**Details of Source Files**

Seismic\_data.csv contains:

* 6 input features extracted as “street intersection density”, “tree density”, “built-up density”, “important structures”, “building age.”
* Categorical values are provided based on “equal interval” class division through QGIS.
* Output data is ground data extracted by Mann Mehta [1] through class division of “injury density” map.

Code for RF\_5class:

* For hyperparameter tunning in RF classifier GridsearchCV method is used.
* Accuracy check through RF classifier, Decision tree, K-NN method is done.
* Feature Importance map is plotted through decision tree and RF classifier.
* Confusion Matrix and classification report for RF classifier is present.

Code for NN\_5class:

* For hyperparameter tunning in NN classifier hyperband of keras tunner is used.
* Testing and training accuracy for the model is done.
* Feature Importance map is calculated through SHAP library.
* Accuracy graph and loss curve is plotted.
* Confusion Matrix for NN classifier is present.

Reference

1. A. Pandey R. Kumar Mehta, M. and R. S. Kotharkar. Seismic risk assessment of nagpur city using google maps. *17th Symposium on Earthq. Eng. IIT Roorkee, India.*, 2022.