```
In [2]: import selenium
         from selenium import webdriver
         from selenium.webdriver.common.by import By
         from selenium .common.exceptions import NoSuchElementException
 In [3]: import pandas as pd
         import time
 In [4]: import warnings
         warnings.filterwarnings ('ignore')
In [12]: driver = webdriver.Chrome (r'chromedriver.exe')
In [13]: | url = 'https://www.bcci.tv/'
         driver.get (url)
In [15]: driver.maximize_window()
In [17]: menu = driver.find_element(By.XPATH,'/html/body/nav/div[1]/button')
         menu.click ()
In [18]: international = driver.find_element(By.XPATH,'/html/body/nav/div[1]/div[2]/ul[1]/li[2]/a')
         international.click()
 In [32]: match_title_all = []
         try:
             title_tag = driver.find_elements(By.XPATH,'//h5[@class="match-tournament-name ng-binding"]')
             for i in title_tag:
                temp = i.text
                 match_title_all.append(temp)
         except NoSuchElementException:
             match_title_tag.append('Not Present')
         series_all = []
         try:
             series = driver.find_elements(By.XPATH,'//span[@class="matchOrderText ng-binding ng-scope"]')
             for i in series:
                 temp = i.text
                 series_all.append(temp)
         except NoSuchElementException:
             series_all.append('Not Present')
         place_all = []
         try:
             place = driver.find_elements(By.XPATH,'//span[@class="ng-binding"]')
             for i in place:
                 temp = i.text
                place all.append(temp)
         except NoSuchElementException:
             place_all.append('Not Present')
         date_all = []
         try:
             date = driver.find_elements(By.XPATH,'//div[@class="match-dates ng-binding"]')
             for i in date:
                temp = i.text
                 date_all.append(temp)
         except NoSuchElementException:
             date_all.append('Not Present')
         time_all = []
             time = driver.find_elements(By.XPATH,'//div[@class="match-time no-margin ng-binding"]')
             for i in time:
                 temp = i.text
                 time_all.append(temp)
         except NoSuchElementException:
             time_all.append('Not Present')
In [34]: len(match_title_all),len(series_all),len(place_all),len(date_all),len(time_all)
Out[34]: (8, 8, 8, 8, 8)
```

```
In [38]: df = pd.DataFrame({'Match Title':match_title_all,'Series':series_all,'place':place_all,'Date':date_all,'Time':time_all})
         df
Out[38]:
                                     Match Title
                                                Series
                                                         place
                                                                    Date
                                                                              Time
         0 INDIA WOMEN TOUR OF BANGLADESH 2023 1st T20I -
                                                         Dhaka 9 JUL 2023 1:00 AM PDT
         1 INDIA WOMEN TOUR OF BANGLADESH 2023 2nd T20I -
                                                        Dhaka 11 JUL 2023 1:00 AM PDT
                   INDIA TOUR OF WEST INDIES 2023 1st Test - Dominica 12 JUL 2023 7:00 AM PDT
         2
          3 INDIA WOMEN TOUR OF BANGLADESH 2023 3rd T20I -
                                                        Dhaka 13 JUL 2023 1:00 AM PDT
          4 INDIA WOMEN TOUR OF BANGLADESH 2023 1st ODI -
                                                        Dhaka 15 JUL 2023 8:30 PM PDT
          5 INDIA WOMEN TOUR OF BANGLADESH 2023 2nd ODI -
                                                        Dhaka 18 JUL 2023 8:30 PM PDT
          6
                   INDIA TOUR OF WEST INDIES 2023 2nd Test - Trinidad 20 JUL 2023 7:00 AM PDT
          7 INDIA WOMEN TOUR OF BANGLADESH 2023 3rd ODI -
                                                        Dhaka 21 JUL 2023 8:30 PM PDT
 In [ ]: # ------
In [39]: # Q-3
In [46]: url1 = 'http://statisticstimes.com/'
         driver.get (url1)
In [59]: economy = driver.find_element(By.XPATH,'/html/body/div[2]/div[1]/div[2]/div[2]/button')
         economy.click()
In [60]: india = driver.find_element(By.XPATH,'//div[@class="dropdown-content"]/a[3]')
         india.click()
In [61]: | state_wise = driver.find_element(By.XPATH, '/html/body/div[2]/div[2]/div[2]/ul/li[1]/a')
         state_wise.click()
In [68]: rank all odd = []
         rank = driver.find_elements(By.XPATH,'//tr[@class="odd"]/td[1]')
         for i in rank:
             temp = i.text
             rank_all_odd.append(temp)
         rank_all_odd [:17]
Out[68]: ['1',
          '3',
          '5',
          '7',
          '9',
           '11'
           '13',
           '17',
          '19',
          '21',
          '23',
          '27',
          '29',
          '31',
          '33']
```

```
In [69]: state_all_odd = []
          rank = driver.find_elements(By.XPATH,'//tr[@class="odd"]/td[2]')
for i in rank:
              temp = i.text
              state_all_odd.append(temp)
          state_all_odd [:17]
Out[69]: ['Maharashtra',
            'Uttar Pradesh',
           'Karnataka',
           'Rajasthan',
           'Telangana',
           'Kerala',
           'Haryana',
           'Punjab',
           'Assam',
           'Jharkhand',
           'Jammu & Kashmir',
           'Goa',
            'Chandigarh',
           'Meghalaya',
            'Manipur',
            'Arunachal Pradesh',
           'Andaman & Nicobar Islands']
In [70]: gsdp_1819_odd = []
          gsdp = driver.find_elements(By.XPATH,'//tr[@class="odd"]/td[4]')
for i in gsdp:
              temp = i.text
              gsdp_1819_odd.append(temp)
          gsdp_1819_odd [:17]
Out[70]: ['2,632,792',
            '1,584,764',
           '1,493,127',
           '942,586',
           '861,031',
           '781,653',
           '734,163',
           '526,376',
           '315,881',
'297,204',
           '155,956',
           '73,170',
           '42,114',
           '33,481',
           '27,870',
           '24,603',
           '-']
In [71]: gsdp_1920_odd = []
          gsdp = driver.find_elements(By.XPATH,'//tr[@class="odd"]/td[3]')
          for i in gsdp:
              temp = i.text
              gsdp_1920_odd.append(temp)
          gsdp_1920_odd [:17]
Out[71]: ['-',
           '1,687,818',
           '1,631,977',
            '1,020,989',
           '969,604',
           '831,610',
           '574,760',
           '-',
           '328,598',
            '80,449',
           '36,572',
            '31,790',
```

```
In [72]: share_1819_odd = []
          share = driver.find_elements(By.XPATH,'//tr[@class="odd"]/td[5]')
for i in share:
              temp = i.text
              share_1819_odd.append(temp)
          share_1819_odd [:17]
Out[72]: ['13.94%',
            '8.39%',
           '7.91%',
           '4.99%',
           '4.56%',
           '4.14%',
           '3.89%',
           '2.79%',
           '1.67%',
           '1.57%',
           '0.83%',
           '0.39%',
           '0.22%',
           '0.18%',
           '0.15%',
           '0.13%',
           '-']
In [73]: gdp_billion_odd = []
          gdp_bill = driver.find_elements(By.XPATH,'//tr[@class="odd"]/td[5]')
for i in gdp_bill:
              temp = i.text
              gdp_billion_odd.append(temp)
          gdp_billion_odd [:17]
Out[73]: ['13.94%',
            '8.39%',
           '7.91%',
           '4.99%',
           '4.56%',
           '4.14%',
           '3.89%',
           '2.79%',
           '1.67%',
           '1.57%',
           '0.83%',
           '0.39%',
           '0.22%',
           '0.18%',
           '0.15%',
           '0.13%',
           '-']
In [74]: len(rank_all_odd),len(state_all_odd),len(gsdp_1819_odd),len(gsdp_1920_odd),len(share_1819_odd),len(gdp_billion_odd)
Out[74]: (34, 34, 34, 34, 34, 34)
```

```
assignment-10 - Jupyter Notebook
In [75]: df_odd = pd.DataFrame({'Rank':rank_all_odd,'State':state_all_odd,'GSDP-[18-19]':gsdp_1819_odd,'GSDP-[19-20]':gsdp_1920_odd,'Sha
           df_odd
           4
Out[75]:
                Rank
                                         State
                                               GSDP-[18-19] GSDP-[19-20] Share[18-19] GDP $ Billion
             0
                                                                                13.94%
                                                                                              13.94%
                   1
                                   Maharashtra
                                                   2,632,792
             1
                   3
                                  Uttar Pradesh
                                                   1,584,764
                                                                 1,687,818
                                                                                 8.39%
                                                                                              8.39%
                   5
                                     Karnataka
                                                   1,493,127
                                                                 1,631,977
                                                                                 7.91%
                                                                                              7.91%
                   7
                                     Rajasthan
                                                    942,586
                                                                 1,020,989
                                                                                 4.99%
                                                                                              4.99%
                   9
                                     Telangana
                                                    861,031
                                                                                 4.56%
                                                                                              4.56%
                                                                  969,604
             5
                  11
                                                    781,653
                                                                                 4.14%
                                                                                              4.14%
             6
                  13
                                      Haryana
                                                    734,163
                                                                  831,610
                                                                                 3.89%
                                                                                              3.89%
             7
                  15
                                        Punjab
                                                    526,376
                                                                  574,760
                                                                                 2.79%
                                                                                              2.79%
             8
                  17
                                        Assam
                                                    315,881
                                                                                 1.67%
                                                                                              1.67%
             9
                  19
                                     Jharkhand
                                                    297,204
                                                                  328,598
                                                                                 1.57%
                                                                                              1.57%
            10
                  21
                              Jammu & Kashmir
                                                    155,956
                                                                                 0.83%
                                                                                              0.83%
            11
                  23
                                          Goa
                                                     73,170
                                                                   80,449
                                                                                 0.39%
                                                                                              0.39%
            12
                  25
                                    Chandigarh
                                                      42,114
                                                                                 0.22%
                                                                                              0.22%
            13
                  27
                                    Meghalaya
                                                     33,481
                                                                   36,572
                                                                                 0.18%
                                                                                              0.18%
            14
                  29
                                       Manipur
                                                     27,870
                                                                   31,790
                                                                                 0.15%
                                                                                              0.15%
            15
                  31
                              Arunachal Pradesh
                                                     24,603
                                                                                 0.13%
                                                                                              0.13%
            16
                  33
                     Andaman & Nicobar Islands
            17
                   1
                                   Maharashtra
                                                   2,332,992
                                                                                13.97%
                                                                                              13.97%
                   3
                                  Uttar Pradesh
                                                                                 8.41%
                                                                                              8 41%
            18
                                                   1.404.761
                                                                 1.495.758
            19
                   5
                                       Gujarat
                                                   1,322,936
                                                                                 7.92%
                                                                                              7.92%
                   7
                                     Rajasthan
                                                                                              5.06%
                                                    845.247
                                                                  916.014
                                                                                 5.06%
            20
            21
                   9
                                Andhra Pradesh
                                                    776,140
                                                                  875,429
                                                                                 4.65%
                                                                                              4.65%
                                                                                              4.24%
            22
                                                    707.542
                                                                                 4.24%
                  11
                                        Kerala
            23
                  13
                                      Haryana
                                                    666.075
                                                                  755.790
                                                                                 3.99%
                                                                                              3.99%
                                                    472,506
                                                                  517,521
                                                                                 2.83%
                                                                                              2.83%
            24
                  15
                                       Punjab
            25
                  17
                                        Assam
                                                    282,782
                                                                                 1.69%
                                                                                              1.69%
            26
                  19
                                   Chhattisgarh
                                                    266,537
                                                                  288,041
                                                                                 1.60%
                                                                                              1.60%
            27
                  21
                              Himachal Pradesh
                                                    133,303
                                                                  143,063
                                                                                 0.80%
                                                                                              0.80%
            28
                  23
                                          Goa
                                                     66,060
                                                                   72,181
                                                                                 0.40%
                                                                                              0.40%
            29
                  25
                                    Chandigarh
                                                     37,571
                                                                                 0.22%
                                                                                              0.22%
            30
                  27
                                                     29,544
                                    Meghalaya
                                                                   32,833
                                                                                 0.18%
                                                                                              0.18%
            31
                                                                   28,391
                  29
                                        Sikkim
                                                     25,141
                                                                                 0.15%
                                                                                              0.15%
            32
                              Arunachal Pradesh
                                                     22,488
                                                                                 0.13%
                                                                                              0.13%
            33
                  33 Andaman & Nicobar Islands
In [77]: rank_all_even = []
           rank = driver.find elements(By.XPATH,'//tr[@class="even"]/td[1]')
           for i in rank:
                temp = i.text
                rank_all_even.append(temp)
           rank_all_even [:16]
Out[77]: ['2',
            '4',
             '6',
             '8',
             '10'
             12'
             '14',
             '16',
            '18',
             '20',
```

'22' '24', '26', '28', '30', '32']

```
In [79]: state_all_even = []
          state = driver.find_elements(By.XPATH,'//tr[@class="even"]/td[2]')
for i in state:
              temp = i.text
              state_all_even.append(temp)
          state_all_even [:16]
Out[79]: ['Tamil Nadu',
            'Gujarat',
           'West Bengal',
           'Andhra Pradesh',
           'Madhya Pradesh',
           'Delhi',
           'Bihar'
           'Odisha'.
           'Chhattisgarh',
           'Uttarakhand',
           'Himachal Pradesh',
           'Tripura',
           'Puducherry',
           'Sikkim',
           'Nagaland',
           'Mizoram']
In [80]: gsdp_1819_even = []
          gsdp = driver.find_elements(By.XPATH,'//tr[@class="even"]/td[4]')
          for i in gsdp:
             temp = i.text
              gsdp_1819_even.append(temp)
          gsdp_1819_even [:16]
Out[80]: ['1,630,208',
            '1,502,899',
           '1,089,898',
           '862,957',
           '809,592',
           '774,870',
           '530,363',
           '487,805',
           '304,063',
           '245,895',
           '153,845',
           '49,845',
           '34,433',
           '28,723',
           '27,283',
           '22,287']
In [81]: gsdp_1920_even = []
          gsdp = driver.find_elements(By.XPATH,'//tr[@class="even"]/td[3]')
          for i in gsdp:
              temp = i.text
              gsdp_1920_even.append(temp)
          gsdp_1920_even [:16]
Out[81]: ['1,845,853',
           ''-',
'1,253,832',
           '972,782',
           '906,672',
           '856,112',
           '611,804',
           '521,275',
           '329,180',
           '-',
           '165,472',
           '55,984',
           '38,253',
           '32,496',
           '26,503']
```

```
In [82]: share_1819_even = []
          share = driver.find_elements(By.XPATH,'//tr[@class="even"]/td[5]')
for i in share:
              temp = i.text
              share_1819_even.append(temp)
          share_1819_even [:16]
Out[82]: ['8.63%',
           '7.96%',
           '5.77%',
           '4.57%',
           '4.29%',
           '4.10%',
           '2.81%',
           '2.58%',
           '1.61%',
           '1.30%',
           '0.81%',
           '0.26%',
           '0.18%',
           '0.15%',
           '0.14%',
'0.12%']
In [83]: gdp_billion_even = []
          gdp_billi = driver.find_elements(By.XPATH,'//tr[@class="even"]/td[6]')
          for i in gdp_billi:
             temp = i.text
              gdp_billion_even.append(temp)
          gdp_billion_even [:16]
Out[83]: ['247.629',
           -
'228.290',
           '165.556',
           '131.083',
           '122.977',
           '117.703',
           '80.562',
           '74.098',
           '46.187',
           '37.351',
           '23.369',
           '7.571',
           '5.230',
           '4.363',
           '4.144',
           '3.385']
In [84]: len(rank_all_even),len(state_all_even),len(gsdp_1819_even),len(gsdp_1920_even),len(share_1819_even),len(gdp_billion_even)
Out[84]: (32, 32, 32, 32, 32, 32)
```

```
In [85]: df_even = pd.DataFrame({'Rank':rank_all_even, 'State':state_all_even, 'GSDP-[18-19]':gsdp_1819_even, 'GSDP-[19-20]':gsdp_1920_even
                   df_even
                    4
Out[85]:
                            Rank
                                                                     GSDP-[18-19]
                                                                                             GSDP-[19-20] Share-[18-19]
                                                                                                                                             GDP[$ Billion]
                       0
                                  2
                                                  Tamil Nadu
                                                                            1,630,208
                                                                                                    1,845,853
                                                                                                                                 8.63%
                                                                                                                                                       247.629
                                  4
                                                                            1,502,899
                                                                                                                                 7.96%
                                                                                                                                                       228.290
                       1
                                                        Gujarat
                                  6
                                                West Bengal
                                                                            1,089,898
                                                                                                    1,253,832
                                                                                                                                 5.77%
                                                                                                                                                        165.556
                                  8
                                          Andhra Pradesh
                                                                              862,957
                                                                                                      972,782
                                                                                                                                 4.57%
                                                                                                                                                        131.083
                                 10
                                                                                                       906,672
                                                                                                                                 4.29%
                                                                                                                                                        122.977
                                         Madhya Pradesh
                                                                              809,592
                       5
                                 12
                                                                              774,870
                                                                                                       856,112
                                                                                                                                 4.10%
                                                                                                                                                        117.703
                       6
                                 14
                                                          Bihar
                                                                              530,363
                                                                                                       611,804
                                                                                                                                 2.81%
                                                                                                                                                          80.562
                       7
                                 16
                                                        Odisha
                                                                              487,805
                                                                                                       521,275
                                                                                                                                 2.58%
                                                                                                                                                          74.098
                                                Chhattisgarh
                       8
                                 18
                                                                              304,063
                                                                                                       329,180
                                                                                                                                 1.61%
                                                                                                                                                          46.187
                       9
                                 20
                                                Uttarakhand
                                                                              245,895
                                                                                                                                 1.30%
                                                                                                                                                          37.351
                     10
                                 22
                                       Himachal Pradesh
                                                                               153,845
                                                                                                       165,472
                                                                                                                                 0.81%
                                                                                                                                                          23.369
                      11
                                24
                                                        Tripura
                                                                                49,845
                                                                                                        55,984
                                                                                                                                 0.26%
                                                                                                                                                           7.571
                     12
                                 26
                                                 Puducherry
                                                                                34,433
                                                                                                        38,253
                                                                                                                                 0.18%
                                                                                                                                                           5.230
                     13
                                 28
                                                         Sikkim
                                                                                28,723
                                                                                                        32,496
                                                                                                                                 0.15%
                                                                                                                                                           4.363
                     14
                                 30
                                                    Nagaland
                                                                                27,283
                                                                                                                                 0.14%
                                                                                                                                                           4.144
                     15
                                 32
                                                     Mizoram
                                                                                22.287
                                                                                                        26.503
                                                                                                                                 0.12%
                                                                                                                                                           3.385
                                  2
                                                                            1.465.361
                                                                                                    1.659.210
                                                                                                                                 8 77%
                                                                                                                                                     1,167,776
                     16
                                                  Tamil Nadu
                                  4
                                                                                                    1,476,983
                                                                                                                                 8.09%
                     17
                                                   Karnataka
                                                                            1,351,553
                                                                                                                                                     1,035,131
                                  6
                                                                                                    1.150.711
                                                                              995 502
                                                                                                                                 5.96%
                     18
                                                West Bengal
                                                                                                                                                       713 376
                                  8
                                                                              782,370
                                                                                                      881.873
                                                                                                                                 4.68%
                     19
                                                   Telangana
                                                                                                                                                       594,806
                                                                              737.156
                                                                                                      827.019
                     20
                                 10
                                         Madhva Pradesh
                                                                                                                                 4.41%
                                                                                                                                                       496,798
                     21
                                 12
                                                           Delhi
                                                                              704,529
                                                                                                       779.647
                                                                                                                                 4.22%
                                                                                                                                                       568.265
                                 14
                                                                              486.776
                                                                                                      562,710
                                                                                                                                 2.91%
                     22
                                                          Bihar
                                                                                                                                                       377.276
                     23
                                 16
                                                       Odisha
                                                                              428.031
                                                                                                      457.757
                                                                                                                                 2.56%
                                                                                                                                                       344.437
                                                                              271,990
                                                                                                       301,242
                     24
                                 18
                                                                                                                                 1.63%
                                                                                                                                                        218.232
                                                   Jharkhand
                     25
                                20
                                                Uttarakhand
                                                                              221,871
                                                                                                                                 1.33%
                     26
                                 22 Jammu & Kashmir
                                                                               129,877
                                                                                                                                 0.78%
                     27
                                24
                                                        Tripura
                                                                                44,835
                                                                                                        50,227
                                                                                                                                 0.27%
                                                                                                                                                          35,980
                     28
                                 26
                                                 Puducherry
                                                                                31,415
                                                                                                        34,823
                                                                                                                                 0.19%
                                                                                                                                                          22,291
                     29
                                 28
                                                      Manipur
                                                                                25,323
                                                                                                        29,148
                                                                                                                                 0.15%
                                                                                                                                                          18,549
                     30
                                 30
                                                    Nagaland
                                                                                24,534
                                                                                                                                 0.15%
                     31
                                 32
                                                     Mizoram
                                                                                20,947
                                                                                                        24,424
                                                                                                                                 0.13%
                                                                                                                                                          17,797
  In [ ]: # ========= upto here i made dataframe of all, but its in odd & even . =========== upto here i made dataframe of all, but its in odd & even .
In [86]: # Q-4
In [52]: from selenium .common.exceptions import ElementNotInteractableException
In [84]: | driver = webdriver.Chrome('chromedriver.exe')
In [85]: driver.get ('https://github.com/')
In [87]: menu = driver.find_element(By.XPATH,'/html/body/div[1]/div[1]/header/div/div[1]/div[2]/button')
                   menu.click()
In [88]: open_source = driver.find_element(By.XPATH,'/html/body/div[1]/div[1]/header/div/div[2]/div/nav/ul/li[3]/button')
                   open_source.click()
In [89]: try:
                            trending = driver.find\_element(By.XPATH,'/html/body/div[1]/div[1]/header/div/div[2]/div/nav/ul/li[3]/div/div[3]/ul/li[2]/a' div/div[2]/div/nav/ul/li[3]/div/div[3]/ul/li[2]/a' div/div[3]/ul/li[2]/a' div/div[3]/ul/li[2]/a' div/div[3]/ul/li[3]/div/div[3]/ul/li[3]/div/div[3]/ul/li[3]/div/div[3]/ul/li[3]/div/div[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/li[3]/ul/l
                            trending.click()
                   except ElementNotInteractableException:
                            print ('Element is not Interactable')
```

```
In [90]: driver.maximize_window()
In [91]: title = driver.find_element(By.XPATH,'//span[@class="text-normal"][1]')
         title.click()
In [92]: repo_url = []
         url = driver.find_elements(By.XPATH,'//h2[@class="h3 lh-condensed"]/a')
         for i in url:
             temp = i.get_attribute('href')
              repo_url.append(temp)
In [93]: len(repo_url)
Out[93]: 25
In [94]: repo_url
Out[94]: ['https://github.com/ChaoningZhang/MobileSAM',
           'https://github.com/abacaj/mpt-30B-inference'
           'https://github.com/slarkvan/Block-Pornographic-Replies',
           'https://github.com/WeMakeDevs/open-source-course',
           'https://github.com/PowerShell/PowerShell',
           'https://github.com/XingangPan/DragGAN',
           'https://github.com/facebook/folly',
           'https://github.com/ParthJadhav/Tkinter-Designer',
           'https://github.com/papers-we-love/papers-we-love',
           'https://github.com/wgwang/LLMs-In-China',
           'https://github.com/practical-tutorials/project-based-learning',
           'https://github.com/mengjian-github/copilot-analysis',
           'https://github.com/dotnet-architecture/eShopOnContainers'
           'https://github.com/EbookFoundation/free-programming-books',
           'https://github.com/chinese-poetry/chinese-poetry',
           'https://github.com/alexbei/telegram-groups',
           'https://github.com/questdb/questdb',
           'https://github.com/fuqiuluo/unidbg-fetch-qsign',
           'https://github.com/mosaicml/composer',
           'https://github.com/alibaba/DataX',
           'https://github.com/toeverything/AFFiNE',
           'https://github.com/phodal/aigc',
           'https://github.com/imgly/background-removal-js',
           'https://github.com/sourcegraph/sourcegraph'
           'https://github.com/buqiyuan/vue3-antd-admin']
In [79]: data = driver.find_element(By.XPATH,'//div[@class="BorderGrid-row"][4]/div/ul')
         data.text.split('\n')
Out[79]: ['Vue',
           '64.6%',
           'TypeScript',
           '18.2%'.
           'JavaScript',
           '15.8%',
           'Less',
           '0.9%',
           'HTML',
           '0.3%',
           'Dockerfile',
           '0.1%',
           'Shell',
           '0.1%']
In [95]: repo_discription11 =[]
In [96]: contri_count11 = []
In [97]: language_all11 = []
In [98]: heading_title11 = []
```

```
In [99]: for ur in repo_url:
             driver.get(ur)
                 title tag = driver.find elements(By.XPATH, '//a[@class="url fn"]')
                 for i in title_tag:
                     temp = i.text
                     heading_title11.append(temp)
             except NoSuchElementException:
                 heading_title11.append('-')
                 title = driver.find elements(By.XPATH,'//p[@class="f4 my-3"]')
                 for i in title:
                     temp = i.text
                     repo_discription11.append(temp)
             except NoSuchElementException:
                 repo_discription11.append('-')
             try:
                 contributors = driver.find_elements(By.XPATH,'//div[@class="BorderGrid-row"][4]/div/h2/a/span')
                 for i in contributors:
                     temp = i.text
                     contri_count11.append(temp)
             except NoSuchElementException:
                 contri_count11.append('-')
             try:
                 language = driver.find elements(By.XPATH,'//div[@class="BorderGrid-row"][4]/div/ul')
                 for i in language:
                     temp = i.text.split('\n')
                     language_all11.append(temp)
             except NoSuchElementException:
                 language_all11.append('-')
In [100]: len(heading_title11),len(repo_discription11),len(contri_count11),len(language_all11)
Out[100]: (25, 23, 12, 19)
 In [ ]: # Q-5
In [105]: driver = webdriver.Chrome('chromedriver.exe')
In [106]: driver.get('https://www.billboard.com/')
In [108]: driver.maximize_window()
In [109]: menu1 = driver.find_element(By.XPATH,'/html/body/div[3]/header/div/div[4]/div/div[1]/div[1]/button')
         menu1.click()
In [110]: charts = driver.find_element(By.XPATH,'/html/body/div[3]/div[9]/div/div/div/ul/li[1]/h3/button')
         charts.click()
In [111]: hot100 = driver.find_element(By.XPATH,'/html/body/div[3]/div[9]/div/div/div/ul/li[1]/ul/li[2]/a')
         hot100.click()
```

```
In [123]: hot_table = []
                   hot = driver.find_elements(By.XPATH,'//li[@class="lrv-u-width-100p"]/ul')
for i in hot:
                          temp = i.text.split('\n')
                          hot_table.append(temp)
                   hot_table
['All My Life', 'Lil Durk Featuring J. Cole', '5', '2', '6'], ['Favorite Song', 'Toosii', '6', '5', '18'],
                     ['Karma', 'Taylor Swift Featuring Ice Spice', '9', '2', '15'],
                     ['Kill Bill', 'SZA', '7', '1', '28'],
["Creepin'", 'Metro Boomin, The Weeknd & 21 Savage', '8', '3', '29'],
['Ella Baila Sola', 'Eslabon Armado X Peso Pluma', '10', '4', '14'],
                    ['Ella Baila Sola', 'Eslabon Armado X Peso Pluma', '10', '4', '1
['Sure Thing', 'Miguel', '11', '11', '47'],
['Anti-Hero', 'Taylor Swift', '12', '1', '35'],
['Snooze', 'SZA', '15', '13', '28'],
['Something In The Orange', 'Zach Bryan', '14', '10', '61'],
['Die For You', 'The Weeknd & Ariana Grande', '13', '1', '47'],
['Fukumean', 'Gunna', '-', '16', '1'],
['Need A Favor', 'Jelly Roll', '19', '17', '12'],
['Cruel Summer', 'Taylor Swift', '39', '18', '7'],
['La Bebe', 'Yng Lvcas x Peso Pluma', '16', '11', '14'],
In [114]: hot100 = []
                          hot_songs = driver.find_elements(By.XPATH,'//li[@class="lrv-u-width-100p"]/ul/li/h3')
                           for i in hot_songs:
                                  temp = i.text
                                 hot100.append(temp)
                   except NoSuchElementException:
                           hot100.append('-')
```

In [160]: hot100

```
Out[160]: ['Last Night',
              'Fast Car',
'Calm Down',
               'Flowers',
              'All My Life',
               'Favorite Song',
               'Karma',
               'Kill Bill',
              "Creepin'",
'Ella Baila Sola',
               'Sure Thing',
               'Anti-Hero',
              'Snooze',
              'Something In The Orange',
'Die For You',
               'Fukumean',
              'Need A Favor'
              'Cruel Summer',
               'La Bebe',
               'You Proof'
              'Un x100to',
              "Thinkin' Bout Me",
'Rock And A Hard Place',
              'Cupid',
               'Search & Rescue',
              'Chemical',
'Eyes Closed',
'Next Thing You Know',
              'Back To The Moon',
               'Where She Goes',
               'Attention'
              "I'm Good (Blue)",
              'Thought You Should Know',
              'Dance The Night',
              "Dancin' In The Country",
               'Religiously',
              "Boy's A Liar, Pt. 2",
              'Memory Lane',
'Put It On Da Floor Again',
              'Area Codes',
'Stand By Me',
              'Rodeo Dr',
'Tennessee Orange',
               'Bzrp Music Sessions, Vol. 55',
              'Love You Anyway',
               'One Thing At A Time',
               'TQM',
               'Players',
               'Under The Influence',
              'Thank God',
'Back At It',
               'Bread & Butter',
               'Princess Diana',
              'Bye',
'Calling',
              'Daylight',
               'What It Is (Block Boy)',
               'Annihilate',
              'Bury Me In Georgia',
'Ca$h $hit',
              'Self Love',
               'Bottom',
              'It Matters To Her',
               'Dial Drunk',
              'PRC',
'Por Las Noches',
              'Mourning',
               'Am I Dreaming',
              'Waffle House',
'See You Again',
              'TQG',
'Your Heart Or Mine',
              'Peaches & Eggplants',
              'El Azul',
'You, Me, & Whiskey',
'IDK NoMore',
              'P Angels',
              'Cowgirls',
"Baby Don't Hurt Me",
              'Popular',
               'Fight The Feeling',
              'Slut Me Out',
               'Paybach',
               'Plebada',
              'Save Me',
```

```
'Fragil',
'Jaded',
'ICU',
'Truck Bed',
"Ain't That Some",
'Shake Sumn',
'Trustfall',
'People',
'Go Crazy',
'Chanel',
'Angel, Pt. 1',
'Girl In Mine',
'Moonlight',
'Classy 101',
'Bluffin']

In [116]: len(hot100)

Out[116]: 100

In [133]:
singer = []
try:
sing = driver.find_elements(By.XPATH,'//li[@class="lrv-u-width-100p"]/ul/li/span')
for i in sing:
temp = i.text
singer.append(temp)
except NoSuchElementException:
singer.append('-')
```

```
Out[136]: ['Morgan Wallen',
             'Luke Combs',
            'Rema & Selena Gomez',
            'Miley Cyrus',
            'Lil Durk Featuring J. Cole',
            'Toosii',
            'Taylor Swift Featuring Ice Spice',
            'SZA',
            'Metro Boomin, The Weeknd & 21 Savage',
            'Eslabon Armado X Peso Pluma',
            'Miguel',
            'Taylor Swift',
            'SZA',
            'Zach Bryan'
            'The Weeknd & Ariana Grande',
            'Gunna',
            'Jelly Roll',
            'Taylor Swift',
            'Yng Lvcas x Peso Pluma',
            'Morgan Wallen',
            'Grupo Frontera X Bad Bunny',
            'Morgan Wallen',
            'Bailey Zimmerman',
            'Fifty Fifty',
'Drake',
            'Post Malone',
            'Ed Sheeran',
            'Jordan Davis',
            'Gunna',
            'Bad Bunny',
            'Doja Cat',
            'David Guetta & Bebe Rexha',
            'Morgan Wallen',
            'Dua Lipa',
            'Tyler Hubbard',
            'Bailey Zimmerman',
            'PinkPantheress & Ice Spice',
            'Old Dominion',
            'Latto Featuring Cardi B',
            'Kali',
            'Lil Durk Featuring Morgan Wallen',
            'Gunna',
            'Megan Moroney',
            'Bizarrap & Peso Pluma',
            'Luke Combs',
            'Morgan Wallen',
            'Fuerza Regida',
            'Coi Leray',
            'Chris Brown'
            'Kane Brown With Katelyn Brown',
            'Gunna',
            'Gunna',
            'Ice Spice & Nicki Minaj',
            'Peso Pluma',
            'Metro Boomin, Swae Lee & NAV Featuring A Boogie Wit da Hoodie',
            'David Kushner',
            'Doechii Featuring Kodak Black',
            'Metro Boomin, Swae Lee, Lil Wayne & Offset',
            'Kane Brown',
            'Gunna'
            'Metro Boomin & Coi Leray',
            'Gunna',
            'Scotty McCreery',
            'Noah Kahan',
'Peso Pluma X Natanael Cano',
            'Peso Pluma',
'Post Malone',
            'Metro Boomin, A$AP Rocky & Roisee',
            'Jonas Brothers',
            'Tyler, The Creator Featuring Kali Uchis',
            'Karol G x Shakira',
            'Jon Pardi',
             'Young Nudy Featuring 21 Savage',
            'Junior H x Peso Pluma',
            'Justin Moore & Priscilla Block',
            'Gunna',
            'Gunna',
            'Morgan Wallen Featuring ERNEST',
            'David Guetta, Anne-Marie & Coi Leray',
            'The Weeknd, Playboi Carti & Madonna',
            'Rod Wave',
            'NLE Choppa',
            'Gunna',
            'El Alfa x Peso Pluma',
            'Jelly Roll With Lainey Wilson',
```

```
'Yahritza y Su Esencia x Grupo Frontera',
             'Miley Cyrus',
             'Coco Jones',
             'HARDY',
'Morgan Wallen',
             'DaBaby',
             'P!nk',
'Libianca',
             'Gunna',
'Becky G & Peso Pluma',
             'Kodak Black, NLE Choppa, Jimin, JVKE & Muni Long',
             'Parmalee',
'Kali Uchis',
             'Feid x Young Miko',
'Gucci Mane & Lil Baby']
In [137]: len(s2)
Out[137]: 100
In [138]: rank = []
           try:
                rnk = driver.find_elements(By.XPATH,'//li[@class="lrv-u-width-100p"]/ul/li/span')
                for i in rnk:
                    temp = i.text
                    rank.append(temp)
           except NoSuchElementException:
                rank.append('-')
```

```
In [142]: r1 = rank [1::2] r2 = r1 [::2] r2
```

```
'2',
                  '5',
'6',
'9',
'7',
                  '10',
                  '11',
                   '12',
                  '15',
                  '14',
'13',
                  '-',
'19',
                  '39',
                   '16',
                  '21',
                  '18',
                  '22',
'25',
                  '24',
                  '20',
                  '23',
                  '26',
                   '28',
                 28 ,
'-',
'17',
'-',
'31',
                  '30',
                  '32',
                  '34',
                  '42',
                  '27',
                  '36',
                  '33',
                  '41',
                  '-',
'38',
'37',
                  '49',
                  '35',
'40',
                  '45',
'44',
                  '50',
                  '-',
'81',
                  '52',
'53',
'46',
                  '56',
                  '60',
                  '47',
                 '64',
'54',
'55',
                  '43',
                  '58',
                  '59',
                  '51',
                  '65',
'61',
'62',
                  '67',
'74',
                  '63',
                 '66',
'-',
'-',
'69',
                  '71',
                  '72',
                  '76',
                  '73',
'-',
'68',
                  '96',
```

```
In [151]: p1 = peak_rank [2::2]
    p2 = p1 [::2]
    p2
```

```
'3',
                '4',
'11',
                '1',
'13',
                '10',
                '1',
'16',
                '17',
                '18',
                '11',
               '5',
'5',
'9',
                '17',
'2',
'13',
                '19',
                '28',
                '29',
                '8',
'31',
                '4',
'7',
'32',
                '23',
                '36',
                '3',
'36',
'13',
                '22',
                '42',
                '30',
                '31',
                '15',
                '10',
                '9',
'12',
                '13',
                '51',
                '48',
                '4',
'53',
'41',
                '47',
'57',
                '44',
                '59',
                '60',
                '54',
                '62',
                '43',
                '33',
                '28',
                '36',
                '51',
                '57',
                '7',
'67',
                '73',
                '55',
                '66',
                '76',
                '77',
                '40',
                '71',
                '43',
                '16',
                '28',
                '83',
                '68',
                '85',
```

```
'69',
'56',
              '63',
             '89',
'11',
             '69',
             '82',
'80',
'94',
              '55',
             '65',
             '97',
             '80',
             '100']
In [148]: len(p2)
Out[148]: 100
In [152]: weeks_on = []
            try:
                week = driver.find_elements(By.XPATH,'//li[@class="lrv-u-width-100p"]/ul/li/span')
                 for i in week:
                     temp = i.text
            weeks_on.append(temp)
except NoSuchElementException:
                weeks_on.append('-')
```

```
'23',
                 '6',
'18',
                 '15',
                 '28',
                 '29',
                 '14',
                 '47',
'35',
                 '28',
                 '61',
                 '1',
'12',
                '7',
'14',
                 '58',
                 '10',
                 '16',
                 '14',
                 '11',
                 '10',
                 '13',
                 '22',
                 '1',
                '5',
'1',
'43',
                 '45',
                 '4',
'18',
                 '7',
'20',
                 '12',
                 '3',
'7',
'4',
'1',
                 '3',
'19',
                 '29',
                 '5',
'25',
                 '41',
                 '41',
                 '1',
                '3',
'10',
                 '4',
                 '10',
                 '7',
                '6',
'1',
'3',
'1',
'10',
'2',
                 '15',
                 '5',
                 '8',
'10',
                 '17',
                 '6',
'3',
'11',
                 '7',
'1',
                 '16',
                 '5',
                 '3',
                 '12',
                 '14',
                 '1',
                '2',
'3',
```

```
'9',
'6',
'14',
'2',
'16',
'7',
'8',
'1',
'10',
'2',
'11',
'11',
'11',
```

In [156]: len(w2)

Out[156]: 100

In [158]: import pandas as pd

In [163]: df = pd.DataFrame({'Song Name':hot100,'Artist Name':s2,'Last Week Rank':r2,'Peak Rank':p2,'Weeks on Board':w2})
df

## Out[163]:

	Song Name	Artist Name	Last Week Rank	Peak Rank	Weeks on Board
0	Last Night	Morgan Wallen	1	1	21
1	Fast Car	Luke Combs	3	2	13
2	Calm Down	Rema & Selena Gomez	4	3	42
3	Flowers	Miley Cyrus	2	1	23
4	All My Life	Lil Durk Featuring J. Cole	5	2	6
95	Angel, Pt. 1	Kodak Black, NLE Choppa, Jimin, JVKE & Muni Long	-	65	2
96	Girl In Mine	Parmalee	-	97	1
97	Moonlight	Kali Uchis	90	80	11
98	Classy 101	Feid x Young Miko	-	99	1
99	Bluffin	Gucci Mane & Lil Baby	-	100	1

100 rows × 5 columns

In [ ]: