CS3223 Lab 2 Report

Group 63

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File to Change	Changes
`CreateStudentDB.java`	· Added `hash` index on student name field of table `STUDENT`. · Added `btree` index on student id field of table `STUDENT`. · Added `hash` index on major id field of table `STUDENT`. · Added `btree` index on grad year field of table `STUDENT`. · Added `btree` index on department id field of table `DEPT`. · Added `hash` index on department name field of table `DEPT`. · Added `btree` index on student id field of table `ENROLL`.
`simpledb/metadata/IndexInfo.java`	· Added a new field, `indexType` · Overloaded a constructor to accept the new field as the argument to determine which index type (hash / btree) to create. · Modified the function `open()` to return a relevant index according to the `indexType`. · Modified the function `blockAccessed()` to use the relevant index's methods accordingly.

simpledb/metadata/IndexMgr.java	· Added a new field, `indextype` in the index manager's schema. · Passed in a new argument `indexType` to store the type of index in the `createIndex` routine. · The `getIndexInfo` routine now uses the new field, `indexType`, when retrieving the IndexInfo.
simpleb/metadata/MetadataMgr.java	· Modified the `createIndex` routine to accept a new argument, `indexType` to match with the index manager's `createIndex` routine.
simpledb/metadata/MetadataMgrTest.java	· Modified the test cases to pass in new arguments, the index type in the `MetaDataMgr` 's `createIndex` routine.
simpledb/parse/Lexer.java	· Added new keyword `using` to support the new SQL command syntax to create specified indexes of hash / btree.
simpledb/parse/CreateIndexData.java	· Added a new field, `indexType` · Modified the constructor to accept this new `indexType` field of the specified index. · Added a getter method for `indexType` .
simpledb/parse/Parser.java	· Modifed the `createIndex` routine to consume the keyword `using` and the `indexType` (which specifies the type of index to create). `createIndex` now passes `indexType` to the modified constructor of `CreateIndexData` .
simpledb/index/planner/IndexUpdatePlanner.java	· Modified the `createIndex` routine call of `MetadataMgr` in the `executeCreateIndex` routine to now also take in an additional argument indicating the index type.
simpledb/server/SimpleDB.java	· Commented out and uncommented the relevant lines to use the appropriate pair of `QueryPlanner` , `UpdatePlanner` as instructed in step 2 of the assignment docs.