Extractingfeatures.py:

1. Load DomainNet-sketch and DomainNet-clipart data
2. Download ResNet-101 model with the top layer removed
3. Extract the features of DomainNet-sketch and DomainNet-clipart
4. Save the corresponding features and labels as .csv

Domainnet_parameters.ipynb:

1. Load the features and labels of DomainNet-sketch and DomainNet-clipart
2. Fit one hidden-layer neural networks for these two data sets
3. Compute/estimate the parameters of Theorem 1 for plotting the lower bounds.

Downloading the .csv files of features and labels generated by Extractingfeatures.py:

Train_sketch_labels.csv:

https://drive.google.com/file/d/1gg9NFPPFOAXcULkBxgL8zve0iotvFC1Q/view?usp=sharing

Train_sketch_features.csv:

https://drive.google.com/file/d/1is72u0AZLU0f0fQeJLMj4bT8ZDWDbNn7/view?usp=sharing

Train_clipart_labels.csv:

https://drive.google.com/file/d/1rr_XK-xWXR3664IhTGifgiXuBkTLMPVF/view?usp=sharing

Train_clipart_features.csv:

https://drive.google.com/file/d/1YxkwPWsP4zPxJmpnkMHYr5AD5LThnhm8/view?usp=sharing

Test_sketch_labels.csv:

https://drive.google.com/file/d/1r0vN2T6iPdvJHmidiFqiMe3UGUV62qOs/view?usp=sharing

Test_sketch_features.csv :

https://drive.google.com/file/d/1G0IiZldctayV-SK9AsI7uml1ltbi6Xm4/view?usp=sharing

Test_clipart_labels.csv:

https://drive.google.com/file/d/1u54OZ37HmkgUeaBbPkjPt9QJj22M0EeQ/view?usp=sharing

Test_clipart_features.csv:

https://drive.google.com/file/d/1S1I-9K6Tv14saaRJLZ2gzeAz_9WlQPFd/view?usp=sharing