
```

% % %      Test the predictions given by the model on the test datas
% % %

% With the MNIST Dataset
[ M2_labels_predictions, M2_confusion_matrix, M2_accuracy ] =
  g2_predict_linear_regression(M_data_test, M_labels_test, M2_w_hat, 0,
  2);

%display the confusion matrix and the accuracy
M2_confusion_matrix
M2_accuracy

% Display the confusion matrix through an image
colormap hot;
image(M2_confusion_matrix);
title('confusion matrix - naive bayes classifier - MNIST dataset')

% Scatter plot of the resulting labels versus the true labels
M2_error = g3_plot_error( M_labels_test, M2_labels_predictions, 20)

```

M2_confusion_matrix =

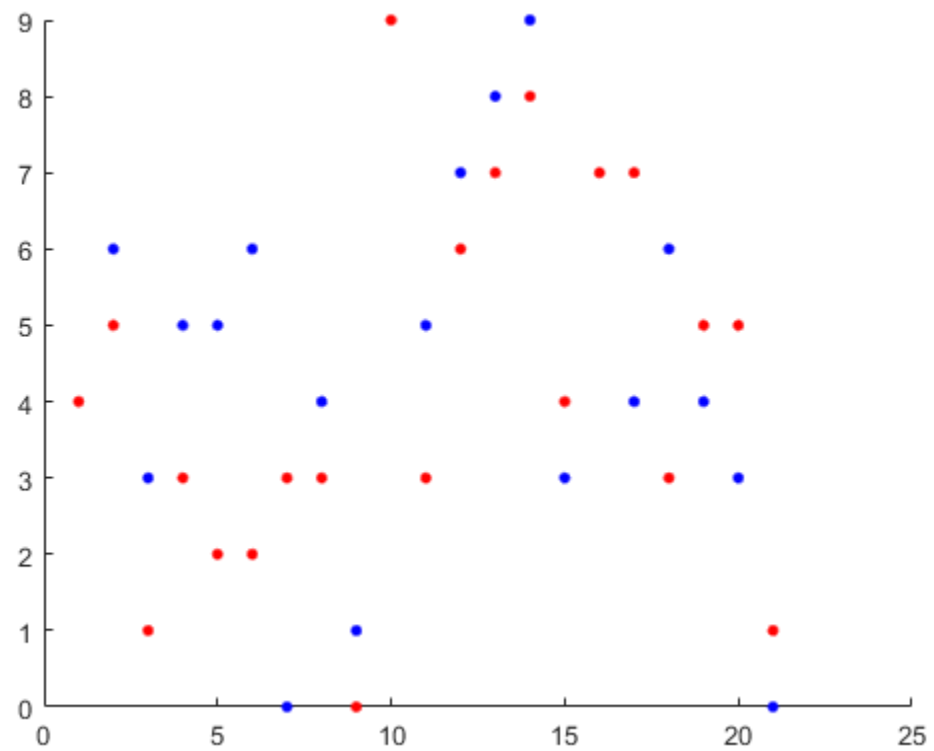
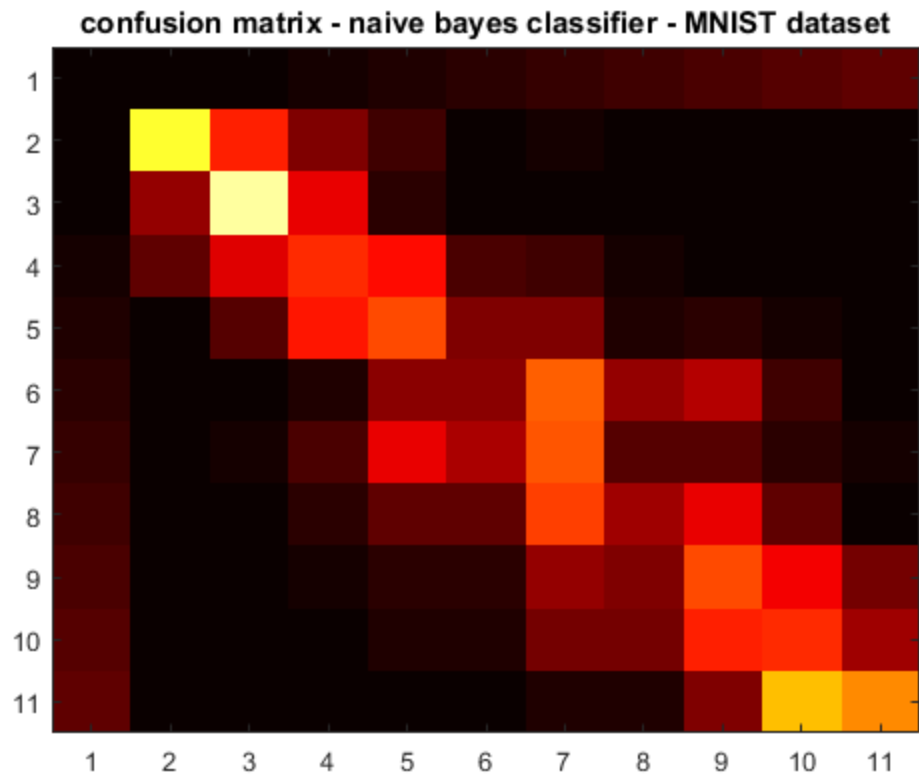
NaN	0	1	2	3	4	5	6	7	8	9
0	51	27	12	6	1	2	1	0	0	0
1	14	58	22	4	0	1	0	0	0	0
2	9	21	28	25	7	6	2	1	0	0
3	1	8	26	31	12	12	3	4	2	1
4	0	1	3	13	13	33	14	17	6	1
5	0	2	7	22	16	32	8	8	4	2
6	0	1	4	9	9	30	15	22	9	1
7	0	0	2	4	4	14	12	31	23	11
8	0	0	1	3	3	11	11	27	28	15
9	0	0	0	1	0	3	3	12	42	37

M2_accuracy =

0.3288

M2_error =

1.1413



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