Tarea 12

MERGE SORT

Estructura de Datos
Universidad Nacional Autónoma de México
Facultad de Estudios Superiores Aragón

REALIZADO POR:

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Merge sort

```python
def merge_sort(data):   3 usages  new *
    if len(data) > 1:
        mid = len(data) // 2
        izq = data[0:mid:1]
        der = data[mid::]
        print(f"{izq} --- {der}")
        merge_sort(izq)
        merge_sort(der)
        i = d = k = 0
        while i < len(izq) and d < len(der):
            if izq[i] < der[d]:
                data[k] = izq[i]
                i += 1
            else:
                data[k] = der[d]
                d +=1
            k += 1
        while i < len(izq):
            data[k] = izq[i]
            i += 1
            k += 1
        while d < len(der):
            data[k] = der[d]
            d +=1
            k += 1
    print(f"Regreso de rec: {data}")
    return data
```

Ejecución

```
Regreso de rec: [27, 34]
Regreso de rec: [27, 34, 45]
Regreso de rec: [8, 17, 27, 34, 45, 89]
[899, 962, 35] --- [14, 2, 46]
[899] --- [962, 35]
Regreso de rec: [899]
[962] --- [35]
Regreso de rec: [962]
Regreso de rec: [35]
Regreso de rec: [35, 962]
Regreso de rec: [35, 899, 962]
[14] --- [2, 46]
Regreso de rec: [14]
[2] --- [46]
Regreso de rec: [2]
Regreso de rec: [46]
Regreso de rec: [2, 46]
Regreso de rec: [2, 14, 46]
Regreso de rec: [2, 14, 35, 46, 899, 962]
Regreso de rec: [2, 8, 14, 17, 27, 34, 35, 45, 46, 89, 899, 962]
[2, 8, 14, 17, 27, 34, 35, 45, 46, 89, 899, 962]
```