

```
1 C:\Users\rachael\lnihalaani\anaconda3\envs\LogisticRegression\python.  
  exe C:\Users\rachael\lnihalaani\PycharmProjects\LogisticRegression\main  
  .py  
2 Logistic Regression  
3  
4 Maximum A Posteriori (MAP) Estimation  
5 After 100 epochs,  
6 For Variance = 0.01:  
7 Training Error: 0.1147, Test Error: 0.1200  
8  
9 For Variance = 0.1:  
10 Training Error: 0.0528, Test Error: 0.0740  
11  
12 For Variance = 0.5:  
13 Training Error: 0.0424, Test Error: 0.0500  
14  
15 For Variance = 1:  
16 Training Error: 0.0424, Test Error: 0.0440  
17  
18 For Variance = 3:  
19 Training Error: 0.0459, Test Error: 0.0520  
20  
21 For Variance = 5:  
22 Training Error: 0.0470, Test Error: 0.0560  
23  
24 For Variance = 10:  
25 Training Error: 0.0401, Test Error: 0.0460  
26  
27 For Variance = 100:  
28 Training Error: 0.0390, Test Error: 0.0440  
29  
30  
31  
32 Maximum Likelihood (ML) Estimation  
33 After 100 Epochs,  
34 For Variance = 0.01:  
35 Training Error: 0.0596, Testing Error: 0.0760  
36 For Variance = 0.1:  
37 Training Error: 0.0390, Testing Error: 0.0480  
38 For Variance = 0.5:  
39 Training Error: 0.0436, Testing Error: 0.0500  
40 For Variance = 1:  
41 Training Error: 0.0436, Testing Error: 0.0480  
42 For Variance = 3:  
43 Training Error: 0.0447, Testing Error: 0.0520  
44 For Variance = 5:  
45 Training Error: 0.0413, Testing Error: 0.0420  
46 For Variance = 10:  
47 Training Error: 0.0459, Testing Error: 0.0560  
48 For Variance = 100:  
49 Training Error: 0.0413, Testing Error: 0.0480  
50  
51 Process finished with exit code 0
```