



Contribute most to PC1:

Flavanoids	Total phenols	Od280/od315 of diluted wines
0.422934297	0.394660845	0.376167411
Proanthocyanins	Nonflavanoid Phenols	Hue
0.313429488	0.298533103	0.296714564
Proline	Malic acid	Alcalinity of ash
0.286752227	0.245187580	0.239320405
Alcohol	Magnesium	Color Intensity
0.144329395	0.141992042	0.088616705
Ash		
0.002051061		

Contribute most to PC2:

Color Intensity	Alcohol	Proline
0.529995672	0.483651548	0.364902832
Ash	Magnesium	Hue
0.316068814	0.299634003	0.279235148
Malic acid	Od280/od315 of diluted wines	Total phenols
0.224930935	0.164496193	0.065039512
Proanthocyanins	Nonflavanoid Phenols	Alcalinity of ash
0.039301722	0.028779488	0.010590502
Flavanoids		
0.003359812		

All variables:

	actual			
predicted	1	2	3	
1	16	2	0	
2	0	25	0	
3	0	1	10	

	Precision	Recall	F1
1	0.8888889	1.0000000	0.9411765
2	1.0000000	0.8928571	0.9433962
3	0.9090909	1.0000000	0.9523810

PCA:

	actual			
predicted	1	2	3	
1	16	2	0	
2	0	26	0	
3	0	0	10	

	Precision	Recall	F1
1	0.8888889	1.0000000	0.9411765
2	1.0000000	0.9285714	0.9629630
3	1.0000000	1.0000000	1.0000000