

## DB PROJECT

### Deliverable 3 (SELECT)

**Aim :** Implement a Database system to perform SELECT clause which includes WHERE and ORDER BY clauses and print data on console.

You need to modify the following public method you created in the previous Deliverable:

```
void selectCommand(String query) {  
/* After validating query execute it and print output in csv format on console*/  
}
```

Your code will be tested on following types of queries

- Select \* from <tablename>
- Select <col1>,<col2>, ... from <tablename>
- Select \* from <tablename> where <col1> <op> <value>
- Select <col1>,<col2>, ... from <tablename> where <col1> <op> <value> and/or <col2> <op> <value> .  
(can have maximum upto 4 subwhereclauses connected by either "and" or "or". All will be either "and" or "or".)
- Select <col1>,<col2>, ... from <tablename> where <col1> <op> <value> and/or <col2> <op> <value> order by <col3>(ASC, DESC)
- All combinations of above queries
- Invalid Query

Possible <op> are

- =,>,<=, !=,>,< for float and int data types.
- LIKE,= for Strings. ( LIKE performs case insensitive comparison and '=' performs case sensitive comparisons ).
- Just to reiterate, you don't need to handle special cases in where clause like NOT, EXISTS, etc

For Order By

- You have to implement two phase merge sort to execute order by clause.
- You have to take care of queries in the form of 'order by <col1>,<col2>...'

### NOTE

- Your code will be judged on correctness and speed. Implementing indexing is **OPTIONAL** but it will fetch you more marks.
- Create a Main function in your DBSystem class and take config file path as command line argument.

**Input**

The first line contains  $t$ , the number of test cases. Each of the next  $t$  lines will be a query.

**Output**

For each test case print output in csv format

Due Date: 11:59 pm, 16th Oct, 2014