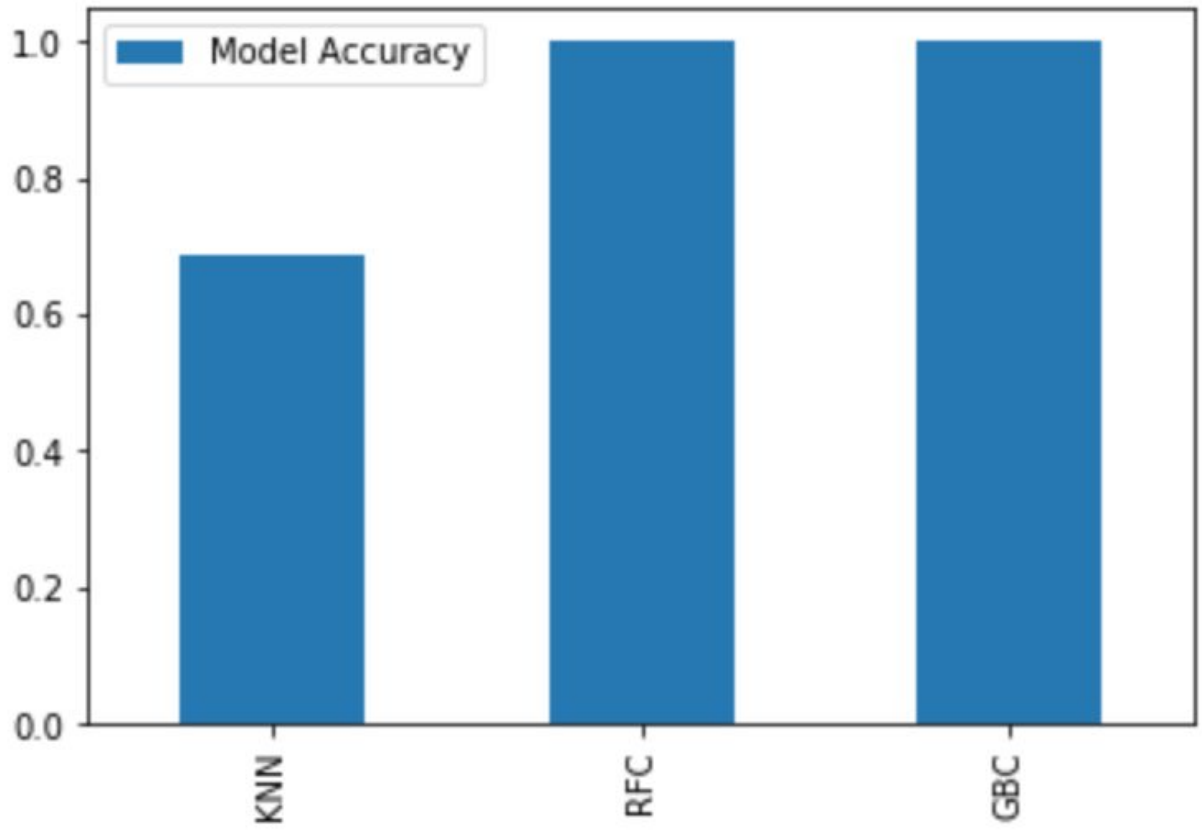
We used three models for classification:

- K-Nearest-Neighbors
- Random Forest Classifier
- Gradient Boosting Classifier

After fitting our models we plotted the scores:

	KNN	RFC	GBC
Model Accuracy	0.6875	1.0	1.0

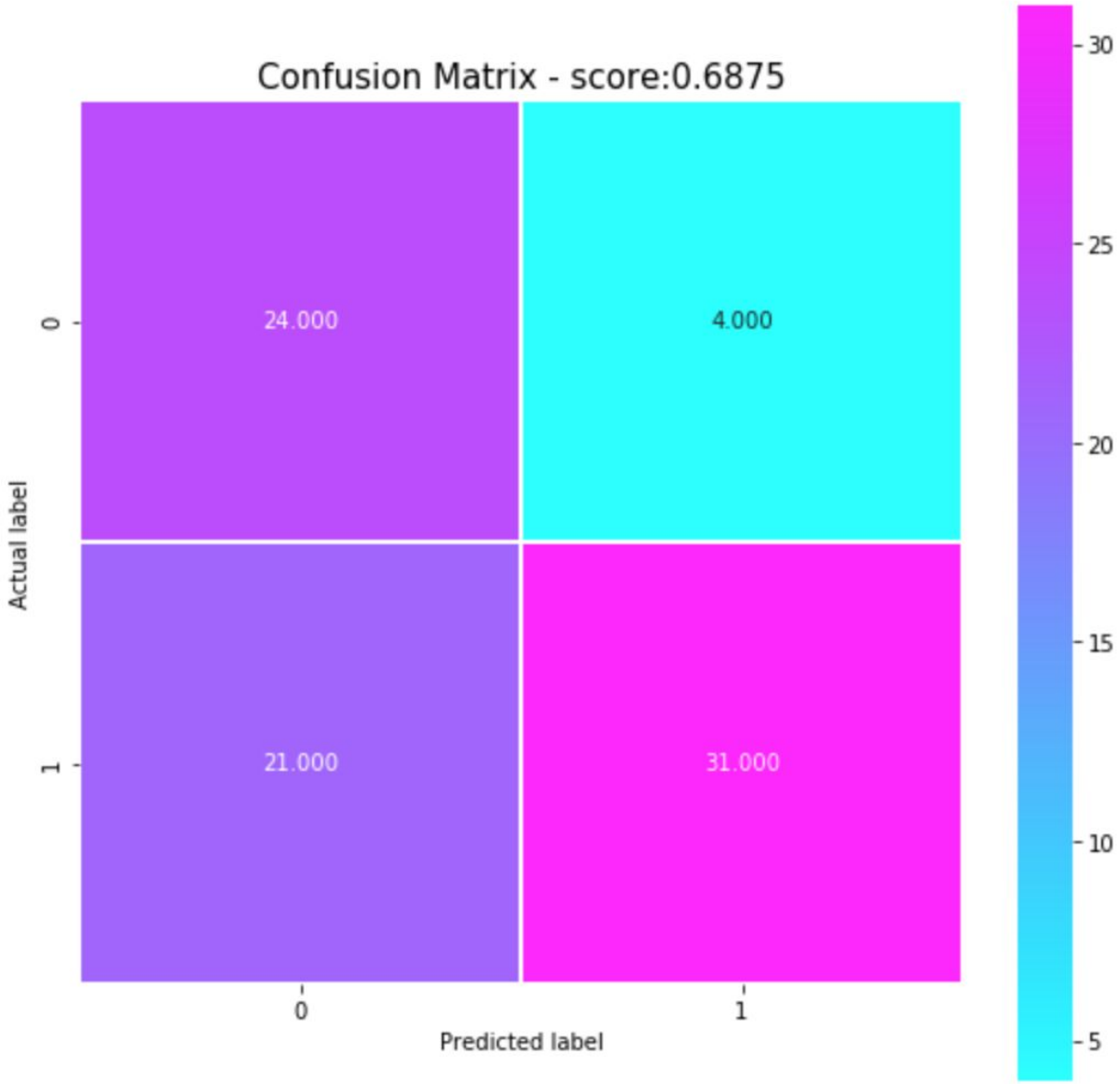


As we can see KNN model got the least score at 68.75%, while Random Forest Classifier and Gradient Boosting Classifier got a perfect score: 100%.

- Brief information about the used models and final evaluation:

K Neighbors Classifier:

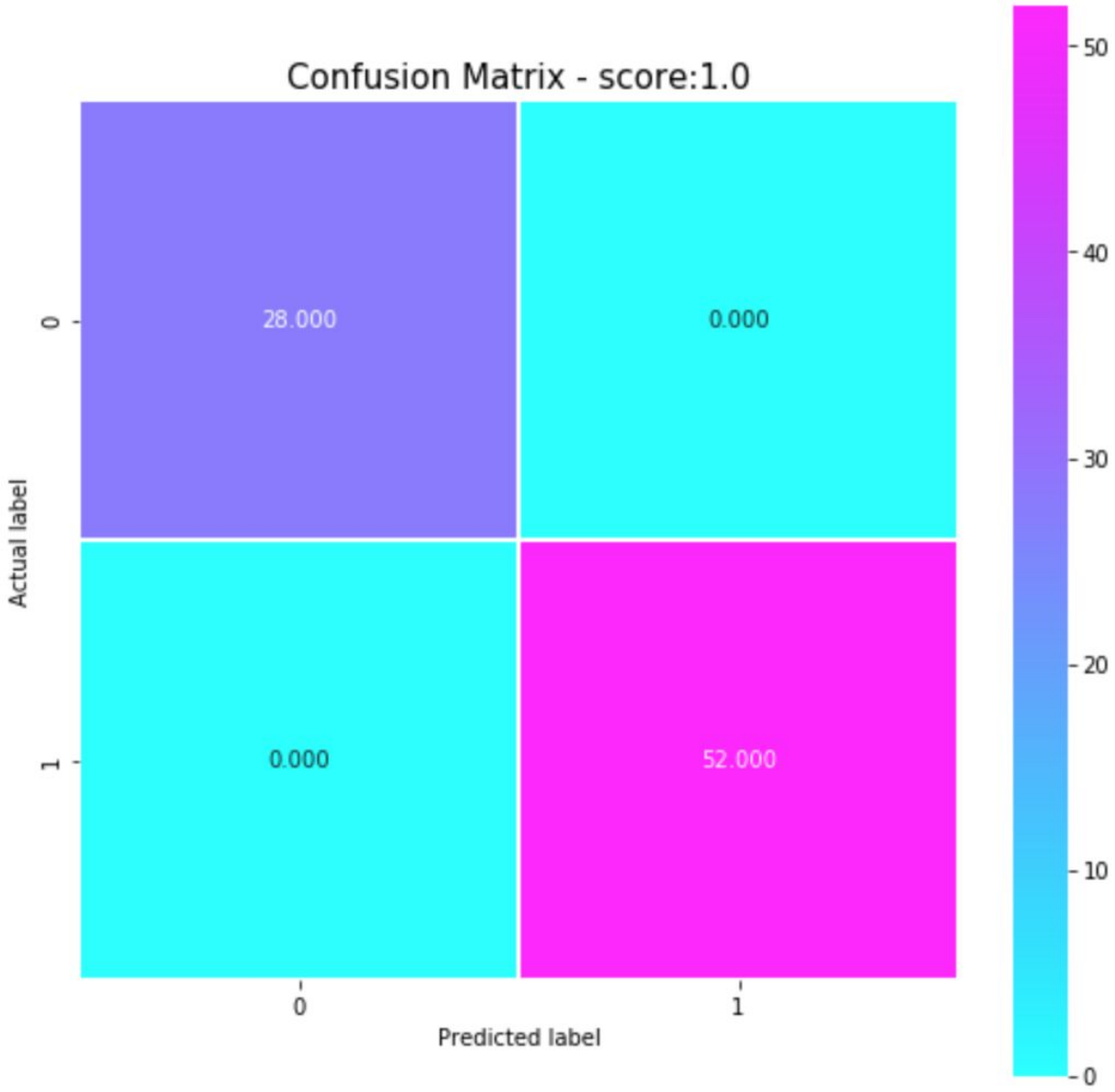
The KNN algorithm is a simple algorithm which assumes that similar things are near to each other, by calculating the distance between two instances using mathematical formulas like euclidean distance or manhattan distance.



	precision	recall	f1-score	support
0	0.53	0.86	0.66	28
1	0.89	0.60	0.71	52
accuracy			0.69	80
macro avg	0.71	0.73	0.69	80
weighted avg	0.76	0.69	0.69	80

Random Forest Classifier:

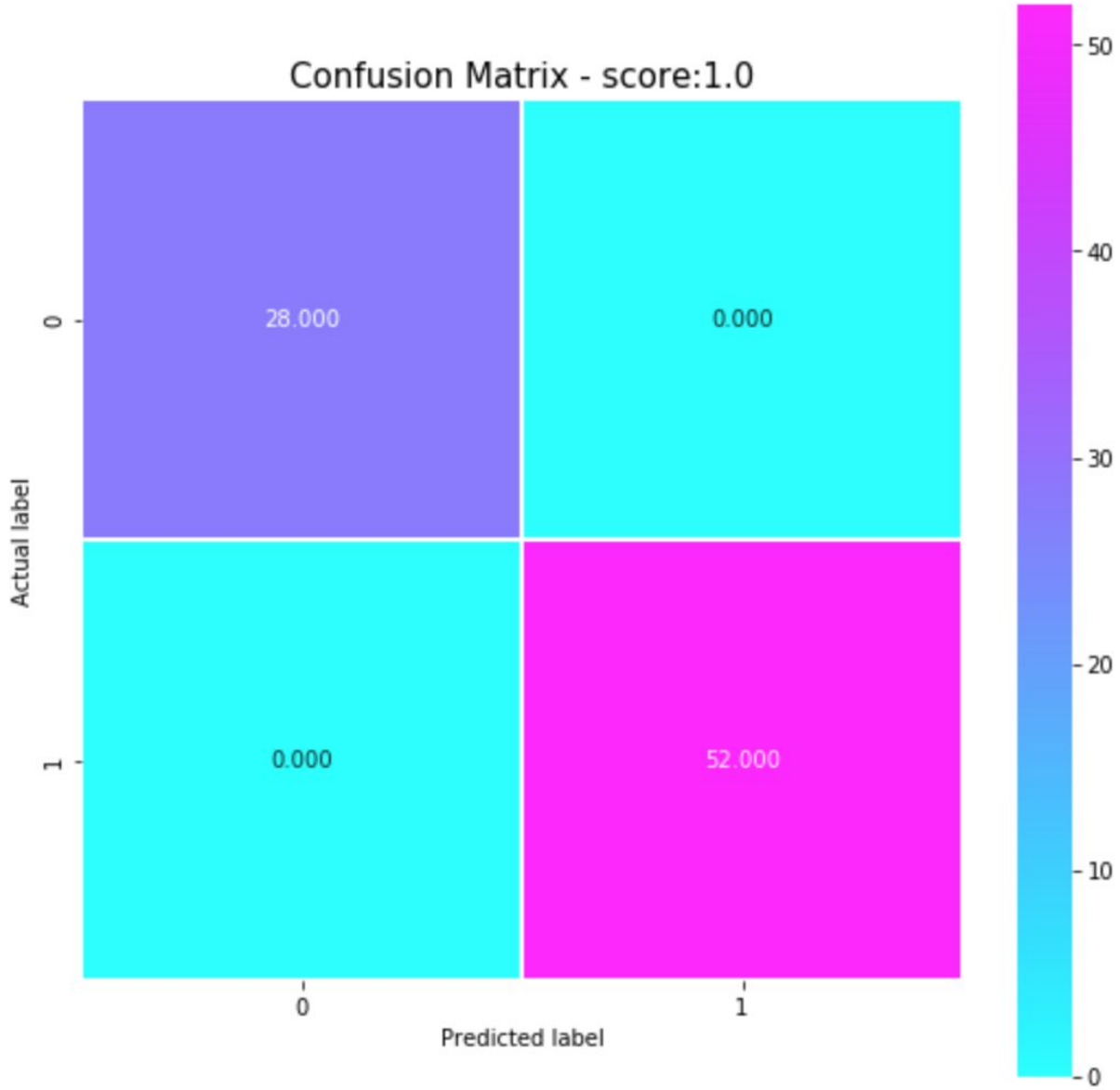
Random forest consists of a large number of individual decision trees that operate as an ensemble. Each individual tree in the random forest gives out a class prediction and the class with the most votes becomes the model's prediction.



	precision	recall	f1-score	support
0	1.00	1.00	1.00	28
1	1.00	1.00	1.00	52
accuracy			1.00	80
macro avg	1.00	1.00	1.00	80
weighted avg	1.00	1.00	1.00	80

Gradient Boosting Classifier:

Gradient boosting classifier works by combining many weak learning models to create a strong predictive model.It relies on the intuition that the best possible next model, when combined with previous models, minimizes the overall prediction error. The main idea is to set the target outcomes for this next model in order to minimize the error.



	precision	recall	f1-score	support
0	1.00	1.00	1.00	28
1	1.00	1.00	1.00	52
accuracy			1.00	80
macro avg	1.00	1.00	1.00	80
weighted avg	1.00	1.00	1.00	80