

ASSIGNMENT-2

NAME: HARNISRIE L

ROLL NUMBER: 714019106030

COLLEGE NAME: SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY ,COIMBATORE.

DATA VISUALIZATION AND PRE-PROCESSING

```
{
  "nbformat": 4,
  "nbformat_minor": 0,
  "metadata": {
    "colab": {
      "provenance": []
    },
    "kernelspec": {
      "name": "python3",
      "display_name": "Python 3"
    },
    "language_info": {
      "name": "python"
    }
  },
  "cells": [
    {
      "cell_type": "code",
      "execution_count": null,
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "-lfKkDg7qIkj",
        "outputId": "dfe68fd2-9ee3-4c3d-fc65-d9e1b5b8bcff"
      },
      "source": ""
    }
  ]
}
```

```
"outputs": [
```

```
{
```

```

    "output_type": "stream",
    "name": "stdout",
    "text": [
        "Drive already mounted at /content/drive; to attempt to forcibly remount, call\n",
        "drive.mount('/content/drive', force_remount=True).\n"
    ]
}
],
"source": [
    "from google.colab import drive\n",
    "drive.mount('/content/drive')\n"
]
},
{
    "cell_type": "code",
    "source": [
        "import numpy as np\n",
        "import pandas as pd\n",
        "import matplotlib.pyplot as plt\n",
        "from matplotlib import style\n",
        "import seaborn as sns\n",
        "import cv2\n",
        "import matplotlib.pyplot as plt\n",
        "import numpy as np\n",
        "import pandas as pd\n",
        "import os\n",
        "import PIL\n",
        "import random\n",
        "import cv2\n",
        "from tensorflow.keras import layers, models\n",
        "import tensorflow as tf\n",

```

```
"import pandas as pd\n",  
"from sklearn.model_selection import train_test_split\n",  
"import seaborn as sns\n",  
"import pickle\n",  
"import zipfile\n",  
"tf_version_"  
],  
"metadata": {  
  "colab": {  
    "base_uri": "https://localhost:8080/",  
    "height": 35  
  },  
  "id": "G2cUjdb3qcys",  
  "outputId": "d9ee95af-c5a7-44f8-d371-079a82ba6ce4"  
},  
"execution_count": null,  
"outputs": [  
  {  
    "output_type": "execute_result",  
    "data": {  
      "text/plain": [  
        "2.9.2"  
      ],  
      "application/vnd.google.colaboratory.intrinsic+json": {  
        "type": "string"  
      }  
    },  
    "metadata": {},  
    "execution_count": 36  
  }  
]
```

```

},
{
  "cell_type": "code",
  "source": [
    "!ls"
  ],
  "metadata": {
    "colab": {
      "base_uri": "https://localhost:8080/"
    },
    "id": "ZB6MMipiqiSf",
    "outputId": "c352c6af-d08d-48ed-a2c5-686bb5b5f75d"
  },
  "execution_count": null,
  "outputs": [
    {
      "output_type": "stream",
      "name": "stdout",
      "text": [
        "drive sample_data\n"
      ]
    }
  ],
},
{
  "cell_type": "code",
  "source": [
    "try:\n",
    "    tpu = tf.distribute.cluster_resolver.TPUClusterResolver()\n",
    "    print('Device:', tpu.master())\n",
    "    tf.config.experimental_connect_to_cluster(tpu)\n",

```

```

" tf.tpu.experimental.initialize_tpu_system(tpu)\n",
" strategy = tf.distribute.experimental.TPUStrategy(tpu)\n",
"except:\n",
"  strategy = tf.distribute.get_strategy()\n",
"print('Number of replicas:', strategy.num_replicas_in_sync)"
],
"metadata": {
  "colab": {
    "base_uri": "https://localhost:8080/"
  },
  "id": "yI8LBI3VqxSi",
  "outputId": "a26e1983-efd1-4502-a2cc-ed461c27908e"
},
"execution_count": null,
"outputs": [
  {
    "output_type": "stream",
    "name": "stdout",
    "text": [
      "Number of replicas: 1\n"
    ]
  }
],
{
  "cell_type": "code",
  "source": [
    "AUTOTUNE = tf.data.experimental.AUTOTUNE\n",
    "batch_size = 32\n",
    "IMAGE_SIZE = [128, 128]\n",
    "EPOCHS = 25"
  ]
}

```

```
],
"metadata": {
  "id": "2pewwHQNq2Jp"
},
"execution_count": null,
"outputs": []
},
{
  "cell_type": "code",
  "source": [
    "image = cv2.imread(r'/content/drive/MyDrive/Flowers-  
Dataset/flowers/daisy/100080576_f52e8ee070_n.jpg')"
  ],
  "metadata": {
    "id": "650hqcD7q62f"
  },
  "execution_count": null,
  "outputs": []
},
{
  "cell_type": "code",
  "source": [
    "print(image.shape)"
  ],
  "metadata": {
    "colab": {
      "base_uri": "https://localhost:8080/",
      "height": 165
    },
    "id": "MnU6WDJHrdeg",
    "outputId": "dc7599cc-ada8-4f83-dd24-bc9a6046209e"
```

```

},
"execution_count": null,
"outputs": [
  {
    "output_type": "error",
    "ename": "AttributeError",
    "evalue": "ignored",
    "traceback": [
      "\u001b[0;31m.....\u001b[0m",
      "\u001b[0;31mAttributeError\u001b[0m      Traceback (most recent call last)",
      "\u001b[0;32m<ipython-input-41-3734bdb23d7f>\u001b[0m in",
      \u001b[0;36m<module>\u001b[0;34m\u001b[0m\n\u001b[0;32m  > 1\u001b[0;31m
      \u001b[0mprint\u001b[0m\u001b[0;34m(\u001b[0m\u001b[0mimage\u001b[0m\u001b[0;34m.\u001b[0
      01b[0m\u001b[0mshape\u001b[0m\u001b[0;34m)\u001b[0m\u001b[0;34m\u001b[0m\u001b[0;34m\u001b[0m\u001b[0;34m\u001b[0m\u001b[0;34m\u001b[0m",
      "\u001b[0;31mAttributeError\u001b[0m: 'NoneType' object has no attribute 'shape'"
    ]
  }
]

```