Teste de Mesa – Aula05 - MergeSort

void intercala(int p, int q, int r, int v[])

{ int i, j, k, w[MAX];

i = p; j = q; k = 0;

while (i < q && j < r) {

if (v[i] < v[j]) {

w[k] = v[i];

i++; }

else {

w[k] = v[j];

j++; }

k++;

}

while (i < q) {

w[k] = v[i];

i++;

k++; }

while (j < r) {

w[k] = v[j];

j++;

k++; }

for (i = p; i < r; i++)

v[i] = w[i-p];

}

(MAX = 4) intercala(0, MAX/2, MAX-1, vetor)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| v[ ] | | | | p | q | r | i | j | k | w[ ] | | | | i < q &&  j < r ? | v[i] < v[j] ? | i < q ? | j < r ? | i < r ? |
| 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 |
| 1 | 3 | 2 | 4 | 0 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | v.v=v | v |  |  |  |
| 1 | 2 | 3 |  |  |  |  | 1 | 3 | 1 | 1 | 2 |  |  | v.v=v | f |  |  |  |
|  |  |  |  |  |  |  | 2 |  | 2 |  |  | 3 |  | v.f =f | - | v |  |  |
|  |  |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  | f | f |  |
|  |  |  |  |  |  |  | 0 |  |  |  |  |  |  |  |  |  |  | v |
|  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  | v |
|  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  | v |
|  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  | f |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

R: