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Der aggregate Method Ociven: Table doubles in size when it needs more space & atter k doublings, the size in 2k.

Pseudo rode:

H.W 17

Initialize table with capacit=1
ton i=1 ton:

if table is full!

now table: oceate new table with size 2 to convent

size

copy elements trom old table to new table

table: new table.

insert demend i into table.

Let $k = \log(m+1)-1$ Total cost = O(m)+k= $O(m\log n)$

A motived our per insertion = O(logn)
Run time per insertion is O(logn)
. Total time is O(n) * log(n+1)

(b) Accounting Method charge 2 units to each ensertion When table doubles in Bize from m to 2m, credit m units. Total credit is m+2m+4m+... + 1/2 m=0(n) Pseudouste initialize table with capacity =1 too is I to M if table is tell: newtable - create mentable with size 2* document copy elements from old table to new table size table = new-table insert element is into table initialize charges = 0 11 oudis =0 tol 1=1 ton durges t=2 if table doubled in size from m to em; audits + m Total charges = 2 to n=0(n) oredit = m+2m + _ . . + 1/2 + m = 0m) Amortical cost per insertion = Total/n =0(1) /n Runtimo per invertim-011)