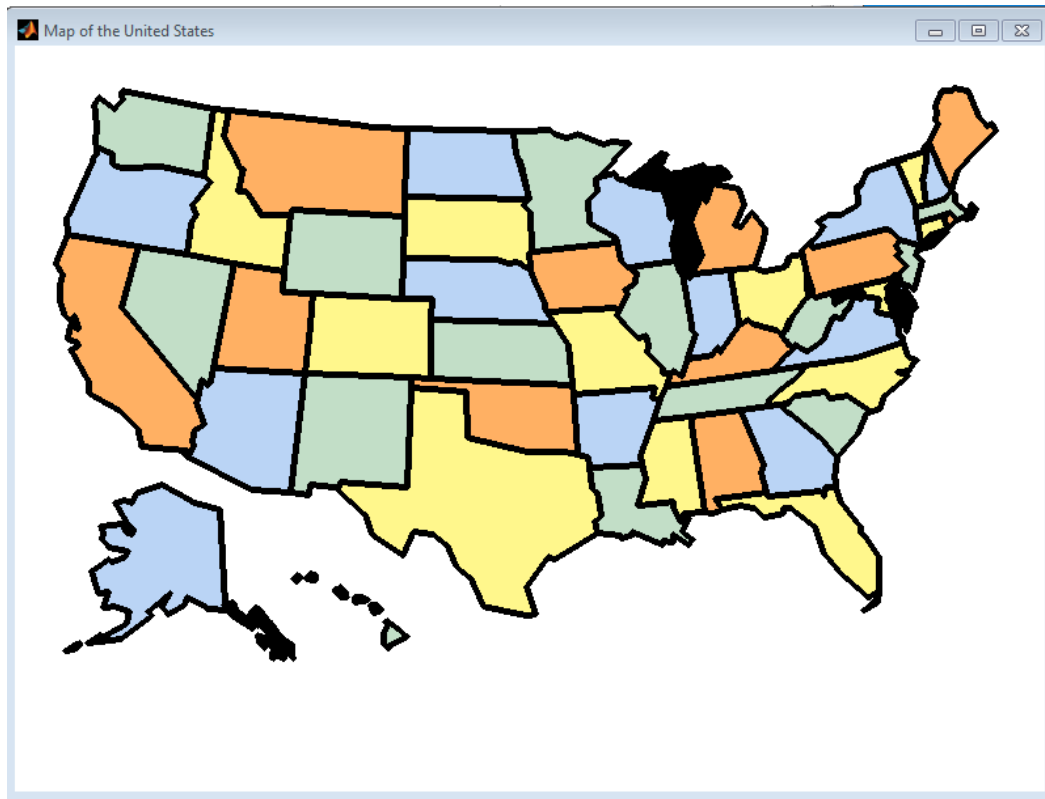


# REPORT

1) [solution,score]=ga\_mapcoloring();



The particular map has zero error, score=0; It took 23 iterations to complete.

No changes were made to the recommended parameters, **except TOURNAMENT=5 initially**→ this gave better results.

(a)

RUN	no of wroi	iterations	accuracy
run 1	0	97	100
run 2	2	500	96
run 3	0	100	100
run 4	0	99	100
run 5	4	500	92
run 6	0	101	100
run 7	0	86	100
run 8	0	66	100
run 9	0	231	100
run 10	0	99	100
AVERAGE	0.6		98.8

Mean score of wrong items=0.6

Mean score of correct items=49.4

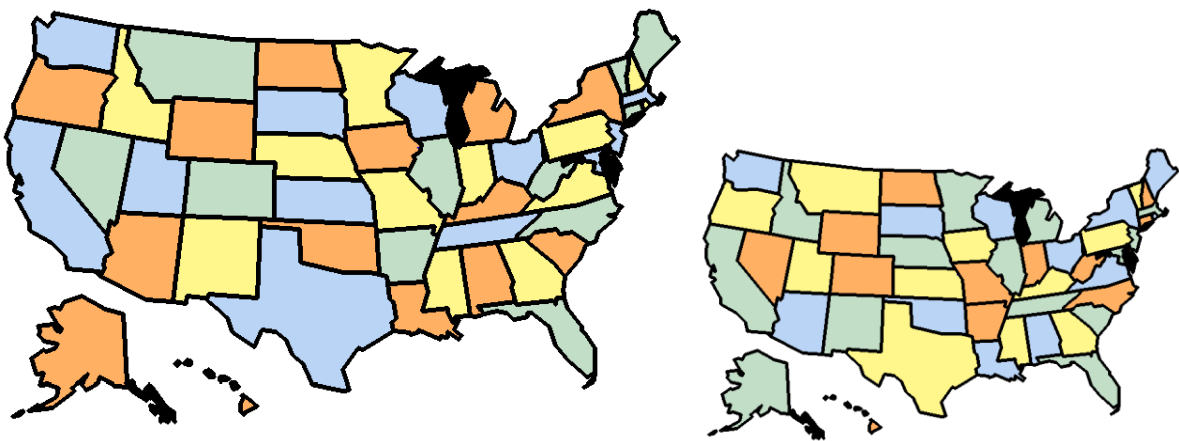
b)



Yes the results match my intuition. This is because more is the no of iterations more difficult it is to find the correct mapping. Had I inscresed the number of iterations the accuracy would have ben better.

c) you can run this by using the following code

```
[solution,score]=ga_mapcoloring_2();
```



Case 1

case 2

	population	offspring size	tournamnet	iterations	score	time
case 1	100	98	2	500	48	less
case 2	1000	998	20	500	46	more

More pop and less pop both have negative impact on the algorithm.

d) I can keep running the code until the 33 and 40<sup>th</sup> have a value of 1

Please check `ga_mapcoloring_partd()`