

KSR College Of Engineering , Tiruchengode

Department of Information Technology

NALAIYA THIRAN

AI ASSESMENT- 1

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        "The following code is a simple Python program that prints the name of the user and the current date and time."`
```

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"# Basic Python"

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    "s = \"Hi there Sam!\"\\n",

    "\\n",

    "\\n",

    "n=s.split()\\n",

    "print(n)"

  ],

  "metadata": {
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```
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      "['Hi', 'there', 'Sam!']\n"
    ]
  }
],
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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."
  ],
  "metadata": {
```

```
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{
  "cell_type": "code",
  "source": [
    "planet = \"Earth\\n\\n\",
    "diameter = 12742\\n",
    "\\n",
    "\\n",
    "\\n",
    "star = \"The diameter of {p} is {d} kilometers \\n\\n\",
    "print(star.format(p=planet,d=diameter))"
  ],
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    "outputId": "69299b93-c410-425c-b48a-5b17fbea4a14",
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```

```

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        "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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        "d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}\n",

        "\n",

        "\n",

        "\n",

        "d['k1'][3]['tricky'][3]['target'][3]"

    ],

```

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        "'hello'"
      ],
      "application/vnd.google.colaboratory.intrinsic+json": {
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    "metadata": {},
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    "## 4.2 Create an array of 10 fives?"
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```

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    "print(a)"  
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}
```



```
]
}
]
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    "b=np.ones(10)*5\n",
    "print(b)"
  ],
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  "execution_count": null,
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      "name": "stdout",
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      ]
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  ]
}
```

```
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    "a=np.arange(20,35,2)\n",  
    "print(a)"  
  ],  
  "metadata": {  
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    "outputId": "138baaf0-d91d-4009-e79e-f992861a4b7c",  
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    "text": [

      "[20 22 24 26 28 30 32 34]\n"

    ]

  }

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{

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    "## 6. Create a 3x3 matrix with values ranging from 0 to 8"

  ],

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    "a=np.arange(0,9).reshape(3,3)\n",

    "print(a)"

  ]

}
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"execution_count": null,
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    "output_type": "stream",
    "name": "stdout",
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      "[[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])"
  ],
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  "source": [
    "a=np.array ([1,2,3])\n",
    "b=np.array([4,5,6])\n",
    "c=np.concatenate((a,b),axis=0)\n",
    "print(c)\n",
    "\n"
  ],
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```

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  "[1 2 3 4 5 6]\n"
]
}
],
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    "## 8. Create a dataframe with 3 rows and 2 columns"
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  "outputs": []  
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  "cell_type": "code",  
  "source": [  
    "data=[['muni',10],['sai',20],['nathan',30]]\n",  
    "a=pd.DataFrame(data,columns=['Name','Age'])\n",  
    "print(a)"  
  ],  
  "metadata": {  
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    "outputId": "2f2825df-6eb4-4fc9-9ed2-3e20dc2e49f8",  
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```
},
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"outputs": [
  {
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    "name": "stdout",
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      "  Name Age\n",
      "0  muni 10\n",
      "1  sai 20\n",
      "2  nathan 30\n"
    ]
  }
],
},
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    "## 9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023"
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{
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```
"cell_type": "code",
"source": [
    "from datetime import date,timedelta\n",
    "sdate =date(2023,1,1)\n",
    "edate=date(2023,2,11)\n",
    "[sdate+timedelta(days=x)for x in range((edate-sdate).days)]"
],
"metadata": {
    "id": "dgyCOJhVYl4F",
    "outputId": "2552a2b5-8926-4bad-e3a7-932ed999ac39",
    "colab": {
        "base_uri": "https://localhost:8080/"
    }
},
"execution_count": 3,
"outputs": [
    {
        "output_type": "execute_result",
        "data": {
            "text/plain": [
                "[datetime.date(2023, 1, 1),\n",
                " datetime.date(2023, 1, 2),\n",
                " datetime.date(2023, 1, 3),\n",
                " datetime.date(2023, 1, 4),\n",
                " datetime.date(2023, 1, 5),\n"
```

" datetime.date(2023, 1, 6),\n",
" datetime.date(2023, 1, 7),\n",
" datetime.date(2023, 1, 8),\n",
" datetime.date(2023, 1, 9),\n",
" datetime.date(2023, 1, 10),\n",
" datetime.date(2023, 1, 11),\n",
" datetime.date(2023, 1, 12),\n",
" datetime.date(2023, 1, 13),\n",
" datetime.date(2023, 1, 14),\n",
" datetime.date(2023, 1, 15),\n",
" datetime.date(2023, 1, 16),\n",
" datetime.date(2023, 1, 17),\n",
" datetime.date(2023, 1, 18),\n",
" datetime.date(2023, 1, 19),\n",
" datetime.date(2023, 1, 20),\n",
" datetime.date(2023, 1, 21),\n",
" datetime.date(2023, 1, 22),\n",
" datetime.date(2023, 1, 23),\n",
" datetime.date(2023, 1, 24),\n",
" datetime.date(2023, 1, 25),\n",
" datetime.date(2023, 1, 26),\n",
" datetime.date(2023, 1, 27),\n",
" datetime.date(2023, 1, 28),\n",
" datetime.date(2023, 1, 29),\n",
" datetime.date(2023, 1, 30),\n",

```

" datetime.date(2023, 1, 31),\n",
" datetime.date(2023, 2, 1),\n",
" datetime.date(2023, 2, 2),\n",
" datetime.date(2023, 2, 3),\n",
" datetime.date(2023, 2, 4),\n",
" datetime.date(2023, 2, 5),\n",
" datetime.date(2023, 2, 6),\n",
" datetime.date(2023, 2, 7),\n",
" datetime.date(2023, 2, 8),\n",
" datetime.date(2023, 2, 9),\n",
" datetime.date(2023, 2, 10)]"
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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"
  }
},
{
  "cell_type": "code",
  "source": [
    "lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]\n",
    "\n",
    "\n",
    "a=pd.DataFrame(lists,columns=['Number','FName','Age'])\n",
    "print(a)"
  ],
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    "outputId": "2413aaed-1f46-4e42-abc6-d4b05a1eee4f",
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  "outputs": [
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```

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  "  Number FName Age\n",  
  "0    1  aaa  22\n",  
  "1    2  bbb  25\n",  
  "2    3  ccc  24\n"  
]  
}  
]  
}  
]  
}
```