finished](https://amplab.cs.berkeley.edu/jenkins/job/SparkPullRequestBuilder/130890/testReport)** for PR 30321 at commit [`e534ebf`](https://github.com/apache/spark/commit/e534ebf64bc7cf7176f6e3b6e9638b45d9154568). * This patch **fails Spark unit tests**. * This patch merges cleanly. * This patch adds the following public classes _(experimental)_: * `case class ShowCreateTable(child: LogicalPlan, asSerde: Boolean = false) extends Command `
5. thanks, merging to master!

github_pulls_reviews:

1. Not related to this PR: One idea to improve the error message is to put the command name in `UnresolvedTableOrView` or other similar plans when the parser creates the command logical plan.
2. A good idea! I will follow up on this.

jira_issues:

jira_issues_comments: