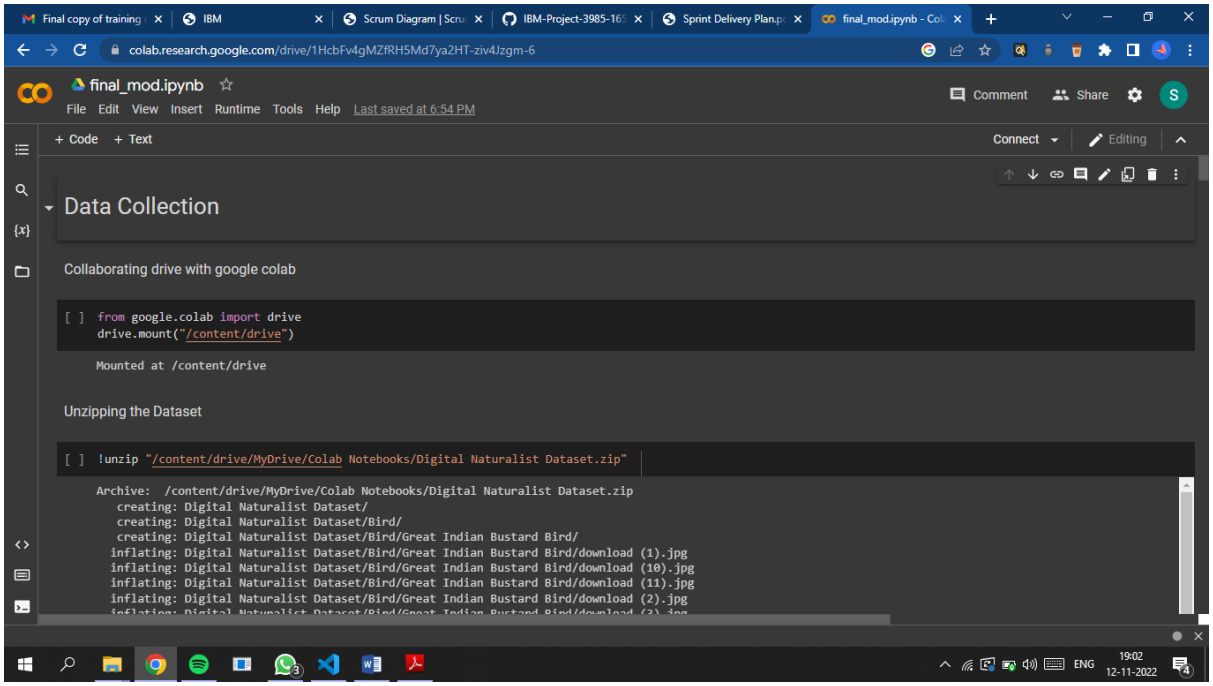
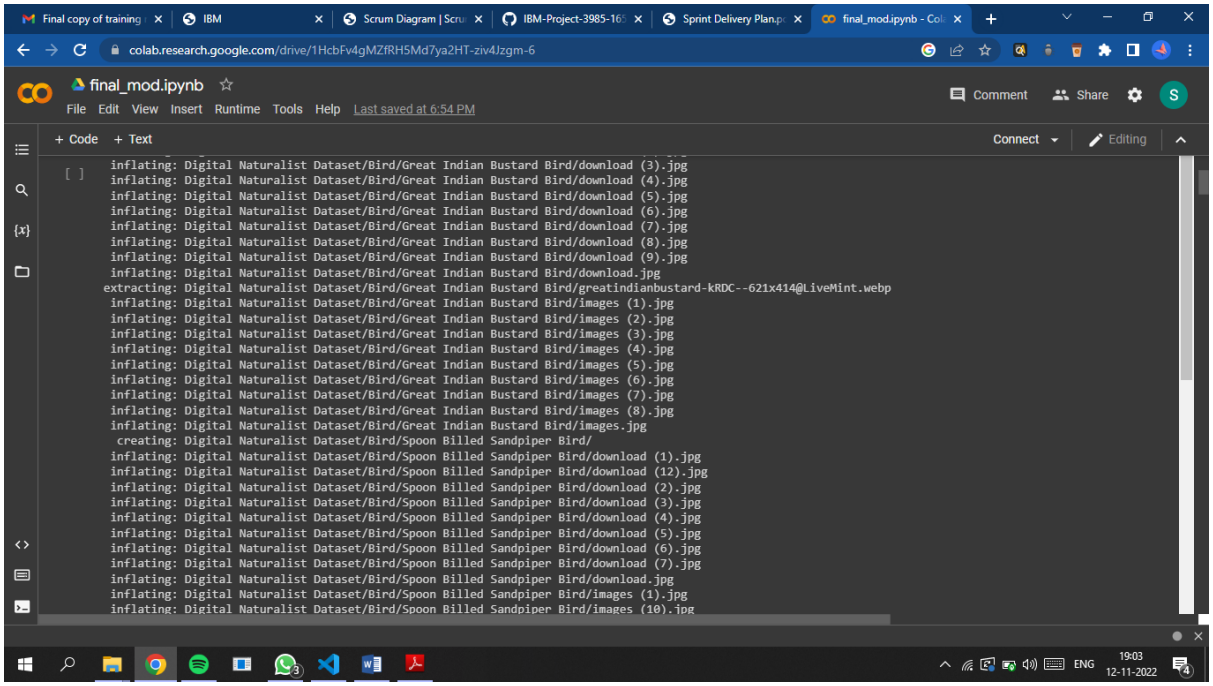
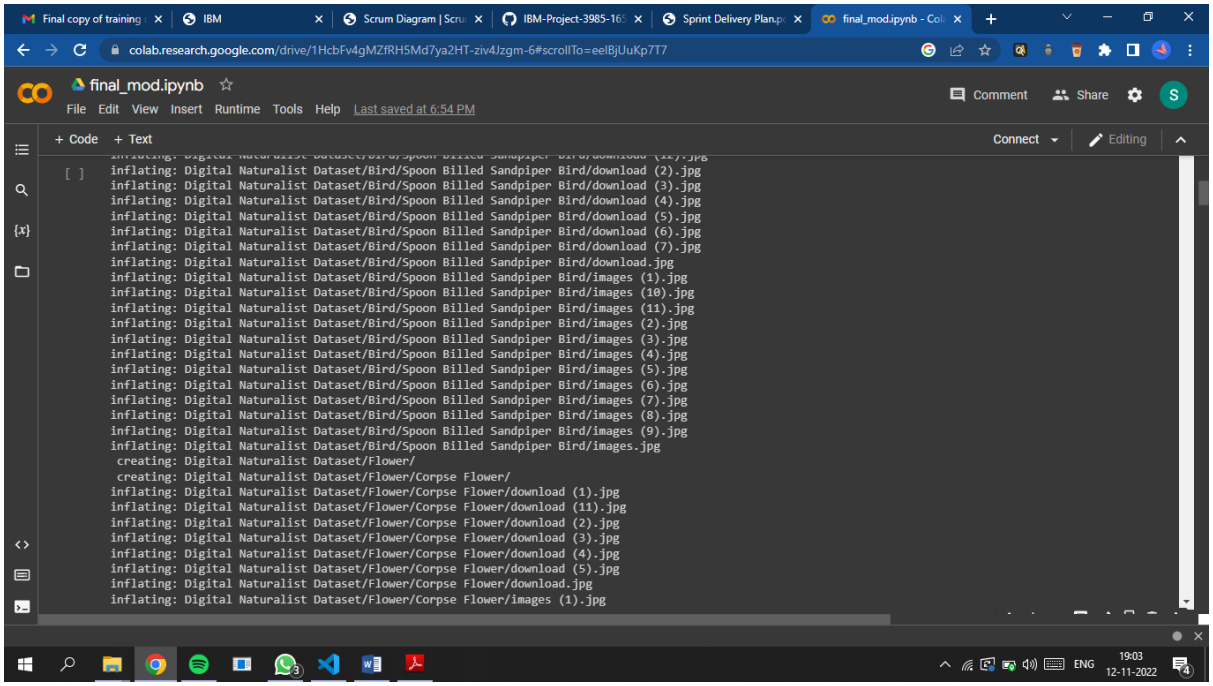
DATA COLLECTION AND DIGITALIZING FOR ANALYZING

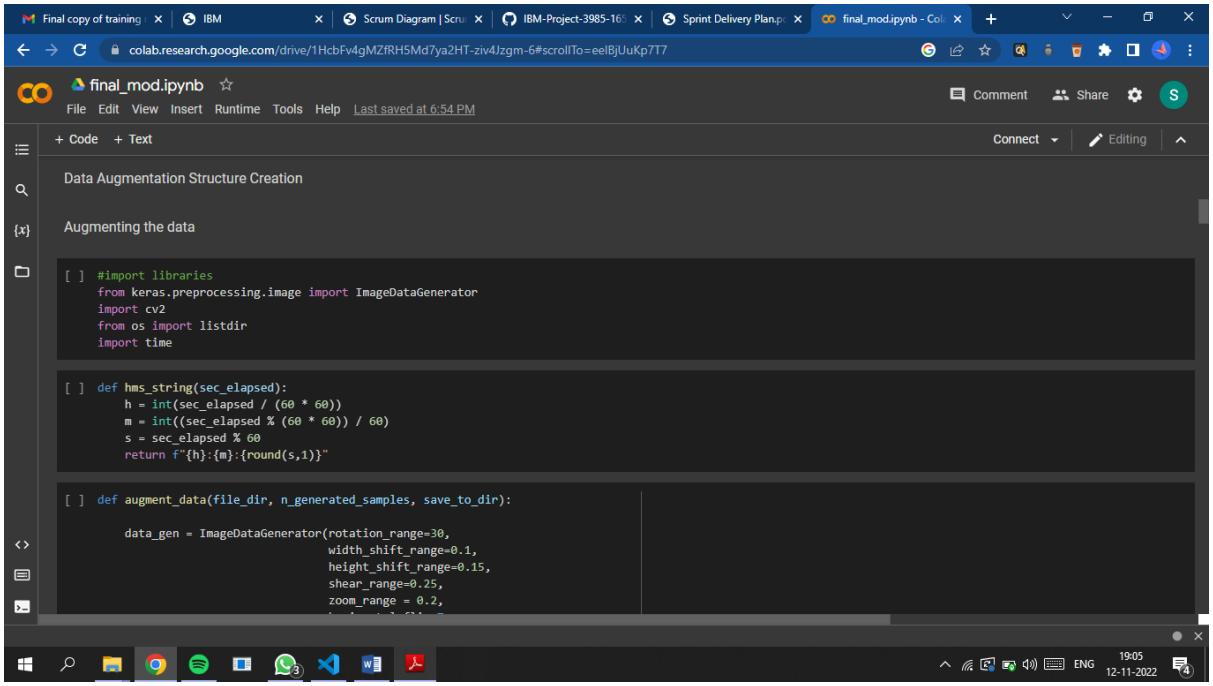
DATA COLLECITON:

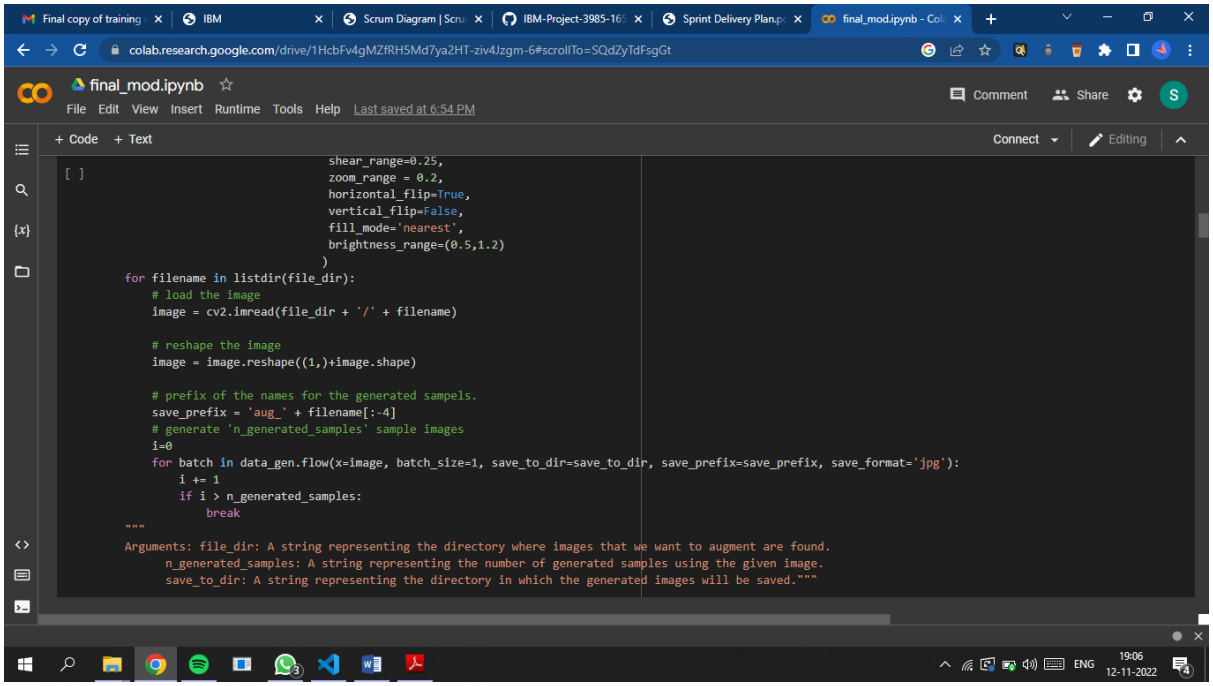






DIGITALIZING FOR ANALYZING:

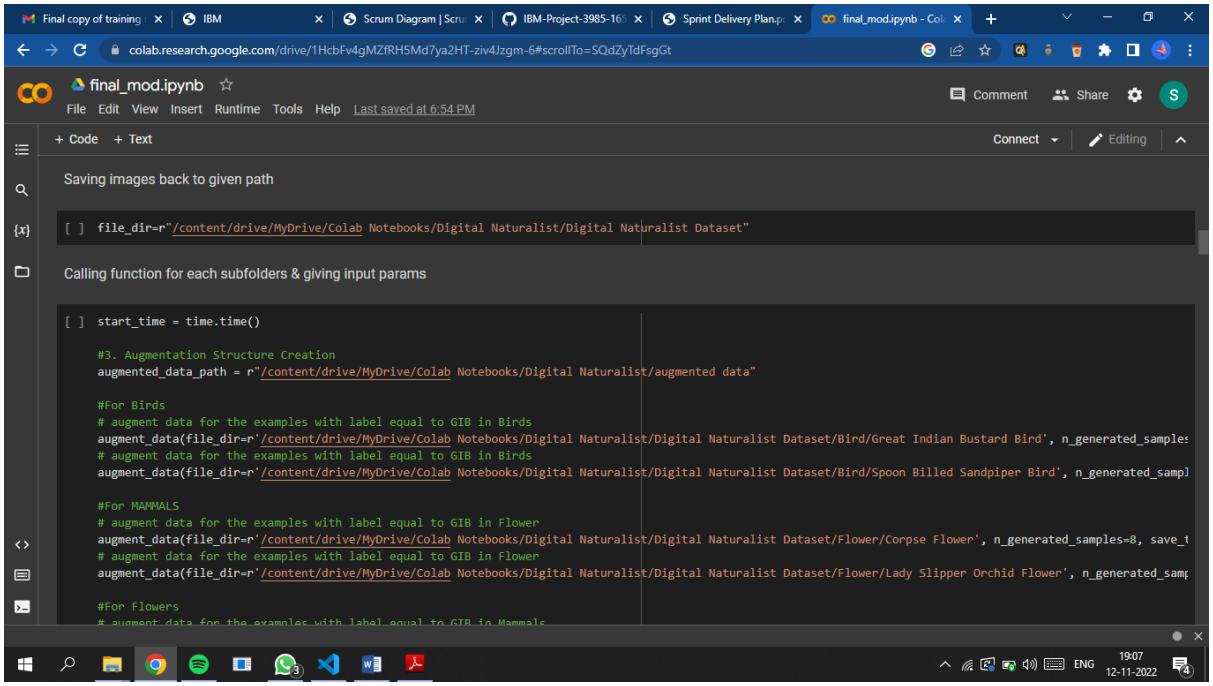




```
                                    shear_range=0.25,
                                    zoom_range = 0.2,
                                    horizontal_flip=True,
                                    vertical_flip=False,
                                    fill_mode='nearest',
                                    brightness_range=(0.5,1.2)
                                   )
        for filename in listdir(file_dir):
            # load the image
            image = cv2.imread(file_dir + '/' + filename)

            # reshape the image
            image = image.reshape((1,)+image.shape)

            # prefix of the names for the generated sampels.
            save_prefix = 'aug_' + filename[:-4]
            # generate 'n_generated_samples' sample images
            i=0
            for batch in data_gen.flow(x=image, batch_size=1, save_to_dir=save_to_dir, save_prefix=save_prefix, save_format='jpg'):
                i += 1
                if i > n_generated_samples:
                    break
        """
        Arguments: file_dir: A string representing the directory where images that we want to augment are found.
              n_generated_samples: A string representing the number of generated samples using the given image.
              save_to_dir: A string representing the directory in which the generated images will be saved."""
```



Saving images back to given path

```
file_dir=r"/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset"
```

Calling function for each subfolders & giving input params

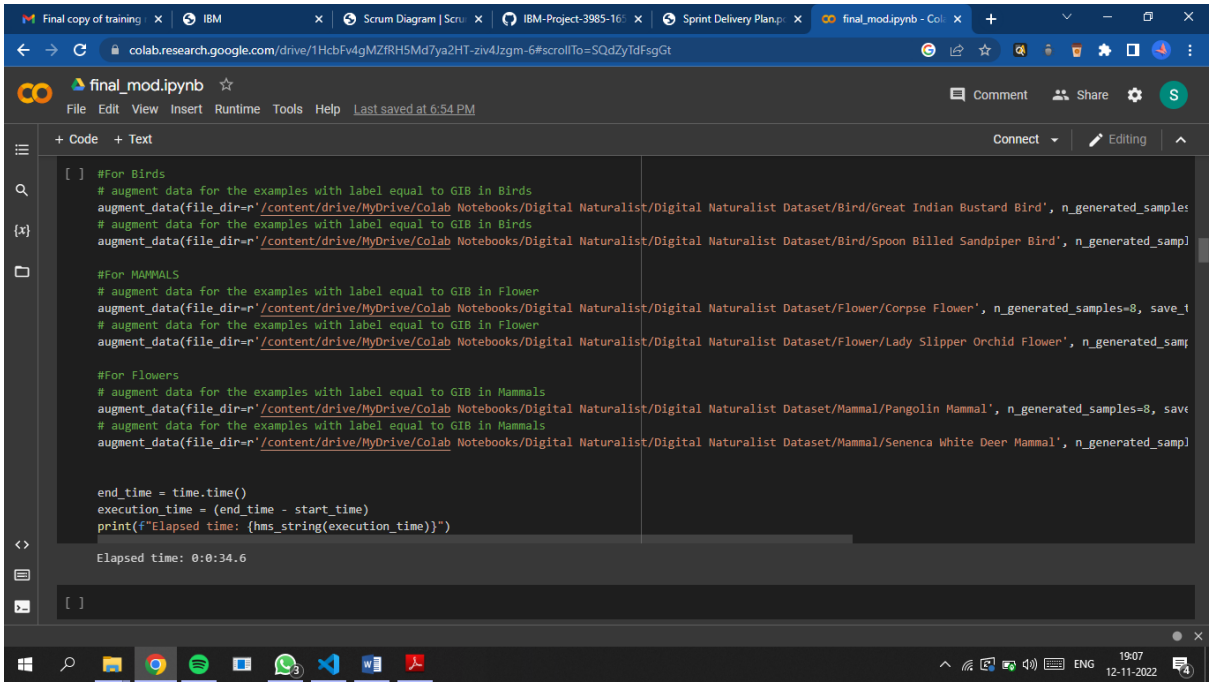
```
start_time = time.time()

    #3. Augmentation Structure Creation
    augmented_data_path = r"/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/augmented data"

    #For Birds
    # augment data for the examples with label equal to GIB in Birds
    augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Bird/Great Indian Bustard Bird', n_generated_samples
    # augment data for the examples with label equal to GIB in Birds
    augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Bird/Spoon Billed Sandpiper Bird', n_generated_samp

    #For MAMMALS
    # augment data for the examples with label equal to GIB in Flower
    augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Flower/Corpse Flower', n_generated_samples=8, save_t
    # augment data for the examples with label equal to GIB in Flower
    augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Flower/Lady Slipper Orchid Flower', n_generated_samp

    #For Flowers
    # augment data for the examples with label equal to GIB in Mammals
```


Final copy of training
IBM
Scrum Diagram | Scru
IBM-Project-3985-16
Sprint Delivery Plan.p
final_mod.ipynb - Col
colab.research.google.com/drive/1HcbFv4gMZfRH5Md7ya2HT-ziv4Jzgm-6#scrollTo=SQdZyTdFsgGt
final_mod.ipynb
File Edit View Insert Runtime Tools Help Last saved at 6:54 PM
Comment
Share
S
+ Code + Text
Connect
Editing
[ ] #For Birds
augment data for the examples with label equal to GIB in Birds
augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Bird/Great Indian Bustard Bird', n_generated_samples
augment data for the examples with label equal to GIB in Birds
augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Bird/Spoon Billed Sandpiper Bird', n_generated_sampl
#For MAMMALS
augment data for the examples with label equal to GIB in Flower
augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Flower/Corpse Flower', n_generated_samples=8, save_t
augment data for the examples with label equal to GIB in Flower
augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Flower/Lady Slipper Orchid Flower', n_generated_samp
#For Flowers
augment data for the examples with label equal to GIB in Mammals
augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Mammal/Pangolin Mammal', n_generated_samples=8, save
augment data for the examples with label equal to GIB in Mammals
augment_data(file_dir=r'/content/drive/MyDrive/Colab Notebooks/Digital Naturalist/Digital Naturalist Dataset/Mammal/Senenca White Deer Mammal', n_generated_sampl
end_time = time.time()
execution_time = (end_time - start_time)
print(f"Elapsed time: {hms_string(execution_time)}")
Elapsed time: 0:0:34.6
[ ]
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