Step 1: At first, put the following files in one specific directory (Figure 1):

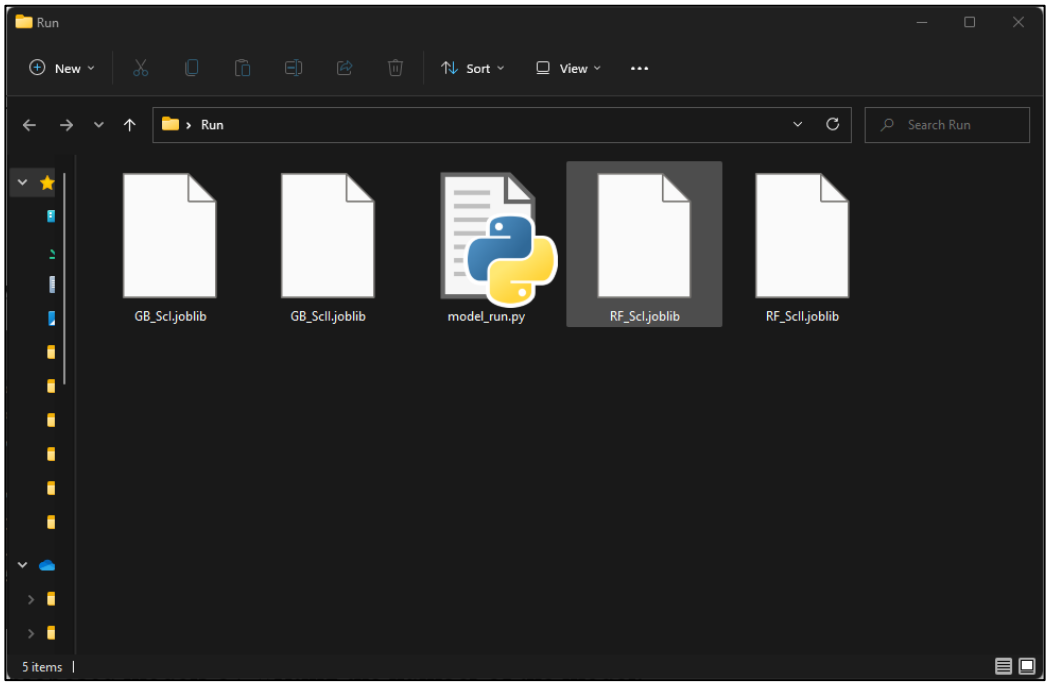

Figure 1: Step1

Step 2: Make sure that you have installed the following libraries in your environment[1]:

1. Numpy
2. Pandas
3. Sklearn

Step 3: Run the *model_run.py* file; the following options will appear (Figure 2):

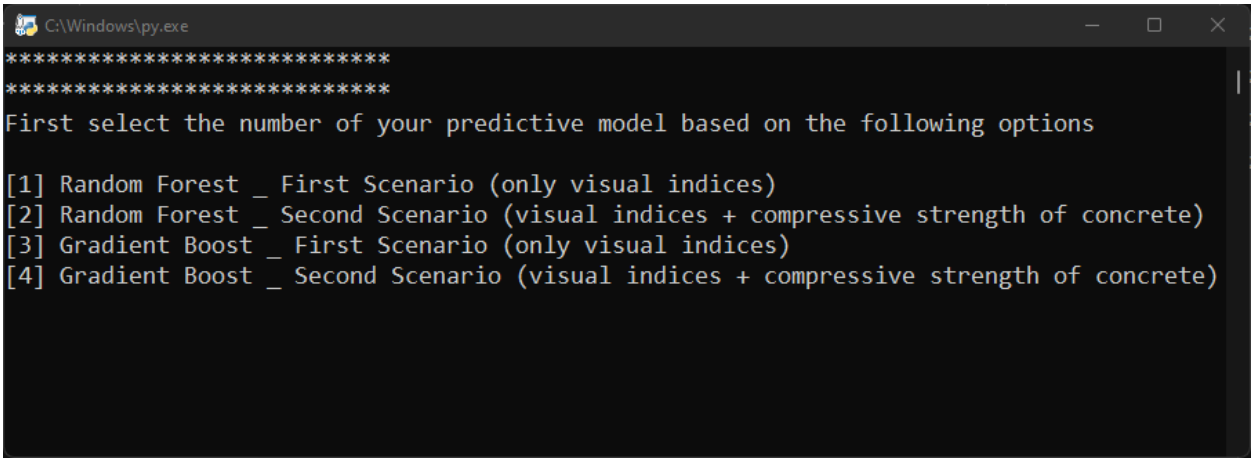

Figure 2: Step 2, predictive models

Step 4: Select one of the proposed models by writing the number of the model:

[1] Required libraries can be installed with pip install method, click here for mopre information

For example, write: *1* and then press *Enter* for running the Random Forest model in the first scenario:

[1] Random Forest _ First Scenario (only visual indices)

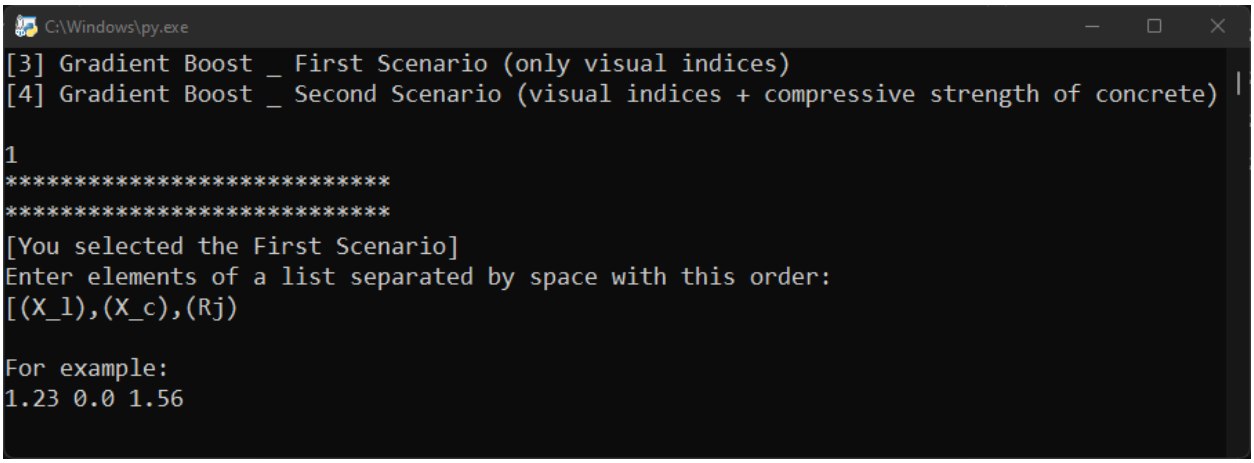

Figure 3. select your predictive model

Step 5: enter the required inputs in this order: X_1, X_2, X_3, and X_4 (if required), and separate them with space according to Figure 4. For example, if you want to evaluate a BCJ with the following properties:

Cracking index= 1.23

Crushing index= 0.0

Joint aspect ratio= 1.56

You must enter: 1.23 0.0 1.56

And then press the *Enter* bottom

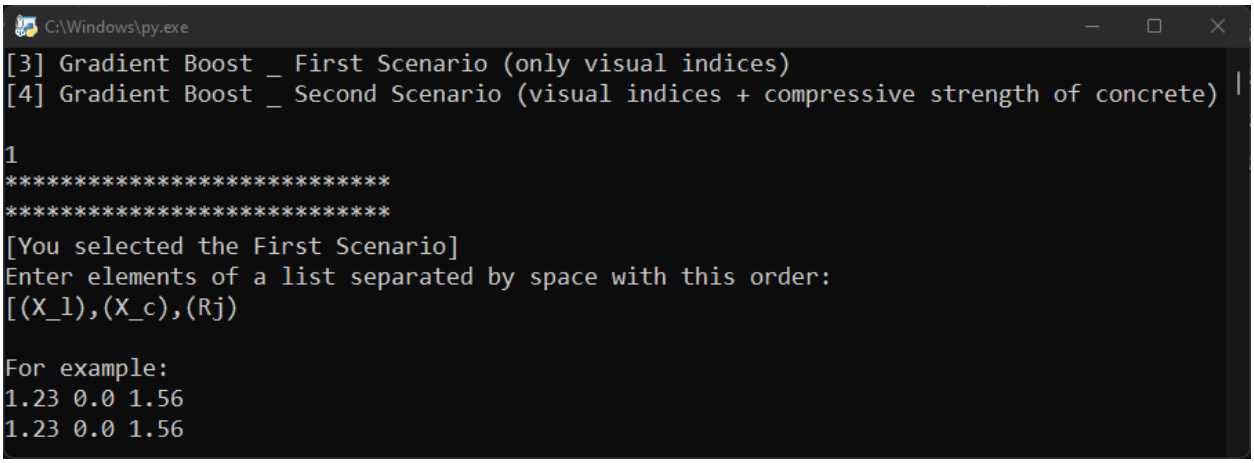

Figure 4. Enter the required inputs

The output of the model will be shown as depicted in Figure 5.

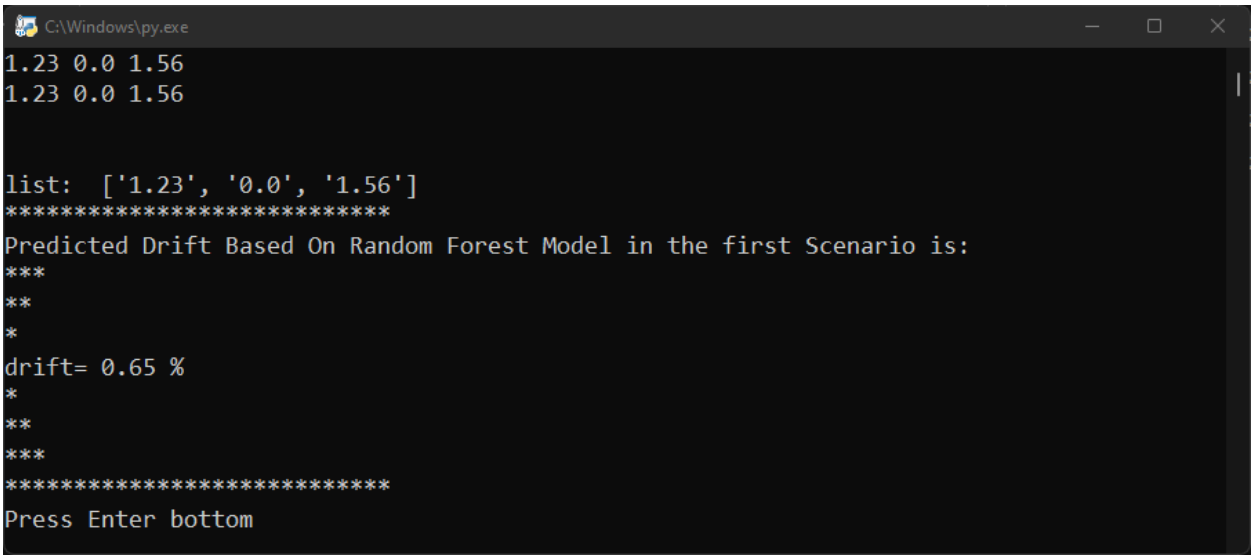

Figure 5. Output of the model