VSB ENGINEERING COLLEGE, KARUR

Electronics and Communication Engineering

IBM NALAIYA THIRAN

Domain name : Artificial Intelligence

Title : REAL-TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED


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              "type": "string"
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          "metadata": {},
          "execution_count": 2
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        "### Output should be: The diameter of Earth is 12742
kilometers."
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        "diameter = 12742"
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        "print(\"The diameter of {} is {}
kilometer\".format(planet,diameter\n",
        "                                                    ))"
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{'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}
]}]}"
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        "d['k1'][3]['tricky'][3]['target'][3]"
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```

```
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        ],
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    "import numpy as np"
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    "## 4.2 Create an array of 10 fives?"
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    "a"
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```

```
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        ]
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      "metadata": {},
      "execution_count": 12
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  ]
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    "b=np.ones(10)*5\n",
    "b"
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        "text/plain": [
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        ]
      },
      "metadata": {},
      "execution_count": 13
    }
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    "s=np.arange(20,50,2)\n",
    "s"
  ],
  "metadata": {
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```

```
      },
      "execution_count": 15,
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        {
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46, 48])"
            ]
          },
          "metadata": {},
          "execution_count": 15
        }
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        "b=np.arange(0,9).reshape(3,3)\n",
        "b"
      ],
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              "array([[0, 1, 2],\n",
              "       [3, 4, 5],\n",
              "       [6, 7, 8]])"
            ]
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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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  "metadata": {
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    "a=np.array([1,2,3])\n",
    "b=np.array([4,5,6])\n",
    "np.concatenate((a,b))"
  ],
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  },
  "execution_count": 18,
  "outputs": [
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      "output_type": "execute_result",
      "data": {
        "text/plain": [
          "array([1, 2, 3, 4, 5, 6])"
        ]
      },
      "metadata": {},
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  "metadata": {
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    "import pandas as pd\n"
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{\"names\":[\"aaa\",\"bbb\",\"ccc\",],\"age\":[21,22,20]}\n",
        "df = pd.DataFrame(d)\n",
        "df"
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              "0   aaa   21\n",
              "1   bbb   22\n",
              "2   ccc   20"
            ],
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              "\n",
              "  <div id=\"df-b5679877-3840-42e3-9a1b-a99a23e039fd\">\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",
              "\n",
              "    .dataframe thead th {\n",
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              "    }\n",
              "</style>\n",
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              "  <thead>\n",
              "    <tr style=\"text-align: right;\">\n",
              "      <th></th>\n",
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              "  </thead>\n",
```

```
"  <tbody>\n",
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"      <td>21</td>\n",
"    </tr>\n",
"    <tr>\n",
"      <th>1</th>\n",
"      <td>bbb</td>\n",
"      <td>22</td>\n",
"    </tr>\n",
"    <tr>\n",
"      <th>2</th>\n",
"      <td>ccc</td>\n",
"      <td>20</td>\n",
"    </tr>\n",
"  </tbody>\n",
"</table>\n",
"</div>\n",
"      <button class=\"colab-df-convert\"
onclick=\"convertToInteractive('df-b5679877-3840-42e3-9a1b-
a99a23e039fd')\"\n",
"              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-
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.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 7.96l-1.37-1.37c-.4-.4-
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2.05 0 2.83L4 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",
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"      gap: 12px;\n",
"    }\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",
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1px 3px 1px rgba(60, 64, 67, 0.15);\n",
              "      fill: #174EA6;\n",
              "    }\n",
              "\n",
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              "      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-b5679877-3840-42e3-
9a1b-a99a23e039fd 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-
b5679877-3840-42e3-9a1b-a99a23e039fd');\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",
```

```
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Feb, 2023"
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      "cell_type": "code",
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        "m= pd.date_range(start='1-01-2023',end='10-02-2023')\n",
        "for i in m:\n",
        "  print(i)"
      ],
      "metadata": {
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            "2023-01-03 00:00:00\n",
            "2023-01-04 00:00:00\n",
            "2023-01-05 00:00:00\n",
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    "\n",
    "lists = [[1, 'aaa', 22],\n",
    "         [2, 'bbb', 25],\n",
    "         [3, 'ccc', 24]]"
  ],
  "metadata": {
    "id": "ZizSetD-y5az"
  }
},
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  "cell_type": "code",
  "source": [
    "lists = [[1, 'aaa', 22], [2, 'bbb', 25], [3, 'ccc', 24]]"
  ],
  "metadata": {
    "id": "_XMC8aEt0llB"
  },
  "execution_count": 23,
  "outputs": []
},
{
  "cell_type": "code",
  "source": [
    "print(pd.DataFrame(lists))"
  ],
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      "metadata": {
        "id": "knH76sDKYsVX",
        "colab": {
          "base_uri": "https://localhost:8080/"
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      },
      "execution_count": 28,
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        {
          "output_type": "stream",
          "name": "stdout",
          "text": [
            "   0    1   2\n",
            "0  1  aaa  22\n",
            "1  2  bbb  25\n",
            "2  3  ccc  24\n"
          ]
        }
      ]
    }
  ]
}
```