Appendix 1

Python code for obtaining anatomical slices from a DICOM image

```python
import os
import pydicom
import numpy as np
import matplotlib.pyplot as plt
import warnings

dicom_dir = 'Add the path of the files in dicom format'

dicom_files = [os.path.join(dicom_dir, filename) for filename in os.listdir(dicom_dir) if filename.endswith('.dcm')]

def load_dicom_data(dicom_files):
    slices = [pydicom.read_file(dicom_file) for dicom_file in dicom_files]
    slices.sort(key=lambda x: int(x.InstanceNumber), reverse = False)

    if len(slices) >= 2:
        slice_thickness = np.abs(slices[0].ImagePositionPatient[2] -slices[1].ImagePositionPatient[2])
    else:
        print('There is only one slice in the list.')

    image_shape = list(slices[0].pixel_array.shape)
    image_shape.append(len(slices))
    volume_data = np.zeros(image_shape, dtype=slices[0].pixel_array.dtype)

    for i, slice in enumerate(slices):
        volume_data[:, :, i] = slice.pixel_array

    return volume_data, slice_thickness

volume_data, slice_thickness = load_dicom_data(dicom_files)
last = int(input('Enter the value of the last image saved in the folder:'))

for i in range(40,140): # This range depends on the slice orientation and the image.
    image_slice = volume_data[i, :, :]  #volume_data[axial, coronal, sagittal]

    plt.figure(figsize=(6, 6))
    plt.imshow(image_slice, cmap='gray')
    plt.axis('off')
    warnings.filterwarnings("ignore")
    last += 1
    plt.savefig(f'{last}.png', bbox_inches='tight', pad_inches=0.0)
```

Appendix 2

Python code for creating datasets with shuffled images

```
from pathlib import Path
import splitfolders

input_folder = 'images'
splitfolders.ratio(input_folder, output = 'dataset',
        seed = 42, ratio = (.7,.15,.15),
        group_prefix = None)
```