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        "s = \"Hi there Sam!\""
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      "outputs": [
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              "['Hi', 'there', 'Sam!']"
            ]
          },
          "execution_count": 1,
          "metadata": {},
          "output_type": "execute_result"
        }
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      "source": [
        "s = \"Hi there Sam!\"",
        "s.split()"
      ]
    }
  ],

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

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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']}]}}]"
        ]
    },
    {
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        },
        "outputs": [
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                    "text/plain": [
                        "'hello'"
                    ]
                },
                "execution_count": 3,
                "metadata": {},
                "output_type": "execute_result"
            }
        ],
        "source": [
            "d =
{'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':
[1,2,3,'hello']}]}}]\n",
            "d['k1'][3]['tricky'][3]['target'][3]"
        ]
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        "source": [
            "# Numpy"
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        "execution_count": null,

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    "outputs": [],
    "source": [
      "import numpy as np"
    ]
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    "cell_type": "markdown",
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    "source": [
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      "## 4.2 Create an array of 10 fives?"
    ]
  },
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    "metadata": {
      "id": "NHrirmgCYXvU"
    },
    "outputs": [
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        "data": {
          "text/plain": [
0.])"
            "array([0., 0., 0., 0., 0., 0., 0., 0., 0.,
0.])"
          ]
        },
        "execution_count": 4,
        "metadata": {},
        "output_type": "execute_result"
      }
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      "np.zeros(10) "
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5.])"
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5.])"
          ]
        },
        "execution_count": 5,
        "metadata": {},
        "output_type": "execute_result"
      }
    ],
    "source": [
      "import numpy as np\n",
      "np.ones(10) "
    ]
  }
]

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        ]
    },
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    "metadata": {},
    "output_type": "execute_result"
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    "np.ones(10)*5"
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from 20 to 35"
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    },
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                "text/plain": [
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                ]
            },
            "execution_count": 6,
            "metadata": {},
            "output_type": "execute_result"
        }
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        "import numpy as np\n",
        "np.arange(20,35,2)"
    ]
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        "## 6. Create a 3x3 matrix with values ranging
from 0 to 8"
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}

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  "metadata": {
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          "array([[0, 1, 2],\n",
          "       [3, 4, 5],\n",
          "       [6, 7, 8]])"
        ]
      },
      "execution_count": 7,
      "metadata": {},
      "output_type": "execute_result"
    }
  ],
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    "np.arange(0,9).reshape(3,3)"
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  "cell_type": "markdown",
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  "source": [
    "## 7. Concatenate a and b \n",
    "## a = np.array([1, 2, 3]), b = np.array([4, 5,
6])"
  ]
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        "text/plain": [
          "array([1, 2, 3, 4, 5, 6])"
        ]
      },
      "execution_count": 8,
      "metadata": {},
      "output_type": "execute_result"
    }
  ]
}

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],
"source": [
    "import numpy as np\n",
    "a=np.array([1,2,3])\n",
    "b=np.array([4,5,6])\n",
    "np.concatenate((a,b))"
]
},
{
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    "metadata": {
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    },
    "source": [
        "# Pandas"
    ]
},
{
    "cell_type": "markdown",
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    "source": [
        "## 8. Create a dataframe with 3 rows and 2
columns"
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    "source": [
        "import pandas as pd\n"
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                    "<style scoped>\n",
                    "    .dataframe tbody tr th:only-of-type {\n",
                    "        vertical-align: middle;\n",
                    "    }\n",
                    "\n"
                ]
            }
        ]
    ]
}

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        .dataframe tbody tr th {\n",
        vertical-align: top;\n",
        }\n",
    "\n",
    .dataframe thead th {\n",
    text-align: right;\n",
    }\n",
    "</style>\n",
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    "      <th>1</th>\n",
    "    </tr>\n",
    "  </thead>\n",
    "  <tbody>\n",
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    "      <td>1</td>\n",
    "      <td>2</td>\n",
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    "    </tr>\n",
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    "      <td>5</td>\n",
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    "  </tbody>\n",
    "</table>\n",
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    "0   1   2\n",
    "1   3   4\n",
    "2   5   6"
  ]
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"execution_count": 10,
"metadata": {},
"output_type": "execute_result"
}
],
"source": [
  "import pandas as pd\n",
  "pd.DataFrame([ [1,2], [3,4], [5,6] ])\n"
]
},
{

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```

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2023 to 10th Feb, 2023"
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'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',
'2023-01-11', '2023-01-12',\n",
                    "                '2023-01-13', '2023-01-14',
'2023-01-15', '2023-01-16',\n",
                    "                '2023-01-17', '2023-01-18',
'2023-01-19', '2023-01-20',\n",
                    "                '2023-01-21', '2023-01-22',
'2023-01-23', '2023-01-24',\n",
                    "                '2023-01-25', '2023-01-26',
'2023-01-27', '2023-01-28',\n",
                    "                '2023-01-29', '2023-01-30',
'2023-01-31', '2023-02-01',\n",
                    "                '2023-02-02', '2023-02-03',
'2023-02-04', '2023-02-05',\n",
                    "                '2023-02-06', '2023-02-07',
'2023-02-08', '2023-02-09',\n",
                    "                '2023-02-10'],\n",
                    dtype='datetime64[ns]',
                    freq='D')"
                ]
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            "execution_count": 11,
            "metadata": {},
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        }
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        "pd.date_range(start='1/1/2023',
end='02/10/2023')"
    ]
}

```

```

},
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    "## 10. Create 2D list to DataFrame\n",
    "\n",
    "lists = [[1, 'aaa', 22],\n",
    "          [2, 'bbb', 25],\n",
    "          [3, 'ccc', 24]]"
  ]
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    "'ccc', 24]]"
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          "<style scoped>\n",
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          "        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",
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          "  <thead>\n",
          "    <tr style='text-align: right;'>\n",
          "      <th></th>\n",

```

```

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        <th>1</th>\n",
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    <tr>\n",
        <th>1</th>\n",
        <td>2</td>\n",
        <td>bbb</td>\n",
        <td>25</td>\n",
    </tr>\n",
    <tr>\n",
        <th>2</th>\n",
        <td>3</td>\n",
        <td>ccc</td>\n",
        <td>24</td>\n",
    </tr>\n",
    </tbody>\n",
</table>\n",
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    "0  1  aaa  22\n",
    "1  2  bbb  25\n",
    "2  3  ccc  24"
]
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"execution_count": 12,
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"output_type": "execute_result"
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"source": [
    "import pandas as pd\n",
    "lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3,\n",
    "'ccc', 24]]\n",
    "pd.DataFrame(lists)"
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