```json
{
  "nbformat": 4,
  "nbformat_minor": 0,
  "metadata": {
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      "name": "practice4YBI.ipynb",
      "provenance": [],
      "collapsed_sections": []
    },
    "kernelspec": {
      "name": "python3",
      "display_name": "Python 3"
    },
    "language_info": {
      "name": "python"
    }
  },
  "cells": [
    {
      "cell_type": "code",
      "execution_count": null,
      "metadata": {
        "id": "hKcu5JOQa-i_"
      },
      "outputs": [],
      "source": [
        "import pandas as pd"
      ]
    },
    {
      "cell_type": "code",
      "source": [
        "titanic = pd.read_csv('https://github.com/YBI-Foundation/Dataset/raw/main/Titanic.csv')"
      ],
      "metadata": {
        "id": "7_0cSwDtbFNs"
      },
      "execution_count": null,
      "outputs": []
    },
    {
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      "source": [
        "titanic.info()"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "R7HES92mcqU-",
        "outputId": "6ebec395-1ee9-4ba1-8cec-8bd2ef789c17"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "stream",
          "name": "stdout",
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        "text": [
          "<class 'pandas.core.frame.DataFrame'>\n",
          "RangeIndex: 1309 entries, 0 to 1308\n",
          "Data columns (total 14 columns):\n",
          " #   Column     Non-Null Count  Dtype  \n",
          "---  ------     --------------  -----  \n",
          " 0   pclass     1309 non-null   int64  \n",
          " 1   survived   1309 non-null   int64  \n",
          " 2   name       1309 non-null   object \n",
          " 3   sex        1309 non-null   object \n",
          " 4   age        1046 non-null   float64\n",
          " 5   sibsp      1309 non-null   int64  \n",
          " 6   parch      1309 non-null   int64  \n",
          " 7   ticket     1309 non-null   object \n",
          " 8   fare       1308 non-null   float64\n",
          " 9   cabin      295 non-null    object \n",
          " 10  embarked   1307 non-null   object \n",
          " 11  boat       486 non-null    object \n",
          " 12  body       121 non-null    float64\n",
          " 13  home.dest  745 non-null    object \n",
          "dtypes: float64(3), int64(4), object(7)\n",
          "memory usage: 143.3+ KB\n"
        ]
      }
    ]
  },
  {
    "cell_type": "code",
    "source": [
      "titanic.columns"
    ],
    "metadata": {
      "colab": {
        "base_uri": "https://localhost:8080/"
      },
      "id": "z5vV0suUezU6",
      "outputId": "72d16b53-f142-4719-bc72-a5eee71b8cda"
    },
    "execution_count": null,
    "outputs": [
      {
        "output_type": "execute_result",
        "data": {
          "text/plain": [
            "Index(['pclass', 'survived', 'name', 'sex', 'age', 'sibsp', 'parch', 'ticket',\n",
            "       'fare', 'cabin', 'embarked', 'boat', 'body', 'home.dest'],\n",
            "      dtype='object')"
          ]
        },
        "metadata": {},
        "execution_count": 14
      }
    ]
  },
  {
    "cell_type": "code",
```

```
      "source": [
        "titanic.name"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "7yF2G4CtfEBT",
        "outputId": "5ca85099-05e4-4d58-91c5-def789ef069e"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "0                          Allen, Miss. Elisabeth
Walton\n",
              "1                          Allison, Master. Hudson
Trevor\n",
              "2                              Allison, Miss. Helen
Loraine\n",
              "3                     Allison, Mr. Hudson Joshua
Creighton\n",
              "4        Allison, Mrs. Hudson J C (Bessie Waldo
Daniels)\n",
              "                             ...
\n",
              "1304                            Zabour, Miss.
Hileni\n",
              "1305                            Zabour, Miss.
Thamine\n",
              "1306                          Zakarian, Mr.
Mapriededer\n",
              "1307                            Zakarian, Mr.
Ortin\n",
              "1308                            Zimmerman, Mr.
Leo\n",
              "Name: name, Length: 1309, dtype: object"
            ]
          },
          "metadata": {},
          "execution_count": 15
        }
      ]
    },
    {
      "cell_type": "code",
      "source": [
        "type(titanic.name)"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "H7UKsQZ6fkd8",
        "outputId": "00ffce3d-5807-4ad1-f2d9-c8ed23ea6f06"
      },
```

```
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "pandas.core.series.Series"
            ]
          },
          "metadata": {},
          "execution_count": 17
        }
      ]
    },
    {
      "cell_type": "code",
      "source": [
        "titanic['name']"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "REMQRaVUfr_g",
        "outputId": "f700b814-1272-46ac-f234-b7c809ed9b7f"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "0                          Allen, Miss. Elisabeth Walton\n",
              "1                         Allison, Master. Hudson Trevor\n",
              "2                           Allison, Miss. Helen Loraine\n",
              "3                   Allison, Mr. Hudson Joshua Creighton\n",
              "4        Allison, Mrs. Hudson J C (Bessie Waldo Daniels)\n",
              "                              ...                        \n",
              "1304                               Zabour, Miss. Hileni\n",
              "1305                              Zabour, Miss. Thamine\n",
              "1306                          Zakarian, Mr. Mapriededer\n",
              "1307                                Zakarian, Mr. Ortin\n",
              "1308                                 Zimmerman, Mr. Leo\n",
              "Name: name, Length: 1309, dtype: object"
            ]
          },
          "metadata": {},
```

```json
        "execution_count": 18
      }
    ]
  },
  {
    "cell_type": "code",
    "source": [
      "name = titanic['name']"
    ],
    "metadata": {
      "id": "iUQ4L_hvgA5F"
    },
    "execution_count": null,
    "outputs": []
  },
  {
    "cell_type": "code",
    "source": [
      "name"
    ],
    "metadata": {
      "colab": {
        "base_uri": "https://localhost:8080/"
      },
      "id": "pyxs4S29gW_c",
      "outputId": "ea7f4487-be49-4561-a81e-32db53dbc83b"
    },
    "execution_count": null,
    "outputs": [
      {
        "output_type": "execute_result",
        "data": {
          "text/plain": [
            "0                          Allen, Miss. Elisabeth Walton\n",
            "1                         Allison, Master. Hudson Trevor\n",
            "2                           Allison, Miss. Helen Loraine\n",
            "3                   Allison, Mr. Hudson Joshua Creighton\n",
            "4        Allison, Mrs. Hudson J C (Bessie Waldo Daniels)\n",
            "                              ...                        \n",
            "1304                               Zabour, Miss. Hileni\n",
            "1305                              Zabour, Miss. Thamine\n",
            "1306                          Zakarian, Mr. Mapriededer\n",
            "1307                                Zakarian, Mr. Ortin\n",
            "1308                                 Zimmerman, Mr. Leo\n",
            "Name: name, Length: 1309, dtype: object"
          ]
        },
      },
```

```
        "metadata": {},
        "execution_count": 20
      }
    ]
  },
  {
    "cell_type": "code",
    "source": [
      "type(name)"
    ],
    "metadata": {
      "colab": {
        "base_uri": "https://localhost:8080/"
      },
      "id": "gBr_4kHbgZTr",
      "outputId": "02c2ad8e-2fef-423f-8c97-e3c1bd442989"
    },
    "execution_count": null,
    "outputs": [
      {
        "output_type": "execute_result",
        "data": {
          "text/plain": [
            "pandas.core.series.Series"
          ]
        },
        "metadata": {},
        "execution_count": 21
      }
    ]
  },
  {
    "cell_type": "code",
    "source": [
      "name.shape"
    ],
    "metadata": {
      "colab": {
        "base_uri": "https://localhost:8080/"
      },
      "id": "ANyNgj-_ghnQ",
      "outputId": "4daafb14-a960-4d8e-c04f-5cd0338a852c"
    },
    "execution_count": null,
    "outputs": [
      {
        "output_type": "execute_result",
        "data": {
          "text/plain": [
            "(1309,)"
          ]
        },
        "metadata": {},
        "execution_count": 22
      }
    ]
  },
  {
```

```json
      "cell_type": "code",
      "source": [
        "name = titanic[['name']]"
      ],
      "metadata": {
        "id": "co91A0s2glbZ"
      },
      "execution_count": null,
      "outputs": []
    },
    {
      "cell_type": "code",
      "source": [
        "name"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/",
          "height": 423
        },
        "id": "maXo-o9Ihsr3",
        "outputId": "6c86644d-37c0-4367-854c-c45cbc4d24c1"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "                                                name\n",
              "0                        Allen, Miss. Elisabeth Walton\n",
              "1                        Allison, Master. Hudson Trevor\n",
              "2                          Allison, Miss. Helen Loraine\n",
              "3                 Allison, Mr. Hudson Joshua Creighton\n",
              "4     Allison, Mrs. Hudson J C (Bessie Waldo Daniels)\n",
              "...                                                ...\n",
              "1304                             Zabour, Miss. Hileni\n",
              "1305                            Zabour, Miss. Thamine\n",
              "1306                        Zakarian, Mr. Mapriededer\n",
              "1307                              Zakarian, Mr. Ortin\n",
              "1308                               Zimmerman, Mr. Leo\n",
              "\n",
              "[1309 rows x 1 columns]"
            ],
            "text/html": [
              "\n",
              "  <div id=\"df-e0fa751b-8104-4b5a-afa4-88377fb328f2\">\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",
                "        text-align: right;\n",
                "    }\n",
                "</style>\n",
                "<table border=\"1\" class=\"dataframe\">\n",
                "  <thead>\n",
                "    <tr style=\"text-align: right;\">\n",
                "      <th></th>\n",
                "      <th>name</th>\n",
                "    </tr>\n",
                "  </thead>\n",
                "  <tbody>\n",
                "    <tr>\n",
                "      <th>0</th>\n",
                "      <td>Allen, Miss. Elisabeth Walton</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>1</th>\n",
                "      <td>Allison, Master. Hudson Trevor</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>2</th>\n",
                "      <td>Allison, Miss. Helen Loraine</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>3</th>\n",
                "      <td>Allison, Mr. Hudson Joshua Creighton</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>4</th>\n",
                "      <td>Allison, Mrs. Hudson J C (Bessie Waldo
Daniels)</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>...</th>\n",
                "      <td>...</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>1304</th>\n",
                "      <td>Zabour, Miss. Hileni</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>1305</th>\n",
                "      <td>Zabour, Miss. Thamine</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>1306</th>\n",
                "      <td>Zakarian, Mr. Mapriededer</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>1307</th>\n",
                "      <td>Zakarian, Mr. Ortin</td>\n",
                "    </tr>\n",
                "    <tr>\n",
                "      <th>1308</th>\n",
                "      <td>Zimmerman, Mr. Leo</td>\n",
                "    </tr>\n",
                "  </tbody>\n",
```

```
            "</table>\n",
            "<p>1309 rows × 1 columns</p>\n",
            "</div>\n",
            "        <button class=\"colab-df-convert\"
onclick=\"convertToInteractive('df-e0fa751b-8104-4b5a-afa4-
88377fb328f2')\"\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-
.94-.94-2.06-.94 2.06-2.06.94zm-11 1L8.5 8.5l.94-2.06 2.06-.94-2.06-
.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-
.92-.59-1.43-.59-.52 0-1.04.2-1.43.59L10.3 9.45l-7.72 7.72c-.78.78-.78
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 18.5l7.72-7.72 1.47 1.35L5.41
20z\"/>\n",
            "  </svg>\n",
            "        </button>\n",
            "        \n",
            "  <style>\n",
            "    .colab-df-container {\n",
            "      display:flex;\n",
            "      flex-wrap:wrap;\n",
            "      gap: 12px;\n",
            "    }\n",
            "\n",
            "    .colab-df-convert {\n",
            "      background-color: #E8F0FE;\n",
            "      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",
            "      box-shadow: 0px 1px 2px rgba(60, 64, 67, 0.3), 0px
1px 3px 1px rgba(60, 64, 67, 0.15);\n",
            "      fill: #174EA6;\n",
            "    }\n",
            "\n",
            "    [theme=dark] .colab-df-convert {\n",
            "      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,
0.3));\n",
              "      fill: #FFFFFF;\n",
              "    }\n",
              "  </style>\n",
              "\n",
              "      <script>\n",
              "      const buttonEl =\n",
              "        document.querySelector('#df-e0fa751b-8104-4b5a-
afa4-88377fb328f2 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-
e0fa751b-8104-4b5a-afa4-88377fb328f2');\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",
              "  </div>\n",
              "  </div>\n",
              "  "
          ]
        },
        "metadata": {},
        "execution_count": 24
      }
    ]
  },
  {
    "cell_type": "code",
    "source": [
      "type(name)"
    ],
    "metadata": {
```

```json
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "QRhmHyx-hvsR",
        "outputId": "74d751e6-2b1f-42c3-fc2e-0d6761a20fd3"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "pandas.core.frame.DataFrame"
            ]
          },
          "metadata": {},
          "execution_count": 25
        }
      ]
    },
    {
      "cell_type": "code",
      "source": [
        "name.shape"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "A7c7I9zSh1Nd",
        "outputId": "5e8f5c9b-c0de-4417-eff7-70a14bd86db4"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "(1309, 1)"
            ]
          },
          "metadata": {},
          "execution_count": 26
        }
      ]
    },
    {
      "cell_type": "code",
      "source": [
        "titanic.iloc[100,:]"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "PX1LE_xUh4hy",
        "outputId": "76f184bf-8f5e-4929-950b-869b3a829434"
      },
```

```json
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
          "data": {
            "text/plain": [
              "pclass                                              1\n",
              "survived                                            1\n",
              "name            Duff Gordon, Sir. Cosmo Edmund (\"Mr Morgan\")\n",
              "sex                                              male\n",
              "age                                              49.0\n",
              "sibsp                                               1\n",
              "parch                                               0\n",
              "ticket                                           PC 17485\n",
              "fare                                          56.9292\n",
              "cabin                                             A20\n",
              "embarked                                            C\n",
              "boat                                                1\n",
              "body                                              NaN\n",
              "home.dest                               London / Paris\n",
              "Name: 100, dtype: object"
            ]
          },
          "metadata": {},
          "execution_count": 29
        }
      ]
    },
    {
      "cell_type": "code",
      "source": [
        "titanic.loc[100,:]"
      ],
      "metadata": {
        "colab": {
          "base_uri": "https://localhost:8080/"
        },
        "id": "0bl9vtHOiDDO",
        "outputId": "1e65b2af-62d3-48cc-ab7a-3c17d3a93fa0"
      },
      "execution_count": null,
      "outputs": [
        {
          "output_type": "execute_result",
```

```
        "data": {
          "text/plain": [
            "pclass
1\n",
            "survived
1\n",
            "name           Duff Gordon, Sir. Cosmo Edmund (\"Mr
Morgan\")\n",
            "sex
male\n",
            "age
49.0\n",
            "sibsp
1\n",
            "parch
0\n",
            "ticket                                          PC
17485\n",
            "fare
56.9292\n",
            "cabin
A20\n",
            "embarked
C\n",
            "boat
1\n",
            "body
NaN\n",
            "home.dest                                London /
Paris\n",
            "Name: 100, dtype: object"
          ]
        },
        "metadata": {},
        "execution_count": 30
      }
    ]
  },
  {
    "cell_type": "code",
    "source": [
      "titanic.iloc[:,[2,8]]"
    ],
    "metadata": {
      "colab": {
        "base_uri": "https://localhost:8080/",
        "height": 423
      },
      "id": "wyF1CQBDicWm",
      "outputId": "3620fcc5-3807-4ea7-fd5e-58266c4f2eb8"
    },
    "execution_count": null,
    "outputs": [
      {
        "output_type": "execute_result",
        "data": {
          "text/plain": [
```

"                                                   name         fare\n",
"0                         Allen, Miss. Elisabeth Walton   211.3375\n",
"1                         Allison, Master. Hudson Trevor   151.5500\n",
"2                           Allison, Miss. Helen Loraine   151.5500\n",
"3                   Allison, Mr. Hudson Joshua Creighton   151.5500\n",
"4       Allison, Mrs. Hudson J C (Bessie Waldo Daniels)   151.5500\n",
"...                                              ...          ...\n",
"1304                                 Zabour, Miss. Hileni    14.4542\n",
"1305                                Zabour, Miss. Thamine    14.4542\n",
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      "source": [
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      "outputs": []
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}
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