## \*\*\* 2a iii) Based on the score, identify the best method \*\*\*

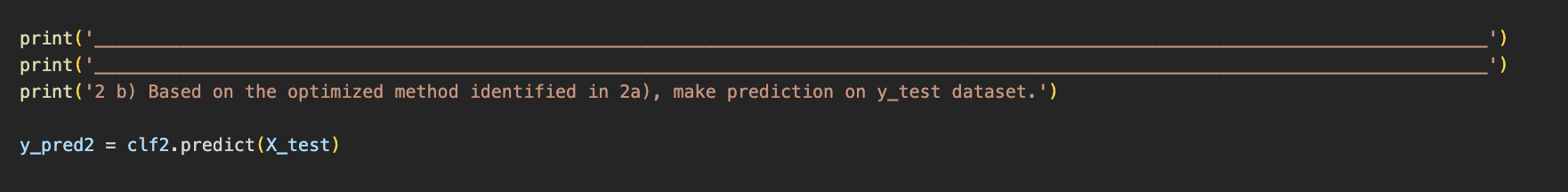
Graphical user interface, text, application, chat or text message

Description automatically generated

According to the scores of classifiers, K Nearest Neighbor is slightly better than Logistic Regression.

## \*\*\*2 b) Based on the optimized method identified in 2a), make prediction on test dataset and compare it with y\_test dataset.\*\*\*

I predicted the labels for the test data set using the K Nearest Neighbour classifier.



## \*\*\* 2c) Create confusion matrix with seaborn heatmap.\*\*\*

Chart, treemap chart

Description automatically generated

## \*\*\* 2d) Evaluate the model performance.\*\*\*

Text

Description automatically generated

I calculated the accuracy score of K Nearest Neighbour classifier on y\_test test set by comparing each predicted label and test label. The accuracy score of this classifier is 91.17%.

## \*\*\* 3b) From 3a), get and print the max probability of class based on the user’s input.\*\*\*

I calculated the probability of the input data by extracting the predicted label and comparing the probability of the class to which the predicted label belonged. In our case, that predicted class is “var temp & humid”. We then calculated the probability of the class “var temp & humid” in the complete dataset.