Coats Assignment

Instructions

1. Students have to use the same template and upload the **Jupyter notebook with outputs and its corresponding PDF**.
2. Students can also choose to use Google Colab for working on the project.
3. Data need **not** be uploaded along with the submission.
4. Students are expected to submit the updated Jupyter notebook with the **outputs** + the final ipynb notebook file converted as PDF, with **proper formatting and alignment**. If the assignment does not have complete output or alignments and comments are not written appropriately, marks will be deducted from the overall score.
5. Partial code and partial output will be evaluated and marks will be awarded as per the **PDF** file.
6. Naming convention for the file to be uploaded: Coats\_**DL\_assignment\_1\_group##**
7. Use **Tensorflow / Keras**  for constructing Deep Neural Network architecture + Model building.
8. **Any sort of plagiarism will be dealt with very seriously. Zero (0) marks will be awarded in such scenarios.**
9. **All late Submissions will incur a penalty of (-2) marks.**
10. For any queries on assignment, write in the discussion forum.
11. Do not use CNN/RNN for this assignment.
12. Use only DNN or dense layers from Keras. Refer to Keras documentation on dense layer for further help regarding the library.

DATASET

The students are free to select any **one**of the following dataset.

Use the built in dataset from the Tensorflow. The link given in page can be used for understanding the data.

1.  Dataset : Plant leaves  
[https://www.tensorflow.org/datasets/catalog/plant\_leavesLinks to an external site.](https://www.tensorflow.org/datasets/catalog/plant_leaves)

2.  Dataset : Fashion-MNIST database of fashion articles  
[https://www.tensorflow.org/datasets/catalog/fashion\_mnistLinks to an external site.](https://www.tensorflow.org/datasets/catalog/fashion_mnist)

3.  Dataset : cats vs dogs - A large set of images of cat  
[https://www.tensorflow.org/datasets/catalog/cats\_vs\_dogsLinks to an external site.](https://www.tensorflow.org/datasets/catalog/cats_vs_dogs)

4.  Dataset : Large Yelp Review Data

[https://www.tensorflow.org/datasets/catalog/yelp\_polarity\_reviewsLinks to an external site.](https://www.tensorflow.org/datasets/catalog/yelp_polarity_reviews)