

## Notes about Stage 3

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### (15%) Questionnaire

### (30%) Demo time

- During the demo time, each group will be given an input dataset and a set of SELECT queries.

The following steps will be executed during the demo:

1. A dataset composed of INSERT statements for two different tables will be given for each group to analyze.
2. Each group must analyze the input data and decide which indexing algorithms are best suited for it, and on which attributes (part of the questionnaire).
  - Each group will have 15 minutes to analyze the data
  - After analyzing the data, the groups must write on a sheet of paper why they chose a certain indexing algorithm and on certain attributes based on the following aspects:
    1. Table schema
    2. Attribute data types
    3. Data distribution
3. Each group must then create the two tables in their DBMS.
4. Then create the indexes for the attribute(s) they wish.
5. The dataset then needs to be input with the import file function.
6. Each group should restart their systems before the next step.
7. A set of SELECT queries need to be tested one by one and executed correctly. The following types of queries will be given:
  1. Regular queries from one table
  2. Join queries from two tables
  3. Aggregation function queries (COUNT and SUM)
8. The speed of each query will be measured by displaying the query's execution time (in milliseconds or seconds) on the screen. The fastest times will get the higher scores.
9. The standard for grading each group will be based on the distribution of execution times.
  - **(15%)** For each query, the execution time will be calculated using the following rules:
    - 1. If the query is executed correctly:**
      - The top 20% will obtain full credit for that query
      - Top 20% - top 40% get 80% credit for that query
      - Top 40% - top 60% get 60% credit for that query
      - Top 60% - top 60% get 40% credit for that query
    - 2. If the query is not executed correctly:**
      - 0% credit for that query, and execution time will be taken as 2 times maximum execution time for that query in the whole class
  - **(15%)** The execution time will be added up for all queries and use the same previous rules.