EXTERNAL MERGE SORT + GROUPING WITH AGGREGATION?

Input file

4-page runs

SELECT number, count(*)
FROM input
GROUP BY number;

8-page runs
Late Grouping with Aggregation: Part 1

Input file

4-page runs

8-page runs

group and aggregate here

PASS 0

PASS 1

3.4 6.2 9.4 8.7 5.6 3.1 7.4 6.1
Late Grouping with Aggregation: Part 2

Input file

4-page runs

8-page runs

group and aggregate here
Online Grouping with Aggregation (aka Online Merge)

Input file

4-page runs

8-page runs

group and aggregate here
Early Grouping with Aggregation: group and count()

PASS 0:

Input file

4-page runs

PASS 1:

8-page runs

early grouping & aggregate

~ RLE
Early Aggregation only: just count()

```
SELECT  Number/10,  count(*)
FROM    Input file
GROUP BY Number;
```