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Page

Aim To understand how visual studio code works and its installation process, code editing, productivity tips and learning about its entensions. Writing an algorithm to find gross and net satury of 2000 employees of ABC Co. Itd and find manimum and minimum salary wing divide and conquer.

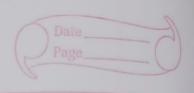
Input: (sv file having salary information of 2000 employers along with the breakup.

Theory: According to swary literature.

Gross salary -> Buse salary + HRA+ other Allowances.

Net salary -> Cross salary - Professional tanEmployed provident fund - Troome Tan

Columns of cov file contain all those elements and now reprosents each employee.



Canoss and net salaries of employees:

function colculate_sularies (employee):

Mirput: employee ontains begic_solaray, ARA,
other allowances, Income-Tan, Projectional_Tan,
Employee Provident Fund.

Il any value < 0 in any column employee gros - salary = "Invalid"

employee net salary = "Invalid"

Else:

employee. GRA + employee. Other_Allowances

employee. Forplayee_ provident - Fund + employee. Pro-land-Tan

employeenet-Salary = employee. gnoss-salary-employee.

> linear algorithm function minman (arr[]) &

(1) searches for manimum and minimum salary value

(1) loom events are a common of the contraction o // Inom every given array by using iterative approach

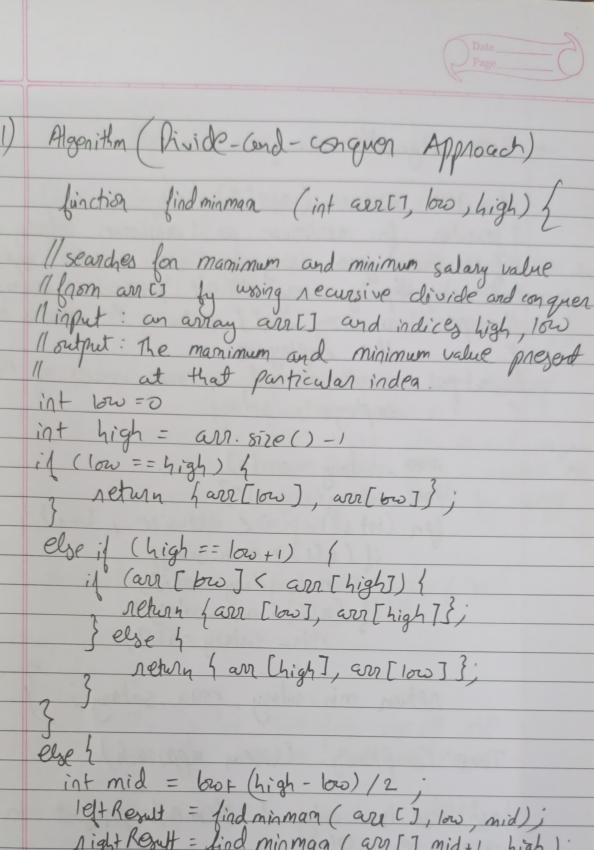
// ip by emparing every element present in array.

// input: ar array arrif containing the salaries of

the employees

// output: marrimum and minimum values of the

employee's solary man - swary =ann [0] min_salary = arr[0] for (intiel; ican. size; l++) } if (ali) > man-salary) man_salary = a[i]; if (a[i] < min-salary) min_ Salary = ati]; return min-salary, man-salary; Time Complenity: (linear approach) lage case is only I element prejent in $\leq 1 = (n-1)+1$ = O(n) 4



1 (low == high) {

neturn farr[low], arr[bw]}; else if (high == low+1) {

if (arr [brw] < arr [high]) {

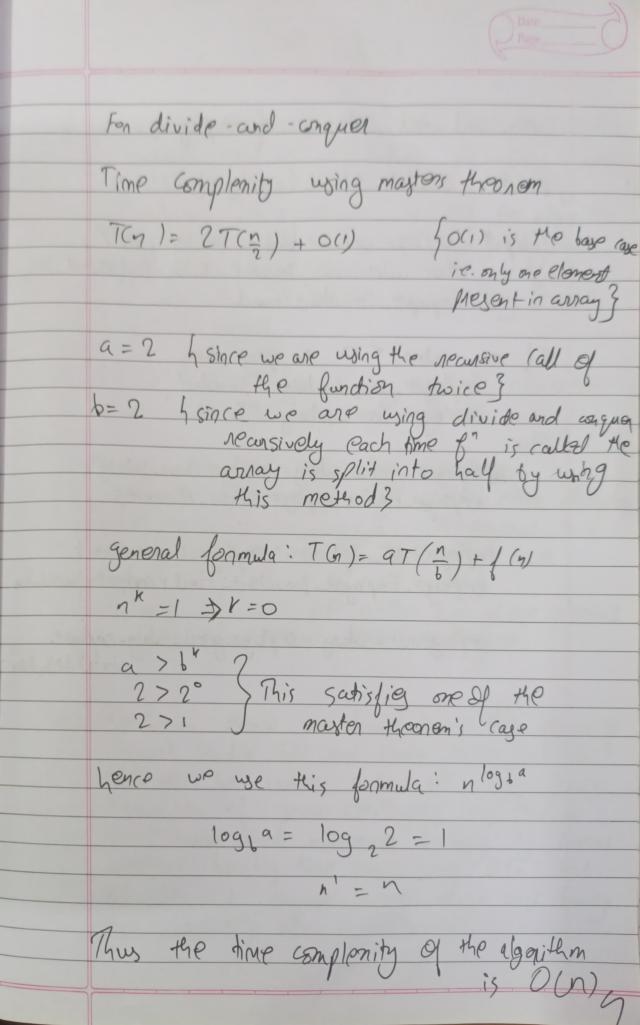
return {arr [brw], arr [high]};

} else 4

return {arr [high], arr [low]}; int mid = bot (high-low)/2; left Result = find minman (are [], low, mid); sight Result = find minman (are [], mid+1, high); minimum = min (left Result. min, right Result. min); manimum = man (left Result. mam, right Result. man);

return minimum, manimum,

int high = an. size () -1



6 Condusion: Hence we have point the basics of Vigual Studio Code and code Pditing and its Catensions. We created a cov fip having salary information of 2000 complayers and found manimum and minimum salary by linear method having time complexity o(n) and Privide and Engres wing merge sont having time complanity of O(nlogn)