

IPRJ – PROJETO E ANÁLISE DE ALGORITMOS

LISTA DE EXERCÍCIOS 04

- 1) Implemente o algoritmo de ordenação Counting Sort e utilize ele para ordenar o seguinte vetor:

```
int vet1[] = {16, 3, 77, 79, 64, 42, 27, 68, 94, 83, 10,
8, 82, 98, 96, 6, 83, 100, 53, 15, 79, 11, 61, 74, 65, 23,
46, 97, 50, 49, 19, 81, 93, 43, 42, 33, 2, 61, 95, 95, 78,
37, 23, 89, 67, 3, 53, 86, 2, 39, 100, 13, 65, 45, 70, 26,
22, 56, 0, 37, 96, 79, 17, 10, 92, 89, 28, 22, 58, 7, 94,
48, 91, 53, 82, 15, 34, 41, 31, 36, 29, 58, 50, 9, 79, 72,
99, 61, 53, 28, 92, 39, 42, 0, 94, 100, 1, 85, 93, 63}
```

- 2) Implemente o algoritmo de ordenação Radix Sort e utilize ele para ordenar o seguinte vetor:

```
int vet2[] = {3239, 6017, 5273, 4783, 3852, 4601, 8686,
8461, 5336, 9559, 6441, 7488, 6429, 2379, 8420, 6897,
1170, 1637, 3251, 2724, 8543, 8575, 1284, 5531, 7812,
6587, 3229, 4359, 3082, 1554, 4664, 3502, 3016, 7260,
5678, 4524, 5682, 8336, 7723, 9947, 2892, 4728, 4956,
5953, 6331, 1566, 3199, 4218, 2812, 1577, 6022, 4994,
2328, 8857, 5044, 1246, 3796, 5917, 5809, 6639, 7119,
6257, 6532, 2136, 7359, 5510, 1519, 6925, 7001, 7352,
6544, 5987, 9115, 2114, 9900, 5854, 5478, 1525, 4137,
6128, 1597, 5336, 7337, 3335, 2744, 9357, 4515, 4298,
8036, 4307, 6862, 5206, 2931, 2198, 3974, 5134, 9849,
4493, 2255, 1602}
```

- 3) Implemente o algoritmo de ordenação Bucket Sort e utilize ele para ordenar o seguinte vetor:

```
float vet3[] = {0.89, 0.33, 0.29, 0.43, 0.25, 0.18, 0.38,
0.98, 0.47, 0.88, 0.70, 0.28, 0.94, 0.52, 0.68, 0.91,
0.74, 0.48, 0.98, 0.80, 0.68, 0.57, 0.92, 0.35, 0.96,
0.39, 0.45, 0.53, 0.00, 0.49, 0.18, 0.36, 0.17, 0.75,
0.69, 0.68, 0.86, 0.61, 0.91, 0.91, 0.64, 0.18, 0.49,
0.06, 0.20, 0.01, 0.46, 0.66, 0.33, 0.48, 0.08, 0.26,
0.35, 0.92, 0.06, 0.96, 0.20, 0.63, 0.42, 0.70, 0.60,
0.06, 0.57, 0.76, 0.49, 0.46, 0.33, 0.09, 0.83, 0.30,
0.67, 0.66, 0.00, 0.42, 0.34, 0.45, 0.84, 0.89, 0.84,
0.12, 0.17, 0.21, 0.43, 0.16, 0.93, 0.12, 0.13, 0.83,
0.18, 0.96, 0.65, 0.59, 0.36, 0.03, 0.12, 0.05, 0.05,
0.56, 0.10, 0.51}
```