

PNT2022TMID50371

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      "metadata": {},
      "outputs": [],
      "source": [
        "from keras.preprocessing.image import ImageDataGenerator\n",
        "train_datagen=ImageDataGenerator(rescale = 1./255, shear_range=0.2,\nzoom_range=0.2,horizontal_flip=True,vertical_flip=False)\n",
        "test_datagen = ImageDataGenerator(rescale=1./255)"
      ]
    },
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      "execution_count": 2,
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      "metadata": {},
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        {
          "name": "stdout",
```

```

"output_type": "stream",

"text": [

    "Found 15750 images belonging to 9 classes.\n"

]

},

"source": [

    "x_train = train_datagen.flow_from_directory(r'C:\\Users\\schit\\Downloads\\conversation engine\n\nfor deaf and dumb (1)\\Dataset\\training_set', target_size=(64,64),batch_size=100,\n",

    "                                class_mode='categorical', color_mode = \"grayscale\")"

],

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    "id": "6838bbdb",

    "metadata": {},

    "outputs": [

        {

            "name": "stdout",

            "output_type": "stream",

            "text": [

                "Found 2250 images belonging to 9 classes.\n"

            ]

        }

    ],

```

```

"source": [

    "x_test = test_datagen.flow_from_directory(r'C:\\Users\\schit\\Downloads\\conversation engine for
deaf and dumb (1)\\Dataset\\test_set', target_size=(64,64),batch_size=100,class_mode='categorical',
color_mode = \"grayscale\")"

]

},

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                    "158"

                ]

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            "execution_count": 4,

            "metadata": {},

            "output_type": "execute_result"

        }

    ],

    "source": [

        "len(x_train)"

    ]

```

```
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  "metadata": {},
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        "text/plain": [
          "23"
        ]
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      "execution_count": 5,
      "metadata": {},
      "output_type": "execute_result"
    }
  ],
  "source": [
    "len(x_test)"
  ]
},
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  "cell_type": "code",
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        '{"A': 0, 'B': 1, 'C': 2, 'D': 3, 'E': 4, 'F': 5, 'G': 6, 'H': 7, 'I': 8}"
      ]
    },
    "execution_count": 6,
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      "x_train.class_indices"
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    "cell_type": "code",
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    "id": "fb2b0f74",
    "metadata": {},
    "outputs": [],
    "source": [
```

```
"from keras.models import Sequential\n",  
"from keras.layers import Dense\n",  
"from keras.layers import Convolution2D\n",  
"from tensorflow.keras.layers import Conv2D, MaxPooling2D\n",  
"from keras.layers import Dropout\n",  
"from keras.layers import Flatten"  
]  
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    "model=Sequential()"br/>  ]  
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    "name": "python3"  
  },  
  "language_info": {  
    "codemirror_mode": {  
      "name": "ipython",  
      "version": 3  
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    "mimetype": "text/x-python",  
    "name": "python",  
    "nbconvert_exporter": "python",  
    "pygments_lexer": "ipython3",  
    "version": "3.9.13"  
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