

Python 3.8.8 (default, Apr 13 2021, 12:59:45)
Type "copyright", "credits" or "license" for more information.

IPython 7.22.0 -- An enhanced Interactive Python.

```
In [1]: runfile('/Users/Misha/Desktop/self_learning/log_reg/log_reg.py', wdir='/Users/Misha/Desktop/self_learning/log_reg')
Loss for iteration 0 is: 0.0015266800096197207
Loss for iteration 200 is: 0.0009954721956846814
Loss for iteration 400 is: 0.0008689954720374454
Loss for iteration 600 is: 0.0008383280606420191
Loss for iteration 800 is: 0.000833855911547655
Loss for iteration 1000 is: 0.0008337581358934073
Loss for iteration 1200 is: 0.0008325213714402138
Loss for iteration 1400 is: 0.0008330644230971191
Loss for iteration 1600 is: 0.0008317387364490077
Loss for iteration 1800 is: 0.0008305004469100998
Loss for iteration 2000 is: 0.0008359063849082933
Loss for iteration 2200 is: 0.0008293198065846582
Loss for iteration 2400 is: 0.0008287598849563103
Loss for iteration 2600 is: 0.0008283974552080214
Loss for iteration 2800 is: 0.0008276697218816696
Loss for iteration 3000 is: 0.0008282595280869318
Loss for iteration 3200 is: 0.0008270468464060675
Loss for iteration 3400 is: 0.0008263674659527051
Loss for iteration 3600 is: 0.0008314024179125316
Loss for iteration 3800 is: 0.0008244109400097506
Loss for iteration 4000 is: 0.0008245561964837387
Loss for iteration 4200 is: 0.0008233974569828727
Loss for iteration 4400 is: 0.0008234198517992452
Loss for iteration 4600 is: 0.000823828889927565
Loss for iteration 4800 is: 0.0008220997055410022
Loss for iteration 5000 is: 0.0008217022078873026
Loss for iteration 5200 is: 0.0008214633245840769
Loss for iteration 5400 is: 0.0008212830619679088
Loss for iteration 5600 is: 0.0008210303522177709
Loss for iteration 5800 is: 0.0008217677504999837
Loss for iteration 6000 is: 0.0008219188343840738
Loss for iteration 6200 is: 0.0008205156108200757
Loss for iteration 6400 is: 0.000820479488517414
Loss for iteration 6600 is: 0.0008199107659634417
Loss for iteration 6800 is: 0.0008221112152130241
Loss for iteration 7000 is: 0.0008205093623966774
Loss for iteration 7200 is: 0.0008188461276052643
Loss for iteration 7400 is: 0.0008184910213966106
Loss for iteration 7600 is: 0.0008189104265996789
Loss for iteration 7800 is: 0.0008203427453771822
Loss for iteration 8000 is: 0.0008229166667265747
Loss for iteration 8200 is: 0.0008186150242096945
Loss for iteration 8400 is: 0.0008165524245760086
Loss for iteration 8600 is: 0.0008222074929541238
Loss for iteration 8800 is: 0.000816114323491663
Loss for iteration 9000 is: 0.000818632142089393
Loss for iteration 9200 is: 0.0008196301925472291
Loss for iteration 9400 is: 0.0008217902171919609
Loss for iteration 9600 is: 0.0008177833852708281
Loss for iteration 9800 is: 0.0008165497971357991
Scratch model prediction:
[[366 134]
 [131 137]]
Sklearn model prediction:
[[479  21]
 [250  18]]

In [2]:
```