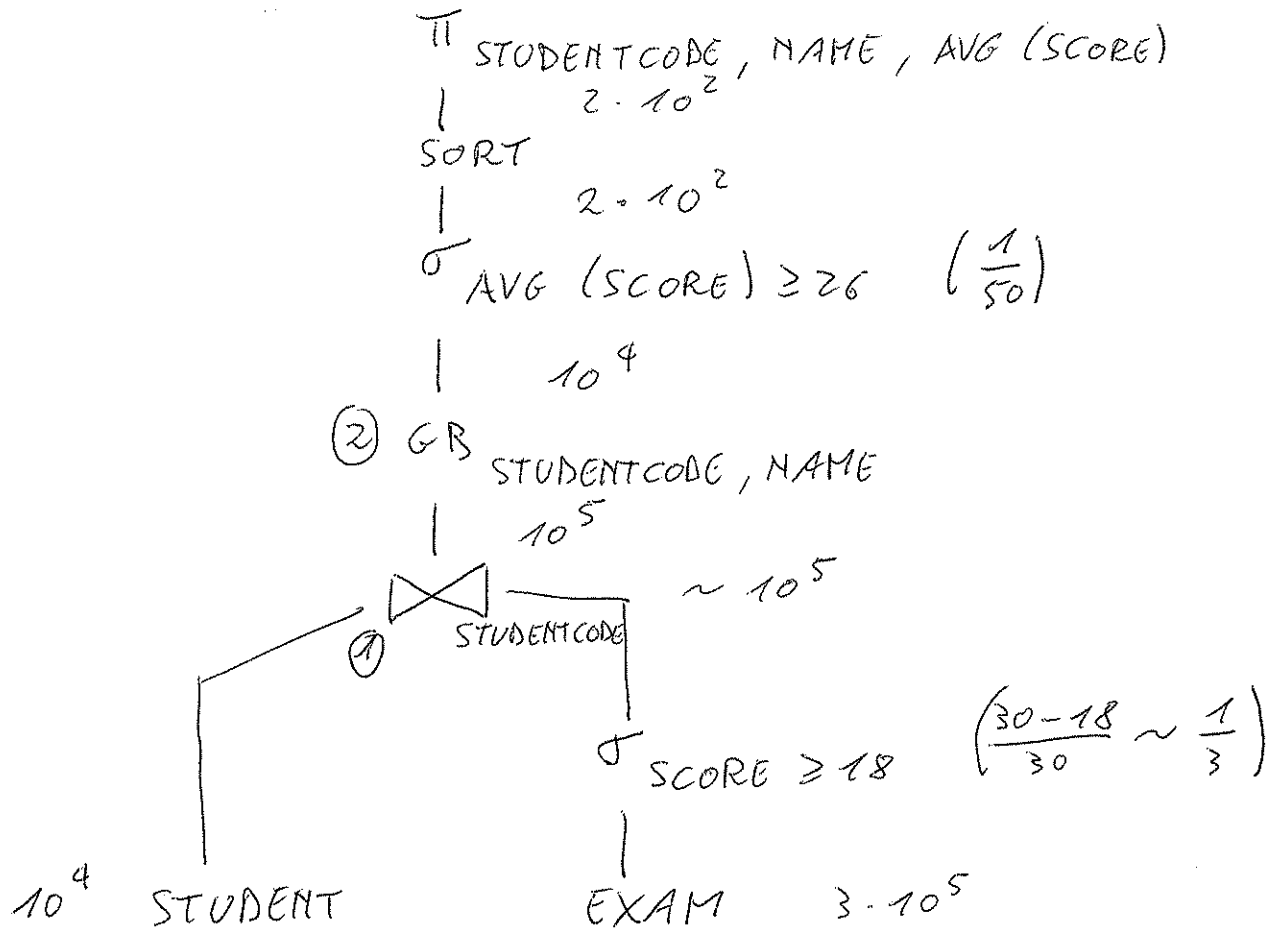


QUERY 1 - STUDENT - EXAM EXERCISE



ACCESS PATH

STUDENT : TABLE ACCESS FULL
 EXAM : TABLE ACCESS FULL + FILTER

(1) NL : INNER = STUDENT
 OUTER = EXAM

\Rightarrow NO TABLES TOO BIG ($> 10^3$)

MJ : YES BECAUSE HELPS GR AND SORT OPERATIONS

I HAVE TO SORT THE TABLES BEFORE

NO TABLES TOO BIG ($> 10^3$)

HT : YES BECAUSE BOTH TABLES ARE BIG ($> 10^3$)
 HELPS GR

(2) GB NO HASH IF (1) IS HT

INDEX

STUDENT : PRIMARY ON STUDENTCODE
⇒ YES NATURAL ORDER OF DATA

SECONDARY B⁺TREE ON STUDENT CODE

⇒ YES IF I USE NL IN ①
AND STUDENT IS THE INNER TABLE

⇒ NO THE SELECTIVITY IS LOW

SECONDARY B⁺TREE ON (STUDENTCODE, NAME)

⇒ YES : IS COVERING → FAST FULL SCAN

⇒ NO : MAINTENANCE COST HIGH

EXAM : SECONDARY ON SCORE

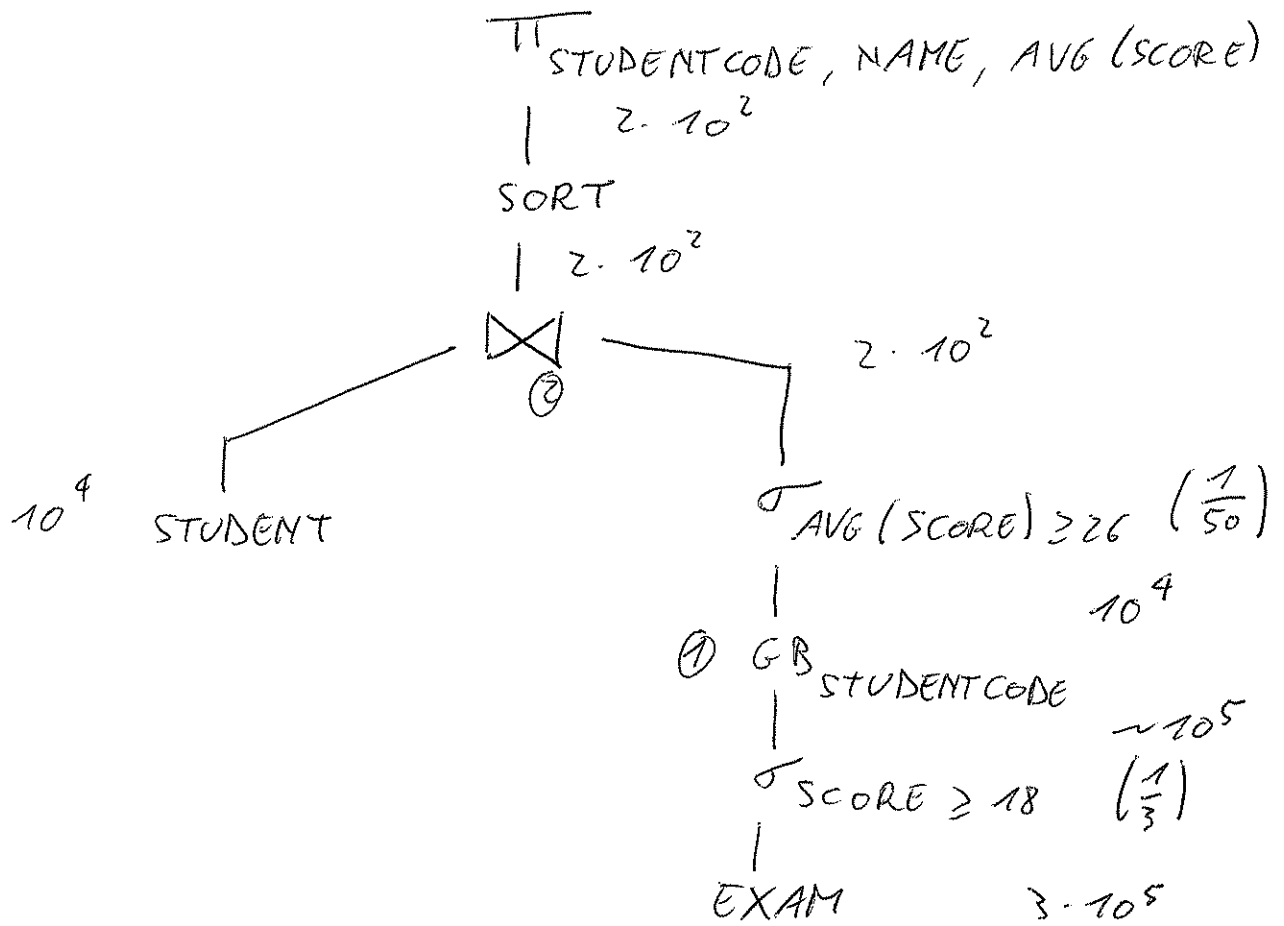
⇒ NO SELECTIVITY IS LOW ($\frac{1}{3}$)

SECONDARY ON STUDENTCODE

⇒ YES HELPS ① IF IS NL

⇒ NO I HAVE TO ACCESS BY ROWID
TO EVALUATE THE CONDITION
ON SCORE

GB ANTICIPATION



$\textcircled{1}$ GB HASH

$\textcircled{2}$ NL : INNER = EXAM
OUTER = STUDENT