

Train the model on IBM

Date	05 November 2022
Team ID	PNT2022TMID30275
Project Name	Project - Digital Naturalist - AI Enabled tool for Biodiversity Researchers
Maximum Marks	

Our model is trained using IBM Cloud (IBM Watson Studio).

The screenshot displays the IBM Watson Studio interface. At the top, the header includes the IBM Watson Studio logo, a search bar, and user account information for 'Kishore Akash YS's Account' in 'London'. The main workspace shows a project titled 'Digital Naturalist' with a sub-view 'Sprint - 1 deliverables'. Below this, a Jupyter Notebook is open, displaying a title 'Digital Naturalist - AI enabled tool for Biodiversity Researchers' and a section 'Sprint-1 Deliverables:' with a list of tasks: 1. Data Acquisition - Collection and digitalizing data for analysis, 2. Data Understanding, 3. Feature Engineering, 4. Data Augmentation, and 5. Model Building. The notebook's code area shows two input cells. The first cell contains the code to import the warnings module and filter warnings to ignore them. The second cell contains a comprehensive list of imports for various Python libraries, including numpy, matplotlib, pandas, tensorflow.keras.models, tensorflow.keras.layers, tensorflow.keras.applications.resnet50, keras.applications.vgg19, keras.applications.inception_v3, tensorflow.keras.applications.resnet50, tensorflow.keras.preprocessing.image, tensorflow.keras.preprocessing.image, tensorflow.keras.callbacks, and tensorflow.keras.callbacks.

IBM Watson Studio

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Projects / Digital Naturalist / Sprint - 1 deliverables

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Not Trusted Python 3.9

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Digital Naturalist - AI enabled tool for Biodiversity Researchers

Sprint-1 Deliverables:

1. Data Acquisition - Collection and digitalizing data for analysis
2. Data Understanding
3. Feature Engineering
4. Data Augmentation
5. Model Building

```
In [4]: import warnings
warnings.filterwarnings("ignore")
```

```
In [5]: import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
from tensorflow.keras.models import Sequential, Model
from tensorflow.keras.layers import Dense, Activation, Dropout, Conv2D, Flatten, MaxPool2D, Reshape, GlobalAveragePooling2D, InputLayer
from tensorflow.keras.applications.resnet50 import ResNet50
from keras.applications.vgg19 import VGG19
from keras.applications.inception_v3 import InceptionV3
from tensorflow.keras.applications.resnet50 import preprocess_input
from tensorflow.keras.preprocessing import image
from tensorflow.keras.preprocessing.image import ImageDataGenerator, load_img, img_to_array
from tensorflow.keras.callbacks import EarlyStopping, ReduceLROnPlateau
```