

TUTORIAL Basic Web Scraping Tutorial with BeautifulSoup

Scraping Books Data from books.toscrape.com

Step 1: Install Required Packages

```
!pip install requests beautifulsoup4 pandas

Requirement already satisfied: requests in
/usr/local/lib/python3.11/dist-packages (2.32.3)
Requirement already satisfied: beautifulsoup4 in
/usr/local/lib/python3.11/dist-packages (4.12.3)
Requirement already satisfied: pandas in
/usr/local/lib/python3.11/dist-packages (2.2.2)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.11/dist-packages (from requests) (3.4.1)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.11/dist-packages (from requests) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.11/dist-packages (from requests) (2.3.0)
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.11/dist-packages (from requests) (2024.12.14)
Requirement already satisfied: soupsieve>1.2 in
/usr/local/lib/python3.11/dist-packages (from beautifulsoup4) (2.6)
Requirement already satisfied: numpy>=1.23.2 in
/usr/local/lib/python3.11/dist-packages (from pandas) (1.26.4)
Requirement already satisfied: python-dateutil>=2.8.2 in
/usr/local/lib/python3.11/dist-packages (from pandas) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in
/usr/local/lib/python3.11/dist-packages (from pandas) (2024.2)
Requirement already satisfied: tzdata>=2022.7 in
/usr/local/lib/python3.11/dist-packages (from pandas) (2025.1)
Requirement already satisfied: six>=1.5 in
/usr/local/lib/python3.11/dist-packages (from python-dateutil>=2.8.2-
>pandas) (1.17.0)
```

Step 2: Import Libraries

```
import requests
from bs4 import BeautifulSoup
import pandas as pd

print("Libraries imported successfully!")

Libraries imported successfully!
```

Step 3: Get the Webpage

```
# URL of the books website
url = "http://books.toscrape.com/"

# Get the webpage
response = requests.get(url)

# Check if request was successful
if response.status_code == 200:
    print("Successfully retrieved the webpage!")
    # Create BeautifulSoup object
    soup = BeautifulSoup(response.content, 'html.parser')
else:
    print(f"Failed to retrieve the webpage. Status code: {response.status_code}")

Successfully retrieved the webpage!
```

Step 4: Extract Book Information

```
# Find all book articles
books = soup.find_all('article', class_='product_pod')
print(f"Found {len(books)} books on the page")

# Create a list to store book data
books_data = []

# Extract information from each book
for book in books:
    # Get title (in the image's alt text)
    title = book.h3.a['title']

    # Get price (in a <p> tag with class 'price_color')
    price = book.find('p', class_='price_color').text.strip()

    # Get availability (in a <p> tag with class 'availability')
    availability = book.find('p', class_='availability').text.strip()

    # Get rating (in the class attribute of <p> tag with class 'star-rating')
    rating = book.find('p', class_='star-rating')['class'][1]

    # Store the data
    book_info = {
        'Title': title,
        'Price': price,
        'Availability': availability,
        'Rating': rating
    }
```

```

books_data.append(book_info)

# Create DataFrame
df = pd.DataFrame(books_data)

# Display first few rows
print("\nFirst 5 books:")
display(df.head())

Found 20 books on the page

First 5 books:
{"summary": "{\n  \"name\": \"display(df\", \n  \"rows\": 5, \n  \"fields\": [\n    {\n      \"column\": \"Title\", \n      \"properties\": {\n        \"dtype\": \"string\", \n        \"num_unique_values\": 5, \n        \"samples\": [\n          \"Tipping the Velvet\", \n          \"Sapiens: A Brief History of Humankind\", \n          \"Soumission\", \n          ], \n        \"semantic_type\": \"\", \n        \"description\": \"\", \n        }, \n      {\n        \"column\": \"Price\", \n        \"properties\": {\n          \"dtype\": \"string\", \n          \"num_unique_values\": 5, \n          \"samples\": [\n            \"u00a353.74\", \n            \"\\u00a354.23\", \n            \"u00a350.10\", \n            ], \n          \"semantic_type\": \"\", \n          \"description\": \"\", \n          }, \n      {\n        \"column\": \"Availability\", \n        \"properties\": {\n          \"dtype\": \"category\", \n          \"num_unique_values\": 1, \n          \"samples\": [\n            \"In stock\", \n            ], \n          \"semantic_type\": \"\", \n          \"description\": \"\", \n          }, \n      {\n        \"column\": \"Rating\", \n        \"properties\": {\n          \"dtype\": \"string\", \n          \"num_unique_values\": 4, \n          \"samples\": [\n            \"One\", \n            ], \n          \"semantic_type\": \"\", \n          \"description\": \"\", \n          } \n    ] \n  }\", \"type\": \"dataframe\"}

```

Step 5: Clean the Data

```

# Clean price (remove '£' symbol and convert to float)
df['Price'] = df['Price'].str.replace('£', '').astype(float)

# Clean availability (extract number of books)
df['Availability'] = df['Availability'].str.extract('(\d+)')

# Display cleaned data
print("Cleaned data:")
display(df.head())

Cleaned data:
{"repr_error": "Out of range float values are not JSON compliant: nan", "type": "dataframe"}

```

Step 6: Save to CSV File

```
# Save to CSV
df.to_csv('books_data.csv', index=False)
print("\nData saved to 'books_data.csv'")

# Verify the saved data
print("\nVerifying saved data:")
saved_df = pd.read_csv('books_data.csv')
display(saved_df.head())
```

Data saved to 'books_data.csv'

Verifying saved data:

```
{
  "summary": {
    "name": "display(saved_df",
    "rows": 5,
    "fields": [
      {
        "column": "Title",
        "properties": {
          "dtype": "string",
          "num_unique_values": 5,
          "samples": [
            "Tipping the Velvet",
            "Sapiens: A Brief History of Humankind",
            "Soumission"
          ],
          "semantic_type": "",
          "description": ""
        },
        "column": "Price",
        "properties": {
          "dtype": "number",
          "std": 2.647672562837028,
          "min": 47.82,
          "max": 54.23,
          "num_unique_values": 5,
          "samples": [
            53.74,
            54.23,
            50.1
          ],
          "semantic_type": "",
          "description": ""
        },
        "column": "Availability",
        "properties": {
          "dtype": "number",
          "std": null,
          "min": null,
          "max": null,
          "num_unique_values": 0,
          "samples": [],
          "semantic_type": "",
          "description": ""
        },
        "column": "Rating",
        "properties": {
          "dtype": "string",
          "num_unique_values": 4,
          "samples": [],
          "semantic_type": "",
          "description": ""
        }
      ]
    },
    "type": "dataframe"
  }
}
```

Beginner-Friendly Web Scraping Problems [10 points each]

Problem 1: Scrape Book Titles and Prices

Objective: Extract a list of book titles and their corresponding prices from [Books to Scrape](#).

Steps:

1. Navigate to the homepage of the website.

2. Identify all book titles and prices listed on the page.
 3. Save the data into a CSV file with two columns: `Title` and `Price`.
-

Problem 2: Scrape Top 10 Quotes from [Quotes to Scrape](#)

Objective: Extract the top 10 quotes, their authors, and the associated tags from [Quotes to Scrape](#).

Steps:

1. Go to the homepage of the website.
 2. Extract the text of the first 10 quotes, their authors, and the tags associated with each quote.
 3. Save the data in a CSV file with three columns: `Quote`, `Author`, and `Tags`.
-

Problem 3: Scrape Weather Data from [World Weather Online](#)

Objective: Extract the current weather conditions (temperature, weather condition, and humidity) for a given city.

Steps:

1. Visit <https://www.timeanddate.com/weather/>.
2. Search for the weather data for a city (e.g., New York).
3. Extract the current temperature, weather description, and humidity levels.
4. Save the data in a structured format (e.g., a JSON or CSV file).

```
## Problem 1
url = "http://books.toscrape.com/"
## Finding the response
response = requests.get(url)
## Checking if the response is properly fetched and if it is, getting
the html code using soup
if response.status_code==200:
    print("Successfully retrieved the webpage!")
    soup = BeautifulSoup(response.content, 'html.parser')
else:
    print(f"Failed to retrieve the webpage. Status code:
{response.status_code}")
```

Successfully retrieved the webpage!

```
# Find all book articles
books = soup.find_all('article', class_='product_pod')
print(f"Found {len(books)} books on the page")
```

```

# Create a list to store book data
books_data = []

# Extract information from each book
for book in books:
    # Get title (in the image's alt text)
    title = book.h3.a['title']

    # Get price (in a <p> tag with class 'price_color')
    price = book.find('p', class_='price_color').text.strip()

    # Store the data
    book_info = {
        'Title': title,
        'Price': price,
    }

    books_data.append(book_info)

# Create DataFrame
df = pd.DataFrame(books_data)

# Display first few rows
print("\nFirst 5 books:")
display(df.head())

```

Found 20 books on the page

First 5 books:

```

{"summary": "{\n  \"name\": \"display(df\", \n  \"rows\": 5, \n  \"fields\": [\n    {\n      \"column\": \"Title\", \n      \"properties\": {\n        \"dtype\": \"string\", \n        \"num_unique_values\": 5, \n        \"samples\": [\n          \"Tipping the Velvet\", \n          \"Sapiens: A Brief History of Humankind\", \n          \"Soumission\", \n        ], \n        \"semantic_type\": \"\", \n        \"description\": \"\", \n      }, \n      \"column\": \"Price\", \n      \"properties\": {\n        \"dtype\": \"string\", \n        \"num_unique_values\": 5, \n        \"samples\": [\n          \"u00a353.74\", \n          \"u00a354.23\", \n          \"u00a350.10\", \n        ], \n        \"semantic_type\": \"\", \n        \"description\": \"\", \n      }, \n    ] \n  }\", \"type\": \"dataframe\"}

```

```

## Cleaning the data
df['Price'] = df['Price'].str.replace('£', '').astype(float)

print("Cleaned Data:")
df.head()

```

Cleaned Data:

```
{
  "summary": {
    "name": "df",
    "rows": 20,
    "fields": [
      {
        "column": "Title",
        "properties": {
          "dtype": "string",
          "num_unique_values": 20,
          "samples": [
            "A Light in the Attic",
            "Mesaerion: The Best Science Fiction Stories 1800-1849",
            "Our Band Could Be Your Life: Scenes from the American Indie Underground, 1981-1991"
          ],
          "semantic_type": ""
        },
        "description": ""
      },
      {
        "column": "Price",
        "properties": {
          "dtype": "number",
          "std": 15.135230520039556,
          "min": 13.99,
          "max": 57.25,
          "num_unique_values": 20,
          "samples": [
            51.77,
            37.59,
            57.25
          ],
          "semantic_type": "",
          "description": ""
        }
      }
    ]
  },
  "type": "dataframe",
  "variable_name": "df"
}
```

Save to CSV

```
df.to_csv('books_data_1.csv', index=False)
print("\nData saved to 'books_data_1.csv'")
```

Verify the saved data

```
print("\nVerifying saved data:")
saved_df = pd.read_csv('books_data_1.csv')
display(saved_df.head())
```

Data saved to 'books_data_1.csv'

Verifying saved data:

```
{
  "summary": {
    "name": "display(saved_df)",
    "rows": 5,
    "fields": [
      {
        "column": "Title",
        "properties": {
          "dtype": "string",
          "num_unique_values": 5,
          "samples": [
            "Tipping the Velvet",
            "Sapiens: A Brief History of Humankind",
            "Soumission"
          ],
          "semantic_type": ""
        },
        "description": ""
      },
      {
        "column": "Price",
        "properties": {
          "dtype": "number",
          "std": 2.647672562837028,
          "min": 47.82,
          "max": 54.23,
          "num_unique_values": 5,
          "samples": [
            53.74,
            54.23,
            50.1
          ],
          "semantic_type": "",
          "description": ""
        }
      }
    ]
  },
  "type": "dataframe"
}
```

Problem 2

```
url2 = "https://quotes.toscrape.com/"
```

Finding the response

```
response = requests.get(url2)
```

Checking the status code of the response

```
if response.status_code == 200:
    print("Successfully retrieved the webpage!")
```



```

n      <a href="/author/J-K-Rowling">(about)</a>\n      </span>\n
<div class="tags">\n      Tags:\n      <meta
class="keywords" itemprop="keywords" content="abilities,choices" /
> \n      \n      <a class="tag"
href="/tag/abilities/page/1/">abilities</a>\n      \n
<a class="tag" href="/tag/choices/page/1/">choices</a>\n      \n
</div>\n      </div>\n\n      <div class="quote" itemscope
itemtype="http://schema.org/CreativeWork">\n      <span class="text"
itemprop="text">\xe2\x80\x9cThere are only two ways to live your life.
One is as though nothing is a miracle. The other is as though
everything is a miracle.\xe2\x80\x9d</span>\n      <span>by <small
class="author" itemprop="author">Albert Einstein</small>\n      <a
href="/author/Albert-Einstein">(about)</a>\n      </span>\n
<div class="tags">\n      Tags:\n      <meta
class="keywords" itemprop="keywords"
content="inspirational,life,love,miracle,miracles" /      > \n
\n      <a class="tag"
href="/tag/inspirational/page/1/">inspirational</a>\n      \n
<a class="tag" href="/tag/love/page/1/">love</a>\n      \n
<a class="tag" href="/tag/miracle/page/1/">miracle</a>\n      \n
<a class="tag" href="/tag/miracles/page/1/">miracles</a>\n
n      \n      </div>\n      </div>\n\n      <div class="quote"
itemscope itemtype="http://schema.org/CreativeWork">\n      <span
class="text" itemprop="text">\xe2\x80\x9cThe person, be it gentleman
or lady, who has not pleasure in a good novel, must be intolerably
stupid.\xe2\x80\x9d</span>\n      <span>by <small class="author"
itemprop="author">Jane Austen</small>\n      <a href="/author/Jane-
Austen">(about)</a>\n      </span>\n      <div class="tags">\n
Tags:\n      <meta class="keywords" itemprop="keywords"
content="aliteracy,books,classic,humor" /      > \n      \n
<a class="tag" href="/tag/aliteracy/page/1/">aliteracy</a>\n
\n      <a class="tag" href="/tag/books/page/1/">books</a>\n
\n      <a class="tag" href="/tag/classic/page/1/">classic</a>\n
\n      <a class="tag" href="/tag/humor/page/1/">humor</a>\n
\n      </div>\n      </div>\n\n      <div class="quote" itemscope
itemtype="http://schema.org/CreativeWork">\n      <span class="text"
itemprop="text">\xe2\x80\x9cImperfection is beauty, madness is genius
and it's better to be absolutely ridiculous than absolutely
boring.\xe2\x80\x9d</span>\n      <span>by <small class="author"
itemprop="author">Marilyn Monroe</small>\n      <a
href="/author/Marilyn-Monroe">(about)</a>\n      </span>\n
<div class="tags">\n      Tags:\n      <meta
class="keywords" itemprop="keywords" content="be-
yourself,inspirational" /      > \n      \n      <a
class="tag" href="/tag/be-yourself/page/1/">be-yourself</a>\n
\n      <a class="tag"
href="/tag/inspirational/page/1/">inspirational</a>\n      \n
</div>\n      </div>\n\n      <div class="quote" itemscope

```

```

itemtype="http://schema.org/CreativeWork">\n          <span class="text"
itemprop="text">\xe2\x80\x9cTry not to become a man of success. Rather
become a man of value.\xe2\x80\x9d</span>\n          <span>by <small
class="author" itemprop="author">Albert Einstein</small>\n          <a
href="/author/Albert-Einstein">(about)</a>\n          </span>\n
<div class="tags">\n          Tags:\n          <meta
class="keywords" itemprop="keywords" content="adulthood,success,value"
/ > \n          \n          <a class="tag"
href="/tag/adulthood/page/1/">adulthood</a>\n          \n
<a class="tag" href="/tag/success/page/1/">success</a>\n          \n
<a class="tag" href="/tag/value/page/1/">value</a>\n          \n
</div>\n          </div>\n\n          <div class="quote" itemscope
itemtype="http://schema.org/CreativeWork">\n          <span class="text"
itemprop="text">\xe2\x80\x9cIt is better to be hated for what you are
than to be loved for what you are not.\xe2\x80\x9d</span>\n
<span>by <small class="author" itemprop="author">Andr\xc3\xa9
Gide</small>\n          <a href="/author/Andre-Gide">(about)</a>\n
</span>\n          <div class="tags">\n          Tags:\n
<meta class="keywords" itemprop="keywords" content="life,love" /
> \n          \n          <a class="tag"
href="/tag/life/page/1/">life</a>\n          \n          <a
class="tag" href="/tag/love/page/1/">love</a>\n          \n
</div>\n          </div>\n\n          <div class="quote" itemscope
itemtype="http://schema.org/CreativeWork">\n          <span class="text"
itemprop="text">\xe2\x80\x9cI have not failed. I've just found
10,000 ways that won't work.\xe2\x80\x9d</span>\n          <span>by
<small class="author" itemprop="author">Thomas A. Edison</small>\n
<a href="/author/Thomas-A-Edison">(about)</a>\n          </span>\n
<div class="tags">\n          Tags:\n          <meta
class="keywords" itemprop="keywords"
content="edison,failure,inspirational,paraphrased" / > \n
\n          <a class="tag" href="/tag/edison/page/1/">edison</a>\n
\n          <a class="tag" href="/tag/failure/page/1/">failure</a>\n
\n          <a class="tag"
href="/tag/inspirational/page/1/">inspirational</a>\n          \n
<a class="tag" href="/tag/paraphrased/page/1/">paraphrased</a>\n
\n          </div>\n          </div>\n\n          <div class="quote" itemscope
itemtype="http://schema.org/CreativeWork">\n          <span class="text"
itemprop="text">\xe2\x80\x9cA woman is like a tea bag; you never know
how strong it is until it's in hot water.\xe2\x80\x9d</span>\n
<span>by <small class="author" itemprop="author">Eleanor
Roosevelt</small>\n          <a href="/author/Eleanor-
Roosevelt">(about)</a>\n          </span>\n          <div class="tags">\n
Tags:\n          <meta class="keywords" itemprop="keywords"
content="misattributed-eleanor-roosevelt" / > \n          \n
<a class="tag"
href="/tag/misattributed-eleanor-roosevelt/page/1/">misattributed-
eleanor-roosevelt</a>\n          \n          </div>\n          </div>\n\n
<div class="quote" itemscope

```

```

itemtype="http://schema.org/CreativeWork">\n                <span class="text"
itemprop="text">\xe2\x80\x9cA day without sunshine is like, you know,
night.\xe2\x80\x9d</span>\n                <span>by <small class="author"
itemprop="author">Steve Martin</small>\n                <a
href="/author/Steve-Martin">(about)</a>\n                </span>\n                <div
class="tags">\n                Tags:\n                <meta class="keywords"
itemprop="keywords" content="humor,obvious,simile" / > \n
\n                <a class="tag" href="/tag/humor/page/1/">humor</a>\n
\n                <a class="tag" href="/tag/obvious/page/1/">obvious</a>\n
\n                <a class="tag" href="/tag/simile/page/1/">simile</a>\n
\n                </div>\n                </div>\n\n                <nav>\n                <ul class="pager">\n
\n                \n                <li class="next">\n
<a href="/page/2/">Next <span aria-hidden="true">&rarr;</span></a>\n
</li>\n                \n                </ul>\n                </nav>\n                </div>\n                <div
class="col-md-4 tags-box">\n                \n                <h2>Top Ten
tags</h2>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 28px" href="/tag/love/">love</a>\n
</span>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 26px"
href="/tag/inspirational/">inspirational</a>\n                </span>\n
\n                <span class="tag-item">\n                <a class="tag"
style="font-size: 26px" href="/tag/life/">life</a>\n
</span>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 24px" href="/tag/humor/">humor</a>\n
</span>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 22px" href="/tag/books/">books</a>\n
</span>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 14px"
href="/tag/reading/">reading</a>\n                </span>\n                \n
<span class="tag-item">\n                <a class="tag" style="font-size:
10px" href="/tag/friendship/">friendship</a>\n                </span>\n
\n                <span class="tag-item">\n                <a class="tag"
style="font-size: 8px" href="/tag/friends/">friends</a>\n
</span>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 8px" href="/tag/truth/">truth</a>\n
</span>\n                \n                <span class="tag-item">\n
<a class="tag" style="font-size: 6px" href="/tag/simile/">simile</a>\n
</span>\n                \n                \n                </div>\n</div>\n\n                </div>\n
<footer class="footer">\n                <div class="container">\n
<p class="text-muted">\n                Quotes by: <a
href="https://www.goodreads.com/quotes">GoodReads.com</a>\n
</p>\n                <p class="copyright">\n                Made with
<span class="'zyte'">\xe2\x9d\xa4</span> by <a class="'zyte'"
href="https://www.zyte.com">Zyte</a>\n                </p>\n
</div>\n                </footer>\n</body>\n</html>'

```

Finding the html code

```
soup = BeautifulSoup(response.content, "html.parser")
```

```

## Finding all the elements which are div and has the "quote" class
quotes= soup.find_all("div",class_="quote")

## Finding the first 10 such elements
req_quotes = quotes[:10]

req_quotes

[<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">"The world as we have created it
is a process of our thinking. It cannot be changed without changing
our thinking."</span>
  <span>by <small class="author" itemprop="author">Albert
Einstein</small>
  <a href="/author/Albert-Einstein">(about)</a>
</span>
<div class="tags">
  Tags:
  <meta class="keywords" content="change,deep-
thoughts,thinking,world" itemprop="keywords"/>
  <a class="tag" href="/tag/change/page/1/">change</a>
  <a class="tag" href="/tag/deep-thoughts/page/1/">deep-thoughts</a>
  <a class="tag" href="/tag/thinking/page/1/">thinking</a>
  <a class="tag" href="/tag/world/page/1/">world</a>
</div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">"It is our choices, Harry, that
show what we truly are, far more than our abilities."</span>
  <span>by <small class="author" itemprop="author">J.K. Rowling</small>
  <a href="/author/J-K-Rowling">(about)</a>
</span>
<div class="tags">
  Tags:
  <meta class="keywords" content="abilities,choices"
itemprop="keywords"/>
  <a class="tag" href="/tag/abilities/page/1/">abilities</a>
  <a class="tag" href="/tag/choices/page/1/">choices</a>
</div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">"There are only two ways to live
your life. One is as though nothing is a miracle. The other is as
though everything is a miracle."</span>
  <span>by <small class="author" itemprop="author">Albert
Einstein</small>
  <a href="/author/Albert-Einstein">(about)</a>

```

```

</span>
<div class="tags">
    Tags:
    <meta class="keywords"
content="inspirational,life,live,miracle,miracles"
itemprop="keywords"/>
    <a class="tag" href="/tag/inspirational/page/1/">inspirational</a>
    <a class="tag" href="/tag/life/page/1/">life</a>
    <a class="tag" href="/tag/live/page/1/">live</a>
    <a class="tag" href="/tag/miracle/page/1/">miracle</a>
    <a class="tag" href="/tag/miracles/page/1/">miracles</a>
</div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
    <span class="text" itemprop="text">“The person, be it gentleman or
lady, who has not pleasure in a good novel, must be intolerably
stupid.”</span>
    <span>by <small class="author" itemprop="author">Jane Austen</small>
    <a href="/author/Jane-Austen">(about)</a>
</span>
<div class="tags">
    Tags:
    <meta class="keywords"
content="aliteracy,books,classic,humor" itemprop="keywords"/>
    <a class="tag" href="/tag/aliteracy/page/1/">aliteracy</a>
    <a class="tag" href="/tag/books/page/1/">books</a>
    <a class="tag" href="/tag/classic/page/1/">classic</a>
    <a class="tag" href="/tag/humor/page/1/">humor</a>
</div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
    <span class="text" itemprop="text">“Imperfection is beauty, madness
is genius and it's better to be absolutely ridiculous than absolutely
boring.”</span>
    <span>by <small class="author" itemprop="author">Marilyn
Monroe</small>
    <a href="/author/Marilyn-Monroe">(about)</a>
</span>
<div class="tags">
    Tags:
    <meta class="keywords" content="be-
yourself,inspirational" itemprop="keywords"/>
    <a class="tag" href="/tag/be-yourself/page/1/">be-yourself</a>
    <a class="tag" href="/tag/inspirational/page/1/">inspirational</a>
</div>
</div>,
<div class="quote" itemscope=""

```

```

itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">“Try not to become a man of
  success. Rather become a man of value.”</span>
  <span>by <small class="author" itemprop="author">Albert
  Einstein</small>
  <a href="/author/Albert-Einstein">(about)</a>
  </span>
  <div class="tags">
    Tags:
    <meta class="keywords" content="adulthood,success,value"
  itemprop="keywords"/>
  <a class="tag" href="/tag/adulthood/page/1/">adulthood</a>
  <a class="tag" href="/tag/success/page/1/">success</a>
  <a class="tag" href="/tag/value/page/1/">value</a>
  </div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">“It is better to be hated for what
  you are than to be loved for what you are not.”</span>
  <span>by <small class="author" itemprop="author">André Gide</small>
  <a href="/author/Andre-Gide">(about)</a>
  </span>
  <div class="tags">
    Tags:
    <meta class="keywords" content="life,love"
  itemprop="keywords"/>
  <a class="tag" href="/tag/life/page/1/">life</a>
  <a class="tag" href="/tag/love/page/1/">love</a>
  </div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">“I have not failed. I've just
  found 10,000 ways that won't work.”</span>
  <span>by <small class="author" itemprop="author">Thomas A.
  Edison</small>
  <a href="/author/Thomas-A-Edison">(about)</a>
  </span>
  <div class="tags">
    Tags:
    <meta class="keywords"
  content="edison,failure,inspirational,paraphrased"
  itemprop="keywords"/>
  <a class="tag" href="/tag/edison/page/1/">edison</a>
  <a class="tag" href="/tag/failure/page/1/">failure</a>
  <a class="tag" href="/tag/inspirational/page/1/">inspirational</a>
  <a class="tag" href="/tag/paraphrased/page/1/">paraphrased</a>
  </div>

```

```

</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">"A woman is like a tea bag; you
never know how strong it is until it's in hot water."</span>
  <span>by <small class="author" itemprop="author">Eleanor
Roosevelt</small>
  <a href="/author/Eleanor-Roosevelt">(about)</a>
</span>
<div class="tags">
  Tags:
  <meta class="keywords" content="misattributed-eleanor-
roosevelt" itemprop="keywords"/>
  <a class="tag"
href="/tag/misattributed-eleanor-roosevelt/page/1/">misattributed-
eleanor-roosevelt</a>
</div>
</div>,
<div class="quote" itemscope=""
itemtype="http://schema.org/CreativeWork">
  <span class="text" itemprop="text">"A day without sunshine is like,
you know, night."</span>
  <span>by <small class="author" itemprop="author">Steve Martin</small>
  <a href="/author/Steve-Martin">(about)</a>
</span>
<div class="tags">
  Tags:
  <meta class="keywords" content="humor,obvious,simile"
itemprop="keywords"/>
  <a class="tag" href="/tag/humor/page/1/">humor</a>
  <a class="tag" href="/tag/obvious/page/1/">obvious</a>
  <a class="tag" href="/tag/simile/page/1/">simile</a>
</div>
</div>]

```

Lists for storing the quotes, authors, tags

```
quote_text_list = []
```

```
authors_list = []
```

```
tags_list = []
```

Finding the quotes, authors and tags out of the first 10 elements and storing them in lists

```
for index,quote in enumerate(req_quotes,start=1):
```

```
    ## Getting the spans which has the "text" class
```

```
    spans = quote.find_all("span",class_="text")
```

```
    ## Getting the first span because it contains the quote
```

```
    quote_span = spans[0]
```

```
    ## Getting the quote as the text
```

```
    quote_text = quote_span.get_text(strip=True)
```

```
    ## Appending the extracted quote into the list
```

```

quote_text_list.append(quote_text)

## Using the same approach for the authors
small = quote.find("small",class_="author")
author = small.get_text(strip=True)
authors_list.append(author)

## Using the same sort of approach for the tags but here we are
storing the list of tags into the final list
tags = quote.find_all("a",class_="tag")
tag_list = []
for tag in tags:
    tag_list.append(tag.get_text(strip=True))
tags_list.append(tag_list)

## Constructing the data
data = {
    "Quote": quote_text_list,
    "Author":authors_list,
    "Tags":tags_list
}

df=pd.DataFrame(data)
## Converting the data into the dataframe

df.head()

{"summary":{"\n  \"name\": \"df\",\n  \"rows\": 10,\n  \"fields\": [\n    {\n      \"column\": \"Quote\",\n      \"properties\": {\n        \"dtype\": \"string\",\n        \"num_unique_values\": 10,\n        \"samples\": [\n          \"\\u201cA woman is like a tea bag; you\n          never know how strong it is until it's in hot water.\\u201d\",\n          \"\\u201cIt is our choices, Harry, that show what we truly are, far\n          more than our abilities.\\u201d\",\n          \"\\u201cTry not to\n          become a man of success. Rather become a man of value.\\u201d\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    },\n    {\n      \"column\": \"Author\",\n      \"properties\": {\n        \"dtype\": \"string\",\n        \"num_unique_values\": 8,\n        \"samples\": [\n          \"J.K. Rowling\",\n          \"Thomas A. Edison\",\n          \"Albert Einstein\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    },\n    {\n      \"column\": \"Tags\",\n      \"properties\": {\n        \"dtype\": \"object\",\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    }\n  ],\n  \"type\": \"dataframe\", \"variable_name\": \"df\"}

df.to_csv("quotes.csv",index=False)
## Storing the data into csv

df_read=pd.read_csv("quotes.csv")
##Reading the csv for rechecking

```



```

df_read.head()

{"summary":{"\n  \"name\": \"df_read\",\n  \"rows\": 10,\n  \"fields\": [\n    {\n      \"column\": \"Quote\",\n      \"properties\": {\n        \"dtype\": \"string\",\n        \"num_unique_values\": 10,\n        \"samples\": [\n          \"\\u201cA woman is like a tea bag; you never know how strong it is until it's in hot water.\\u201d\",\n          \"\\u201cIt is our choices, Harry, that show what we truly are, far more than our abilities.\\u201d\",\n          \"\\u201cTry not to become a man of success. Rather become a man of value.\\u201d\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    },\n    {\n      \"column\": \"Author\",\n      \"properties\": {\n        \"dtype\": \"string\",\n        \"num_unique_values\": 8,\n        \"samples\": [\n          \"J.K. Rowling\",\n          \"Thomas A. Edison\",\n          \"Albert Einstein\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    },\n    {\n      \"column\": \"Tags\",\n      \"properties\": {\n        \"dtype\": \"string\",\n        \"num_unique_values\": 10,\n        \"samples\": [\n          \"['misattributed-eleanor-roosevelt']\",\n          \"['abilities', 'choices']\",\n          \"['adulthood', 'success', 'value']\"\n        ],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n      }\n    }\n  ],\n  \"type\": \"dataframe\", \"variable_name\": \"df_read\"}

## the approach of problem 3 is similar to problem 2 and therefore i am not writing the comments again

## Problem 3
url3 = "https://www.timeanddate.com/weather/usa/new-york"
response = requests.get(url3)
if response.status_code==200:
    print("Successfully retrieved the webpage!")
else:
    print(f"Failed to retrieve the webpage. Status code: {response.status_code}")

Successfully retrieved the webpage!

contentType = response.headers.get("Content-Type")

contentType

{"type": "string"}

## Since the content type is text/html, we will use web scraping to find the data

soup = BeautifulSoup(response.content, "html.parser")

soup

```

```

<!DOCTYPE html>
<!--
scripts and programs that download content transparent to the user are
not allowed without permission
--><html lang="en"><head><meta content="text/html; charset=utf-8"
http-equiv="Content-Type"/><title>Weather for New York, New York,
USA</title><meta content="Current weather in New York and forecast for
today, tomorrow, and next 14 days" name="description"/><meta
content="max-image-preview:large" name="robots"/><meta
content="https://www.timeanddate.com/scripts/cityog.php?title=Weather
%20in&tint=0x007b7a&city=New%20York&state=New
%20York&country=USA&image=new-york1"
property="og:image"/><meta content="1366"
property="og:image:width"/><meta content="738"
property="og:image:height"/><meta content="website"
property="og:type"/><style>
@font-face{font-family:iconfont;src:url("/common/fonts/iconfont.woff2?v8")
format("woff2"),url("/common/fonts/iconfont.woff?v8")
format("woff"),url("/common/fonts/iconfont.ttf?v8")
format("truetype"),url("/common/fonts/iconfont.svg?v8#iconfont")
format("svg");font-weight:400;font-style:normal}
</style>
<link as="font" crossorigin="" href="/common/fonts/iconfont.woff2?v8"
rel="preload" type="font/woff2"/>
<link crossorigin="" href="https://c.tadst.com" rel="preconnect"/>
<link as="style" href="//c.tadst.com/com/common/global_42.css"
rel="preload"/>
<link as="script" href="/common/prebidtdad.top.desk_64.js"
rel="preload"/>
<script async=""
src="https://securepubads.g.doubleclick.net/tag/js/gpt.js"></script>
<script async=""
src="https://c.amazon-adsystem.com/aax2/apstag.js"></script>
<script async="" src="https://btloader.com/tag?
o=5174239513018368&upapi=true"></script>
<script>

AdMgr=(function(){var
isLog=0,isSent=0,slots=[],slotsR=[],techs={"pb":1,"aps":1},isResent=0,
techsR={"pb":1,"aps":1},vals={"gdpr":"na"};
function isSecond()
{return(document.referrer||'').indexOf('timeanddate')>0}
function logAds(){if(isLog){return}
if(!window.jcb||!window.TADhba){setTimeout(logAds,1000);
return}
isLog=1;
jcb("/scripts/logads.php?d=d"+"&"+TADhba(),function(){}))
AD={s:[],o:0};
googletag=window.googletag||{};
googletag.cmd=googletag.cmd||[];

```

```

function push(f){googletag.cmd.push(f)}
function set(n,v){vals[n]=v}
function get(n){return vals[n]}
function setTargeting(n,v){if(v){push(function(){
{googletag.pubads().setTargeting(n,v)}})}}
function send(){if(isSent)return;
isSent=true;
setTargeting("pbv",window.pbv);
setTargeting("si",isSecond()?"2":"1");
setTargeting("gdpr",get("gdpr"));
push(function(){googletag.enableServices();
googletag.pubads().refresh(AD.s)}}}
function resend(){if(isResent)return;
isResent=true;
let o=slotsR[0];
o.S.setTargeting('rot',''+o.r);
googletag.pubads().refresh([o.S])}
function rendered(g){setTimeout(logAds,1000)}
function bidsIn(i){delete techs[i];
if(Object.keys(techs).length==0){sendAdserverRequest()}}
function bidsInR(i){delete techsR[i];
if(Object.keys(techsR).length==0){resend()}}
function addSlot(o){if (o.wm&o.wm>window.innerWidth){o.wf.i=o.i;
o=o.wf}
o.r=0;
o.a9=function(){return{slotID:o.i,slotName:o.n,sizes:o.s}}
slots.push(o);
if(o.css){let s=document.createElement('style');
s.textContent=o.css;
document.head.append(s)}}
function refresh(o){if (o.r<3 && AdMgr.highBid){o.r++;
slotsR=[o];
setTimeout(resend,3000);
pbjs.requestBids({timeout:2300,
adUnitCodes:[o.n],
bidsBackHandler:function()
{try{pbjs.setTargetingForGPTAsync([o.n])}catch(e){}}
AdMgr.bidsInR('pb')}});
TADaps.t+=new Date();apstag.fetchBids({slots:
[o.a9()],timeout:2000,params:{adRefresh:'1'}},
function(bids){AdMgr.push(function(){TADaps.b=[];
TADaps.e+=new Date();
apstag.setDisplayBids();
AD.s.forEach(function(o){let c=0,z=o.getTargeting('amznbid');
if(z&z.length>0){c=z[0]}
TADaps.b.push(c)}});
AdMgr.bidsInR('aps')}})}}}
function slot(i){return slots[i]}
function a9slot(i){return slot(i).a9()}
function gptSlot(i){let o=slot(i),j;

```

```

if(o){o.S=googletag.defineSlot(o.n,o.s,o.i);
if(o.t){for(j=0;j<o.t.length;j++){t=o.t[j];
o.S.setTargeting(t[0],t[1])}}
o.S.addService(googletag.pubads());
AD.s.push(o.S);
if (o.ro){let e=document.getElementById(o.i);
if(e){addEventListener("impressionViewableRotate",function()
{refresh(o)}, true)}}}
function dispSlot(i){let o=slot(i);
push(function(){googletag.display(o.i)})}
push(function(){googletag.pubads().disableInitialLoad();
googletag.pubads().addEventListener('slotRenderEnded',rendered)});
return {addSlot:addSlot,
slot:slot,
a9slot:a9slot,
gptSlot:gptSlot,
dispSlot:dispSlot,
bidsIn:bidsIn,
bidsInR:bidsInR,
push:push,
setTargeting:setTargeting,
send:send,
set:set,
get:get,
rendered:rendered,
isSecond:isSecond,
done:function(){return isLog}}})();
AdMgr.addSlot({n:'/1004254/tadcom_300x600',s:[[300,600],[300,250],
[160,600],[120,600]],i:'div-gpt-com-300x600',t:
[['pf','003']],wm:1440,wf:{n:'/1004254/com_160',s:[[160,600],
[120,600]],i:'div-gpt-com-160x600',ro:1},ro:1,css:"-root{-advertis-
size:300px}");AdMgr.addSlot({n:'/1004254/tadcom_970',s:[[970,90],
[728,90]],i:'div-gpt-com-970x90-head',t:['pf','005'],wm:1320,wf:
{n:'/1004254/com728',s:[[728,90]],i:'div-gpt-com-728x90-head'}});
var pbjs=pbjs||{};pbjs.que=pbjs.que||[];
pbjs.bidderSettings={standard:{storageAllowed:true}};
!function(a9,a,p){if(a[a9])return;function q(c,r)
{a[a9]._Q.push([c,r])}a[a9]={init:function()
{q("i",arguments)},fetchBids:function()
{q("f",arguments)},setDisplayBids:function()
{}},targetingKeys:function(){return[]},_Q:[]}}
("apstag",window,document);
function cmpEvent(t,s){if(s){let e=t.eventStatus;
if(e=='useractioncomplete'||e=='tcloded'){if (!t.purpose.consent[1])
{AdMgr.set('pl',1);
AdMgr.set("gdpr","rej")} else {AdMgr.set("gdpr","acc")}}
consentDataReady();
/*
if (t.purpose.consent[4]){consentDataReady()} else
{sendAdserverRequest()}

```

```

*/}}}}
function consentDataReady(){consentDataReady=function(){};
pbjs.que.push(function(){if(AdMgr.get('p1'))
{pbjs.setConfig({'deviceAccess':false})}
pbjs.addAdUnits([{code:AdMgr.slot(0).n,mediaTypes:{banner:
{sizes:AdMgr.slot(0).s}},ortb2Imp:{ext:{gpid:'/1004254/
tadcom_300x600#a3720'}}},bids:[{bidder:'amx',params:
{tagId:'dGltZWFuZGRhdGUuY29t'}},{bidder:'appnexus',params:
{placementId:28369055}},{bidder:'criteo',params:{zoneId:1698495}},
{bidder:'ix',params:{siteId:'911528',size:[300,600]}},
{bidder:'medianet',params:{cid:'8CU692DPW',crid:'465741218'}},
{bidder:'pubmatic',params:{adSlot:'4851007',publisherId:'157610'}},
{bidder:'rubicon',params:
{accountId:'16448',siteId:'127484',zoneId:'2653396'}},
{bidder:'sharethrough',params:{pkey:'xPWGnDqXZnqMeofl0GHfguLL'}},
{bidder:'sovrn',params:{tagid:'422106'}},{bidder:'triplelift',params:
{inventoryCode:'TimeAndDate_com_300x600'}}}],
{code:AdMgr.slot(1).n,mediaTypes:{banner:
{sizes:AdMgr.slot(1).s}},ortb2Imp:{ext:{gpid:'/1004254/
tadcom_970#a3720'}}},bids:[{bidder:'amx',params:
{tagId:'dGltZWFuZGRhdGUuY29t'}},{bidder:'appnexus',params:
{placementId:28369066}},{bidder:'criteo',params:{zoneId:1702571}},
{bidder:'ix',params:{siteId:'924834',size:[970,90]}},
{bidder:'medianet',params:{cid:'8CU692DPW',crid:'635764783'}},
{bidder:'pubmatic',params:{adSlot:'4851008',publisherId:'157610'}},
{bidder:'rubicon',params:
{accountId:'16448',siteId:'127484',zoneId:'2677290'}},
{bidder:'sharethrough',params:{pkey:'MP4upq7RPYEkCaVYtECVCddt'}},
{bidder:'sovrn',params:{tagid:'422101'}},{bidder:'triplelift',params:
{inventoryCode:'TimeAndDate_com_728x90'}}]]});
pbjs.requestBids({bidsBackHandler:function(){var
c=0,a,b,i,h=0,r=pbjs.getBidResponses();
AdMgr.push(function(){pbjs.setTargetingForGPTAsync()});
for(a in r){if(r.hasOwnProperty(a)){b=r[a].bids;
for(i=0;i<b.length;i++){if(b[i].cpm){c++;
h=Math.max(h,b[i].cpm)}}}}
AdMgr.setTargeting("tadbid",""+c);
AdMgr.highBid=h;
AdMgr.bidsIn('pb')}}
)}});
TADaps.t+=new Date();apstag.fetchBids({slots:
[AdMgr.a9slot(0),AdMgr.a9slot(1)],timeout:1605,params:
{adRefresh:'0'}}},
function(bids){AdMgr.push(function(){TADaps.e+=new Date();
apstag.setDisplayBids();
AD.s.forEach(function(o){let c=0,z=o.getTargeting('amznbid');
if(z&&z.length>0){c=z[0]}
TADaps.b.push(c)}});
AdMgr.bidsIn('aps')}})}
pbjs.que.push(function(){pbjs.setConfig({s2sConfig:{accountId:'1',

```

```

bidders:["appnexus","pubmatic","sovrn","triplelift"],
adapter:'prebidServer',
enabled:true,
endpoint:{plConsent:'https://www.timeanddate.com/.pbs/v1/openrtb2/
auction',
noPlConsent:'https://www.timeanddate.com/.pbs/v1/openrtb2/auction'},
syncEndpoint:{plConsent:'https://www.timeanddate.com/.pbs/v1/cookie_sy
nc',
noPlConsent:'https://www.timeanddate.com/.pbs/v1/cookie_sync'},
timeout:978},
userSync:{userIds:[{name:"quantcastId"},{name:"criteo"},
{name:"sharedId",params:{pixelUrl:"/scripts/sharedid.php"},storage:
{name:"_sharedID",type:"cookie",expires:30}}],filterSettings:{iframe:
{bidders:"*",filter:"include"}}},
floors:{enforcement:{enforceJS:false},data:{schema:{fields:
['size']},values:{'300x600':0.03,'970x90':0.05},default:0.04}},
priceGranularity:{buckets:[{min:0,max:4,increment:0.01},
{min:4,max:8,increment:0.02},{min:8,max:20,increment:0.05},
{min:20,max:30,increment:0.10},{min:30,max:50,increment:0.25},
{min:50,max:100,increment:1}]},
enableSendAllBids:true,
bidderTimeout:1305,
pageUrl:"https:\\\\www.timeanddate.com\\weather\\usa\\new-york");
pbjs.setBidderConfig({"bidders":["rubicon"],"config":{"schain":
{"validation":"strict","config":{"ver":"1.0","complete":1,"nodes":
[{"asi":"netricsales.com","sid":"16448","hp":1}]}}}, true);
consentDataReady()));
TADaps={b:[]};apstag.init({pubID:'12d5d789-63e3-47bc-ba31-
070e97a96f2c',adServer:'googletag'});
function sendAdserverRequest(){AdMgr.send()}
setTimeout(function(){sendAdserverRequest()},2610);
googletag.cmd.push(function()
{AdMgr.gptSlot(0);AdMgr.gptSlot(1);googletag.pubads().setTargeting('ab
','b').setTargeting('hr','12').setTargeting('ut','u').setTargeting('ar
t','3720').setTargeting('pf','005').enableSingleRequest()});

</script>
<script async="" src="/common/prebidtdad.top.desk_64.js"></script>
<link href="https://www.timeanddate.de/wetter/usa/new-york"
hreflang="de" rel="alternate">
<link href="https://www.timeanddate.no/vaer/usa/new-york"
hreflang="no" rel="alternate"><link href="/site.webmanifest"
rel="manifest"/><link href="//c.tadst.com/favicon-48x48.png"
rel="icon" sizes="48x48" type="image/png"/><link
href="//c.tadst.com/favicon-16x16.png" rel="icon" sizes="16x16"
type="image/png"/><link href="//c.tadst.com/favicon-32x32.png"
rel="icon" sizes="32x32" type="image/png"/><link
href="//c.tadst.com/com/common/global_42.css" rel="stylesheet"
type="text/css"/><script type="application/ld+json">
{"@context":"https://schema.org","@type":"BreadcrumbList","itemListEle

```

```

ment":
[{"@type":"ListItem","position":1,"name":"Weather","item":"https://
www.timeanddate.com/weather/"},
{"@type":"ListItem","position":2,"name":"USA","item":"https://
www.timeanddate.com/weather/usa"},
{"@type":"ListItem","position":3,"name":"New York"}]]}
</script><link href="//c.tadst.com/com/common/tpl_banner_22.css"
rel="stylesheet" type="text/css"/><link
href="//c.tadst.com/com/common/citypages_57.css" rel="stylesheet"
type="text/css"/><link href="//c.tadst.com/com/common/citywt_34.css"
rel="stylesheet" type="text/css"/><script>mtt=1;</script><style>
/* bug with the config button */
#set-f{height:25px; width:25px;top:-30px;}
div#qfacts {
max-height:1000000px;
}
#qlook {
text-align: left;
}
#qlook .h1 {
max-width: 80%;
}
tbody .wa:hover {
background: hsla(0,0%,80%,.4);
cursor:pointer;
}
</style></link></link></head><body class="tpl-banner weather"><div
class="header__wrapper" id="header__wrapper">
<div class="header__inner" id="header__inner">
<div class="banner" id="header">
<div class="fixed">
<div id="logo">
<a href="/" rel="home" title="Home page timeanddate.com"><div aria-
label="timeanddate.com" class="tad-logo" role="img"></div></a>
</div>
</div>
</div>
<div id="ad-wrap"><div class="fixed" id="ad-wrap2"><div id="ad7"><div
id="div-gpt-com-970x90-head"><script>
AdMgr dispSlot(1);
</script>
</div></div></div></div>
<nav class="site-nav-bar" id="nav">
<div class="site-nav-bar__inner fixed">
<button aria-label="Menu" class="site-nav-bar__button site-nav-
bar__button--menu" id="site-nav-menu" title="Menu">
<i class="i-font i-menu"></i>
</button>
<div class="site-nav-bar__logo">
<a href="/" rel="home" title="Home page timeanddate.com"></a>
</div>
<form action="/search/results.html" class="site-nav-bar__search-form">
<input aria-label="Search" class="site-nav-bar__search" id="site-nav-
search" name="query" placeholder="Search..." title="Search"/>
<button aria-label="Search" class="site-nav-bar__button site-nav-
bar__button--search" id="site-nav-search-btn">
<div class="site-nav-bar__search-inner">
<i class="i-font i-search"></i>
</div>
</button>
</form>
<div class="site-nav-bar__menu-wrap">
<div class="site-nav__header">
<button class="site-nav__login" id="site-nav-login">Sign in</button>
<button class="site-nav__close" id="site-nav-close" title="Close">
<i class="i-font i-close"></i>
</button>
</div>
<ul class="site-nav" id="site-nav">
<li class="site-nav__menu"><a class="site-nav__title"
href="/news/">News</a><ul class="site-nav__sub-menu"><li class="site-
nav__item site-nav__item--divider site-nav__item--mob"><a class="site-
nav__link" href="/news">News Home</a><li class="site-nav__item"><a
class="site-nav__link" href="/news/astronomy/">Astronomy News</a><li
class="site-nav__item"><a class="site-nav__link"
href="/news/time/">Time Zone News</a><li class="site-nav__item site-
nav__item--divider"><a class="site-nav__link"
href="/news/calendar/">Calendar & Holiday News</a><li class="site-
nav__item site-nav__item--divider"><a class="site-nav__link"
href="/newsletter/">Newsletter</a><li class="site-nav__item"><a
class="site-nav__link" href="/live/">Live
events</a></li></li></li></li></li></li></ul></li><li class="site-
nav__menu"><a class="site-nav__title" href="/worldclock/">World
Clock</a><ul class="site-nav__sub-menu"><li class="site-nav__item"><a
class="site-nav__link" href="/worldclock/">Main World Clock</a><li
class="site-nav__item"><a class="site-nav__link"
href="/worldclock/full.html">Extended World Clock</a><li class="site-
nav__item site-nav__item--divider"><a class="site-nav__link"
href="/worldclock/personal.html">Personal World Clock</a><li
class="site-nav__item"><a class="site-nav__link"
href="/clocks/free.html">Clock for Your Site</a><li class="site-
nav__item"><a class="site-nav__link"
href="/worldclock/timezone/utc">UTC
Time</a></li></li></li></li></li></li></ul></li><li class="site-
nav__menu"><a class="site-nav__title" href="/time/">Time Zones</a><ul
class="site-nav__sub-menu"><li class="site-nav__item site-nav__item--
divider site-nav__item--mob"><a class="site-nav__link"

```


[illegible]

```

nav__item site-nav__item site-nav__div
href="/scripts/go.php?type=hourly">Hour-by-Hour</a><li class="site-
nav__item"><a class="site-nav__link" href="/scripts/go.php?
type=historic">Past Week</a><li class="site-nav__item"><a class="site-
nav__link"
href="/scripts/go.php?type=climate">Climate</a></li></li></li></li></
li></li></ul></li><li class="site-nav__menu"><a class="site-
nav__title" href="/astronomy/">Sun, Moon & Space</a><ul
class="site-nav__sub-menu"><li class="site-nav__item site-nav__item-
divider site-nav__item--mob"><a class="site-nav__link"
href="/astronomy">Sun & Moon Home</a><li class="site-nav__item"><a
class="site-nav__link" href="/sun/">Sun Calculator</a><li class="site-
nav__item"><a class="site-nav__link" href="/moon/">Moon
Calculator</a><li class="site-nav__item site-nav__item--divider"><a
class="site-nav__link" href="/moon/phases/">Moon Phases</a><li
class="site-nav__item"><a class="site-nav__link"
href="/astronomy/night/">Night Sky</a><li class="site-nav__item site-
nav__item--divider"><a class="site-nav__link" href="/astronomy/meteor-
shower/">Meteor Showers</a><li class="site-nav__item"><a class="site-
nav__link" href="/worldclock/sunearth.html">Day and Night Map</a><li
class="site-nav__item site-nav__item--divider"><a class="site-
nav__link" href="/astronomy/moon/light.html">Moon Light World
Map</a><li class="site-nav__item"><a class="site-nav__link"
href="/eclipse/">Eclipses</a><li class="site-nav__item site-
nav__item--divider"><a class="site-nav__link" href="/live/">Live
Streams</a><li class="site-nav__item"><a class="site-nav__link"
href="/calendar/seasons.html">Seasons</a><li class="site-nav__item"><a
class="site-nav__link" href="/news/astronomy/">Astronomy
News</a></li></li></li></li></li></li></li></li></li></li></li></li></
ul></li><li class="site-nav__menu"><a class="site-nav__title"
href="/counters/">Timers</a><ul class="site-nav__sub-menu"><li
class="site-nav__item site-nav__item--mob"><a class="site-nav__link"
href="/counters">Timers Home</a><li class="site-nav__item"><a
class="site-nav__link" href="/stopwatch/">Stopwatch</a><li
class="site-nav__item site-nav__item--divider"><a class="site-
nav__link" href="/timer/">Timer</a><li class="site-nav__item site-
nav__item--divider"><a class="site-nav__link"
href="/countdown/create">Countdown to Any Date</a><li class="site-
nav__item"><a class="site-nav__link" href="/countdown/chinese">Chinese
New Year Countdown</a><li class="site-nav__item"><a class="site-
nav__link" href="/countdown/valentines">Valentine's Day
Countdown</a><li class="site-nav__item"><a class="site-nav__link"
href="/countdown/newyear">New Year Countdown</a><li class="site-
nav__item"><a class="site-nav__link"
href="/clocks/freecountdown.html">Countdown for Your
Site</a></li></li></li></li></li></li></li></li></ul></li><li
class="site-nav__menu"><a class="site-nav__title"
href="/date/">Calculators</a><ul class="site-nav__sub-menu"><li
class="site-nav__item site-nav__item--divider site-nav__item--mob"><a
class="site-nav__link" href="/date/">Calculators Home</a><li

```

```
class="site-nav__item"><a class="site-nav__link"  
href="/date/duration.html">Date to Date Calculator (duration)</a><li  
class="site-nav__item"><a class="site-nav__link"  
href="/date/workdays.html">Business Date to Date (exclude  
holidays)</a><li class="site-nav__item"><a class="site-nav__link"  
href="/date/dateadd.html">Date Calculator (add / subtract)</a><li  
class="site-nav__item site-nav__item--divider"><a class="site-  
nav__link" href="/date/weekdayadd.html">Business Date (exclude  
holidays)</a><li class="site-nav__item"><a class="site-nav__link"  
href="/date/weekday.html">Weekday Calculator</a><li class="site-  
nav__item"><a class="site-nav__link" href="/date/weeknumber.html">Week  
Number Calculator</a><li class="site-nav__item site-nav__item--  
divider"><a class="site-nav__link" href="/date/roman-  
calculator.html">Roman Numeral Converter</a><li class="site-  
nav__item"><a class="site-nav__link"  
href="/date/birthday.html">Alternative Age Calculator</a><li  
class="site-nav__item"><a class="site-nav__link"  
href="/date/pattern.html">Date Pattern Calculator</a><li class="site-  
nav__item"><a class="site-nav__link"  
href="/worldclock/distance.html">Distance  
Calculator</a></li></li></li></li></li></li></li></li></li></li>  
</ul></li><li class="site-nav__menu site-nav__menu-my-account"><a  
class="site-nav__title" href="/custom/"><i class="i-font i-  
account_circle site-nav__desktop-title"></i> <span>My  
Account</span></a><ul class="site-nav__sub-menu"><li class="site-  
nav__item site-nav__item--divider site-nav__item--mob"><a class="site-  
nav__link" href="/custom">My Account</a><li class="site-nav__item"><a  
class="site-nav__link" href="/custom/location.html" id="popchi">My  
Location</a><li class="site-nav__item"><a class="site-nav__link"  
href="/custom/site.html">My Units</a><li class="site-nav__item"><a  
class="site-nav__link" href="/calendar/events/">My Events</a><li  
class="site-nav__item"><a class="site-nav__link"  
href="/worldclock/personal.html">My World Clock</a><li class="site-  
nav__item site-nav__item--divider"><a class="site-nav__link"  
href="/custom/privacy.html">My Privacy</a><li class="site-  
nav__item"><a class="site-nav__link" href="/services/">Paid  
Services</a><li class="site-nav__item"><a class="site-nav__link"  
href="/custom/login.html" id="poplogin">Sign in</a><li class="site-  
nav__item"><a class="site-nav__link" href="/custom/create.html"  
id="popreg">Register</a></li></li></li></li></li></li></li></li></li></li>  
</ul></li>  
</div>  
<div class="site-nav-bar__blur" id="site-nav-blur"></div>  
</div>  
</nav>  
</div>  
</div><div class="po" id="pol"></div><div id="mpo"></div><div  
class="alert-notice__wrap" id="anw"></div><div class="main-content-  
div"><script>
```

```

window.TAD=window.TAD||{};TAD.abtest='b';
</script><header class="bn-header bn-header--weather"><div class="row
socrow"><div class="fixed" id="bc"><div id="bct"><a class="fx"
href="/" target="_top">Home</a> <a class="fx" href="/weather/"
target="_top">Weather</a> <a class="fx" href="/weather/usa"
target="_top">USA</a> New York</div></div></div><div class="bn-
header__wrap fixed"><div class="headline-banner"><section
class="headline-banner__wrap">

<div class="headline-banner__content"><h1 class="headline-
banner__title">Weather in New York, New York,
USA</h1></div></section><section class="headline-banner__extra"><form
action="/weather/" class="bn-header__searchbox picker-city
noprint"><input autocomplete="off" class="picker-city__input"
name="query"
onfocus="ifc(this,'ci',1,5,{&quot;pre&quot;:&quot;/weather/&quot;})"
placeholder="Search for city or place..." type="search"/><button
class="picker-city__button" title="Search" type="submit"><i class="i-
font i-search"></i></button></form></section></div></div><section
class="bn-header__extra"><nav id="bk-nav"><div class="fixed"><div
class="bk-nav__inner"><div class="nav-2__wrap"><ul class="nav-2"><li
class="nav-2__item"><a href="/worldclock/usa/new-york"
title="General/main info about New York">Time/General</a></li><li
class="active nav-2__item"><a href="/weather/usa/new-york"
title="Current weather and forecast for New York">Weather <i
class="i-dropdown"></i></a><ul class="nav-2__submenu"><li
class="active nav-2__submenu-item"><a class="active"
href="/weather/usa/new-york" title="Shows a weather overview">Weather
Today/Tomorrow </a></li><li class="nav-2__submenu-item"><a
href="/weather/usa/new-york/hourly" title="Hour-by-hour weather for
the coming week">Hour-by-Hour Forecast </a></li><li class="nav-
2__submenu-item"><a href="/weather/usa/new-york/ext" title="Extended
forecast for the next two weeks">14 Day Forecast </a></li><li
class="nav-2__divider"></li><li class="nav-2__submenu-item"><a
href="/weather/usa/new-york/historic" title="Past weather for
yesterday, the last 2 weeks, or any selected month
available">Yesterday/Past Weather</a></li><li class="nav-2__submenu-
item"><a href="/weather/usa/new-york/climate" title="Historic weather
and climate information">Climate (Averages)</a></li></ul></li><li
class="nav-2__item"><a href="/time/zone/usa/new-york" title="Past and
future time change dates for New York">Time Zone </a></li><li
class="nav-2__item"><a href="/time/change/usa/new-york"
title="Daylight saving time changeover dates and times for New
York">DST Changes</a></li><li class="nav-2__item"><a
href="/astronomy/usa/new-york" title="Calculate rising and setting
times for the Sun and Moon in New York">Sun & Moon <i class="i-
dropdown"></i></a><ul class="nav-2__submenu"><li class="nav-
2__submenu-item"><a href="/astronomy/usa/new-york">Sun & Moon

```

Today <li class="nav-2__submenu-item">Sunrise & Sunset <li class="nav-2__divider"><li class="nav-2__submenu-item">Moonrise & Moonset <li class="nav-2__submenu-item">Moon Phases <li class="nav-2__divider"><li class="nav-2__submenu-item">Eclipses <li class="nav-2__submenu-item">Night Sky </div></div></div></nav><script type="text/javascript">

TAD=window.TAD||{};TAD.lon=-74.011;TAD.lat=40.709;

</script></section></header><main class="tpl-banner__main layout-grid layout-grid--sky tpl-banner__main--weather"><section class="layout-grid__hero tpl-banner__hero"><nav class="nav-3"><div class="fixed">Weather TodayWeather Hourly14 Day ForecastYesterday/Past WeatherClimate (Averages)</div></nav></section><article class="layout-grid__main tpl-banner__content"><section class="bk-focus"><div class="bk-focus__qlook" id="qlook"><div class="h1">Now</div><div class="h2">0 °C</div><p>Clear.</p><br class="clear"/><p>Feels Like: -3 °C
Forecast: 4 / -1 °C
Wind: 7 km/h ↑ from West</p></div><div class="bk-focus__info"><table class="table table--left table--inner-borders-rows"><tbody><tr><th>Location: </th><td>New York City - Central Park</td></tr><tr><th>Current Time: </th><td id="wtct">27 Jan 2025, 07:24:00</td></tr><tr><th>Latest Report: </th><td>27 Jan 2025, 06:51</td></tr><tr><th>Visibility: </th><td>16 km</td></tr><tr><th>Pressure: </th><td>1017 mbar</td></tr><tr><th>Humidity: </th><td>41%</td></tr><tr><th>Dew Point: </th><td>-12 °C</td></tr></tbody></table></div><div class="bk-focus__map" id="bk-map"></div></section><section class="fixed"><div class="row pdflexi-b dashb"><div><h2>Upcoming 5

```
hours</h2><div class="pr"><a href="/custom/site.html" id="set-f"
onclick="return modpop('/scripts/tzq.php?
cb=1330203&type=weather',null,'Change Units for Weather');"
title="Change Units"><i class="i-font i-settings"></i></a><table
class="fw sep tc" id="wt-5hr"><tbody><tr
class="h2"><td>Now</td><td>08:00</td><td>09:00</td><td>10:00</td><td>1
1:00</td><td>12:00</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr class="h2 soft"><td>0 °C</td><td>-
1 °C</td><td>0 °C</td><td>1 °C</td><td>2 °C</td><td>3 °C</td></tr></
tbody></table></div><p class="lk-block"><a class="read-more"
href="/weather/usa/new-york/hourly">See more hour-by-hour
weather</a></p></div><div class="four columns">
</div></div><div class="row pdflexi"><div class="eight columns"><h2
class="mgt0">Forecast for the next 48 hours</h2><div class="tb-
scroll"><span>Scroll right to see more</span><table class="zebra tb-wt
tc sep" id="wt-48"><thead><tr class="bg-wt"><th></th><th>
</th><th colspan="3">Monday</th><th class="sep-l"
colspan="4">Tuesday</th></tr><tr><th></th><th><span title="Morning
means the time between 06:00 and 12:00">Morning</span></th><th><span
title="Afternoon means the time between 12:00 and
18:00">Afternoon</span></th><th><span title="Evening means the time
between 18:00 and 00:00">Evening</span></th><th class="sep-l"><span
title="Night means the time between 00:00 and
06:00">Night</span></th><th><span title="Morning means the time
between 06:00 and 12:00">Morning</span></th><th><span title="Afternoon
means the time between 12:00 and 18:00">Afternoon</span></th><th><span
title="Evening means the time between 18:00 and
00:00">Evening</span></th></tr></thead><tbody><tr><th>Forecast</th><td
></td><td></td><td></td><td class="sep-l"></td><td></td><td></td><td></td></tr><tr><th>Temperature</th><td>0 °C</td><td>4 °C</td><td>2 °C</td><td class="sep-l">1 °C</td><td>1 °C</td><td>2 °C</td><td>-2 °C</td></tr><tr><th></th><td class="smaller">Sunny.</td><td class="smaller">Sunny.</td><td class="smaller">Clear.</td><td class="sep-l smaller">Overcast.</td><td class="smaller">Broken clouds.</td><td class="smaller">Partly cloudy.</td><td class="smaller">Broken clouds.</td></tr><tr><th>Feels Like</th><td>-5 °C</td><td>-1 °C</td><td>-4 °C</td><td class="sep-l">-4 °C</td><td>-5 °C</td><td>-3 °C</td><td>-2 °C</td></tr><tr><th>Wind Speed</th><td>18 km/h</td><td>23 km/h</td><td>25 km/h</td><td class="sep-l">27 km/h</td><td>28 km/h</td><td>21 km/h</td><td>3 km/h</td></tr><tr><th>Wind Direction</th><td>W<br/><span class="comp sa8" title="Wind blowing from 260° West to East">↑</span></td><td>WSW<br/><span class="comp sa6" title="Wind blowing from 240° West-southwest to East-northeast">↑</span></td><td>SW<br/><span class="comp sa4" title="Wind blowing from 220° Southwest to Northeast">↑</span></td><td class="sep-l">WSW<br/><span class="comp sa6" title="Wind blowing from 240° West-southwest to East-northeast">↑</span></td><td>WSW<br/><span class="comp sa6" title="Wind blowing from 250° West-southwest to East-northeast">↑</span></td><td>WNW<br/><span class="comp sa10" title="Wind blowing from 300° West-northwest to East-southeast">↑</span></td><td>S<br/><span class="comp sa0" title="Wind blowing from 180° South to North">↑</span></td></tr><tr><th>Humidity</th><td>48%</td><td>34%</td><td>48%</td><td class="sep-l">46%</td><td>50%</td><td>32%</td><td>41%</td></tr><tr><th>Dew Point</th><td>-10 °C</td><td>-11 °C</td><td>-8 °C</td><td class="sep-l">-9 °C</td><td>-8 °C</td><td>-13 °C</td><td>-14 °C</td></tr><tr><th>Visibility</th><td>11 km</td><td>13 km</td><td>12 km</td><td class="sep-l">12 km</td><td>9 km</td><td>12 km</td><td>9 km</td></tr><tr><th>Probability of Precipitation</th><td>0%</td><td>0%</td><td>0%</td><td class="sep-l">1%</td><td>4%</td><td>2%</td><td>0%</td></tr></tbody><tfoot><tr><td class="tc" colspan="8"><span class="img-caption">\* Updated Monday, 27 January 2025 02:43:02 New York time - Weather by CustomWeather, © 2025</span></td></tr></tfoot></table></div><p class="lk-block"><a class="read-more" href="/weather/usa/new-york/ext">14 day forecast, day-by-day</a><a class="fr read-more mgr15" href="/weather/usa/new-york/hourly">Hour-by-hour forecast for next week</a></p></div><div class="four columns"><div class="bg-b pd10 mgb25"><h3 class="mgt0">Yesterday's weather</h3><p>Clear. 6 / -1 °C<br/>Humidity: 44%. Wind: 11 km/h <span class="comp sa8" title="Wind blowing from 270° West to East">↑</span> from West</p><p></p></div></div>

```
class="tr lk-block pdr25"><a class="read-more" href="/weather/usa/new-
york/historic">More weather last week</p></div><div class="bg-b
pd10 mgb25"><h3 class="mgt0 tc">Currently at nearby stations</h3><div
class="clear"><div class="clear fr tc">1 °C</div><h3 class="mgb0">La
Guardia Airport: <span class="soft
smaller">(13 km)</h3><p>Passing clouds.</p></div><div
class="clear"><div class="clear fr tc">-2 °C</div><h3
class="mgb0">Teterboro Airport: <span class="soft
smaller">(17 km)</h3><p>Clear.</p></div><div class="clear"><div
class="clear fr tc">1 °C</div><h3
class="mgb0">Kennedy International Airport: <span class="soft
smaller">(21 km)</h3><p>Passing clouds.</p></div><p class="tr
lk-block clear pdr25">More
weather in USA</p></div><div class="clearfix"></div></div>
</div></section><section class="pdflexi bg-sect"><div
class="fixed"><h2 class="mgt0">Forecast for the next 2 weeks</h2><div
class="tb-scroll">Scroll right to see more<table
class="zebra tb-wt fw tc" id="wt-14d"><thead><tr class="bg-
wt"><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</
th><th>Fri</th><th>Sat</th></tr></thead><tbody><tr><td
class="wna"><div class="wt-dn">26</div><p class="lk-block"><a
class="read-more" href="/weather/usa/new-york/historic" title="Click
here to see historic weather for past weeks">View historic
weather</p></td><td class="wa" onclick="wl('/weather/usa/new-
york/ext')"><div class="wt-dn">27</div><p>4 / -1 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">28</div><p>3 / -3 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">29</div><p>8 / -2 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">30</div><p>4 / -3 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">31</div><p>7 / 0 °C</p></td><td class="wa"
```



```

onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">1</div><p>4 / -2 °C</p></td></tr><tr><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">2</div><p>3 / -4 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">3</div><p>7 / 2 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">4</div><p>8 / 1 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">5</div><p>2 / -2 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">6</div><p>4 / 0 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">7</div><p>4 / 1 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">8</div><p>6 / 1 °C</p></td></tr><tr><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">9</div><p>9 / 3 °C</p></td><td class="wa"
onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">10</div><p>5 / 2 °C</p></td><td class="wna"><div class="wt-
dn">11</div></td><td class="wna"><div class="wt-dn">12</div></td><td
class="wna"><div class="wt-dn">13</div></td><td class="wna"><div
class="wt-dn">14</div></td><td class="wna"><div
class="wt-dn">15</div></td></tr></tbody></table></div><p class="tr lk-
block">Detailed
forecast for 14 days</p></div></section><script
type="text/javascript">
TAD.dec=".";TAD.sep=",";et=1738152440;
function f0(d){return TAD.ld[d.getUTCDay()]+', '+d.getUTCDate()+'

```

```

'+TAD.lm[d.getUTCMonth()]+ ' '+d.getUTCFullYear()+',
'+p2(d.getUTCHours())+':'+p2(d.getUTCMinutes())
+':'+p2(d.getUTCSeconds());}
function f1(d){return d.getUTCDate()+' '+TAD.sm[d.getUTCMonth()]+
'+d.getUTCFullYear()+', '+p2(d.getUTCHours())
+':'+p2(d.getUTCMinutes())+':'+p2(d.getUTCSeconds());}
cks={"wtct":{"t":[{"o":-18000,"a":"<a href=\"\\/time\\/zones\\/est\"
title=\"Eastern Standard Time\">EST<\\/a>"}]},"f":f1,"g":{"t":2}}};
TAD.lm=[];TAD.lm[0]='January';TAD.sm=[];TAD.sm[0]='Jan';TAD.ld=[];TAD.
ld[1]='Monday';TAD.ld[2]='Tuesday';TAD.ld[3]='Wednesday';
</script><div class="fixed"><p class="help-link noprint"> Need some
help?</p></div></article><aside class="layout-grid__sky layout-
grid__sky--sticky tpl-banner__sky"><fieldset
id="ad1"><legend>Advertising</legend><div id="div-gpt-com-
300x600"><script>
AdMgr.dispSlot(0);
</script>
</div></fieldset></aside></main><script
src="//c.tadst.com/com/common/wcommon_33.js"></script> </div>

<footer class="footer">
<section class="feedback-bar">
<div class="fixed feedback-bar__wrap">
<section class="feedback-bar__instant-feedback" id="instant-feedback">
How was your experience?
Thank you for your
feedback!
<a aria-label="Vote for having a good experience" class="feedback-
bar__thumb feedback-bar__thumb--up" href="#" onclick="return blif(1)"
title="Vote Good"><svg height="24" viewBox="0 0 24 24" width="24"
xmlns="http://www.w3.org/2000/svg"><path d="M0 0h24v24H0V0z"
fill="none"></path><path d="M1 21h4V9H1v12zm22-11c0-1.1-.9-2-2-2h-
6.31l-.95-4.57.03-.32c0-.41-.17-.79-.44-1.06L14.17 1 7.59 7.59C7.22
7.95 7 8.45 7 9v10c0 1.1.9 2 2 2h9c.83 0 1.54-.5 1.84-1.22l3.02-
7.05c.09-.23.14-.47.14-.73v-2z"></path></svg>
<a aria-label="Vote for having a bad experience" class="feedback-
bar__thumb feedback-bar__thumb--down" href="#" onclick="return
blif(0)" title="Vote Bad"><svg height="24" viewBox="0 0 24 24"
width="24" xmlns="http://www.w3.org/2000/svg"><path d="M0 0h24v24H0z"
fill="none"></path><path d="M15 3H6c-.83 0-1.54.5-1.84 1.22l-3.02
7.05c-.09.23-.14.47-.14.73v2c0 1.1.9 2 2 2h6.31l-.95
4.57-.03.32c0 .41.17.79.44 1.06L9.83 23l6.59-6.59c.36-.36.58-
1.41V5c0-1.1-.9-2-2-2zm4 0v12h4V3h-4z"></path></svg>

</section>
<section class="feedback-bar__contact"><a
href="/information/feedback.html" id="bls1" onclick="return
bls(this)">Contact Us

```

```

<svg height="24" viewBox="0 0 24 24" width="24"
xmlns="http://www.w3.org/2000/svg"><path d="M20 4H4c-1.1 0-1.99.9-1.99
2L2 18c0 1.1.9 2 2 2h16c1.1 0 2-.9 2-2V6c0-1.1-.9-2-2-2zm0 4l-8 5-8-
5V6l8 5 8-5v2z"></path></svg></section>
</div>
</section>
<section class="fixed footer__wrap">
<section class="footer__block footer__block--promo">
<article class="footer-card">

<section class="footer-card__content">
<h4 class="footer-card__title">

 Love Our Site? Become a Supporter

</h4>
<ul class="footer-card__text">
Browse our site advert free.
Sun & Moon times precise to the second.
Exclusive calendar templates for PDF
Calendar.

</section>
</article>
<section class="footer__logo">

<p>© Time and Date AS 1995–
2025</p>
</section>
</section>
<section class="footer__block footer__block--links-wrap">
<section class="footer__links">
<nav class="footer__links-block footer__links-block--company">
<h4>Company</h4>

About us
Careers/Jobs
<a href="/information/feedback.html" id="bls2" onclick="return
bls(this)">Contact Us
Contact Details
Sitemap
Newsletter

```

```

</nav>
<nav class="footer__links-block footer__links-block--legal">
<h4>Legal</h4>

Link policy
Advertising
Disclaimer
Terms &
Conditions
Privacy Policy
My Privacy

</nav>
<nav class="footer__links-block footer__links-block--services">
<h4>Services</h4>

World Clock
Time Zones
Calendar
Weather
Sun & Moon
Timers
Calculators
API
Apps

</nav>
<nav class="footer__links-block footer__links-block--sites">
<h4>Sites</h4>

timeanddate.no
timeanddate.de

</nav>
<section class="footer__social">
<h4>Follow Us</h4>
<div class="footer__social-icons">
<i
class="footer__social-icon footer__social-icon--facebook"
title="timeanddate.com on Facebook"></i>
<i class="footer__social-
icon footer__social-icon--twitter" title="timeanddate.com on
Twitter"></i>
<i
class="footer__social-icon footer__social-icon--linkedin"
title="timeanddate.com on Linkedin"></i>
<i
class="footer__social-icon footer__social-icon--instagram"
```

```

title="timeanddate.com on Instagram"></i>
<i
class="footer__social-icon footer__social-icon--youtube"
title="timeanddate.com on YouTube"></i>
</div>
</section>
</section>
<p class="footer__copyright">
 © Time and Date AS 1995–2025.
 Privacy & Terms
</p>
</section>
</section>
</footer>
<!-- FOOTER END -->
<script>
bli();main();
</script>
<div class="wfc" id="FBD" style="display:none"></div>
<script>
window.runHeatMap && window.runHeatMap();
</script>
</body></html>

```

```
divs = soup.find_all("div",class_="h2")
```

```
divs
```

```
[<div class="h2">0 °C</div>]
```

```
tempDiv=divs[0]
```

```
tempDiv
```

```
<div class="h2">0 °C</div>
```

```
temp = tempDiv.get_text(strip=True)
```

```
temp
```

```
{"type": "string"}
```

```
print(temp)
```

```
0 °C
```

```
ps = soup.find_all("p")
```

```
ps
```

```
[<p>Clear.</p>,
```

```
<p>Feels Like: -3 °C
<span title="High and low forecasted
```

```

temperature today">Forecast: 4 / -1 °C
Wind: 7 km/h ↑
from West</p>,
 <p class="lk-block"><a class="read-more" href="/weather/usa/new-
york/hourly">See more hour-by-hour weather</p>,
 <p class="lk-block"><a class="read-more" href="/weather/usa/new-
york/ext">14 day forecast, day-by-day<a class="fr read-more mgr15"
href="/weather/usa/new-york/hourly">Hour-by-hour forecast for next
week</p>,
 <p>Clear. 6 / -1 °C
Humidity: 44%. Wind: 11 km/h ↑
from West</p>,
 <p class="tr lk-block pdr25"><a class="read-more"
href="/weather/usa/new-york/historic">More weather last week</p>,
 <p>Passing clouds.</p>,
 <p>Clear.</p>,
 <p>Passing clouds.</p>,
 <p class="tr lk-block clear pdr25"><a class="read-more"
href="/weather/usa">More weather in USA</p>,
 <p class="lk-block"><a class="read-more" href="/weather/usa/new-
york/historic" title="Click here to see historic weather for past
weeks">View historic weather</p>,
 <p>4 / -1 °C</p>,
 <p>3 / -3 °C</p>,
 <p>8 / -2 °C</p>,
 <p>4 / -3 °C</p>,
 <p>7 / 0 °C</p>,
 <p>4 / -2 °C</p>,
 <p>3 / -4 °C</p>,
 <p>7 / 2 °C</p>,
 <p>8 / 1 °C</p>,
 <p>2 / -2 °C</p>,
 <p>4 / 0 °C</p>,
 <p>4 / 1 °C</p>,
 <p>6 / 1 °C</p>,
 <p>9 / 3 °C</p>,
 <p>5 / 2 °C</p>,
 <p class="tr lk-block"><a class="read-more" href="/weather/usa/new-
york/ext">Detailed forecast for 14 days</p>,
 <p class="help-link noprint"> Need
some help?</p>,
 <p>© Time and Date AS 1995–
2025</p>,
 <p class="footer__copyright">
 © Time and Date AS 1995–2025.
 Privacy & Terms
 </p>]

```

```
descriptionP = ps[0]
```

```
descriptionP
```

```
<p>Clear.</p>
```

```
description=descriptionP.get_text(strip=True)
```

```
description
```

```
{"type": "string"}
```

```
tds = soup.find_all("td")
```

```
tds
```

```
[<td>New York City - Central Park</td>,
 <td id="wtct">27 Jan 2025, 07:24:00</td>,
 <td>27 Jan 2025, 06:51</td>,
 <td>16 km</td>,
 <td>1017 mbar</td>,
 <td>41%</td>,
 <td>-12 °C</td>,
 <td>Now</td>,
 <td>08:00</td>,
 <td>09:00</td>,
 <td>10:00</td>,
 <td>11:00</td>,
 <td>12:00</td>,
 <td></td>,
 <td></td>,
 <td></td>,
 <td></td>,
 <td></td>,
 <td></td>,
 <td>0 °C</td>,
 <td>-1 °C</td>,
 <td>0 °C</td>,
 <td>1 °C</td>,
 <td>2 °C</td>,
 <td>3 °C</td>,
 <td></td>,
 <td></td>,
 <td></td>,
```

```

<td class="sep-l"></td>,
<td></td>,
<td></td>,
<td></td>,
<td>0 °C</td>,
<td>4 °C</td>,
<td>2 °C</td>,
<td class="sep-l">1 °C</td>,
<td>1 °C</td>,
<td>2 °C</td>,
<td>-2 °C</td>,
<td class="smaller">Sunny.</td>,
<td class="smaller">Sunny.</td>,
<td class="smaller">Clear.</td>,
<td class="sep-l smaller">Overcast.</td>,
<td class="smaller">Broken clouds.</td>,
<td class="smaller">Partly cloudy.</td>,
<td class="smaller">Broken clouds.</td>,
<td>-5 °C</td>,
<td>-1 °C</td>,
<td>-4 °C</td>,
<td class="sep-l">-4 °C</td>,
<td>-5 °C</td>,
<td>-3 °C</td>,
<td>-2 °C</td>,
<td>18 km/h</td>,
<td>23 km/h</td>,
<td>25 km/h</td>,
<td class="sep-l">27 km/h</td>,
<td>28 km/h</td>,
<td>21 km/h</td>,
<td>3 km/h</td>,
<td>W
<span class="comp sa8" title="Wind blowing from 260° West
to East">↑</td>,
<td>WSW
<span class="comp sa6" title="Wind blowing from 240°
West-southwest to East-northeast">↑</td>,
<td>SW
<span class="comp sa4" title="Wind blowing from 220°
Southwest to Northeast">↑</td>,
<td class="sep-l">WSW
<span class="comp sa6" title="Wind blowing
from 240° West-southwest to East-northeast">↑</td>,
<td>WSW
<span class="comp sa6" title="Wind blowing from 250°
West-southwest to East-northeast">↑</td>,
<td>WNW
<span class="comp sa10" title="Wind blowing from 300°
West-northwest to East-southeast">↑</td>,

```



```

<td>S
<span class="comp sa0" title="Wind blowing from 180° South
to North">↑</td>,
<td>48%</td>,
<td>34%</td>,
<td>48%</td>,
<td class="sep-l">46%</td>,
<td>50%</td>,
<td>32%</td>,
<td>41%</td>,
<td>-10 °C</td>,
<td>-11 °C</td>,
<td>-8 °C</td>,
<td class="sep-l">-9 °C</td>,
<td>-8 °C</td>,
<td>-13 °C</td>,
<td>-14 °C</td>,
<td>11 km</td>,
<td>13 km</td>,
<td>12 km</td>,
<td class="sep-l">12 km</td>,
<td>9 km</td>,
<td>12 km</td>,
<td>9 km</td>,
<td>0%</td>,
<td>0%</td>,
<td>0%</td>,
<td class="sep-l">1%</td>,
<td>4%</td>,
<td>2%</td>,
<td>0%</td>,
<td class="tc" colspan="8">* Updated
Monday, 27 January 2025 02:43:02 New York time - Weather by
CustomWeather, © 2025</td>,
<td class="wna"><div class="wt-dn">26</div><p class="lk-block"><a
class="read-more" href="/weather/usa/new-york/historic" title="Click
here to see historic weather for past weeks">View historic
weather</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">27</div><p>4 / -1 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">28</div><p>3 / -3 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">29</div><p>8 / -2 °C</p></td>,

```

```
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">30</div><p>4 / -3 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">31</div><p>7 / 0 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">1</div><p>4 / -2 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">2</div><p>3 / -4 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">3</div><p>7 / 2 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">4</div><p>8 / 1 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">5</div><p>2 / -2 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">6</div><p>4 / 0 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">7</div><p>4 / 1 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">8</div><p>6 / 1 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">9</div><p>9 / 3 °C</p></td>,
<td class="wa" onclick="wl('/weather/usa/new-york/ext')"><div
class="wt-dn">10</div><p>5 / 2 °C</p></td>,
<td class="wna"><div class="wt-dn">11</div></td>,</pre>
```

```
<td class="wna"><div class="wt-dn">12</div></td>,
<td class="wna"><div class="wt-dn">13</div></td>,
<td class="wna"><div class="wt-dn">14</div></td>,
<td class="wna"><div class="wt-dn">15</div></td>]
```

```
humidityTd = tds[5]
```

```
humidityTd
```

```
<td>41%</td>
```

```
humidity = humidityTd.get_text(strip=True)
```

```
humidity
```

```
{"type": "string"}
```

```
data = {
 "Temp": temp,
 "Description": description,
 "Humidity": humidity
}
```

```
df = pd.DataFrame(data, index=[0])
```

```
df
```

```
{"summary": "{\n \"name\": \"df\", \n \"rows\": 1, \n \"fields\": [\n {\n \"column\": \"Temp\", \n \"properties\": {\n \"dtype\": \"string\", \n \"num_unique_values\": 1, \n \"samples\": [\n \"0\\u00a0\\u00b0C\", \n], \n \"semantic_type\": \"\", \n \"description\": \"\" \n }, \n \"column\": \"Description\", \n \"properties\": {\n \"dtype\": \"string\", \n \"num_unique_values\": 1, \n \"samples\": [\n \"Clear\", \n], \n \"semantic_type\": \"\", \n \"description\": \"\" \n }, \n \"column\": \"Humidity\", \n \"properties\": {\n \"dtype\": \"string\", \n \"num_unique_values\": 1, \n \"samples\": [\n \"41%\", \n], \n \"semantic_type\": \"\", \n \"description\": \"\" \n } \n] \n }\", \"type\": \"dataframe\", \"variable_name\": \"df\"}
```

```
df.to_csv("weather.csv", index=False)
```

```
dfRead = pd.read_csv("weather.csv")
```

```
dfRead
```

```
{"summary": "{\n \"name\": \"dfRead\", \n \"rows\": 1, \n \"fields\": [\n {\n \"column\": \"Temp\", \n \"properties\": {\n \"dtype\": \"string\", \n \"num_unique_values\": 1, \n
```

```

\"samples\": [\n \"0\\u00a0\\u00b0C\\n],\n\"semantic_type\": \"\", \n \"description\": \"\" \n }\n },\n {\n \"column\": \"Description\", \n \"properties\": {\n \"dtype\": \"string\", \n \"num_unique_values\": 1, \n \"samples\": [\n \"Clear.\\n], \n \"semantic_type\": \"\", \n \"description\": \"\" \n }, \n {\n \"column\": \"Humidity\", \n \"properties\": {\n \"dtype\": \"string\", \n \"num_unique_values\": 1, \n \"samples\": [\n \"41%\\n], \n \"semantic_type\": \"\", \n \"description\": \"\" \n } \n } \n] \n }, \n {\n \"type\": \"dataframe\", \"variable_name\": \"dfRead\"}

```

### Pandas Assignment [10 points each]

1. Create a DataFrame df from this dictionary data which has the index labels and Display a summary of the basic information about this DataFrame and its data.

```

import pandas as pd

data = {
 "Name": ["Alice", "Bob", "Charlie", "David"],
 "Age": [25, 30, 35, 40],
 "City": ["New York", "Los Angeles", "Chicago", "Houston"],
 "Score": [85, 90, 95, 100]
}

df = pd.DataFrame(data, index=["A", "B", "C", "D"])

Displaying a summary of the DataFrame
print("Basic Information:")
print(df.info())

print("\nSummary Statistics:")
print(df.describe())

```

```

Basic Information:
<class 'pandas.core.frame.DataFrame'>
Index: 4 entries, A to D
Data columns (total 4 columns):
Column Non-Null Count Dtype
--- -
0 Name 4 non-null object
1 Age 4 non-null int64
2 City 4 non-null object
3 Score 4 non-null int64
dtypes: int64(2), object(2)
memory usage: 160.0+ bytes
None

```

### Summary Statistics:

	Age	Score
count	4.000000	4.000000
mean	32.500000	92.500000
std	6.454972	6.454972
min	25.000000	85.000000
25%	28.750000	88.750000
50%	32.500000	92.500000
75%	36.250000	96.250000
max	40.000000	100.000000

1. Return the first 5 rows of the DataFrame df.

df.head()

```
{
 "summary": {
 "\n \"name\": \"df\",
 "\n \"rows\": 4,
 "\n \"fields\": [
 {
 "\n \"column\": \"Name\",
 "\n \"properties\": {
 "\n \"dtype\": \"string\",
 "\n \"num_unique_values\": 4,
 "\n \"samples\": [
 "\n \"Bob\",
 "\n \"David\",
 "\n \"Alice\",
 "\n \"\n],
 "\n \"semantic_type\": \"\",
 "\n \"description\": \"\",
 "\n \"column\": \"Age\",
 "\n \"properties\": {
 "\n \"dtype\": \"number\",
 "\n \"std\": 6,
 "\n \"min\": 25,
 "\n \"max\": 40,
 "\n \"num_unique_values\": 4,
 "\n \"samples\": [
 "\n 30,
 "\n 40,
 "\n 25,
 "\n \"\n],
 "\n \"semantic_type\": \"\",
 "\n \"description\": \"\",
 "\n \"column\": \"City\",
 "\n \"properties\": {
 "\n \"dtype\": \"string\",
 "\n \"num_unique_values\": 4,
 "\n \"samples\": [
 "\n \"Los Angeles\",
 "\n \"Houston\",
 "\n \"New York\",
 "\n \"\n],
 "\n \"semantic_type\": \"\",
 "\n \"description\": \"\",
 "\n \"column\": \"Score\",
 "\n \"properties\": {
 "\n \"dtype\": \"number\",
 "\n \"std\": 6,
 "\n \"min\": 85,
 "\n \"max\": 100,
 "\n \"num_unique_values\": 4,
 "\n \"samples\": [
 "\n 90,
 "\n 100,
 "\n 85,
 "\n \"\n],
 "\n \"semantic_type\": \"\",
 "\n \"description\": \"\",
 "\n \"\n }
 "\n }
 "\n]
 }
 },
 \"type\": \"dataframe\",
 \"variable_name\": \"df\"
}
```

1. Explain Pandas DataFrame Using Python List

```
Single List
data = [10, 20, 30, 40]

df = pd.DataFrame(data, columns=["Values"])

print(df)
```

	Values
0	10
1	20

```

2 30
3 40

List of lists
data = [
 [1, "Alice", 85],
 [2, "Bob", 90],
 [3, "Charlie", 95],
 [4, "David", 100]
]

df = pd.DataFrame(data, columns=["ID", "Name", "Score"])

print(df)

```

	ID	Name	Score
0	1	Alice	85
1	2	Bob	90
2	3	Charlie	95
3	4	David	100

1. How we can rename an index using the rename() method.

```

data = {
 "Name": ["Alice", "Bob", "Charlie", "David"],
 "Age": [25, 30, 35, 40]
}
df = pd.DataFrame(data, index=["A", "B", "C", "D"])

print("Original DataFrame:")
print(df)

Renaming index labels
renamed_df = df.rename(index={"A": "Alpha", "B": "Beta", "C": "Gamma",
 "D": "Delta"})

print("\nDataFrame with Renamed Index:")
print(renamed_df)

```

Original DataFrame:

	Name	Age
A	Alice	25
B	Bob	30
C	Charlie	35
D	David	40

DataFrame with Renamed Index:

	Name	Age
Alpha	Alice	25
Beta	Bob	30

Gamma	Charlie	35
Delta	David	40

1. You have a 2D NumPy array that you have converted into a pandas DataFrame. You want to assign specific index values to the rows of this DataFrame. If you pass a list of index values to the DataFrame, how does it affect the DataFrame, and how would you apply these index values?

```
import numpy as np

Create a 2D NumPy array
data = np.array([[10, 20, 30], [40, 50, 60], [70, 80, 90]])

Assign specific index values during DataFrame creation
df = pd.DataFrame(data, columns=["A", "B", "C"], index=["Row1", "Row2", "Row3"])

print("DataFrame with Assigned Index:")
print(df)
```

DataFrame with Assigned Index:

	A	B	C
Row1	10	20	30
Row2	40	50	60
Row3	70	80	90

```
Create the DataFrame without assigning an index
df = pd.DataFrame(data, columns=["A", "B", "C"])
```

```
Modify the index after creation
df.index = ["Row1", "Row2", "Row3"]
```

```
print("\nModified Index:")
print(df)
```

Modified Index:

	A	B	C
Row1	10	20	30
Row2	40	50	60
Row3	70	80	90

1. You have a dictionary of data that you want to store as a pandas Series. After creating the Series and storing it in the df variable, you print it and observe that the data is represented in a one-dimensional linear format. Explain how to create this Series from the dictionary and describe the output you would expect when printing the Series.

```
Dictionary of data
data = {"Alice": 85, "Bob": 90, "Charlie": 95, "David": 100}

Create the Series
```

```
df = pd.Series(data)
```

```
Print the Series
```

```
print(df)
```

```
Alice 85
Bob 90
Charlie 95
David 100
dtype: int64
```

1. You create a dictionary and store it as a DataFrame in the df variable. After printing, the data appears as 2-dimensional rows and columns. How would you create this DataFrame from the dictionary, and what does the output look like?

```
Dictionary of data
```

```
data = {
 "Name": ["Alice", "Bob", "Charlie", "David"],
 "Age": [25, 30, 35, 40],
 "City": ["New York", "Los Angeles", "Chicago", "Houston"],
 "Score": [85, 90, 95, 100]
}
```

```
Create the DataFrame
```

```
df = pd.DataFrame(data)
```

```
Print the DataFrame
```

```
print(df)
```

	Name	Age	City	Score
0	Alice	25	New York	85
1	Bob	30	Los Angeles	90
2	Charlie	35	Chicago	95
3	David	40	Houston	100