

DATE	09.11.2022
TEAM ID	IBM-29269-1662616381
PROJECT NAME	AI POWERED NUTRITION ANALYSER FOR FITNESS ENTHUSIASTICS

IMAGE PROCESSING:

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      "source": [
        "import numpy as np#used for numerical analysis\n",
        "import tensorflow #open source used for both ML and DL for computation\n",
        "from tensorflow.keras.models import Sequential #it is a plain stack of layers\n",
        "from tensorflow.keras import layers #A layer consists of a tensor-in tensor-out computation function\n",
        "#Dense layer is the regular deeply connected neural network layer\n",
        "from tensorflow.keras.layers import Dense,Flatten\n",
        "#Faltten-used fot flattening the input or change the dimension\n",
        "from tensorflow.keras.layers import Conv2D,MaxPooling2D,Dropout #Convolutional layer\n",
        "#MaxPooling2D-for downsampling the image\n",
        "from keras.preprocessing.image import ImageDataGenerator"
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        "#setting parameter for Image Data agumentation to the training data\n",
        "train_datagen = ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)\n",
        "#Image Data agumentation to the testing data\n",

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"test_datagen=ImageDataGenerator(rescale=1./255)"
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"Found 730 images belonging to 4 classes.\n",
"Found 748 images belonging to 5 classes.\n"
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"#performing data agumentation to train data\n",
"x_train = train_datagen.flow_from_directory(\n",
"    r'C:\\Users\\Harithan\\IBM_Proj\\Dataset\\TRAIN_SET',\n",
"    target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')\n",
"#performing data agumentation to test data\n",
"x_test = test_datagen.flow_from_directory(\n",
"    r'C:\\Users\\Harithan\\IBM_Proj\\Dataset\\TEST_SET',\n",
"    target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse') "
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