SELECT P_TYPE, COUNT(*)
FROM LINEITEM, PART
WHERE L_PARTKEY=P_PARTKEY AND L_DISCOUNT <=0.01 AND P_BRAND='Brand#11
GROUP BY P_TYPE

Login: SID: TPCD NOMEHOST:si-oracle-11.csr.unibo.it USER: USERSI PASSWORD: USERSI

Si facciano le seguenti assunzioni e si estraggano dal DB eventuali dati mancanti:

D = 4096 byte

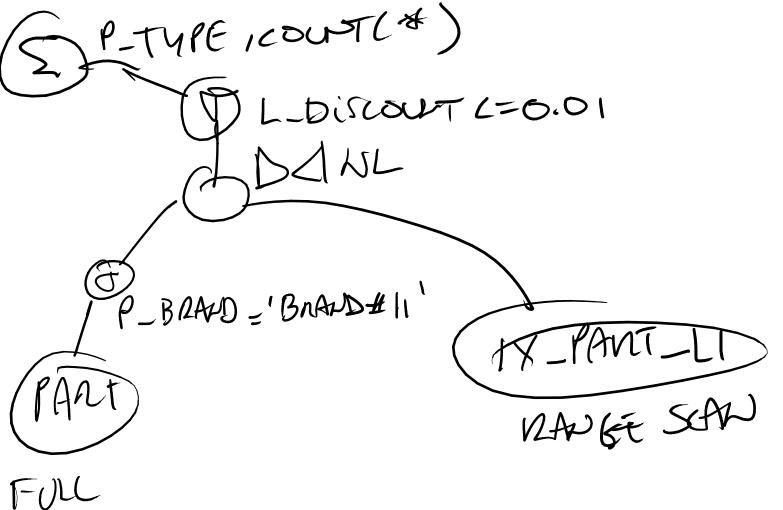
len(P) = len(K) = 4 byte

NB = 101

u = 0.69

SELECT STATEMENT 150 262581 150 GROUP BY 262581 5 TPCD.LINEITEM BY INDEX ROWID 31 ☐ Tilter Predicates L_DISCOUNT <= 0.01 44978 262218 ☐ TABLE ACCESS FULL IPCD.PART 8440 578 ☐ OF Filter Predicates P_BRAND='Brand#11' □··□€ INDEX IPCD.IX PART LI RANGE SCAN 30 L_PARTKEY=P_PARTKEY

Si assuma inoltre che ORACLE non applichi proiezioni sui risultati intermedi e che non esegua operazioni in pipeline.



 $NP \ Part = 9271$ $costo(IX_PART_LI) \ (unclustered) = h-1 + EK/NK * NL + EK * cardenas(ER, NP)$ $unc. = 2 + \sup(1/200.000 * (<200.000)) + 1 * (NP*(1-(1-(1/NP))^ER))$ $NL = (200.000^* 4 + 6M *4) \ (4096 * 0.69)$ $NP \ LineItem = 239895$ ER = 30 $uncl. \ accs = 30 + 2 + 1 = 33$ $Nested \ Loop = 273271$ $Sort \ con \ selezione : (NP + EP) + 2 * EP * \sup(\log_(NB-1) EP)$ NP = 240.000 * (131+113) / 4096 * 0.69 = 20721 sel = 0.01 - 0 / 0.1 = 0.1 EP = 0.1 * 20721 = 2073 $Sort \ con \ selezione : 31.086$ $Total \ cost: 31.086 + 208.033 = 239119$

Nested Loop = NP Part + $200K/25 * costo(IX_PART_LI)$