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Enredi. No. - 20UCS176

Breanch - Computer Sc. and Engineering

Section - A

Assignment -2

All Inations Palma

Merge Sont

#include Astdio.fi>

void merge (int arm, int start, int mid, int end) d int len1 = mid-start +1; int len2 = end-mid;

int leftAnn [ieni]; reight Ann [ieni];

for (int i=0; ix lenl; î++)d

leftAnr[i] = ann[stant+i];

for (int j=0) $\hat{A} \times len2$; $\hat{A} + t$) d

night Anne[j] = $ann[mid + 1 + \hat{a}]$;

ineage land, stent, mid, end);

X

```
int i=0, j=0, k= stant;
while (ix ten) Ll j (ten) L
     if (lest Ann [is] x = reight Anre [is]) d
           aren[u] = ledt Aren[i];
     I clse 1
          anefx7 = night Ann[]]
 while likewid
      c[i]nnAffel=[x]nnp
      itti
      Kt+;
  while (3x len2) d
      ann[x] = night Ann[j];
      Att;
      ·K++;
  void meage Sont (int ann, int stant, intend)of
      if (stanthend)d
          ant mid = stant+ (ent-stant)/2;
          menge Sont (ann, stant, mid);
          mengeson's (and, mittle, end);
          meage (onr, stant, mid, end);
```

void main () & Int ann[]=d4,2,5,3,2/19 int size = · Sitatann) / sizeoff (annie); monge. Sont (ann, 0, size-1); for (int i=0; ix size; it+)d paintf ("7d", ana [i]); While Cikily while Cangilia an ighner serial output Missing Ino 12 Ino) elides → 12345 16(Ex7) 1

(TITHOS EMB) ilalan of floor

Suick Sont

include Lstdio. t) void quick Sont (int are, int first, int loss) int î, â, pivot, tempi It (Hinst Klast) pivot = finst; i= tinst; and xi out sul not 2 = last; () June (by) floring while (ix) & votile Cancil. 1= an[psvot] Llixiast) î++ ; while (an [gi]) an [pivot])d á-- ; 97 (1x2)d temp = are[1]; an[3] = an[3]; an[3] = temp; temp =are [pivot]; ar[phot] son [i])

an[j] = temp !

quickSont (an, finst, j-1);

quickSont (an, j+1, lout);

Int main() d

int ann[] = (3, 1, 4, 7, 2);

int size = sizeot (ann) / sizeot (ann[o]);

quickSont (ann, 0, size -1);

for (int i=0; il size; it)d

paintf("7.2", ann[i]);

Dutput 4 1 2 3 45

-AG

Time Complexity Companison

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quick Boat (our, finit, 2-1);