## GAYATHRI

## 4AL19CS035

Algorithm : Stepl: Start Trepa: input all= 264,68, 45, 105, 15, 268, 1, 2, 253 sups! vaneuge (Int Ata, Int? begin, Int ienid, Int iend, Int iend, Int iend) Step4: Spiltmuge (int \*\* b, Int 9 beggn, Int 9 End, int \*\* a) Step 5: ++ migresor+ (n+ \*ta, in+ stree) Steps: 117+ Size = 5920 ga /size of alog Step 7 ! Int # \* ret = mero, e sont (a, stre)

Step 8: poplay somed array element

sup 9: for (int 9=0; 9 c stree; 9+7) - DBplay \* ret(?) Pree (rest) Step 10: stop-Sepil.

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mege (int **a, Int 9 begin, Int 9 mild, Int 9 end, Int **b)
  Stepl: Entry
  Stepa: In+ 9 = 9begin, 3 = 9 mild
   Step3: Por (9n+ K= 9beg9n; K<9end; F++)
             b[k] = a (9<mild & & (3>=9end 11 #a[9]<=*a(s]) ? 9++:3++]
   Stept: End
 Spirtmege (Int ** +b, Int 9 begin, Int 9 end, Int + +a)
     Step1: Entry
     Stepa: if (gend - 9 begen < 2)
              return
              In+ PmPd = (Pend + 9begin)/a
               Sport muge (a, ?began, ?mid, b)
               SpA+ mige (a, 9 mid, 9 end, b)
               muge (b) 9begen, 9 mid, gend, 9)
      SKEPS !
       SAP6:
                End
* merge sort (int ta, int stre)
             Int ** ret = mai mallar (size + size of *xot)
      Step1:
      Step3: Int # A temp = mallox ( steet street + temp)
      Stepa:
             For (9n+ 9=0; 9 < 59ze; 9++)
               ret (P) = temp[P]= 9+9
                 Spilt mile (temp, 0, 1920, ret)
        SHOS!
                 Prec (tmp)
        skpb:
                 return ret
         step7:
```

flowchalt input ac7 = 5 64, 82, us, 125, 15, 265, 1, 2, 25, 2,5/ merge (Int + + a , Int Pbeggh , got Pmid, Int FEnd, got \* D) sportmuge ( 1ht \* 16, 10t 9 beggn, int lend, int xxq) + + mugesor+ (Int +a, Int 592e) 1nt 5920 = 5920 0% a / 5420 of alo7 Int + x ret = mage Stort (a, stre) Display sorted array Element Por Cin+ P=0', 9 e stze ; f + + TYCE DB play # setCP] · Free ( ret)

merge ( Int \* \*a, Int 1 beg?n, Int 9 mid, Int 9 End, int \* \* 6) (Endry) Int P = P began , g = Pmid True Pollint k = 9 beggn ; K < 9 and j k++ 600 ] = all 2 mid & & (37= 1 End 11 + alf / C= + alg) 99++: 3++ (Sred) Spiltmege (Int \*\*b, Intibegin, Int gend, int \*\*a) Trees (EHHY) 1219and = 9600 fore deturn In+ 9 mid = (PEnd + 96:99 ) /a splat medie (a, abearo, amid , b) spirtinge (9, 9mid, rend, b) mera & (b, Phegra, amid, 98 nd, a)

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