Graphical user interface, application

Description automatically generated  
CS3223 Database Systems Implementation

AY21/22 Semester 2

Project Report Lab 4

Team 37

Prof Tan Kian-Lee

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Lab 4

Parser Related Changes

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| **File Changes** | **Changes** |
| SimpleDBEngine/src/simpledb/parse  /**Lexer**.java | * added keywords “order” and “by” to the keywords list (in routine **initKeywords()**) * created a list of sort type (“asc,” “desc”) (in routine **initSortType()**) * added a new routine **eatSortType()** to take in the sort type and return a boolean value (“asc”=>true; “desc”=>false;) * added a new routine **matchSortType()** to check if the current token is a legal sort type (“asc,” “desc”) |
| SimpleDBEngine/src/simpledb/parse  /**Parser**.java | * Added ability to parse keywords ‘join’ and ‘on’ in tableList() and extract the table name and predicate |

Planner Related Changes

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| **File Changes** | **Changes** |
| SimpleDBEngine/src/simpledb/  opt/**TablePlanner**.java | * Added makeMergeJoin routine to create MergeJoinPlan * Modified makeJoinPlan routine to allow either indexJoinPlan, mergeJoinPlan or nestedJoinPlan to be created depending on least blocks accessed |

Sorting Related Changes

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| **File Changes** | **Changes** |
| SimpleDBEngine/src/simpledb/  materialize/**SortPlan**.java | * modified condition in open() to end generation of sorted runs when size <= 1 instead of 2. |

Query Related Changes

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| **File Changes** | **Changes** |
| SimpleDBEngine/src/simpledb/query/**Constant**.java | * equals() returns false if obj being compared is null |
| SimpleDBEngine/src/simpledb/query/**Predicate**.java | * Add get method for list of terms |
| SimpleDBEngine/src/simpledb/query/**Term**.java | * Add get method for LHS and RHS expressions |