

# BeautifulSoup Assignment

## Question 1: Write a python program to display all the header tags from wikipedia.org and make data frame.

```
In [1]: !pip install bs4
!pip install requests
```

```
Requirement already satisfied: bs4 in c:\users\dell\anaconda3\lib\site-packages (0.0.1)
Requirement already satisfied: beautifulsoup4 in c:\users\dell\anaconda3\lib\site-packages (from bs4) (4.11.1)
Requirement already satisfied: soupsieve>1.2 in c:\users\dell\anaconda3\lib\site-packages (from beautifulsoup4->bs4) (2.3.2.post1)
Requirement already satisfied: requests in c:\users\dell\anaconda3\lib\site-packages (2.28.1)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\dell\anaconda3\lib\site-packages (from requests) (2.0.4)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\dell\anaconda3\lib\site-packages (from requests) (1.26.14)
Requirement already satisfied: idna<4,>=2.5 in c:\users\dell\anaconda3\lib\site-packages (from requests) (3.4)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\dell\anaconda3\lib\site-packages (from requests) (2022.12.7)
```

```
In [2]: from bs4 import BeautifulSoup
import requests
```

```
In [3]: page = requests.get('https://en.wikipedia.org/wiki/Main_Page')
```

```
In [4]: page
```

```
Out[4]: <Response [200]>
```

```
In [5]: soup = BeautifulSoup(page.content)
soup

["", ""],
"wgDefaultDateFormat":"dmy","wgMonthNames":["","January","February","Ma
rch","April","May","June","July","August","September","October","Novemb
er","December"],"wgRequestId":"92739914-b967-4a57-8c3b-b563bf5047a5","w
gCanonicalNamespace":"","wgCanonicalSpecialPageName":false,"wgNamespace
Number":0,"wgPageName":"Main_Page","wgTitle":"Main Page","wgCurRevision
Id":1114291180,"wgRevisionId":1114291180,"wgArticleId":15580374,"wgIsAr
ticle":true,"wgIsRedirect":false,"wgAction":"view","wgUserName":null,"w
gUserGroups":["*"],"wgCategories":[],"wgPageViewLanguage":"en","wgPageC
ontentLanguage":"en","wgPageContentModel":"wikitext","wgRelevantPageNam
e":"Main_Page","wgRelevantArticleId":15580374,"wgIsProbablyEditable":fa
lse,"wgRelevantPageIsProbablyEditable":false,"wgRestrictionEdit":["syso
p"],"wgRestrictionMove":["sysop"],"wgIsMainPage":true,"wgNoticeProjec
t":"wikipedia","wgFlaggedRevsParams":{"tags":{"status":{"levels":
1}}},"wgMediaViewerOnClick":true,"wgMediaViewerEnabledByDefault":tru
e,"wgPopupsFlags"
:10,"wgVisualEditor":{"pageLanguageCode":"en","pageLanguageDir":"lt
r","pageVariantFallbacks":"en"},"wgMFDisplayWikibaseDescriptions":{"sea
rch":true,"watchlist":true,"tagline":false,"nearby":true},"wgWMESchemaE
ditAttemptStepOversample":false,"wgWMEPageLength":3000,"wgULSCurrentAut
```

```
In [6]: Headers = []

for i in soup.find_all('span',class_="mw-headline"):

    Headers.append(i.text)

Headers
```

```
Out[6]: ['Welcome to Wikipedia',
'From today's featured article',
'Did you know\xa0...',
'In the news',
'On this day',
'From today's featured list',
'Today's featured picture',
'Other areas of Wikipedia',
'Wikipedia's sister projects',
'Wikipedia languages']
```

```
In [7]: import pandas as pd
```

```
In [8]: df = pd.DataFrame({"Headings ":Headers})
```

In [9]: df

Out[9]:

	Headings
0	Welcome to Wikipedia
1	From today's featured article
2	Did you know ...
3	In the news
4	On this day
5	From today's featured list
6	Today's featured picture
7	Other areas of Wikipedia
8	Wikipedia's sister projects
9	Wikipedia languages

**Question 2: Write a python program to display list of respected former presidents of India(i.e. Name , Term of office) from <https://presidentofindia.nic.in/former-presidents.htm> and make data frame.**

In [10]: url = requests.get('https://presidentofindia.nic.in/former-presidents.htm')  
url

Out[10]: <Response [404]>

**Question 3-- Write a python program to scrape cricket rankings from icc-cricket.com. You have to scrape and make data frame**

**a) Top 10 ODI teams in men's cricket along with the records for matches, points and rating.**

In [11]: url = requests.get('https://www.icc-cricket.com/rankings/mens/team-rankings')  
url

Out[11]: <Response [200]>

```
In [12]: Content = BeautifulSoup(url.content)
Content
<title>ICC Men's ODI Team Rankings | ICC</title>
<meta content="Official International Cricket Council ranking for One Day International (ODI) cricket teams. Discover latest ICC rankings table, predict upcoming matches, see points and ratings for all teams." property="og:description"/>
<!-- Designed and built by Pulselive - www.pulselive.com -->
<script>

    var dataLayer = [{
        'user_language': 'English',
        'web_domain': 'www.icc-cricket.com',
        'page_type': '/rankings/mens/team-rankings/odi'
    }];

</script>
<!-- Google Tag Manager -->
<script>(function(w,d,s,l,i){w[l]=w[l]||[];w[l].push({'gtm.start':
new Date().getTime(),event:'gtm.js'});var f=d.getElementsByTagName(s)
[0],
j=d.createElement(s),dl=l!='dataLayer'?'&l='+l:'';j.async=true;j.src=
```

```
In [13]: Teams =[]

for i in Content.find_all('span',class_="u-hide-phablet"):
    Teams.append(i.text)
Teams
```

```
Out[13]: ['India',
'Australia',
'Pakistan',
'South Africa',
'New Zealand',
'England',
'Sri Lanka',
'Bangladesh',
'Afghanistan',
'West Indies',
'Zimbabwe',
'Scotland',
'Ireland',
'Netherlands',
'Nepal',
'Namibia',
'United States',
'Oman',
'UAE']
```

```
In [14]: matches =[]

for i in Content.find_all('td',class_="rankings-block__banner--matches"):
    matches.append(i.text)
matches
```

```
Out[14]: ['49']
```

Out[15]: ['5,839']

```
Out[16]: ['119']
```

Out[17]: []

Out[18]: <Response [200]>

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```
In [20]: plname = []  
  
for i in tag.find_all('td',class_="table-body__cell rankings-table__name na  
    plname.append(i.text.replace('\n',''))  
plname
```

```
Out[20]: ['Shubman Gill',  
          'Quinton de Kock',  
          'Heinrich Klaasen',  
          'David Warner',  
          'Virat Kohli',  
          'Harry Tector',  
          'Rohit Sharma',  
          'Rassie van der Dussen',  
          'Imam-ul-Haq',  
          'Dawid Malan',  
          'Shai Hope',  
          'Daryl Mitchell',  
          'Fakhar Zaman',  
          'David Miller',  
          'Rahmanullah Gurbaz',  
          'Steve Smith',  
          'Ibrahim Zadran',  
          'Jos Buttler',  
          'Lokesh Rahul',  
          'Temba Bavuma',  
          'Kariyawasa Asalanka',  
          'Aiden Markram',  
          'Mushfiqur Rahim',  
          'Paul Stirling',  
          'Jason Roy',  
          'Pathum Nissanka',  
          'Scott Edwards',  
          'Sikandar Raza',  
          'Marnus Labuschagne',  
          'Gerhard Erasmus',  
          'Shreyas Iyer',  
          'Jonny Bairstow',  
          'Nicholas Pooran',  
          'Joe Root',  
          'Kane Williamson',  
          'Tom Latham',  
          'Mohammad Rizwan',  
          'Travis Head',  
          'Devon Conway',  
          'Ishan Kishan',  
          'Rahmat Shah',  
          'Kusal Mendis',  
          'Shakib Al Hasan',  
          'Sean Williams',  
          'Alex Carey',  
          'Mitchell Marsh',  
          'Ben Stokes',  
          'Litton Das',  
          'Glenn Maxwell',  
          'Tamim Iqbal',  
          'Mahmudullah',  
          'Assad Vala',  
          'George Munsey',  
          'Hashmatullah Shaidi',  
          'Andrew Balbirnie',  
          'Vriitya Aravind',  
          'Will Young',  
          'Gajanand Singh',  
          'Aaron Jones',  
          'Kyle Coetzer',  
          "Max O'Dowd",
```

```
'Aqib Ilyas',  
'Muhammad Waseem',  
'Sadeera Samarawickrama',  
'Richard Berrington',  
'Monank Patel',  
'Martin Guptill',  
'Shikhar Dhawan',  
'Zeeshan Maqsood',  
'Michael Leask',  
'Nazmul Shanto',  
'Aasif Sheikh',  
'Hardik Pandya',  
'Najibullah Zadran',  
'Asif Khan',  
'Ayaan Khan',  
'Henry Nicholls',  
'Mohammad Nabi',  
'Rachin Ravindra',  
'Kashyap Prajapati',  
'Craig Ervine',  
'Steven Taylor',  
'R.K. Paudel',  
'George Dockrell',  
'Brandon King',  
'Michael van Lingen',  
'Jatinder Singh',  
'Haris Sohail',  
'Vikramjit Singh',  
'Brandon McMullen',  
'Bas de Leede',  
'Iftikhar Ahmed',  
'Janneman Malan',  
'Curtis Campher',  
'Ryan Burl',  
'Dhananjaya de Silva',  
'Dimuth Karunaratne',  
'Kushal Bhurtel',  
'Tony Ura']
```



```
In [21]: team = []  
  
for i in tag.find_all('span',class_="table-body__logo-text"):  
    team.append(i.text)  
team
```

```
Out[21]: ['IND',
          'SA',
          'SA',
          'AUS',
          'IND',
          'IRE',
          'IND',
          'SA',
          'PAK',
          'ENG',
          'WI',
          'NZ',
          'PAK',
          'SA',
          'AFG',
          'AUS',
          'AFG',
          'ENG',
          'IND',
          'SA',
          'SL',
          'SA',
          'BAN',
          'IRE',
          'ENG',
          'SL',
          'NED',
          'ZIM',
          'AUS',
          'NAM',
          'IND',
          'ENG',
          'WI',
          'ENG',
          'NZ',
          'NZ',
          'PAK',
          'AUS',
          'NZ',
          'IND',
          'AFG',
          'SL',
          'BAN',
          'ZIM',
          'AUS',
          'AUS',
          'ENG',
          'BAN',
          'AUS',
          'BAN',
          'BAN',
          'PNG',
          'SCO',
          'AFG',
          'IRE',
          'UAE',
          'NZ',
          'USA',
          'USA',
          'SCO',
          'NED',
```

```
'OMA',  
'UAE',  
'SL',  
'SCO',  
'USA',  
'NZ',  
'IND',  
'OMA',  
'SCO',  
'BAN',  
'NEP',  
'IND',  
'AFG',  
'UAE',  
'OMA',  
'NZ',  
'AFG',  
'NZ',  
'OMA',  
'ZIM',  
'USA',  
'NEP',  
'IRE',  
'WI',  
'NAM',  
'OMA',  
'PAK',  
'NED',  
'SCO',  
'NED',  
'PAK',  
'SA',  
'IRE',  
'ZIM',  
'SL',  
'SL',  
'NEP',  
'PNG']
```

```
In [22]: rate = []

for i in tag.find_all('td',class_="table-body__cell rating"):
    rate.append(i.text)
rate
```

```
Out[22]: ['823',
          '769',
          '756',
          '747',
          '747',
          '729',
          '725',
          '716',
          '704',
          '699',
          '677',
          '668',
          '654',
          '651',
          '649',
          '647',
          '646',
          '637',
          '637',
          '635',
          '632',
          '632',
          '627',
          '623',
          '617',
          '615',
          '615',
          '615',
          '615',
          '614',
          '607',
          '605',
          '601',
          '600',
          '596',
          '592',
          '588',
          '587',
          '583',
          '582',
          '573',
          '573',
          '567',
          '566',
          '560',
          '554',
          '551',
          '548',
          '548',
          '544',
          '543',
          '536',
          '529',
          '525',
          '521',
          '518',
          '514',
          '512',
          '510',
          '506',
          '505',
```

```
'501',
'500',
'498',
'496',
'493',
'493',
'489',
'487',
'484',
'480',
'479',
'479',
'478',
'476',
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'460',
'458',
'457',
'453',
'452',
'446',
'445',
'444',
'444',
'443',
'440',
'437',
'437',
'437',
'432',
'431']
```

```
In [23]: df =pd.DataFrame({'Batsman':plname,'Team':team,'Rating':rate})
df.head(10)
```

Out[23]:

	Batsman	Team	Rating
0	Shubman Gill	IND	823
1	Quinton de Kock	SA	769
2	Heinrich Klaasen	SA	756
3	David Warner	AUS	747
4	Virat Kohli	IND	747
5	Harry Tector	IRE	729
6	Rohit Sharma	IND	725
7	Rassie van der Dussen	SA	716
8	Imam-ul-Haq	PAK	704
9	Dawid Malan	ENG	699

## c) Top 10 ODI bowlers along with the records of their team and rating

```
In [24]: response = requests.get('https://www.icc-cricket.com/rankings/mens/player-r  
response
```

```
Out[24]: <Response [200]>
```

```
In [25]: page = BeautifulSoup(response.content)  
page
```

```
Out[25]: <!DOCTYPE html>  
<html lang="en">  
<head>  
<meta content="ICC Men's ODI Bowling | Player Rankings | ICC" name="twi  
tter:title"/>  
<meta content="website" property="og:type"/>  
<meta content="summary_large_image" property="twitter:card"/>  
<meta content="Official ICC Cricket website - live matches, scores, new  
s, highlights, commentary, rankings, videos and fixtures from the Inter  
national Cricket Council." name="description"/>  
<meta content="@icc" property="twitter:site"/>  
<meta content="Official ICC Cricket website - live matches, scores, new  
s, highlights, commentary, rankings, videos and fixtures from the Inter  
national Cricket Council." name="twitter:description"/>  
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/def  
ault-thumbnail.jpg" name="twitter:image"/>  
<meta content="ICC Men's ODI Bowling | Player Rankings | ICC" property  
="og:title"/>  
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/def  
ault-thumbnail.jpg" property="og:image"/>
```

```
In [26]: bowler = []  
  
for i in page.find_all('td', class_="table-body__cell rankings-table__name n  
    bowler.append(i.text.replace('\n', ''))  
  
bowler
```



```
Out[26]: ['Mohammed Siraj',  
          'Keshav Maharaj',  
          'Rashid Khan',  
          'Trent Boult',  
          'Mohammad Nabi',  
          'Adam Zampa',  
          'Matt Henry',  
          'Kuldeep Yadav',  
          'Shaheen Afridi',  
          'Mujeeb Ur Rahman',  
          'Mitchell Starc',  
          'Jasprit Bumrah',  
          'Kagiso Rabada',  
          'Mark Watt',  
          'Lungi Ngidi',  
          'Bernard Scholtz',  
          'Maheesh Theekshana',  
          'Saurabh Netravalkar',  
          'Chris Woakes',  
          'Shakib Al Hasan',  
          'Mohammad Shami',  
          'Akeal Hosein',  
          'Mitchell Santner',  
          'Reece Topley',  
          'Alzarri Joseph',  
          'Andy McBrine',  
          'Haris Rauf',  
          'Jofra Archer',  
          'Sandeep Lamichhane',  
          'Ravindra Jadeja',  
          'Mustafizur Rahman',  
          'Mark Adair',  
          'Pat Cummins',  
          'Adil Rashid',  
          'Mehedi Hasan',  
          'Richard Ngarava',  
          'Tabraiz Shamsi',  
          'Christopher Sole',  
          'Ruben Trumpelmann',  
          'Aayan Afzal Khan',  
          'Marco Jansen',  
          'Bilal Khan',  
          'David Willey',  
          'Logan van Beek',  
          'Wanindu Hasaranga',  
          'Lachlan Ferguson',  
          'Mohammad Nawaz',  
          'Mark Wood',  
          'Craig Young',  
          'Zeeshan Maqsood',  
          'Blessing Muzarabani',  
          'Kaleemullah',  
          'Fazalhaq Farooqi',  
          'Nosthush Kenjige',  
          'Aryan Dutt',  
          'Shardul Thakur',  
          'Safyaan Sharif',  
          'Rohan Mustafa',  
          'Sean Abbott',  
          'Sikandar Raza',  
          'Joshua Little',
```

```
'Assad Vala',  
'Taskin Ahmed',  
'Chad Soper',  
'Hardik Pandya',  
'Dipendra Airee',  
'Fred Klaassen',  
'Zahoor Khan',  
'Naseem Shah',  
'Moeen Ali',  
'Shadab Khan',  
'Junaid Siddique',  
'Michael Leask',  
'Jason Holder',  
'Dushmantha Chameera',  
'Ish Sodhi',  
'Yuzvendra Chahal',  
'Tim Southee',  
'Dhananjaya de Silva',  
'Mohammad Shoriful Islam',  
'Tangeni Lungameni',  
'Taijul Islam',  
'Dilshan Madushanka',  
'Hasan Ali',  
'Karan KC',  
'Brandon McMullen',  
'Anrich Nortje',  
'Simi Singh',  
'Sam Curran',  
'Dunith Wellalage',  
'Gudakesh Motie-Kanhai',  
'Glenn Maxwell',  
'Nisarg Patel',  
'Sompal Kami',  
'Kasun Rajitha',  
'Lalit Rajbanshi',  
'Ashton Agar',  
'Mohammad Wasim',  
'Gulbadin Naib']
```

```
In [27]: Tname = []  
  
for i in page.find_all('span',class_="table-body__logo-text"):  
    Tname.append(i.text)  
  
Tname
```

```
Out[27]: ['IND',
          'SA',
          'AFG',
          'NZ',
          'AFG',
          'AUS',
          'NZ',
          'IND',
          'PAK',
          'AFG',
          'AUS',
          'IND',
          'SA',
          'SCO',
          'SA',
          'NAM',
          'SL',
          'USA',
          'ENG',
          'BAN',
          'IND',
          'WI',
          'NZ',
          'ENG',
          'WI',
          'IRE',
          'PAK',
          'ENG',
          'NEP',
          'IND',
          'BAN',
          'IRE',
          'AUS',
          'ENG',
          'BAN',
          'ZIM',
          'SA',
          'SCO',
          'NAM',
          'UAE',
          'SA',
          'OMA',
          'ENG',
          'NED',
          'SL',
          'NZ',
          'PAK',
          'ENG',
          'IRE',
          'OMA',
          'ZIM',
          'OMA',
          'AFG',
          'USA',
          'NED',
          'IND',
          'SCO',
          'UAE',
          'AUS',
          'ZIM',
          'IRE',
```

```
'PNG',  
'BAN',  
'PNG',  
'IND',  
'NEP',  
'NED',  
'UAE',  
'PAK',  
'ENG',  
'PAK',  
'UAE',  
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'NAM',  
'BAN',  
'SL',  
'PAK',  
'NEP',  
'SCO',  
'SA',  
'IRE',  
'ENG',  
'SL',  
'WI',  
'AUS',  
'USA',  
'NEP',  
'SL',  
'NEP',  
'AUS',  
'PAK',  
'AFG']
```

```
In [28]: Rating = []  
  
for i in page.find_all('td', class_="table-body__cell rating"):  
    Rating.append(i.text)  
  
Rating
```

```
Out[28]: ['668',
          '656',
          '654',
          '653',
          '641',
          '635',
          '634',
          '632',
          '625',
          '625',
          '622',
          '620',
          '620',
          '611',
          '598',
          '589',
          '586',
          '586',
          '576',
          '573',
          '564',
          '563',
          '563',
          '558',
          '558',
          '545',
          '541',
          '539',
          '539',
          '537',
          '531',
          '529',
          '528',
          '526',
          '519',
          '518',
          '515',
          '509',
          '508',
          '500',
          '500',
          '499',
          '498',
          '489',
          '488',
          '488',
          '488',
          '488',
          '487',
          '483',
          '482',
          '481',
          '480',
          '479',
          '478',
          '477',
          '477',
          '473',
          '472',
          '468',
          '465',
```

```
'464',
'463',
'462',
'459',
'458',
'449',
'446',
'446',
'441',
'440',
'439',
'431',
'429',
'427',
'427',
'424',
'424',
'422',
'421',
'421',
'421',
'419',
'418',
'418',
'417',
'417',
'416',
'415',
'413',
'411',
'411',
'409',
'409',
'406',
'399',
'398',
'396',
'391']
```

```
In [29]: df1 = pd.DataFrame({'Bowlers Name':bowler,'Team Name':Tname,'Rating':Rating
df1.head(10)
```

Out[29]:

	Bowlers Name	Team Name	Rating
0	Mohammed Siraj	IND	668
1	Keshav Maharaj	SA	656
2	Rashid Khan	AFG	654
3	Trent Boult	NZ	653
4	Mohammad Nabi	AFG	641
5	Adam Zampa	AUS	635
6	Matt Henry	NZ	634
7	Kuldeep Yadav	IND	632
8	Shaheen Afridi	PAK	625
9	Mujeeb Ur Rahman	AFG	625



## Question 4: Write a python program to scrape cricket rankings from [icc-cricket.com](https://www.icc-cricket.com/rankings/womens/team-rankings). You have to scrape and make data frame

### a) Top 10 ODI teams in women's cricket along with the records for matches, points and rating.

```
In [30]: page = requests.get('https://www.icc-cricket.com/rankings/womens/team-rankings')
page
```

```
Out[30]: <Response [200]>
```

```
In [31]: soup2 = BeautifulSoup(page.content)
soup2
```

```
Out[31]: <!DOCTYPE html>
<html lang="en">
<head>
<meta content="ICC Women's ODI Team Rankings | ICC" name="twitter:title"/>
<meta content="website" property="og:type"/>
<meta content="summary_large_image" property="twitter:card"/>
<meta content="Official International Cricket Council rankings for test match cricket teams. Discover latest ICC rankings table, predict upcoming matches, see points and ratings for all teams." name="description"/>
<meta content="@icc" property="twitter:site"/>
<meta content="Official International Cricket Council rankings for test match cricket teams. Discover latest ICC rankings table, predict upcoming matches, see points and ratings for all teams." name="twitter:description"/>
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/default-thumbnail.jpg" name="twitter:image"/>
<meta content="ICC Women's ODI Team Rankings | ICC" property="og:title"/>
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/default-thumbnail.jpg" property="og:image"/>
```

```
In [32]: Tname = []

for i in soup2.find_all('span',class_="u-hide-phablet"):
    Tname.append(i.text)
Tname
```

```
Out[32]: ['Australia',
          'England',
          'South Africa',
          'India',
          'New Zealand',
          'West Indies',
          'Sri Lanka',
          'Bangladesh',
          'Thailand',
          'Pakistan',
          'Ireland',
          'Netherlands',
          'Zimbabwe']
```

## Top 10 women's ODI Batting players along with the records of their team and rating

```
In [33]: page = requests.get('https://www.icc-cricket.com/rankings/womens/player-ran
page
```

```
Out[33]: <Response [200]>
```

```
In [34]: soup3 = BeautifulSoup(page.content)
soup3
```

```
Out[34]: <!DOCTYPE html>
<html lang="en">
<head>
<meta content="ICC Women's ODI Batting | Player Rankings | ICC" name="t
witter:title"/>
<meta content="website" property="og:type"/>
<meta content="summary_large_image" property="twitter:card"/>
<meta content="Official ICC Cricket website - live matches, scores, new
s, highlights, commentary, rankings, videos and fixtures from the Inter
national Cricket Council." name="description"/>
<meta content="@icc" property="twitter:site"/>
<meta content="Official ICC Cricket website - live matches, scores, new
s, highlights, commentary, rankings, videos and fixtures from the Inter
national Cricket Council." name="twitter:description"/>
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/def
ault-thumbnail.jpg" name="twitter:image"/>
<meta content="ICC Women's ODI Batting | Player Rankings | ICC" propert
y="og:title"/>
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/def
```

```
In [35]: Pname = []  
  
for i in soup3.find_all('td',class_="table-body__cell rankings-table__name  
    Pname.append(i.text.replace('\n',''))  
Pname
```

```
Out[35]: ['Beth Mooney',  
          'Chamari Athapaththu',  
          'Laura Wolvaardt',  
          'Smriti Mandhana',  
          'Alyssa Healy',  
          'Ellyse Perry',  
          'Harmanpreet Kaur',  
          'Meg Lanning',  
          'Marizanne Kapp',  
          'Amelia Kerr',  
          'Heather Knight',  
          'Tammy Beaumont',  
          'Chloe-Lesleigh Tryon',  
          'Ashleigh Gardner',  
          'Hayley Matthews',  
          'Stafanie Taylor',  
          'Fargana Hoque',  
          'Danielle Wyatt',  
          'Sophie Devine',  
          'Bismah Maroof',  
          'Gaby Lewis',  
          'Nattakan Chantam',  
          'Suzie Bates',  
          'Sidra Ameen',  
          'Deepti Sharma',  
          'Sune Luus',  
          'Amy Jones',  
          'Aliya Riaz',  
          'Laura Delany',  
          'Maddie Green',  
          'Nida Dar',  
          'Nigar Sultana',  
          'Tahlia McGrath',  
          'Orla Prendergast',  
          'Leah Paul',  
          'Annabel Sutherland',  
          'Sophia Dunkley',  
          'Yastika Bhatia',  
          'Amy Hunter',  
          'Naruemol Chaiwai',  
          'Umaima Sohail',  
          'Phoebe Litchfield',  
          'Shafali Verma',  
          'Emma Lamb',  
          'Rumana Ahmed',  
          'Brooke Halliday',  
          'Babette de Leede',  
          'Harshitha Madavi',  
          'Muneeba Ali',  
          'Lara Goodall',  
          'Pooja Vastrakar',  
          'Nilakshi Silva',  
          'Harleen Deol',  
          'Kavisha Dilhari',  
          'Jess Jonassen',  
          'Lauren Down',  
          'Jemimah Rodrigues',  
          'Hasini Perera',  
          'Sharne Mayers',  
          'Kathryn Bryce',  
          'Georgia Wareham',
```

```
'Nannapat Koncharoenkai',  
'Salma Khatun',  
'Tazmin Brits',  
'Trisha Chetty',  
'Sharmin Supta',  
'Shemaine Campbelle',  
'Richa Ghosh',  
'Nadine Klerk',  
'Andrie Steyn',  
'Charlotte Dean',  
'Heather Siegers',  
'Chinelle Henry',  
'Chedean Nation',  
'Lata Mondal',  
'Prasadani Weerakkody',  
'Shamima Sultana',  
'Rashada Williams',  
'Ritu Moni',  
'Robine Rijke',  
'Josephine Nkomo',  
'Kycia Knight',  
'Mary Waldron',  
'Arlene Kelly',  
'Sophie Ecclestone',  
'Alice Capsey',  
'Fatima Sana',  
'Kate Cross',  
'Hannah Rowe',  
'Rosenan Kanoh',  
'Georgina Dempsey',  
'Jess Kerr',  
'Eimear Richardson',  
'Frederique Overdijk',  
'Murshida Khatun',  
'Meghna Singh',  
'Aaliyah Alleyne',  
'Maia Bouchier',  
'Sadaf Shamas']
```

```
In [36]: Tname = []  
  
for i in soup3.find_all('span',class_="table-body__logo-text"):  
    Tname.append(i.text)  
Tname
```

```
Out[36]: ['AUS',
          'SL',
          'SA',
          'IND',
          'AUS',
          'AUS',
          'IND',
          'AUS',
          'SA',
          'NZ',
          'ENG',
          'ENG',
          'SA',
          'AUS',
          'WI',
          'WI',
          'BAN',
          'ENG',
          'NZ',
          'PAK',
          'IRE',
          'THA',
          'NZ',
          'PAK',
          'IND',
          'SA',
          'ENG',
          'PAK',
          'IRE',
          'NZ',
          'PAK',
          'BAN',
          'AUS',
          'IRE',
          'IRE',
          'AUS',
          'ENG',
          'IND',
          'IRE',
          'THA',
          'PAK',
          'AUS',
          'IND',
          'ENG',
          'BAN',
          'NZ',
          'NED',
          'SL',
          'PAK',
          'SA',
          'IND',
          'SL',
          'IND',
          'SL',
          'AUS',
          'NZ',
          'IND',
          'SL',
          'ZIM',
          'SCO',
          'AUS',
```

```
'THA',  
'BAN',  
'SA',  
'SA',  
'BAN',  
'WI',  
'IND',  
'SA',  
'SA',  
'ENG',  
'NED',  
'WI',  
'WI',  
'BAN',  
'SL',  
'BAN',  
'WI',  
'BAN',  
'NED',  
'ZIM',  
'WI',  
'IRE',  
'IRE',  
'ENG',  
'ENG',  
'PAK',  
'ENG',  
'NZ',  
'THA',  
'IRE',  
'NZ',  
'IRE',  
'NED',  
'BAN',  
'IND',  
'WI',  
'ENG',  
'PAK']
```



```
In [37]: rate= []  
  
for i in soup3.find_all('td',class_="table-body__cell rating"):  
    rate.append(i.text)  
rate
```

```
Out[37]: ['750',
          '736',
          '727',
          '708',
          '698',
          '697',
          '694',
          '662',
          '642',
          '628',
          '597',
          '596',
          '582',
          '579',
          '574',
          '569',
          '565',
          '553',
          '553',
          '541',
          '536',
          '535',
          '531',
          '528',
          '515',
          '503',
          '502',
          '493',
          '488',
          '463',
          '445',
          '439',
          '431',
          '425',
          '418',
          '417',
          '414',
          '413',
          '412',
          '412',
          '387',
          '384',
          '382',
          '380',
          '379',
          '377',
          '375',
          '375',
          '375',
          '366',
          '363',
          '352',
          '349',
          '348',
          '343',
          '326',
          '326',
          '325',
          '324',
          '324',
          '308',
```

```
'304',
'304',
'296',
'296',
'294',
'294',
'293',
'293',
'293',
'292',
'288',
'286',
'286',
'285',
'284',
'281',
'274',
'268',
'263',
'260',
'256',
'255',
'253',
'253',
'247',
'245',
'245',
'243',
'240',
'234',
'228',
'227',
'225',
'224',
'215',
'214',
'211',
'210']
```

```
In [38]: df = pd.DataFrame({'Player Name':Pname, 'Team Name':Tname, 'Rating':rate})
df.head(10)
```

Out[38]:

	Player Name	Team Name	Rating
0	Beth Mooney	AUS	750
1	Chamari Athapaththu	SL	736
2	Laura Wolvaardt	SA	727
3	Smriti Mandhana	IND	708
4	Alyssa Healy	AUS	698
5	Ellyse Perry	AUS	697
6	Harmanpreet Kaur	IND	694
7	Meg Lanning	AUS	662
8	Marizanne Kapp	SA	642
9	Amelia Kerr	NZ	628

## c) Top 10 women's ODI all-rounder along with the records of their team and rating.

```
In [39]: url = requests.get('https://www.icc-cricket.com/rankings/womens/player-rank
url
```

```
Out[39]: <Response [200]>
```

```
In [40]: soup4 = BeautifulSoup(url.content)
soup4
```

```
Out[40]: <!DOCTYPE html>
<html lang="en">
<head>
<meta content="ICC Women's ODI All Rounder | Player Rankings | ICC" nam
e="twitter:title"/>
<meta content="website" property="og:type"/>
<meta content="summary_large_image" property="twitter:card"/>
<meta content="Official ICC Cricket website - live matches, scores, new
s, highlights, commentary, rankings, videos and fixtures from the Inter
national Cricket Council." name="description"/>
<meta content="@icc" property="twitter:site"/>
<meta content="Official ICC Cricket website - live matches, scores, new
s, highlights, commentary, rankings, videos and fixtures from the Inter
national Cricket Council." name="twitter:description"/>
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/def
ault-thumbnail.jpg" name="twitter:image"/>
<meta content="ICC Women's ODI All Rounder | Player Rankings | ICC" pro
perty="og:title"/>
<meta content="https://www.icc-cricket.com/resources/ver/i/elements/def
ault-thumbnail.jpg" property="og:image"/>
```

```
In [41]: Pname = []

for i in soup4.find_all('td',class_="table-body__cell rankings-table__name
Pname.append(i.text.replace('\n',''))
Pname
```

```
Out[41]: ['Ashleigh Gardner',
'Natalie Sciver-Brunt',
'Hayley Matthews',
'Amelia Kerr',
'Deepti Sharma',
'Ellyse Perry',
'Jess Jonassen',
'Sophie Devine',
'Nida Dar',
'Chloe-Lesleigh Tryon',
'Chamari Athapaththu',
'Sophie Ecclestone',
'Laura Delany',
'Charlotte Dean',
'Rumana Ahmed',
'Annabel Sutherland',
'Georgia Wareham',
'Kate Cross',
'Salma Khatun']
```

```
In [42]: Tname = []

for i in soup4.find_all('span',class_="table-body__logo-text"):
    Tname.append(i.text)
Tname
```

```
Out[42]: ['AUS',
          'ENG',
          'WI',
          'NZ',
          'IND',
          'AUS',
          'AUS',
          'NZ',
          'PAK',
          'SA',
          'SL',
          'ENG',
          'IRE',
          'ENG',
          'BAN',
          'AUS',
          'AUS',
          'ENG',
          'BAN']
```

```
In [43]: rate = []

for i in soup4.find_all('td',class_="table-body__cell rating"):
    rate.append(i.text)
rate
```

```
Out[43]: ['377',
          '360',
          '358',
          '346',
          '312',
          '282',
          '227',
          '227',
          '224',
          '212',
          '190',
          '188',
          '172',
          '166',
          '166',
          '153',
          '153',
          '153',
          '153']
```

```
In [44]: df = pd.DataFrame({'Player Name':Pname, 'Team Name':Tname, 'Rating':rate})
df.head(10)
```

Out[44]:

	Player Name	Team Name	Rating
0	Ashleigh Gardner	AUS	377
1	Natalie Sciver-Brunt	ENG	360
2	Hayley Matthews	WI	358
3	Amelia Kerr	NZ	346
4	Deepti Sharma	IND	312
5	Ellyse Perry	AUS	282
6	Jess Jonassen	AUS	227
7	Sophie Devine	NZ	227
8	Nida Dar	PAK	224
9	Chloe-Lesleigh Tryon	SA	212

**Question 5: Write a python program to scrape mentioned news details from <https://www.cnbc.com/world/?region=world> (<https://www.cnbc.com/world/?region=world>) and make data frame i) Headline ii) Time iii) News Link**

```
In [45]: url = requests.get('https://www.cnbc.com/world/?region=world')
url
```

Out[45]: <Response [200]>

```
In [46]: soup =BeautifulSoup(url.content)
soup
```

```
Out[46]: <!DOCTYPE html>
<html itemscope="" itemtype="https://schema.org/WebPage" lang="en" prefix="og=https://ogp.me/ns#"><head><meta content="telephone=no" name="format-detection"/><style type="text/css">@charset "UTF-8";.Modal-modalBackground{background:#000000b3;height:100%;left:0;overflow-y:auto;position:fixed;top:0;transition:background-color .4s;width:100%;z-index:100001}.Modal-bottomModal.Modal-modal{background:#f8f8f8;border-radius:3px;bottom:0;box-shadow:5px 5px 20px #1717171a;display:inline-block;height:528px;left:0;margin-top:0!important;max-width:100%;position:fixed;top:auto;transform:none;width:100%}@media (max-width:1019px){.Modal-bottomModal.Modal-modal{height:642px}}@media (max-width:759px){.Modal-bottomModal.Modal-modal{height:100%;position:relative;top:0}}.Modal-modal{background-color:#fff;border-radius:3px;box-shadow:5px 5px 20px #1717171a;display:inline-block;left:50%;margin-top:10vh;max-width:100%;overflow:auto;position:relative;transform:translateX(-50%)}@media (max-width:759px){.Modal-modal{height:100%;left:auto;margin:0;transform:none;width:100%}}.Modal-modalContents{overflow:auto}@media (max-width:759px){.Modal-modalContents{height:100%}}.Modal-closeButton{color:#a9a9a9;cursor:pointer;position:absolute;right:12px;top:12px}.RecaptchaAcknowledgement-acknowledge
```

```
In [47]: headline = []

for i in soup.find_all('a',class_="LatestNews-headline"):
    headline.append(i.text)
headline
```

```
Out[47]: ['5 things to know before the stock market opens Monday',
'How 3 stocks tied to China's economy are navigating its uneven post-Covid recovery',
'Canadian auto union reaches deal with Stellantis after brief labor strike',
'Analyst calls: All the market-moving chatter from Wall Street on Monday morning',
'Biden unveils U.S. government's first-ever AI executive order',
'Treasury yields rise as investors look to Fed meeting, key data due this week',
'Moscow claims the West is attempting to 'split Russian society' after airport stormed by mob",
'U.S. is working with Indo-Pacific partners to boost economic resilience, says USTR',
'Israeli defense forces expand Gaza ground incursion; thousands break into UN warehouses',
'CNBC Daily Open: Are things about to get more difficult?',
'European markets higher despite geopolitical tensions; German economy contracts',
'Is your hotel sustainable? Not if these two things are in your room',
'WTO chief warns Israel-Hamas war could hurt global growth if conflict spills over',
'HSBC's after-tax profit surges over 235% year-on-year, announces $3 billion share buyback ",
'Evergrande shares fall 20% to all-time low as court adjourns winding-up hearing',
'McDonald's revenue climbs 14% as price hikes boost U.S. sales',
'Oil prices slip even as Middle East tensions spike, as investors eye Fed meeting',
'UAW-Ford deal includes $8.1 billion in investment, $5,000 ratification bonuses',
'Standard Chartered-owned crypto firm Zodia launches in Hong Kong',
'CNBC Daily Open: The perfect storm',
'Asia markets mixed ahead of Japan's BOJ decision and South Korea inflation this week",
'Amid an AI 'game of thrones,' these China tech giants offer real value: Analyst",
'Fund manager says this under-the-radar network stock is set for an AI boost',
'Stock futures rebound to start a big week with the S&P 500 mired in a correction',
'Chinese consumer stocks that analysts like for their global potential',
'Cramer: This market has put investors in a box. This is how we break out of it',
'Google Bard asks Bill Nye if AI can help avoid end of world. Science Guy said...',
'What's a good price to get into a stock that has rallied, like Apple or Nvidia?',
'McDonald's HR exec: The No. 1 skill you get working in fast food",
'The top 10 best states for millennials—New York, California didn't make the list"]
```



```
In [48]: time = []

for i in soup.find_all('time',class_="LatestNews-timestamp"):
    time.append(i.text)
time
```

```
Out[48]: ['45 Min Ago',
'2 Hours Ago',
'2 Hours Ago',
'2 Hours Ago',
'3 Hours Ago',
'3 Hours Ago',
'3 Hours Ago',
'4 Hours Ago',
'5 Hours Ago',
'6 Hours Ago',
'6 Hours Ago',
'6 Hours Ago',
'6 Hours Ago',
'8 Hours Ago',
'8 Hours Ago',
'8 Hours Ago',
'9 Hours Ago',
'11 Hours Ago',
'11 Hours Ago',
'12 Hours Ago',
'12 Hours Ago',
'13 Hours Ago',
'13 Hours Ago',
'13 Hours Ago',
'14 Hours Ago',
'20 Hours Ago',
'21 Hours Ago',
'21 Hours Ago',
'22 Hours Ago',
'22 Hours Ago']
```

```
In [49]: links = []  
  
for i in soup.find_all('a', class_="LatestNews-headline"):  
    links.append(i['href'])  
links
```

```
Out[49]: ['https://www.cnbc.com/2023/10/30/5-things-to-know-before-the-stock-market-opens-monday-october-30.html',
'https://www.cnbc.com/2023/10/30/how-3-stocks-tied-to-chinas-economy-are-navigating-its-uneven-post-covid-recovery.html',
'https://www.cnbc.com/2023/10/30/canadian-auto-union-initiates-national-strike-at-stellantis.html',
'https://www.cnbc.com/2023/10/30/analyst-calls-all-the-market-moving-chat-ter-from-wall-street-on-monday-morning.html',
'https://www.cnbc.com/2023/10/30/biden-unveils-us-governments-first-ever-ai-executive-order.html',
'https://www.cnbc.com/2023/10/30/us-treasurys-investors-look-to-fed-meeting-key-data-due-this-week.html',
'https://www.cnbc.com/2023/10/30/ukraine-war-live-updates-latest-news-on-russia-and-the-war-in-ukraine.html',
'https://www.cnbc.com/2023/10/30/us-working-with-indo-pacific-partners-to-boost-economic-resilience-ustr.html',
'https://www.cnbc.com/2023/10/30/israel-hamas-war-live-updates-latest-news-on-gaza-conflict.html',
'https://www.cnbc.com/2023/10/30/cnbc-daily-open-are-things-about-to-get-more-difficult.html',
'https://www.cnbc.com/2023/10/30/european-markets-live-updates-stocks-news-data-and-earnings.html',
'https://www.cnbc.com/2023/10/30/is-your-hotel-sustainable-not-if-these-two-things-are-in-your-room.html',
'https://www.cnbc.com/2023/10/30/wto-chief-warns-israel-hamas-war-could-hurt-global-growth.html',
'https://www.cnbc.com/2023/10/30/hsbc-profit-after-surges-over-235percent-year-on-year.html',
'https://www.cnbc.com/2023/10/30/evergrande-shares-at-all-time-low-as-court-adjudges-winding-up-hearing.html',
'https://www.cnbc.com/2023/10/30/mcdonalds-mcd-q3-2023-earnings.html',
'https://www.cnbc.com/2023/10/30/oil-prices-caution-ahead-of-fed-meeting-middle-east-tensions-spike.html',
'https://www.cnbc.com/2023/10/30/uaw-ford-deal-includes-8point1b-in-investment-5000-ratification-bonus.html',
'https://www.cnbc.com/2023/10/30/standard-chartered-owned-crypto-firm-zodia-launches-in-hong-kong.html',
'https://www.cnbc.com/2023/10/30/cnbc-daily-open-the-perfect-storm.html',
'https://www.cnbc.com/2023/10/30/asia-stock-markets-today-live-updates-bank-of-japan-meeting-starts-.html',
'https://www.cnbc.com/2023/10/30/these-chinese-tech-stocks-offer-a-lot-of-value-says-dan-ives-tech-analyst.html',
'https://www.cnbc.com/2023/10/30/missed-nvidia-fund-manager-picks-under-the-radar-networking-stock-for-ai-boost.html',
'https://www.cnbc.com/2023/10/29/stock-market-today-live-updates.html',
'https://www.cnbc.com/2023/10/29/chinese-consumer-stocks-that-analysts-like-for-their-global-potential.html',
'https://www.cnbc.com/2023/10/29/cramer-this-market-put-investors-in-a-box-this-how-we-break-out-of-it.html',
'https://www.cnbc.com/2023/10/29/how-bill-nye-educated-google-bard-on-how-ai-can-help-save-the-world.html',
'https://www.cnbc.com/2023/10/29/what-is-a-good-price-to-get-into-a-stock-that-has-rallied-like-apple-nvidia.html',
'https://www.cnbc.com/2023/10/29/mcdonalds-hr-exec-the-no-1-skill-you-get-working-in-fast-food.html',
'https://www.cnbc.com/2023/10/29/best-states-millennials-scholaroo-study.html']
```

```
In [50]: df = pd.DataFrame({'Headlines':headline,'Time':time,'News Link':links})  
df
```

Out[50]:

	Headlines	Time	News Link
0	5 things to know before the stock market opens...	45 Min Ago	<a href="https://www.cnbc.com/2023/10/30/5-things-to-know-before-the-stock-market-opens...">https://www.cnbc.com/2023/10/30/5-things-to-know-before-the-stock-market-opens...</a>
1	How 3 stocks tied to China's economy are navig...	2 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/how-3-stocks-tied-to-china-s-economy-are-navig...">https://www.cnbc.com/2023/10/30/how-3-stocks-tied-to-china-s-economy-are-navig...</a>
2	Canadian auto union reaches deal with Stellant...	2 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/canadian-auto-union-reaches-deal-with-stellant...">https://www.cnbc.com/2023/10/30/canadian-auto-union-reaches-deal-with-stellant...</a>
3	Analyst calls: All the market-moving chatter f...	2 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/analyst-calls-all-the-market-moving-chatter-f...">https://www.cnbc.com/2023/10/30/analyst-calls-all-the-market-moving-chatter-f...</a>
4	Biden unveils U.S. government's first-ever AI ...	3 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/biden-unveils-u-s-government-s-first-ever-ai-...">https://www.cnbc.com/2023/10/30/biden-unveils-u-s-government-s-first-ever-ai-...</a>
5	Treasury yields rise as investors look to Fed ...	3 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/us-treasurys-yields-rise-as-investors-look-to-fed-...">https://www.cnbc.com/2023/10/30/us-treasurys-yields-rise-as-investors-look-to-fed-...</a>
6	Moscow claims the West is attempting to 'split...	3 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/ukraine-war-li-moscow-claims-the-west-is-attempting-to-split...">https://www.cnbc.com/2023/10/30/ukraine-war-li-moscow-claims-the-west-is-attempting-to-split...</a>
7	U.S. is working with Indo-Pacific partners to ...	4 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/us-working-with-indo-pacific-partners-to-...">https://www.cnbc.com/2023/10/30/us-working-with-indo-pacific-partners-to-...</a>
8	Israeli defense forces expand Gaza ground incu...	5 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/israel-hamas-defense-forces-expand-gaza-ground-incu...">https://www.cnbc.com/2023/10/30/israel-hamas-defense-forces-expand-gaza-ground-incu...</a>
9	CNBC Daily Open: Are things about to get more ...	6 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/cnbc-daily-open-are-things-about-to-get-more-...">https://www.cnbc.com/2023/10/30/cnbc-daily-open-are-things-about-to-get-more-...</a>
10	European markets higher despite geopolitical t...	6 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/european-markets-higher-despite-geopolitical-t...">https://www.cnbc.com/2023/10/30/european-markets-higher-despite-geopolitical-t...</a>
11	Is your hotel sustainable? Not if these two th...	6 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/is-your-hotel-sustainable-not-if-these-two-th...">https://www.cnbc.com/2023/10/30/is-your-hotel-sustainable-not-if-these-two-th...</a>
12	WTO chief warns Israel-Hamas war could hurt gl...	6 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/wto-chief-warns-israel-hamas-war-could-hurt-gl...">https://www.cnbc.com/2023/10/30/wto-chief-warns-israel-hamas-war-could-hurt-gl...</a>
13	HSBC's after-tax profit surges over 235% year-...	8 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/hsbc-profit-after-tax-surges-over-235-percent-year-...">https://www.cnbc.com/2023/10/30/hsbc-profit-after-tax-surges-over-235-percent-year-...</a>
14	Evergrande shares fall 20% to all-time low as ...	8 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/evergrande-shares-fall-20-percent-to-all-time-low-as-...">https://www.cnbc.com/2023/10/30/evergrande-shares-fall-20-percent-to-all-time-low-as-...</a>
15	McDonald's revenue climbs 14% as price hikes b...	8 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/mcdonalds-revenue-climbs-14-percent-as-price-hikes-b...">https://www.cnbc.com/2023/10/30/mcdonalds-revenue-climbs-14-percent-as-price-hikes-b...</a>
16	Oil prices slip even as Middle East tensions s...	9 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/oil-prices-slip-even-as-middle-east-tensions-s...">https://www.cnbc.com/2023/10/30/oil-prices-slip-even-as-middle-east-tensions-s...</a>
17	UAW-Ford deal includes \$8.1 billion in investm...	11 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/uaw-ford-deal-includes-8-1-billion-in-investm...">https://www.cnbc.com/2023/10/30/uaw-ford-deal-includes-8-1-billion-in-investm...</a>
18	Standard Chartered-owned crypto firm Zodia lau...	11 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/standard-chartered-owned-crypto-firm-zodia-lau...">https://www.cnbc.com/2023/10/30/standard-chartered-owned-crypto-firm-zodia-lau...</a>
19	CNBC Daily Open: The perfect storm	12 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/cnbc-daily-open-the-perfect-storm">https://www.cnbc.com/2023/10/30/cnbc-daily-open-the-perfect-storm</a>
20	Asia markets mixed ahead of Japan's BOJ decisi...	12 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/asia-stock-markets-mixed-ahead-of-japan-s-boj-decisi...">https://www.cnbc.com/2023/10/30/asia-stock-markets-mixed-ahead-of-japan-s-boj-decisi...</a>
21	Amid an AI 'game of thrones,' these China tech...	13 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/these-chinese-tech-companies-amid-an-ai-game-of-thrones-...">https://www.cnbc.com/2023/10/30/these-chinese-tech-companies-amid-an-ai-game-of-thrones-...</a>
22	Fund manager says this under-the-radar network...	13 Hours Ago	<a href="https://www.cnbc.com/2023/10/30/missed-opportunity-nvidia-fund-manager-says-this-under-the-radar-network...">https://www.cnbc.com/2023/10/30/missed-opportunity-nvidia-fund-manager-says-this-under-the-radar-network...</a>
23	Stock futures rebound to start a big week with...	13 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/stock-market-futures-rebound-to-start-a-big-week-with...">https://www.cnbc.com/2023/10/29/stock-market-futures-rebound-to-start-a-big-week-with...</a>
24	Chinese consumer stocks that analysts like for...	14 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/chinese-consumer-stocks-that-analysts-like-for...">https://www.cnbc.com/2023/10/29/chinese-consumer-stocks-that-analysts-like-for...</a>

	Headlines	Time	News Link
25	Cramer: This market has put investors in a box...	20 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/cramer-this-ma...">https://www.cnbc.com/2023/10/29/cramer-this-ma...</a>
26	Google Bard asks Bill Nye if AI can help avoid...	21 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/how-bill-nye-e...">https://www.cnbc.com/2023/10/29/how-bill-nye-e...</a>
27	What's a good price to get into a stock that h...	21 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/what-is-a-good...">https://www.cnbc.com/2023/10/29/what-is-a-good...</a>
28	McDonald's HR exec: The No. 1 skill you get wo...	22 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/mcdonalds-hr-e...">https://www.cnbc.com/2023/10/29/mcdonalds-hr-e...</a>
29	The top 10 best states for millennials—New Yor...	22 Hours Ago	<a href="https://www.cnbc.com/2023/10/29/best-states-mi...">https://www.cnbc.com/2023/10/29/best-states-mi...</a>

**Question 6: Write a python program to scrape the details of most downloaded articles from AI in last 90 days.**  
<https://www.journals.elsevier.com/artificial-intelligence/most-downloaded-articles>  
<https://www.journals.elsevier.com/artificial-intelligence/most-downloaded-articles>  
**Scrape below mentioned details and make data frame**

```
In [51]: response = requests.get('https://www.journals.elsevier.com/artificial-intel
response
```

```
Out[51]: <Response [200]>
```

```
In [52]: soup = BeautifulSoup(response.content)
soup
```

```
Out[52]: <!DOCTYPE html>
<html><head><meta charset="utf-8"/><meta content="width=device-width" n
ame="viewport"/><meta content="en_US" name="og:locale"/><meta content
="Most Downloaded Articles - Artificial Intelligence - Journal - Elsevi
er" property="og:title"/><meta content="The journal of Artificial Intel
ligence (AIJ) welcomes papers on broad aspects of AI that constitute a
dvances in the overall field including, but not limited ..." property="o
g:description"/><meta content="http://ars.els-cdn.com/content/image/X00
043702.jpg" name="og:image" property="og:image"/><meta content="http://
ars.els-cdn.com/content/image/X00043702.jpg" name="og:image:url" proper
ty="og:image:url"/><meta content="https://ars.els-cdn.com/content/imag
e/X00043702.jpg" name="og:image:secure_url" property="og:image:secure_u
rl"/><meta content="journals.elsevier.com/artificial-intelligence/most-
downloaded-articles" name="og:url"/><meta content="website" property="o
g:type"/><link href="/apple-touch-icon.png" rel="apple-touch-icon" size
s="180x180"/><link href="/favicon-32x32.png" rel="icon" sizes="32x32" t
ype="image/png"/><link href="/favicon-16x16.png" rel="icon" sizes="16x1
6" type="image/png"/><link color="#ff6c00" href="/safari-pinned-tab.sv
g" rel="mask-icon"/><title>Most Downloaded Articles - Artificial Intell
igence - Journal - Elsevier</title><meta content="The journal of Artif
```

```
In [53]: title =[]

for i in soup.find_all('h2',class_="sc-1qrq3sd-1 gRGSUS sc-1nmom32-0 sc-1nm
        title.append(i.text)
title
```

```
Out[53]: ['Reward is enough',
          'Explanation in artificial intelligence: Insights from the social science
s',
          'Creativity and artificial intelligence',
          'Conflict-based search for optimal multi-agent pathfinding',
          'Knowledge graphs as tools for explainable machine learning: A survey',
          'Law and logic: A review from an argumentation perspective',
          'Between MDPs and semi-MDPs: A framework for temporal abstraction in rein
forcement learning',
          'Explaining individual predictions when features are dependent: More accu
rate approximations to Shapley values',
          'Multiple object tracking: A literature review',
          'A survey of inverse reinforcement learning: Challenges, methods and prog
ress',
          'Evaluating XAI: A comparison of rule-based and example-based explanation
s',
          'Explainable AI tools for legal reasoning about cases: A study on the Eur
opean Court of Human Rights',
          'Hard choices in artificial intelligence',
          'Assessing the communication gap between AI models and healthcare profess
ionals: Explainability, utility and trust in AI-driven clinical decision-m
aking',
          'Explaining black-box classifiers using post-hoc explanations-by-example:
The effect of explanations and error-rates in XAI user studies',
          'The Hanabi challenge: A new frontier for AI research',
          'Wrappers for feature subset selection',
          'Artificial cognition for social human-robot interaction: An implementati
on',
          'A review of possible effects of cognitive biases on interpretation of ru
le-based machine learning models',
          'The multifaceted impact of Ada Lovelace in the digital age',
          'Robot ethics: Mapping the issues for a mechanized world',
          'Reward (Mis)design for autonomous driving',
          'Planning and acting in partially observable stochastic domains',
          'What do we want from Explainable Artificial Intelligence (XAI)? - A stak
eholder perspective on XAI and a conceptual model guiding interdisciplinary
y XAI research']
```

```
In [54]: authors =[]

for i in soup.find_all('span',class_="sc-1w3fpd7-0 dnCnA0"):
    authors.append(i.text)
authors
```

```
Out[54]: ['David Silver, Satinder Singh, Doina Precup, Richard S. Sutton ',
'Tim Miller ',
'Margaret A. Boden ',
'Guni Sharon, Roni Stern, Ariel Felner, Nathan R. Sturtevant ',
'Illaria Tiddi, Stefan Schlobach ',
'Henry Prakken, Giovanni Sartor ',
'Richard S. Sutton, Doina Precup, Satinder Singh ',
'Kjersti Aas, Martin Jullum, Anders Løland ',
'Wenhan Luo, Junliang Xing and 4 more',
'Saurabh Arora, Prashant Doshi ',
'Jasper van der Waa, Elisabeth Nieuwburg, Anita Cremers, Mark Neerincx ',
'Joe Collenette, Katie Atkinson, Trevor Bench-Capon ',
'Roel Dobbe, Thomas Krendl Gilbert, Yonatan Mintz ',
'Oskar Wysocki, Jessica Katharine Davies and 5 more',
'Eoin M. Kenny, Courtney Ford, Molly Quinn, Mark T. Keane ',
'Nolan Bard, Jakob N. Foerster and 13 more',
'Ron Kohavi, George H. John ',
'Séverin Lemaignan, Mathieu Warnier and 3 more',
'Tomáš Kliegr, Štěpán Bahník, Johannes Fürnkranz ',
'Luigia Carlucci Aiello ',
'Patrick Lin, Keith Abney, George Bekey ',
'W. Bradley Knox, Alessandro Allievi and 3 more',
'Leslie Pack Kaelbling, Michael L. Littman, Anthony R. Cassandra ',
'Markus Langer, Daniel Oster and 6 more']
```



```
In [55]: publish_date =[]

for i in soup.find_all('span',class_="sc-1thf9ly-2 dvggWt"):
    publish_date.append(i.text)
publish_date
```

```
Out[55]: ['October 2021',
          'February 2019',
          'August 1998',
          'February 2015',
          'January 2022',
          'October 2015',
          'August 1999',
          'September 2021',
          'April 2021',
          'August 2021',
          'February 2021',
          'April 2023',
          'November 2021',
          'March 2023',
          'May 2021',
          'March 2020',
          'December 1997',
          'June 2017',
          'June 2021',
          'June 2016',
          'April 2011',
          'March 2023',
          'May 1998',
          'July 2021']
```

```
In [56]: paper_url = []

for i in soup.find_all('a',class_="sc-5smygv-0 fIXTHm"):
    paper_url.append(i['href'])

paper_url
```

```
Out[56]: ['https://www.sciencedirect.com/science/article/pii/S0004370221000862',
'https://www.sciencedirect.com/science/article/pii/S0004370218305988',
'https://www.sciencedirect.com/science/article/pii/S0004370298000551',
'https://www.sciencedirect.com/science/article/pii/S0004370214001386',
'https://www.sciencedirect.com/science/article/pii/S0004370221001788',
'https://www.sciencedirect.com/science/article/pii/S0004370215000910',
'https://www.sciencedirect.com/science/article/pii/S0004370299000521',
'https://www.sciencedirect.com/science/article/pii/S0004370221000539',
'https://www.sciencedirect.com/science/article/pii/S0004370220301958',
'https://www.sciencedirect.com/science/article/pii/S0004370221000515',
'https://www.sciencedirect.com/science/article/pii/S0004370220301533',
'https://www.sciencedirect.com/science/article/pii/S0004370223000073',
'https://www.sciencedirect.com/science/article/pii/S0004370221001065',
'https://www.sciencedirect.com/science/article/pii/S0004370222001795',
'https://www.sciencedirect.com/science/article/pii/S0004370221000102',
'https://www.sciencedirect.com/science/article/pii/S0004370219300116',
'https://www.sciencedirect.com/science/article/pii/S000437029700043X',
'https://www.sciencedirect.com/science/article/pii/S0004370216300790',
'https://www.sciencedirect.com/science/article/pii/S0004370221000096',
'https://www.sciencedirect.com/science/article/pii/S0004370216300224',
'https://www.sciencedirect.com/science/article/pii/S0004370211000178',
'https://www.sciencedirect.com/science/article/pii/S0004370222001692',
'https://www.sciencedirect.com/science/article/pii/S000437029800023X',
'https://www.sciencedirect.com/science/article/pii/S0004370221000242']
```

```
In [57]: df = pd.DataFrame({'Paper Title':title, 'Authors':authors, 'Publish Date':pub  
df
```

Out[57]:

	Paper Title	Authors	Publish Date	Paper URL
0	Reward is enough	David Silver, Satinder Singh, Doina Precup, Ri...	October 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
1	Explanation in artificial intelligence: Insign...	Tim Miller	February 2019	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
2	Creativity and artificial intelligence	Margaret A. Boden	August 1998	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
3	Conflict-based search for optimal multi-agent ...	Guni Sharon, Roni Stern, Ariel Felner, Nathan ...	February 2015	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
4	Knowledge graphs as tools for explainable mach...	Ilaria Tiddi, Stefan Schlobach	January 2022	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
5	Law and logic: A review from an argumentation ...	Henry Prakken, Giovanni Sartor	October 2015	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
6	Between MDPs and semi-MDPs: A framework for te...	Richard S. Sutton, Doina Precup, Satinder Singh	August 1999	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
7	Explaining individual predictions when feature...	Kjersti Aas, Martin Jullum, Anders Løland	September 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
8	Multiple object tracking: A literature review	Wenhan Luo, Junliang Xing and 4 more	April 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
9	A survey of inverse reinforcement learning: Ch...	Saurabh Arora, Prashant Doshi	August 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
10	Evaluating XAI: A comparison of rule-based and...	Jasper van der Waa, Elisabeth Nieuwburg, Anita...	February 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
11	Explainable AI tools for legal reasoning about...	Joe Collenette, Katie Atkinson, Trevor Bench- C...	April 2023	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
12	Hard choices in artificial intelligence	Roel Dobbe, Thomas Krendl Gilbert, Yonatan Mintz	November 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
13	Assessing the communication gap between AI mod...	Oskar Wysocki, Jessica Katharine Davies and 5 ...	March 2023	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>

	Paper Title	Authors	Publish Date	Paper URL
14	Explaining black-box classifiers using post-ho...	Eoin M. Kenny, Courtney Ford, Molly Quinn, Mar...	May 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
15	The Hanabi challenge: A new frontier for AI re...	Nolan Bard, Jakob N. Foerster and 13 more	March 2020	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
16	Wrappers for feature subset selection	Ron Kohavi, George H. John	December 1997	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
17	Artificial cognition for social human–robot in...	Séverin Lemaignan, Mathieu Warnier and 3 more	June 2017	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
18	A review of possible effects of cognitive bias...	Tomáš Kliegr, Štěpán Bahník, Johannes Fürnkranz	June 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
19	The multifaceted impact of Ada Lovelace in the...	Luigia Carlucci Aiello	June 2016	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
20	Robot ethics: Mapping the issues for a mechani...	Patrick Lin, Keith Abney, George Bekey	April 2011	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
21	Reward (Mis)design for autonomous driving	W. Bradley Knox, Alessandro Allievi and 3 more	March 2023	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
22	Planning and acting in partially observable st...	Leslie Pack Kaelbling, Michael L. Littman, Ant...	May 1998	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>
23	What do we want from Explainable Artificial In...	Markus Langer, Daniel Oster and 6 more	July 2021	<a href="https://www.sciencedirect.com/science/article/...">https://www.sciencedirect.com/science/article/...</a>

## Question 7 : Write a python program to scrape mentioned details from dineout.co.in and make data frame

```
In [58]: page = requests.get('https://www.dineout.co.in/delhi-restaurants/buffet-spe
page
```

```
Out[58]: <Response [200]>
```

```
In [59]: soup1 = BeautifulSoup(page.content)
soup1
```

```
Out[59]: <!DOCTYPE html>
<html lang="en"><head><meta charset="utf-8"/><meta content="IE=edge" ht
tp-equiv="X-UA-Compatible"/><meta content="width=device-width, initial-
scale=1.0, maximum-scale=1.0, user-scalable=no" name="viewport"/><link
href="/manifest.json" rel="manifest"/><style type="text/css">
    @font-face {
        font-family: 'dineicon';
        src: url('/fonts/dineicon.eot');
        src: url('/fonts/dineicon.eot#iefix') format('embedded
-opentype'),
        url('/fonts/dineicon.ttf') format('truetype'),
        url('/fonts/dineicon.woff') format('woff'),
        url('/fonts/dineicon.svg#dineicon') format('svg');
        font-weight: normal;
        font-style: normal;
        font-display: swap;
    }
    .hide {
        display: none !important;
    }
```

```
In [60]: Name = []

for i in soup1.find_all('a',class_="restnt-name ellipsis"):
    Name.append(i.text)

Name
```

```
Out[60]: ['Castle Barbeque',
'Cafe Knosh',
'India Grill',
'The Barbeque Company',
'Delhi Barbeque',
'The Monarch - Bar Be Que Village',
'Indian Grill Room',
'The Barbeque Times']
```

```
In [61]: loc = []

for i in soup1.find_all('div',class_="restnt-loc ellipsis"):
    loc.append(i.text)

loc
```

```
Out[61]: ['Connaught Place, Central Delhi',
'The Leela Ambience Convention Hotel,Shahdara, East Delhi',
'Hilton Garden Inn,Saket, South Delhi',
'Gardens Galleria,Sector 38A, Noida',
'Taurus Sarovar Portico,Mahipalpur, South Delhi',
'Indirapuram Habitat Centre,Indirapuram, Ghaziabad',
'Suncity Business Tower,Golf Course Road, Gurgaon',
'M2K Corporate Park,Sector 51, Gurgaon']
```

```
In [62]: rating = []

for i in soup1.find_all('div',class_="restnt-rating rating-4"):
    rating.append(i.text)
rating
```

```
Out[62]: ['4', '4.3', '3.9', '3.9', '3.7', '3.8', '4.3', '4.1']
```

```
In [63]: cuisine = []

for i in soup1.find_all('span',class_="double-line-ellipsis"):
    cuisine.append(i.text)
cuisine
```

```
Out[63]: ['₹ 2,000 for 2 (approx) | Chinese, North Indian',
'₹ 3,000 for 2 (approx) | Italian, Continental',
'₹ 2,400 for 2 (approx) | North Indian, Italian',
'₹ 1,700 for 2 (approx) | North Indian, Chinese',
'₹ 1,800 for 2 (approx) | North Indian',
'₹ 1,900 for 2 (approx) | North Indian',
'₹ 2,200 for 2 (approx) | North Indian, Mughlai',
'₹ 1,500 for 2 (approx) | North Indian, Continental, Chinese, South India
n']
```

```
In [64]: Image = []

for i in soup1.find_all('img',class_="no-img"):
    Image.append(i['data-src'])
Image
```

```
Out[64]: ['https://im1.dineout.co.in/images/uploads/restaurant/sharpen/8/k/b/p86792-16062953735fbe1f4d3fb7e.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/4/p/m/p406-15438184745c04ccea491bc.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/2/q/t/p2687-169589385765154961ea87c.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/7/p/k/p79307-16051787755fad1597f2bf9.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/5/d/i/p52501-1661855212630de5eceb6d2.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/3/n/o/p34822-15599107305cfa594a13c24.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/5/y/f/p549-165000147262590640c0afc.jpg?tr=tr:n-medium',
'https://im1.dineout.co.in/images/uploads/restaurant/sharpen/1/u/r/p106428-166073786162fcd945925a9.jpg?tr=tr:n-medium']
```

```
In [65]: df = pd.DataFrame({'Restaurant name':Name, 'Cuisine':cuisine, 'Location':loc, df
```

Out[65]:

	Restaurant name	Cuisine	Location	Rating	Image U
0	Castle Barbeque	₹ 2,000 for 2 (approx)   Chinese, North Indian	Connaught Place, Central Delhi	4	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
1	Cafe Knosh	₹ 3,000 for 2 (approx)   Italian, Continental	The Leela Ambience Convention Hotel,Shahdara, ...	4.3	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
2	India Grill	₹ 2,400 for 2 (approx)   North Indian, Italian	Hilton Garden Inn,Saket, South Delhi	3.9	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
3	The Barbeque Company	₹ 1,700 for 2 (approx)   North Indian, Chinese	Gardens Galleria,Sector 38A, Noida	3.9	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
4	Delhi Barbeque	₹ 1,800 for 2 (approx)   North Indian	Taurus Sarovar Portico,Mahipalpur, South Delhi	3.7	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
5	The Monarch - Bar Be Que Village	₹ 1,900 for 2 (approx)   North Indian	Indirapuram Habitat Centre,Indirapuram, Ghaziabad	3.8	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
6	Indian Grill Room	₹ 2,200 for 2 (approx)   North Indian, Mughlai	Suncity Business Tower,Golf Course Road, Gurgaon	4.3	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>
7	The Barbeque Times	₹ 1,500 for 2 (approx)   North Indian, Contine...	M2K Corporate Park,Sector 51, Gurgaon	4.1	<a href="https://im1.dineout.co.in/images/uploads/rest">https://im1.dineout.co.in/images/uploads/rest</a>



```
In [ ]:
In [ ]:
In [ ]:
In [ ]:
```



