git_comments:

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- 2. check for empty file
- 3. check non-existing file
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- 5. prepare file access
- 6. check existence and non-empty file
- 7. **comment:** TODO reuse blocks

label: code-design

- 8. core read
- 9. * Copyright 2019 Graz University of Technology * * Licensed under the Apache License, Version 2.0 (the "License"); * you may not use this file except in compliance with the License. * You may obtain a copy of the License at * * http://www.apache.org/licenses/LICENSE-2.0 * * Unless required by applicable law or agreed to in writing, software * distributed under the License is distributed on an "AS IS" BASIS, * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. * See the License for the specific language governing permissions and * limitations under the License. *
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- 11. check existence and non-empty file
- 12. prepare file access
- 13. allocate output matrix block
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- 16. copy submatrix to block
- 17. prepare file access
- 18. comment: TODO replication

label: code-design

- 19. if the file already exists on HDFS, remove it.
- 20. bound check
- 21. core write sequential
- 22. set up preferred custom serialization framework for binary block format

- 23. * Copyright 2019 Graz University of Technology * * Licensed under the Apache License, Version 2.0 (the "License"); * you may not use this file except in compliance with the License. * You may obtain a copy of the License at * * http://www.apache.org/licenses/LICENSE-2.0 * * Unless required by applicable law or agreed to in writing, software * distributed under the License is distributed on an "AS IS" BASIS, * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. * See the License for the specific language governing permissions and * limitations under the License. *
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- 25. prepare file access
- 26. **comment:** for obj reuse and preventing repeated buffer re-allocations

label: code-design

- 27. validity check matrix dimensions
- 28. handle empty result
- 29. core write
- 30. if the file already exists on HDFS, remove it.
- 31. * Copyright 2019 Graz University of Technology * * Licensed under the Apache License, Version 2.0 (the "License"); * you may not use this file except in compliance with the License. * You may obtain a copy of the License at * * http://www.apache.org/licenses/LICENSE-2.0 * * Unless required by applicable law or agreed to in writing, software * distributed under the License is distributed on an "AS IS" BASIS, * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. * See the License for the specific language governing permissions and * limitations under the License. *
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- 33. * * Aggregate a unary operation on this tensor. * @param op the operation to apply * @param result the result tensor * @return the result tensor
- 34. * * Contains the column of `DataTensor` an `_colsdata` (column) index corresponds to.
- 35. * * Contains the (column) index in `_colsdata` for a certain column of the `DataTensor`. Which `_colsdata` to use is specified by the `_schema`
- 36. Get the dimension information from the metadata stored within TensorObject
- 37. sanity check correct output
- 38. comment: TODO check correct blocking

label: requirement

- 39. Write the tensor to HDFS in requested format
- 40. read tensor and maintain meta data
- 41. * * Aggregate a unary operation on this tensor. * @param op the operation to apply * @param result the result tensor * @return the result tensor
- 42. * * Contains the column of `DataTensor` an `_colsdata` (column) index corresponds to.
- 43. * * Contains the (column) index in `_colsdata` for a certain column of the `DataTensor`. Which `_colsdata` to use is specified by the `_schema`
- 44 nnz
- 45. step 2: read block type step 3: if tensor allocated read its data
- 46. write schema and colIndexes
- 47. nnz, BlockType
- 48. read schema and colIndexes
- 49. `getExactSerializedSize()`, `write(DataOutput)` and `readFields(DataInput)` have to match in their serialized form definition
- 50. **comment:** FIXME readUTF is not supported for CacheDataInput

label: code-design51. comment: TODO perflabel: code-design

52. **comment:** TODO perf, do not fill, instead save schema

label: code-design

- 53. step 1: read header (_basic, dims length, dims)
- 54. step 2: write block type step 3: if tensor allocated write its data
- 55. header size (_basic, _dims.length + _dims[*], type)
- 56. step 1: write header (_basic, dims length, dims)
- 57. * * Calculates the next index array. Note that if the given index array was the last element, the next index will * be the first one. * * @param ix the index array which will be incremented to the next index array

58. **comment:** TODO data tensor

label: code-design

59. **comment:** TODO choose correct value type for tensor

label: code-design

60. **comment:** TODO move block size to `ConfigurationManager`

label: code-design

git_commits:

1. **summary:** [SYSTEMDS-28] New text-cell/binary-block tensor readers/writers (local) **message:** [SYSTEMDS-28] New text-cell/binary-block tensor readers/writers (local) Closes #35.

github_issues:

github_issues_comments:

github_pulls:

1. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

body: Java guarantees that new arrays will be initialized to zero, therefore these additional initializations are not necessary. cc @mboehm7

2. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

body: Java guarantees that new arrays will be initialized to zero, therefore these additional initializations are not necessary. cc @mboehm7

3. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

body: Java guarantees that new arrays will be initialized to zero, therefore these additional initializations are not necessary. cc @mboehm7

4. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

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5. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

body: Java guarantees that new arrays will be initialized to zero, therefore these additional initializations are not necessary. cc @mboehm7

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7. title: Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

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8. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

body: Java guarantees that new arrays will be initialized to zero, therefore these additional initializations are not necessary. cc @mboehm7

9. **title:** Cleaning up unnecessary zero-based array initialization from LibMatrixAgg.

body: Java guarantees that new arrays will be initialized to zero, therefore these additional initializations are not necessary. cc @mboehm7

label: code-design

github_pulls_comments:

- 1. @deroneriksson Can you launch a test build of this for me?
- 2. @dusenberrymw Sure, will do.
- 3. Build started [here](https://sparktc.ibmcloud.com/jenkins/job/SystemML-OnDemand/57/)
- 4. Thanks!

- 5. LGTM
- 6. Test build passed.
- 7. Merged.

github_pulls_reviews:

jira_issues:

- 1. summary: Public JIRA server for tracking SystemML issues description: Expose a JIRA server on the open Internet to track work on open-source SystemML. There are several possible options: * Install JIRA on an IBM-owned server with external visibility * Rent hosted JIRA services from Atlassian * Get access to Apache JIRA server by entering Apache incubation * Databricks creates SystemML component in Spark JIRA.
- 2. summary: Public JIRA server for tracking SystemML issues description: Expose a JIRA server on the open Internet to track work on open-source SystemML. There are several possible options: * Install JIRA on an IBM-owned server with external visibility * Rent hosted JIRA services from Atlassian * Get access to Apache JIRA server by entering Apache incubation * Databricks creates SystemML component in Spark JIRA.
- 3. **summary:** Public JIRA server for tracking SystemML issues **description:** Expose a JIRA server on the open Internet to track work on open-source SystemML. There are several possible options: * Install JIRA on an IBM-owned server with external visibility * Rent hosted JIRA services from Atlassian * Get access to Apache JIRA server by entering Apache incubation * Databricks creates SystemML component in Spark JIRA.
- 4. summary: Public JIRA server for tracking SystemML issues description: Expose a JIRA server on the open Internet to track work on open-source SystemML. There are several possible options: * Install JIRA on an IBM-owned server with external visibility * Rent hosted JIRA services from Atlassian * Get access to Apache JIRA server by entering Apache incubation * Databricks creates SystemML component in Spark JIRA.
- 5. **summary:** Public JIRA server for tracking SystemML issues **description:** Expose a JIRA server on the open Internet to track work on open-source SystemML. There are several possible options: * Install JIRA on an IBM-owned server with external visibility * Rent hosted JIRA services from Atlassian * Get access to Apache JIRA server by entering Apache incubation * Databricks creates SystemML component in Spark JIRA.

jira_issues_comments:

- 1. The fact that this task exists indicates that the task is complete...
- 2. Fred, this Task was for a public system to track SystemML work after SystemML code being made publically available on GitHub. I don't think that exists yet.
- 3. My mistake. Reopening this task and adding it back to the backlog.