TEAM ID:PNT2022TMID09663

ASSIGNMENT 3


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   "print(x)"
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 ]
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   "\n",
   "### Output should be: The diameter of Earth is 12742 kilometers."
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```
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   "print(txt.format(diameter = 12742))\n"
 ],
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   "outputId": "f6753ae9-465e-4c1a-b2aa-584c5b085109"
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    "text": [
     "The diameter of Earth 12742 is  kilometers\n"
    ]
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 ]
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   "## 3. In this nest dictionary grab the word \"hello\""
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 }
},
{
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 ],
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  "print(d)"
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   "text": [
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   ]
  }
 ]
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  "# Numpy"
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  "## 4.2 Create an array of 10 fives?"
 ],
 "metadata": {
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  }
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    "print(\"An array of 10 zeros:\")"
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      "text": [
        "An array of 10 zeros:\n"
      ]
    }
  ]
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  "array=np.zeros(10)\n",
    "print(\"An array of 5 fives:\")"
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    },
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      "name": "stdout",
      "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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  "cell_type": "code",
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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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    "text": [
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     "[20 22 24 26 28 30 32 34]\n"
    ]
   }
  ]
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   "print(x)"
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       " [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])"
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   "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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  "# Pandas"
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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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     "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",
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     "   .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\"
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"            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
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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",
```

```
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"     gap: 12px;\n",
"   }\n",
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"     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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    ],
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    }
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    "cell_type": "code",
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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": {
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     "colab": {
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```

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},
"execution_count": 29,
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      "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",
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      "12  2023-01-13\n",
      "13  2023-01-14\n",
      "14  2023-01-15\n",
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      "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",
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      "32  2023-02-02\n",
      "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",
```

```
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      "dtype: datetime64[ns]\n"
     ]
    }
  ]
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  "source": [
   "## 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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  ],
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  },
  "execution_count": 33,
  "outputs": []
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  "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": {
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    },
    "execution_count": 37,
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      "name": "stdout",
      "text": [
       " NO name age\n",
       "0  1  aaa 22\n",
       "1   2  bbb   25\n",
       "2  3  ccc   24\n"
      ]
     }
    ]
   }
  ]
}
```