MAHENDRA ENGINEERING COLLEGE FOR
WOMEN
 ASSIGNMENT-1
NAME OF THE STUDENT:
R.MONIKA
REGISTER NUMBER:611419106040
YEAR/DEPARTMENT:IV-ECE

```
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   "nbformat_minor": 0,
   "metadata": {
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            "\n",
            "x = txt.split()\n",
```

```json
      "\n",
      "print(x)"
    ],
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    ]
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      "### Output should be: The diameter of Earth is 12742 kilometers."
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      "planet = \"Earth\"\n",
      "diameter = 12742"
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    },
    "execution_count": 3,
    "outputs": []
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      "txt = \"The diameter of Earth {diameter:} is        kilometers\"\n",
      "print(txt.format(diameter = 12742))\n"
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```

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          "## 3. In this nest dictionary grab the word \"hello\""
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          "d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}"
        ],
        "metadata": {
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          "print(d)"
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          "colab": {
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              "{'k1': [1, 2, 3, {'tricky': ['oh', 'man', 'inception', {'target': [1, 2, 3, 'hello']}]}]}\n"
            ]
          }
        ]
      },
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```

```json
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      "import numpy as np"
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    "metadata": {
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    },
    "execution_count": 18, "outputs":
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      4.2 Create an array of 10 fives?"
    ],
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    }
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  {
    "cell_type": "code",
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      "array=np.zeros(10)\n", "print(\"An
      array of 10 zeros:\")"
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    "metadata": {
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      "colab": {
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        "name": "stdout",
        "text": [
          "An array of 10 zeros:\n"
        ]
      }
    ]
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    "source": [
      "array=np.zeros(10)\n", "print(\"An
      array of 5 fives:\")"
    ],
```

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        "text": [
          "An array of 5 fives:\n"
        ]
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      "## 5. Create an array of all the even integers from 20 to 35"
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      "array=np.arange(20,35,2)\n",
      "print(\"Array of all the even integers from 20 to 35\")\n",
      "print(array)"
    ],
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      "colab": {
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      "outputId": "28ef5cb3-93cb-4ff8-a886-fbffc66193c3"
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    "execution_count": 21, "outputs":
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        "output_type": "stream",
        "name": "stdout",
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          "Array of all the even integers from 20 to 35\n", "[20
          22 24 26 28 30 32 34]\n"
        ]
      }
    ]
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      "## 6. Create a 3x3 matrix with values ranging from 0 to 8"
```

```
      ],
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      }
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        "x = np.arange(0, 9).reshape(3,3)\n", "print(x)"
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      "execution_count": 22, "outputs":
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          "name": "stdout",
          "text": [
            "[[0 1 2]\n",
            " [3 4 5]\n",
            " [6 7 8]]\n"
          ]
        }
      ]
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        "## 7. Concatenate a and b \n",
        "## a = np.array([1, 2, 3]), b = np.array([4, 5, 6])"
      ],
      "metadata": {
        "id": "hQ0dnhAQuU_p"
      }
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    {
      "cell_type": "code",
      "source": [
        "a = [1, 2,3]\n",
        "b = [4,5,6]\n",
        " \n",
        "\n",
        "for i in b :\n",
        "     a.append(i)\n",
        " \n",
        "\n",
        "print (\"Concatenated list a and b is : \" \n", "
                                        + str(a))"
      ],
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```

```
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          }
      ]
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          "import pandas as pd\n"
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      },
      "execution_count": 25, "outputs":
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          "\n",
          " \n",
          "\n",
          "data = [['tom', 10], ['nick', 15], ['juli', 14]]\n",
          " \n",
          "\n",
          "df = pd.DataFrame(data, columns=['Name','Age'])\n", "\n",
          "df"
```

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                "   Name Age\n",
                "0   tom   10\n",
                "1   nick   15\n",
                "2   juli   14"
            ],
            "text/html": [
                "\n",
                " <div id=\"df-a344f79d-1761-4ba3-b335-c8666e11be17\">\n", "
                    <div class=\"colab-df-container\">\n",
                "   <div>\n",
                "<style scoped>\n",
                "   .dataframe tbody tr th:only-of-type {\n", "
                    vertical-align: middle;\n",
                "   }\n",
                "\n",
                "   .dataframe tbody tr th {\n", "
                    vertical-align: top;\n", "
                    }\n",
                "\n",
                "   .dataframe thead th {\n", "
                    text-align: right;\n", "
                    }\n",
                "</style>\n",
                "<table border=\"1\" class=\"dataframe\">\n", "
                <thead>\n",
                "   <tr style=\"text-align: right;\">\n", "
                    <th></th>\n",
                "   <th>Name</th>\n",
                "   <th>Age</th>\n",
                "   </tr>\n",
                " </thead>\n",
                " <tbody>\n",
                " <tr>\n",
                "   <th>0</th>\n",
                "   <td>tom</td>\n",
                "   <td>10</td>\n",
                "   </tr>\n",
                " <tr>\n",
                "   <th>1</th>\n",
                "   <td>nick</td>\n",
                "   <td>15</td>\n",
                "   </tr>\n",

"   <tr>\n",
"   <th>2</th>\n",
"   <td>juli</td>\n",
"   <td>14</td>\n",
"   </tr>\n",
"   </tbody>\n",
"</table>\n",
"</div>\n",
"   <button class=\"colab-df-convert\" onclick=\"convertToInteractive('df-a344f79d-1761-4ba3-b335-c8666e11be17')\"\n",
"   title=\"Convert this dataframe to an interactive table.\"\n",
"   style=\"display:none;\">\n", "   \n",
"   <svg xmlns=\"http://www.w3.org/2000/svg\" height=\"24px\"viewBox=\"0 0 24 24\"\n",
"   width=\"24px\">\n",
"   <path d=\"M0 0h24v24H0V0z\" fill=\"none\"/>\n",
"   <path d=\"M18.56 5.44l.94 2.06.94-2.06 2.06-.94-2.06-.94-.94-2.06-.94 2.06-2.06.94zm-11 1L8.5 8.5l.94-2.06 2.06-.94-2.06-.94L8.5 2.5l-.94 2.06-2.06.94zm10 10l.94 2.06.94-2.06 2.06-.94-2.06-.94-.94-2.06-.94 2.06-2.06.94z\"/><path d=\"M17.41 7.96l-1.37-1.37c-.4-.4-.92-.59-1.43-.59-.52 0-1.04.2-1.43.59L10.3 9.45l-7.72 7.72c-.78.78-.78 2.05 0 2.83L4 21.41c.39.39.9.59 1.41.59.51 0 1.02-.2 1.41-.59l7.78-7.78 2.81-2.81c.8-.78.8-2.07 0-2.86zM5.41 20L4 18.59l7.72-7.72 1.47 1.35L5.41 20z\"/>\n",
"   </svg>\n",
"   </button>\n",
"   \n",
" <style>\n",
"   .colab-df-container {\n", "
      display:flex;\n",
"   flex-wrap:wrap;\n",
"   gap: 12px;\n",
"   }\n",
"\n",
"   .colab-df-convert {\n",
"   background-color: #E8F0FE;\n", "
      border: none;\n",
"   border-radius: 50%;\n",
"   cursor: pointer;\n",
"   display: none;\n",
"   fill: #1967D2;\n",
"   height: 32px;\n",
"   padding: 0 0 0 0;\n",
"   width: 32px;\n",
"   }\n",
"\n",
"   .colab-df-convert:hover {\n",
"   background-color: #E2EBFA;\n",
"   box-shadow: 0px 1px 2px rgba(60, 64, 67, 0.3), 0px 1px 3px 1px rgba(60, 64, 67, 0.15);\n",
"   fill: #174EA6;\n",
"   }\n",
"\n",
"   [theme=dark] .colab-df-convert {\n", "
      background-color: #3B4455;\n",
"   fill: #D2E3FC;\n",
"   }\n",
"\n",

```
"        [theme=dark] .colab-df-convert:hover {\n", "
              background-color: #434B5C;\n",
"            box-shadow: 0px 1px 3px 1px rgba(0, 0, 0, 0.15);\n",
"            filter: drop-shadow(0px 1px 2px rgba(0, 0, 0,0.3));\n", "
              fill: #FFFFFF;\n",
"        }\n",
"      </style>\n",
"\n",
"        <script>\n",
"          const buttonEl =\n",
"                    document.querySelector('#df-a344f79d-1761-4ba3-b335-
c8666e11be17 button.colab-df-convert');\n",
"          buttonEl.style.display =\n",
"            google.colab.kernel.accessAllowed ? 'block' : 'none';\n",
"\n",
"          async function convertToInteractive(key) {\n",
"            const element = document.querySelector('#df-a344f79d-1761- 4ba3-
b335-c8666e11be17');\n",
"            const dataTable =\n",
"                                                    await
google.colab.kernel.invokeFunction('convertToInteractive',\n",
"                                                    [key], {});\n",
"            if (!dataTable) return;\n",
"\n",
"            const docLinkHtml = 'Like what you see? Visit the ' +\n",
"                                                    '<a     target=\"_blank\"
href=https://colab.research.google.com/notebooks/data_table.ipynb>data                  table
notebook</a>'\n",
"            + ' to learn more about interactive tables.';\n",
"            element.innerHTML = '';\n",
"            dataTable['output_type'] = 'display_data';\n",
"            await google.colab.output.renderOutput(dataTable,element);\n", "
              const docLink = document.createElement('div');\n",
"            docLink.innerHTML = docLinkHtml;\n",
"            element.appendChild(docLink);\n",
"          }\n",
"        </script>\n",
"      </div>\n",
"  </div>\n",
" "
      ]
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    "*italicized text*## 9. Generate the series of dates from 1st Jan, 2023 to 10th Feb,
2023"
  ],
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  }
},
```

```
{
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        "import pandas as pd\n",
        "\n",
        "\n",
        "dates = pd.date_range('2023-01-01', periods=41, freq='D')\n", "\n",
        "s = pd.Series(dates)\n", "print
        (s)"
    ],
    "metadata": {
        "id": "dgyC0JhVYl4F",
        "colab": {
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        "outputId": "f9c818dd-bcf2-480d-ab74-9fc46403210b"
    },
    "execution_count": 29, "outputs":
    [
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            "name": "stdout",
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                "0      2023-01-01\n",
                "1      2023-01-02\n",
                "2      2023-01-03\n",
                "3      2023-01-04\n",
                "4      2023-01-05\n",
                "5      2023-01-06\n",
                "6      2023-01-07\n",
                "7      2023-01-08\n",
                "8      2023-01-09\n",
                "9      2023-01-10\n",
                "10     2023-01-11\n",
                "11     2023-01-12\n",
                "12     2023-01-13\n",
                "13     2023-01-14\n",
                "14     2023-01-15\n",
                "15     2023-01-16\n",
                "16     2023-01-17\n",
                "17     2023-01-18\n",
                "18     2023-01-19\n",
                "19     2023-01-20\n",
                "20     2023-01-21\n",
                "21     2023-01-22\n",
                "22     2023-01-23\n",
                "23     2023-01-24\n",
                "24     2023-01-25\n",
                "25     2023-01-26\n",
                "26     2023-01-27\n",
                "27     2023-01-28\n",
                "28     2023-01-29\n",
                "29     2023-01-30\n",
                "30     2023-01-31\n",
                "31     2023-02-01\n",
                "32     2023-02-02\n",
```

```json
            "33     2023-02-03\n",
            "34     2023-02-04\n",
            "35     2023-02-05\n",
            "36     2023-02-06\n",
            "37     2023-02-07\n",
            "38     2023-02-08\n",
            "39     2023-02-09\n",
            "40     2023-02-10\n",
            "dtype: datetime64[ns]\n"
          ]
        }
      ]
    },
    {
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        "## 10. Create 2D list to DataFrame\n", "\n",
        "lists = [[1, 'aaa', 22],\n",
        "         [2, 'bbb', 25],\n",
        "         [3, 'ccc', 24]]"
      ],
      "metadata": {
        "id": "ZizSetD-y5az"
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      "cell_type": "code",
      "source": [
        "lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]"
      ],
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      "execution_count": 33, "outputs":
      []
    },
    {
      "cell_type": "code",
      "source": [
        "import pandas as pd  \n", "
            \n",
        " \n",
        "lst = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]\n",
        "         \n",
        " \n",
        " \n",
        "df = pd.DataFrame(lst, columns =['NO', 'name','age']) \n", "print(df)"
      ],
      "metadata": {
        "id":
        "knH76sDKYsVX",
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "outputId": "19affc1b-734e-4740-cb8a-40d4f6d423a5"
      },
```

"execution_count": 37, "outputs":
[
    {
        "output_type": "stream",
        "name": "stdout",
        "text": [
            "   NO name age\n", "0
                    1   aaa   22\n",
            "1   2   bbb   25\n",
            "2   3   ccc   24\n"
        ]
    }
]
}
]
}