

CS3223 Lab 3 Report

Group 63

Team Member Name	Matric Number
1. Eugene Tan Yew Chin	A0136174H
2. Yap Dian Hao	A0184679H
3. Chiew Kok Seng	A0190705H

File to Change	Changes
<code>SimpleDB.java</code>	<ul style="list-style-type: none">Uncommented/ commented the relevant pair of QueryPlanner/UpdatePlanner according to the instruction in the website for development (on queries involving index and those without) to handle <code>SORT BY</code> queries.The current file uses the pair that supports queries with index(es).
<code>StudentMajorSorted.java</code>	<ul style="list-style-type: none">Created an additional file in the client side for testing on <code>SORT BY</code> queries.
<code>simpledb/parse/Lexer.java</code>	<ul style="list-style-type: none">Added four new keywords, <code>order</code>, <code>by</code>, <code>asc</code>, <code>desc</code>.
<code>simpledb/parse/Parser.java</code>	<ul style="list-style-type: none">Added the logic to handle <code>ORDER BY</code> queries in the <code>query()</code> routine by eating the keywords <code>order</code>, <code>by</code> and generate the list of fields to order, and their relevant ordering (ascending, descending).Passed in the generated fields of ordering to the <code>QueryData</code>.Added a new routine, <code>orderList</code> to generate a list of fields and the order (ascending, descending) to sort. Recursively calls itself to eat fields and the order separated by commas.

<code>simplifiedb/parse/QueryData.java</code>	<ul style="list-style-type: none">· Overloaded the constructor to accept a list of field names and the order.· Created a new routine, <code>orderList()</code> as a getter of the fields.
<code>simplifiedb/plan/BasicQueryPlanner.java</code>	<ul style="list-style-type: none">· Imported the classes in <code>simplifiedb/materialize</code> to support the sorting as instructed in the project documentation.· Made relevant changes in the <code>createPlan()</code> routine as instructed in the project documentation to support sorting.
<code>simplifiedb/materialize/RecordComparator.java</code>	<ul style="list-style-type: none">· Modified the <code>compare</code> routine to sort the fields in ascending / descending order as required.
<code>simplifiedb/opt/HeuristicQueryPlanner.java</code>	<ul style="list-style-type: none">· Made similar changes in <code>simplifiedb/plan/BasicQueryPlanner</code> to support the sorting for queries involving index(es).