

Project development phase (delivery)

Sprint- 4

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    "metadata": {
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      "print(s.split())"
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```

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  ],
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  "source": [
    "## 2. Use .format() to print the following string. \n",
    "\n",
    "### Output should be: The diameter of Earth is 12742 kilometers."
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{
  "metadata": {
    "id": "GH1QBn8HP375"
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  "cell_type": "code",
  "source": [
    "planet = \"Earth\"\n",
    "diameter = 12742"
  ],
}
```

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      "print(f\"The diameter of Earth is {diameter} kilometers.\")"
    ],
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        "base_uri": https://localhost:8080/
      }
    },
    "execution_count": 7,
    "outputs": [
      {
        "output_type": "stream",
        "name": "stdout",
        "text": [
          "The diameter of Earth is 12742 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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  "source": [
    "d = {'k1': [1, 2, 3, {'tricky': ['oh', 'man', 'inception', {'target': [1, 2, 3, 'hello']}]}]}"
  ],
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  "execution_count": 8,
  "outputs": []
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  "source": [
    "print(d['k1'][3]['tricky'][3]['target'][3])"
  ],
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```

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},
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    "text": [
      "hello\n"
    ]
  }
],
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  "source": [
    "# Numpy"
  ],
  "metadata": {
    "id": "bw0vVp-9ddjv"
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},
{
  "cell_type": "code",
  "source": [
    "import numpy as np"
  ],
  "metadata": {
```

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    "## 4.1 Create an array of 10 zeros? \n",
    "## 4.2 Create an array of 10 fives?"
  ],
  "metadata": {
    "id": "wOg8hinbgx30"
  }
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  "cell_type": "code",
  "source": [
    "zeros=np.zeros(10)"
  ],
  "metadata": {
    "id": "NHrirmgCYXvU"
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  "execution_count": 11,
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  "source": [
```

```

    "fives=np.full(10,5)\n",
    "print(zeros,fives)"
],
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    "outputId": "0f2ef939-1168-496d-b3fc-6d1e6be7b190",
    "colab": {
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},
"execution_count": 15,
"outputs": [
    {
        "output_type": "stream",
        "name": "stdout",
        "text": [
            "[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.] [5 5 5 5 5 5 5 5 5 5]\n"
        ]
    }
],
},
{
    "cell_type": "markdown",
    "source": [
        "## 5. Create an array of all the even integers from 20 to 35"
    ],
    "metadata": {
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    }
}

```



```
},
{
  "cell_type": "code",
  "source": [
    "arr=[l for l in range(20,35+1) if i%2==0]\n",
    "arr"
  ],
  "metadata": {
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    "outputId": "b53dd299-7197-43d0-8d62-4bf0e840c885",
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  "execution_count": 16,
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      "output_type": "execute_result",
      "data": {
        "text/plain": [
          "[20, 22, 24, 26, 28, 30, 32, 34]"
        ]
      },
      "metadata": {},
      "execution_count": 16
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  ],
}
```

```

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"source": [
    "## 6. Create a 3x3 matrix with values ranging from 0 to 8"
],
"metadata": {
    "id": "NaOM308NsRpZ"
}
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{
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        "array=np.arange(0,9).reshape((3,3))\n",
        "array"
    ],
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        "outputId": "a8144bde-e4e9-46ac-f89b-22306e71c7bd",
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        {
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            "data": {
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                    "array([[0, 1, 2],\n",
                    "       [3, 4, 5],\n",

```

```

        "    [6, 7, 8]]]"
    ]
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"metadata": {},
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}
]
},
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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 = np.array([1, 2, 3])\n",
        "b = np.array([4, 5, 6])\n",
        "c=np.concatenate((a,b))\n",
        "c"
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```

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  "## 8. Create a dataframe with 3 rows and 2 columns"
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    "import pandas as pd\n"
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    "df=pd.DataFrame.from_dict(d)\n",
    "df"
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"2 joe 28"
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```
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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",  
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    \n",  
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“ fill: #D2E3FC;\n”,
“ }\n”,
“\n”,
“ [theme=dark] .colab-df-convert:hover {\n”,
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“ 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-598e9ee5-fb74-4a51-acc5-099517bc009e 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-598e9ee5-fb74-4a51-acc5-
099517bc009e');\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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  "source": [
    "## 9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023"
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  "metadata": {
    "id": "UXSmdNclyJQD"
  }
},
{
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  "source": [
    "date=pd.date_range(\"01-01-2023\", \"10-02-2023\", freq=\"D\")"
  ],
  "metadata": {
    "id": "dgyCOJhVYl4F",
    "outputId": "187fb707-db6f-42fa-d730-c96366dfadae",
    "colab": {
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    }
  },
  "execution_count": 35,
  "outputs": [
    {

```

```

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    "DatetimeIndex(['2023-01-01', '2023-01-02', '2023-01-03', '2023-01-04',\n",
    "                '2023-01-05', '2023-01-06', '2023-01-07', '2023-01-08',\n",
    "                '2023-01-09', '2023-01-10',\n",
    "                ...\n",
    "                '2023-09-23', '2023-09-24', '2023-09-25', '2023-09-26',\n",
    "                '2023-09-27', '2023-09-28', '2023-09-29', '2023-09-30',\n",
    "                '2023-10-01', '2023-10-02'],\n",
    "              dtype='datetime64[ns]', length=275, freq='D')"
```

```

    }
  },
  {
    "cell_type": "code",
    "source": [
      "lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]"
    ],
    "metadata": {
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    },
    "execution_count": 36,
    "outputs": []
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    "cell_type": "code",
    "source": [
      "df=pd.DataFrame(lists,columns=[\"C1\", \"C2\", \"C3\"])\n",
      "df"
    ],
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      "id": "knH76sDKYsVX",
      "outputId": "1f47a5ef-d884-493b-85a7-4e462c85d335",
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```

```

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      "1 2 bbb 25\n",
      "2 3 ccc 24"
    ],
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      "         vertical-align: middle;\n",
      "       }\n",
      "     \n",
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      "     }\n",
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      "     .dataframe thead th {\n",
      "       text-align: right;\n",
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      "     <thead>\n",

```

```
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```

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```



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“ filter: drop-shadow(0px 1px 2px rgba(0, 0, 0, 0.3));\n”,
“ fill: #FFFFFF;\n”,
“ }\n”,
“ </style>\n”,
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“ buttonEl.style.display =\n”,
```

```

        "    google.colab.kernel.accessAllowed ? 'block' : 'none';\n",
        "\n",
        "    async function convertToInteractive(key) {\n",
        "        const element = document.querySelector('#df-fef6f28e-9431-4092-82cd-
da1a9e44b091');\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",
        "    "
    ]
},
"metadata": {},
"execution_count": 38

```

```
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  ]  
},  
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