

Assignment 5 – Performance

Submission

Your submission should include three items:

- A minimum of 6 files as described below
- DO NOT submit a .zip file or .rar file.
- Separate files is what is required.
- MAKE SURE in all files it is clear which question – and which part of which question – is being answered.

Reminders

This will form the basis of future assignments. We will continue to grow and enhance this database. Make sure you do a complete job of these tasks to help ensure a smooth process for future assignments.

Tasks

1 – (20%) – Indexes

- Create an INDEX on the **bandinfo** table against the band name column
- What to hand in: An image of a successfully executed index creation. I need to see the command and the success message.
- Show the output of the system catalog table which stores index information showing the information about the index

2 – (20%) – REORGs

- Run a REORG against the **bandinfo** table
- What to hand in: An image of a successful executed reorg on the table. I need to see the command and the success message.

3 – (20%) – Statistics tables

- Update the statistics for the **bandinfo** table by running a RUNSTATs
- What to hand in:
 - The output of the statistics on the bandinfo table BEFORE running RUNSTATs
 - An image of a successful executed RUNSTATs on the table. I need to see the command and the success message.
 - The output of the statistics on the bandinfo table AFTER running RUNSTATs

4 – (20%) – Compression

- Compress the **bandinfo** table
- What to hand in: An image of a successful executed command to compress the data in the table. I need to see the command and the success message.

5 – (20%) – Access Plan / Execution Plan

- The query should JOIN the two tables to provide the following result sets for ACTIVE bands only.
 - Band Name
 - Base City
 - Genre
 - Award
 - Nomination
 - Year
- Capture an image of an access plan / execution plan for a query against the **bandinfo** and **bandrecognition**
- Describe the various steps that the optimizer is taking to execute your query
- What to hand in:
 - A copy of the SELECT statement
 - A copy of the result set
 - A copy of the access plan / execution plan
 - Your description of the steps followed by the database engine

What to hand in:

Filenames –

For each question above it is clearly outlined what you need to hand in. I should receive:

- (i) An **A5Q1, A5Q2, A5Q3, A5Q4** file which shows all the commands you are running, their output and success as described above.
- (ii) An **A5Q5** file which shows your SELECT statement and output – and – an **A5Q5.docx** file which shows the image of the access/execution plan and your write-up on the steps of execution.

In the end – I should receive at least 1 file per question for Q1, Q2, Q3 and Q4 – and 2 files for Q5. If you want to submit multiple files for the other questions that's fine. Just make sure everything is clear.