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"      const dataTable =\n",
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google.colab.kernel.invokeFunction('convertToInteractive',\n"
"\n",
"        [key], {});\n",
"        if (!dataTable) return;\n",
"\n",
"        const docLinkHtml = 'Like what you see?\n"
Visit the '+\n",
"        '<a target=\"_blank\" href=https://\n"
"colab.research.google.com/notebooks/\n"
"data_table.ipynb>data table notebook</a>'\n",
"        + ' to learn more about interactive tables.';



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document.createElement('div');
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ef844b33-4dfd-4c3c-a8e9-8895f6d62763 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-ef844b33-4dfd-4c3c-
a8e9-8895f6d62763');\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.';



element.innerHTML = ";\n",
"         dataTable['output_type'] = 'display_data';\n",
"         await
google.colab.output.renderOutput(dataTable, element);\n",
"         const docLink =
document.createElement('div');
```

```
        "      docLink.innerHTML = docLinkHtml;\n",
        "      element.appendChild(docLink);\n",
        "    }\n",
        "  </script>\n",
        "  </div>\n",
      " </div>\n",
    "
  ]
},
"metadata": {},
"execution_count": 32
}
]
},
{
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    "8.split the data into dependent and independent variables."
  ],
  "metadata": {
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  }
},
{
  "cell_type": "code",
  "source": [
    "x=data.iloc[:,7:17]\n",
    "print(x)\n",
    "y=data.iloc[:,6]\n",
    "print(y)"
  ],
  "metadata": {
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      "base_uri": "https://localhost:8080/"
    }
  }
}
```

```
},
  "id": "YVnFgpjCWo2f",
  "outputId": "0901830f-d464-447e-be1d-9420e45fda70"
},
  "execution_count": null,
  "outputs": [
    {
      "output_type": "stream",
      "name": "stdout",
      "text": [
        "  Tenure  Balance NumOfProducts HasCrCard  

 IsActiveMember \\n",
        "0 2 0.00 1 1 1 \\n",
        "1 1 83807.86 1 0 1 \\n",
        "2 8 159660.80 3 1 0 \\n",
        "3 1 0.00 2 0 0 \\n",
        "4 2 125510.82 1 1 1 \\n",
        "... ... ... ... ... ... \\n",
        "9995 5 0.00 2 1 0 \\n",
        "9996 10 57369.61 1 1 1 \\n",
        "9997 7 0.00 1 0 1 \\n",
        "9998 3 75075.31 2 1 0 \\n",
        "9999 4 130142.79 1 1 0 \\n",
        "\\n",
        "  EstimatedSalary Exited \\n",
        "0 101348.88 1 \\n",
        "1 112542.58 0 \\n",
        "2 113931.57 1 \\n",
        "3 93826.63 0 \\n",
        "4 79084.10 0 \\n",
        "... ... \\n",
        "9995 96270.64 0 \\n",
        "9996 101699.77 0 \\n",
        "9997 42085.58 1 \\n",
        "9998 92888.52 1 \\n",
      ]
    }
  ]
}
```

```
    "9999      38190.78      0 \n",
    "\n",
    "[10000 rows x 7 columns]\n",
    "0      42\n",
    "1      41\n",
    "2      42\n",
    "3      39\n",
    "4      43\n",
    "     ..\n",
    "9995  39\n",
    "9996  35\n",
    "9997  36\n",
    "9998  42\n",
    "9999  28\n",
    "Name: Age, Length: 10000, dtype: int64\n"
]
}
],
},
{
  "cell_type": "markdown",
  "source": [
    "9.scale the independent variables"
  ],
  "metadata": {
    "id": "8LXVg5Axd0DR"
  },
  },
  {
    "cell_type": "code",
    "source": [
      "from sklearn.preprocessing import scale\n"
    ],
    "metadata": {
      "id": "vM-yobb9el30"
    }
  }
]
```

```
        },
        "execution_count": null,
        "outputs": []
    },
    {
        "cell_type": "code",
        "source": [
            "x = scale(x)\n",
            "x"
        ],
        "metadata": {
            "colab": {
                "base_uri": "https://localhost:8080/"
            },
            "id": "JTMHahbTfUfM",
            "outputId": "4544f06c-40e1-40bb-9e57-cb41a07ae2f1"
        },
        "execution_count": null,
        "outputs": [
            {
                "output_type": "execute_result",
                "data": {
                    "text/plain": [
                        "array([[ -1.04175968, -1.22584767,\n-0.91158349, ..., 0.97024255,\n                   0.02188649, 1.97716468],\n                   [-1.38753759, 0.11735002, -0.91158349, ...,\n0.97024255,\n                   0.21653375, -0.50577476],\n                   [ 1.03290776, 1.33305335, 2.52705662, ...,\n-1.03067011,\n                   0.2406869 , 1.97716468],\n                   ...,],\n                   [ 0.68712986, -1.22584767, -0.91158349, ...,\n0.97024255,\n                   ]\n               ]\n           )\n       ]\n   )\n }\n}\n\n
```

```
        "      -1.00864308, 1.97716468],\n",
        "      [-0.69598177, -0.02260751, 0.80773656, ...,
-1.03067011,\n",
        "      -0.12523071, 1.97716468],\n",
        "      [-0.35020386, 0.85996499, -0.91158349, ...,
-1.03067011,\n",
        "      -1.07636976, -0.50577476]])"  
    ]  
  },  
  "metadata": {},  
  "execution_count": 69  
}  
]  
},  
{  
  "cell_type": "markdown",  
  "source": [  
    "10. Split the data into training and testing"  
  ],  
  "metadata": {  
    "id": "3c3mZ_4fgTWX"  
  },  
  {  
    "cell_type": "code",  
    "source": [  
      "from sklearn.model_selection import train_test_split"  
    ],  
    "metadata": {  
      "id": "ktspTg8rgb6s"  
    },  
    "execution_count": null,  
    "outputs": []  
  },  
  {
```

```
"cell_type": "code",
"source": [
    "x_train, x_test, y_train, y_test = train_test_split(x,y,
test_size = 0.2)"
],
"metadata": {
    "id": "oTOc8KsWjy8F"
},
"execution_count": null,
"outputs": []
},
{
"cell_type": "code",
"source": [
    "print(x_train.shape, x_test.shape)"
],
"metadata": {
    "colab": {
        "base_uri": "https://localhost:8080/"
    },
    "id": "8g4oOVFQj4uP",
    "outputId": "3cc57619-dcea-4220-b164-8b38d7a42ff0"
},
"execution_count": null,
"outputs": [
{
    "output_type": "stream",
    "name": "stdout",
    "text": [
        "(8000, 9) (2000, 9)\n"
    ]
}
]
},
```

```
"metadata": {  
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        "provenance": []  
    },  
    "kernelspec": {  
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        "name": "python3"  
    }  
},  
"nbformat": 4,  
"nbformat_minor": 0  
}
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