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        "## 1. Split this string"
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        "s = \"Hi there Sam!\""
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      "outputs": [
        {
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          "name": "stdout",
          "text": [
```

```
          "['Hi', 'there', 'Sam!']\n"
        ]
      }
    ],
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      "s = \"Hi there Sam!\"\n",
      "n=s.split()\n",
      "print(n)"
    ]
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      "## 2. Use .format() to print the following string. \n",
      "\n",
      "### Output should be: The diameter of Earth is 12742 kilometers."
    ]
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      "planet = \"Earth\"\n",
      "diameter = 12742"
    ]
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```
      "name": "stdout",
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        "The diameter of Earth is 12742 kilometers\n"
      ]
    }
  ],
  "source": [
    "planet = \"Earth\"\n",
    "diameter = 12742\n",
    "star=\"The diameter of {p} is {k} kilometers\"\n",
    "print(star.format(p=planet,k=diameter))"
  ]
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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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      "data": {
        "text/plain": [
          "'hello'"
        ],
        "application/vnd.google.colaboratory.intrinsic+json": {
          "type": "string"
        }
      },
      "metadata": {},
      "execution_count": 10
    }
  ],
  "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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    "# Numpy"
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  "source": [
    "import numpy as np"
  ]
},
{
```

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    "## 4.2 Create an array of 10 fives?"
  ]
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{
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    "array=np.zeros(10)\n",
    "print(\"An array of 10 zeros\")\n",
    "print(array)"
  ],
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      "output_type": "stream",
      "name": "stdout",
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        "[0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]\n"
      ]
    }
  ]
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  },
  "outputs": [
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```
    {
      "output_type": "stream",
      "name": "stdout",
      "text": [
        "An array of 10 fives\n",
        "[5. 5. 5. 5. 5. 5. 5. 5. 5. 5.]\n"
      ]
    }
  ],
  "source": [
    "array=np.ones(10)*5\n",
    "print(\"An array of 10 fives\")\n",
    "print(array)"
  ]
},
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  "source": []
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  "source": [
    "## 5. Create an array of all the even integers from 20 to 35"
  ]
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  "outputs": [
    {
      "output_type": "stream",
```

```
      "name": "stdout",
      "text": [
        "[20 22 24 26 28 30 32 34]\n"
      ]
    }
  ],
  "source": [
    "a=np.arange(20,35,2)\n",
    "print(a)"
  ]
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  ]
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  },
  "outputs": [
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      "output_type": "stream",
      "name": "stdout",
      "text": [
        "[[0 1 2]\n",
        " [3 4 5]\n",
        " [6 7 8]]\n"
      ]
    }
  ],
  "source": [
    "x=np.arange(0,9).reshape(3,3)\n",
    "print(x)"
  ]
},
```

```
{
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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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    "import numpy as np\n"
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  "outputs": []
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{
  "cell_type": "code",
  "source": [
    "a=np.array([1,2,3])\n",
    "b=np.array([4,5,6])"
  ],
  "metadata": {
    "id": "cn3WDnhchxP2"
  },
  "execution_count": 10,
  "outputs": []
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  "cell_type": "code",
  "source": [
    "np.concatenate((a, b))"
  ],
  "metadata": {
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    "outputId": "62c8ba45-6072-45a5-aef8-7bf44e41debc",
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```

```
  "outputs": [
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      "data": {
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          "array([1, 2, 3, 4, 5, 6])"
        ]
      },
      "metadata": {},
      "execution_count": 11
    }
  ]
},
{
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    "## 8. Create a dataframe with 3 rows and 2 columns"
  ]
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  },
  "outputs": [
    {
      "output_type": "stream",
      "name": "stdout",
      "text": [
        "     Name  Age\n",
        "0   vamsi   10\n",
        "1  mahesh   20\n",
        "2     sai   30\n"
      ]
    }
  ],
  "source": [
    "import pandas as pd\n",
```

```
      "data=[['vamsi',10],['mahesh',20],['sai',30]]\n",
      "a=pd.DataFrame(data,columns=['Name','Age',])\n",
      "print(a)\n"
     ]
    },
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       "name": "stdout",
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datetime.datetime(2023, 1, 3, 0, 0), datetime.datetime(2023, 1, 4, 0, 0),
datetime.datetime(2023, 1, 5, 0, 0), datetime.datetime(2023, 1, 6, 0, 0),
datetime.datetime(2023, 1, 7, 0, 0), datetime.datetime(2023, 1, 8, 0, 0),
datetime.datetime(2023, 1, 9, 0, 0), datetime.datetime(2023, 1, 10, 0, 0),
datetime.datetime(2023, 1, 11, 0, 0), datetime.datetime(2023, 1, 12, 0, 0),
datetime.datetime(2023, 1, 13, 0, 0), datetime.datetime(2023, 1, 14, 0, 0),
datetime.datetime(2023, 1, 15, 0, 0), datetime.datetime(2023, 1, 16, 0, 0),
```

```
datetime.datetime(2023, 1, 17, 0, 0), datetime.datetime(2023, 1, 18, 0, 0),
datetime.datetime(2023, 1, 19, 0, 0), datetime.datetime(2023, 1, 20, 0, 0),
datetime.datetime(2023, 1, 21, 0, 0), datetime.datetime(2023, 1, 22, 0, 0),
datetime.datetime(2023, 1, 23, 0, 0), datetime.datetime(2023, 1, 24, 0, 0),
datetime.datetime(2023, 1, 25, 0, 0), datetime.datetime(2023, 1, 26, 0, 0),
datetime.datetime(2023, 1, 27, 0, 0), datetime.datetime(2023, 1, 28, 0, 0),
datetime.datetime(2023, 1, 29, 0, 0), datetime.datetime(2023, 1, 30, 0, 0),
datetime.datetime(2023, 1, 31, 0, 0), datetime.datetime(2023, 2, 1, 0, 0),
datetime.datetime(2023, 2, 2, 0, 0), datetime.datetime(2023, 2, 3, 0, 0),
datetime.datetime(2023, 2, 4, 0, 0), datetime.datetime(2023, 2, 5, 0, 0),
datetime.datetime(2023, 2, 6, 0, 0), datetime.datetime(2023, 2, 7, 0, 0),
datetime.datetime(2023, 2, 8, 0, 0), datetime.datetime(2023, 2, 9, 0, 0),
datetime.datetime(2023, 2, 10, 0, 0)]\n"
          ]
        }
      ],
      "source": [
        "from datetime import datetime,timedelta\n",
        "\n",
        "def date_range(start,end):\n",
        "    delta=end - start\n",
        "    days= [start + timedelta(days=i) for i in range(delta.days + 1)]\n",
        "    return days\n",
        "start_date=datetime(2023,1,1)\n",
        "end_date=datetime(2023,2,10)\n",
        "print(date_range(start_date, end_date))"
      ]
    },
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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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```
    },
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    },
    "outputs": [
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        "name": "stdout",
        "text": [
          "   Number FName  Age\n",
          "0       1   aaa   22\n",
          "1       2   bbb   25\n",
          "2       3   ccc   24\n"
        ]
      }
    ],
    "source": [
      "lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]\n",
      "df=pd.DataFrame(lists,columns=['Number','FName','Age'])\n",
      "print(df)\n"
    ]
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