



INSTITUTO POLITÉCNICO NACIONAL



UNIDAD PROFESIONAL INTERDISCIPLINARIA DE INGENIERÍA CAMPUS
ZACATECAS

Reporte: NReinas

Análisis de Algoritmos

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3CM1

Con población de 8

- Número de generaciones = 50,000
- Tamaño de población = 100
- Probabilidad de Mutación = 0.25
- P. Muestra = 0.001

```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 3 f:4 id:2086662372
g: 4 f:4 id:2086662372
g: 5 f:4 id:2086662372
g: 6 f:4 id:2086662372
g: 7 f:4 id:2086662372
g: 8 f:2 id:2086662372
g: 9 f:2 id:2086662372
g: 10 f:2 id:2086662372
g: 11 f:2 id:2086662372
g: 12 f:2 id:2086662372
g: 13 f:2 id:2086662372
g: 14 f:0 id:2086662372
g: 14 [3, 1, 7, 4, 6, 0, 2, 5]
BUILD SUCCESSFUL (total time: 0 seconds)
```

```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 1 f:6 id:2086662372
g: 2 f:4 id:2086662372
g: 3 f:4 id:2086662372
g: 4 f:4 id:2086662372
g: 5 f:4 id:2086662372
g: 6 f:4 id:2086662372
g: 7 f:4 id:2086662372
g: 8 f:4 id:2086662372
g: 9 f:2 id:2086662372
g: 10 f:2 id:2086662372
g: 11 f:2 id:2086662372
g: 12 f:0 id:2086662372
g: 12 [6, 3, 1, 7, 5, 0, 2, 4]
BUILD SUCCESSFUL (total time: 0 seconds)
```

```
Output - AlgoritmosGeneticos2019 (run-single) %
Updating property file: C:\Users\Alumno\Docur
Compiling 1 source file to C:\Users\Alumno\Do
compile-single:
run-single:

g: 1 f:4 id:1356914048
g: 2 f:4 id:1356914048
g: 3 f:4 id:1356914048
g: 4 f:4 id:1356914048
g: 5 f:2 id:1356914048
g: 6 f:2 id:1356914048
g: 7 f:0 id:1356914048
g: 7 [2, 4, 6, 0, 3, 1, 7, 5]
BUILD SUCCESSFUL (total time: 0 seconds)
```

```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 1079 f:2 id:2086662372
g: 1080 f:2 id:2086662372
g: 1081 f:2 id:2086662372
g: 1082 f:2 id:2086662372
g: 1083 f:2 id:2086662372
g: 1084 f:2 id:2086662372
g: 1085 f:2 id:2086662372
g: 1086 f:2 id:2086662372
g: 1087 f:2 id:2086662372
g: 1088 f:2 id:2086662372
g: 1089 f:2 id:2086662372
g: 1090 f:0 id:2086662372
g: 1090 [5, 2, 6, 3, 0, 7, 1, 4]
BUILD SUCCESSFUL (total time: 0 seconds)
```

Con población de 15

- Número de generaciones = 50,000
- Tamaño de población = 100
- Probabilidad de Mutación = 0.25
- P. Muestra = 0.001

Output - AlgoritmosGeneticos2019 (run-single) %	
g: 2340 f:2 id:2086662372	
g: 2341 f:2 id:2086662372	
g: 2342 f:2 id:2086662372	
g: 2343 f:2 id:2086662372	
g: 2344 f:2 id:2086662372	
g: 2345 f:2 id:2086662372	
g: 2346 f:2 id:2086662372	
g: 2347 f:2 id:2086662372	
g: 2348 f:2 id:2086662372	
g: 2349 f:2 id:2086662372	
g: 2350 f:2 id:2086662372	
g: 2351 f:0 id:2086662372	
g: 2351 [5, 1, 14, 6, 10, 2, 13, 11, 4, 8, 12, 0,	
BUILD SUCCESSFUL (total time: 0 seconds)	

Output - AlgoritmosGeneticos2019 (run-single) %	
g: 1158 f:2 id:1356914048	
g: 1159 f:2 id:1356914048	
g: 1160 f:2 id:1356914048	
g: 1161 f:2 id:1356914048	
g: 1162 f:2 id:1356914048	
g: 1163 f:2 id:1356914048	
g: 1164 f:2 id:1356914048	
g: 1165 f:2 id:1356914048	
g: 1166 f:2 id:1356914048	
g: 1167 f:2 id:1356914048	
g: 1168 f:2 id:1356914048	
g: 1169 f:0 id:1356914048	
g: 1169 [4, 0, 9, 13, 10, 5, 2, 8, 1, 3, 12,	
BUILD SUCCESSFUL (total time: 0 seconds)	















Output - AlgoritmosGeneticos2019 (run-single) %	
g: 1358 f:2 id:2086662372	
g: 1359 f:2 id:2086662372	
g: 1360 f:2 id:2086662372	
g: 1361 f:2 id:2086662372	
g: 1362 f:2 id:2086662372	
g: 1363 f:2 id:2086662372	
g: 1364 f:2 id:2086662372	
g: 1365 f:2 id:2086662372	
g: 1366 f:2 id:2086662372	
g: 1367 f:2 id:2086662372	
g: 1368 f:2 id:2086662372	
g: 1369 f:0 id:2086662372	
g: 1369 [7, 9, 4, 12, 14, 3, 10, 2, 5, 8, 1,	
BUILD SUCCESSFUL (total time: 0 seconds)	















```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 6790 f:2 id:2086662372
g: 6791 f:2 id:2086662372
g: 6792 f:2 id:2086662372
g: 6793 f:2 id:2086662372
g: 6794 f:2 id:2086662372
g: 6795 f:2 id:2086662372
g: 6796 f:2 id:2086662372
g: 6797 f:2 id:2086662372
g: 6798 f:2 id:2086662372
g: 6799 f:2 id:2086662372
g: 6800 f:2 id:2086662372
g: 6801 f:0 id:2086662372
g: 6801 [12, 5, 9, 2, 14, 10, 3, 0, 6, 1, 11, 13, 7, 4, 8]
BUILD SUCCESSFUL (total time: 1 second)
```















Con población de 30

- Número de generaciones = 50,000
- Tamaño de población = 80
- Probabilidad de Mutación = 0.25
- P. Muestra = 0.001

```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 649 f:4 id:2086662372
g: 650 f:4 id:2086662372
g: 651 f:4 id:2086662372
g: 652 f:4 id:2086662372
g: 653 f:4 id:2086662372
g: 654 f:4 id:2086662372
g: 655 f:4 id:2086662372
g: 656 f:4 id:2086662372
g: 657 f:4 id:2086662372
g: 658 f:4 id:2086662372
g: 659 f:4 id:2086662372
g: 660 f:0 id:2086662372
g: 660 [5, 19, 9, 4, 12, 24, 17, 21, 28, 18]
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output - AlgoritmosGeneticos2019 (run-single) %	
	g: 2803 f:2 id:2086662372
	g: 2804 f:2 id:2086662372
	g: 2805 f:2 id:2086662372
	g: 2806 f:2 id:2086662372
	g: 2807 f:2 id:2086662372
	g: 2808 f:2 id:2086662372
	g: 2809 f:2 id:2086662372
	g: 2810 f:2 id:2086662372
	g: 2811 f:2 id:2086662372
	g: 2812 f:2 id:2086662372
	g: 2813 f:2 id:2086662372
	g: 2814 f:0 id:2086662372
	g: 2814 [21, 8, 22, 25, 27, 20, 17, 11, 5, 7,
	BUILD SUCCESSFUL (total time: 1 second)

Output - AlgoritmosGeneticos2019 (run-single) %	
	g: 2774 f:2 id:2086662372
	g: 2775 f:2 id:2086662372
	g: 2776 f:2 id:2086662372
	g: 2777 f:2 id:2086662372
	g: 2778 f:2 id:2086662372
	g: 2779 f:2 id:2086662372
	g: 2780 f:2 id:2086662372
	g: 2781 f:2 id:2086662372
	g: 2782 f:2 id:2086662372
	g: 2783 f:2 id:2086662372
	g: 2784 f:2 id:2086662372
	g: 2785 f:0 id:2086662372
	g: 2785 [15, 12, 29, 21, 7, 11, 6, 1, 27, 16, 9
	BUILD SUCCESSFUL (total time: 1 second)

Output - AlgoritmosGeneticos2019 (run-single) %	
	g: 2135 f:2 id:2086662372
	g: 2136 f:2 id:2086662372
	g: 2137 f:2 id:2086662372
	g: 2138 f:2 id:2086662372
	g: 2139 f:2 id:2086662372
	g: 2140 f:2 id:2086662372
	g: 2141 f:2 id:2086662372
	g: 2142 f:2 id:2086662372
	g: 2143 f:2 id:2086662372
	g: 2144 f:2 id:2086662372
	g: 2145 f:2 id:2086662372
	g: 2146 f:0 id:2086662372
	g: 2146 [20, 16, 13, 4, 18, 22, 6, 14, 1, 27, 9,
	BUILD SUCCESSFUL (total time: 1 second)

Con población de 70

- Número de generaciones = 50,000
- Tamaño de población = 70
- Probabilidad de Mutación = 0.4
- P. Muestra = 0.0001

```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 2260 f:2 id:2086662372
g: 2261 f:2 id:2086662372
g: 2262 f:2 id:2086662372
g: 2263 f:2 id:2086662372
g: 2264 f:2 id:2086662372
g: 2265 f:2 id:2086662372
g: 2266 f:2 id:2086662372
g: 2267 f:2 id:2086662372
g: 2268 f:2 id:2086662372
g: 2269 f:2 id:2086662372
g: 2270 f:2 id:2086662372
g: 2271 f:0 id:2086662372
g: 2271 [29, 35, 39, 8, 52, 46, 60, 14, 0, 33,
BUILD SUCCESSFUL (total time: 3 seconds)
```















```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 12775 f:2 id:1356914048
g: 12776 f:2 id:1356914048
g: 12777 f:2 id:1356914048
g: 12778 f:2 id:1356914048
g: 12779 f:2 id:1356914048
g: 12780 f:2 id:1356914048
g: 12781 f:2 id:1356914048
g: 12782 f:2 id:1356914048
g: 12783 f:2 id:1356914048
g: 12784 f:2 id:1356914048
g: 12785 f:2 id:1356914048
g: 12786 f:0 id:1356914048
g: 12786 [46, 56, 18, 42, 62, 30, 68, 20, 44,
BUILD SUCCESSFUL (total time: 13 seconds)
```















```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 8612 f:2 id:2086662372
g: 8613 f:2 id:2086662372
g: 8614 f:2 id:2086662372
g: 8615 f:2 id:2086662372
g: 8616 f:2 id:2086662372
g: 8617 f:2 id:2086662372
g: 8618 f:2 id:2086662372
g: 8619 f:2 id:2086662372
g: 8620 f:2 id:2086662372
g: 8621 f:2 id:2086662372
g: 8622 f:2 id:2086662372
g: 8623 f:0 id:2086662372
g: 8623 [59, 56, 17, 27, 16, 33, 31, 44, 40, 12
BUILD SUCCESSFUL (total time: 9 seconds)
```















```
Output - AlgoritmosGeneticos2019 (run-single) %
g: 6475 f:2 id:2086662372
g: 6476 f:2 id:2086662372
g: 6477 f:2 id:2086662372
g: 6478 f:2 id:2086662372
g: 6479 f:2 id:2086662372
g: 6480 f:2 id:2086662372
g: 6481 f:2 id:2086662372
g: 6482 f:2 id:2086662372
g: 6483 f:2 id:2086662372
g: 6484 f:2 id:2086662372
g: 6485 f:2 id:2086662372
g: 6486 f:0 id:2086662372
g: 6486 [37, 56, 17, 32, 4, 35, 10, 63, 6, 50, 19, 1
BUILD SUCCESSFUL (total time: 7 seconds)
```

Con población de 90

- Número de generaciones = 50,000
- Tamaño de población = 15
- Probabilidad de Mutación = 0.6
- P. Muestra = 0.0001

Output - AlgoritmosGeneticos2019 (run-single) %	
	g: 4095 f:2 id:371739364
	g: 4096 f:2 id:371739364
	g: 4097 f:2 id:371739364
	g: 4098 f:2 id:371739364
	g: 4099 f:2 id:371739364
	g: 4100 f:2 id:371739364
	g: 4101 f:2 id:371739364
	g: 4102 f:2 id:371739364
	g: 4103 f:2 id:371739364
	g: 4104 f:2 id:371739364
	g: 4105 f:2 id:371739364
	g: 4106 f:0 id:371739364
	g: 4106 [52, 59, 55, 42, 38, 14, 25, 73, 65, 26, 17, 15, 6
	BUILD SUCCESSFUL (total time: 2 seconds)

Output - AlgoritmosGeneticos2019 (run-single) %	
	g: 3017 f:2 id:2086662372
	g: 3018 f:2 id:2086662372
	g: 3019 f:2 id:2086662372
	g: 3020 f:2 id:2086662372
	g: 3021 f:2 id:2086662372
	g: 3022 f:2 id:2086662372
	g: 3023 f:2 id:2086662372
	g: 3024 f:2 id:2086662372
	g: 3025 f:2 id:2086662372
	g: 3026 f:2 id:2086662372
	g: 3027 f:2 id:2086662372
	g: 3028 f:0 id:2086662372
	g: 3028 [40, 5, 88, 80, 54, 14, 36, 81, 64, 5:
	BUILD SUCCESSFUL (total time: 1 second)

Output - AlgoritmosGeneticos2019 (run-single) %	
	g: 9778 f:2 id:2086662372
	g: 9779 f:2 id:2086662372
	g: 9780 f:2 id:2086662372
	g: 9781 f:2 id:2086662372
	g: 9782 f:2 id:2086662372
	g: 9783 f:2 id:2086662372
	g: 9784 f:2 id:2086662372
	g: 9785 f:2 id:2086662372
	g: 9786 f:2 id:2086662372
	g: 9787 f:2 id:2086662372
	g: 9788 f:2 id:2086662372
	g: 9789 f:0 id:2086662372
	g: 9789 [61, 15, 88, 50, 24, 1, 63, 47, 60, 39,
	BUILD SUCCESSFUL (total time: 4 seconds)

Output - AlgoritmosGeneticos2019 (run-single) %

g: 9461 f:2 id:1698032342
g: 9462 f:2 id:1698032342
g: 9463 f:2 id:1698032342
g: 9464 f:2 id:1698032342
g: 9465 f:2 id:1698032342
g: 9466 f:2 id:1698032342
g: 9467 f:2 id:1698032342
g: 9468 f:2 id:1698032342
g: 9469 f:2 id:1698032342
g: 9470 f:2 id:1698032342
g: 9471 f:2 id:1698032342
g: 9472 f:0 id:1698032342
g: 9472 [51, 56, 69, 46, 24, 36, 27, 18, 1, 8]
BUILD SUCCESSFUL (total time: 4 seconds)