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

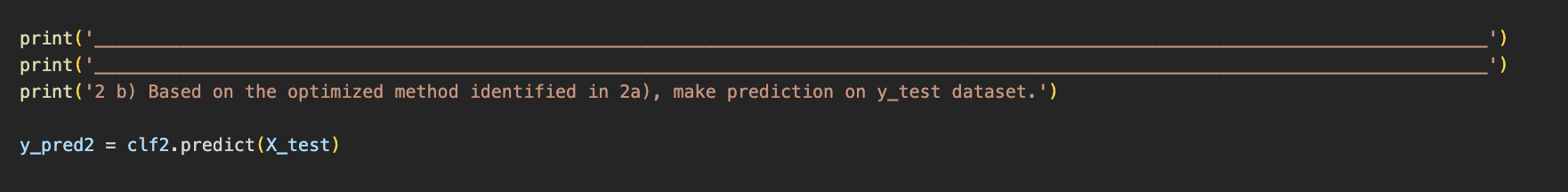
Graphical user interface, text, application, chat or text message

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%.

\*\*\*Make a prediction based on user input (Total marks:20) \*\*\*

## \*\*\* 3a) Make a prediction/classification of the environmental condition based on the following input data: \*\*\*

Predicted class of input data: \*\*\*\*\* var temp & humid \*\*\*\*\*

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

Max Probability is: 0.94