Hourds On 11 YASHOMOUL RARPURAR 1002248684 (a) use the aggregate method in the aggregate method we consider the total cost across all the insertions and Calculate the average Cost per insertion. when inseting the ith element, if a reige operation is not needed the existing happens cost oli) as 174 involves copying the existing elements to the new table of size 2k (K is number of resizes performed) The cost = O(n)  $k = O(n \log n)$ cost per insertion = 0 (logn) Runtine per insertion = 0 (logn) Total time is O(n) of log(n+1) b) Accounting method: - In the accountry method, we assign each insertion a higher "amortised" cost the store "brodits" that pay for future revising costs. Psido code:of table is full newtable = breate new table with Size then copy elements from old table to new table table = new-table irrest element i into table initial charge ED

Joseph i= 1 ton talk doubled on Size from was sinto 3m , contain the account codits += m and series without thought with with with the total credits = +m+2m A mostized cost per insertion ( ( pal 1 ) 0 = 1 ( ( n / n ) ) 100 = 11. (mgal) 0 = motoconi suf product
Runtimet perd Entertion O(1) hadran pointotal time o(n) when a fight amother test the test the property dest. that is other in 1266 (450% m. 1206 aliment of the contract the Sunt and the sunt of the sunt