

```
In [1]: import numpy as np
import pandas as pd
import sklearn
import matplotlib.pyplot as plt
import seaborn as sns
from bs4 import BeautifulSoup as bs
import requests
```

```
In [2]: link = "https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Gujarat"
print(link)
page = requests.get(link)
print(page)
```

```
https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Gujarat (https://en.wikipedi
a.org/wiki/COVID-19_pandemic_in_Gujarat)
<Response [200]>
```

```
In [5]: soup = bs(page.content, "html.parser")
```

```
In [4]: # soup
```

Covid 19 cases in gujarat

```
In [6]: dates = soup.find_all("td", class_="bb-04em")
dates = [i.get_text() for i in dates]
date, cases, deaths = [], [], []
for i in range(len(dates)):
    if i%3==0:
        date.append(dates[i])
    elif i%3==2:
        deaths.append(dates[i].split("(")[0])
    elif i%3==1:
        cases.append(dates[i].split("(")[0])
    else:
        print("Something went wrong at position :-", i)
```

```
In [7]: covid_19_cases = pd.DataFrame(date,columns=['date'])
covid_19_cases["date"] = pd.to_datetime(covid_19_cases['date'])
covid_19_cases["Cases"] = cases
covid_19_cases["Deaths"] = deaths
covid_19_cases.head()
```

```
Out[7]:
```

	date	Cases	Deaths
0	2020-03-19	2	
1	2020-03-20	7	
2	2020-03-21	14	
3	2020-03-22	18	1
4	2020-03-23	30	1

```
In [8]: covid_19_cases.shape
```

```
Out[8]: (418, 3)
```

```
In [8]: covid_19_cases.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 418 entries, 0 to 417
Data columns (total 3 columns):
#   Column  Non-Null Count  Dtype
---  -
0   date    418 non-null      datetime64[ns]
1   Cases   418 non-null      object
2   Deaths 418 non-null      object
dtypes: datetime64[ns](1), object(2)
memory usage: 9.9+ KB
```

```
In [9]: covid_19_cases.to_csv("Cases.csv",index=False)
```

Covid-19 Pandemic in Gujarat by district

```
In [10]: table = soup.find_all("td",class_=False,text="")
```

```
In [11]: table = [i.get_text() for i in table]
```

```

In [12]: district,total_cases,active_cases,total_recoveries,total_deaths,sample_tested,people_in_quarantine
for i in range(len(table[9:])):
    if i%7==0:
        # print(table[9+i].strip("\n"))
        district.append(table[9+i].strip("\n"))
    elif i%7==1:
        total_cases.append(table[9+i].strip("\n"))
    elif i%7==2:
        active_cases.append(table[9+i].strip("\n"))
    elif i%7==3:
        total_recoveries.append(table[9+i].strip("\n"))
    elif i%7==4:
        total_deaths.append(table[9+i].strip("\n"))
    elif i%7==5:
        sample_tested.append(table[9+i].strip("\n"))
    elif i%7==6:
        people_in_quarantine.append(table[9+i].strip("\n"))
    else:
        print("Something went wrong at position :-",i)
columns = ['district','total_cases','active_cases','total_recoveries','total_deaths','sample_tested','people_in_quarantine']
table = list(zip(district,total_cases,active_cases,total_recoveries,total_deaths,sample_tested,people_in_quarantine))

```

```
In [13]: table = pd.DataFrame(table,columns=columns)
table.to_csv("Covid-19 pandemic in Gujarat.csv",index=False)
table
```

Out[13]:

	district	total_cases	active_cases	total_recoveries	total_deaths	sample_tested	people_
0	Ahmedabad	207138	54722	149288	3128	4060936	
1	Amreli	7840	1393	6381	66	343228	
2	Anand	6577	1232	5315	30	302664	
3	Aravalli	3719	1364	2298	57	200897	
4	Banaskantha	10998	1033	9845	120	344001	
5	Bharuch	8881	1773	7023	85	276591	
6	Bhavnagar	17666	5370	12059	237	738534	
7	Botad	2000	399	1561	40	156441	
8	Chhota Udaipur	2829	630	2169	30	147640	
9	Dahod	8281	1618	6631	32	367466	
10	Dang	740	129	597	14	50661	
11	Devbhoomi Dwarka	2783	1065	1663	55	134804	
12	Gandhinagar	17911	3074	14666	171	522261	
13	Gir Somnath	5998	1861	4094	43	206204	
14	Jamnagar	29630	5809	23465	356	537645	
15	Junagadh	13815	3019	10621	175	472182	
16	Kutch	10030	2770	7143	117	529942	
17	Kheda	7931	1126	6771	34	368012	
18	Mahisagar	6355	2094	4213	48	211111	
19	Mehsana	21053	5590	15345	118	387464	
20	Morbi	6025	929	5012	84	270689	
21	Narmada	4935	1128	3798	9	150504	
22	Navsari	5489	1386	4087	16	243185	
23	Panchmahal	8810	2026	6735	49	279212	
24	Patan	9990	1534	8355	101	232034	
25	Porbandar	1815	310	1494	11	151446	
26	Rajkot	49656	4226	44825	605	1430825	
27	Sabarkantha	6887	1735	5028	124	277321	
28	Surat	129818	12661	115424	1733	4090780	
29	Surendranagar	7257	1168	5962	127	304868	
30	Tapi	3926	1346	2565	15	151998	
31	Vadodara	61156	10318	50198	640	1202040	

	district	total_cases	active_cases	total_recoveries	total_deaths	sample_tested	people_
32	Valsad	4503	1320	3145	38	278500	



In [14]: `table.shape`

Out[14]: (33, 7)

In []:

date	Cases	Deaths
#####	2	
#####	7	
#####	14	
#####	18	1
#####	30	1
#####	36	1
#####	38	2
#####	44	3
#####	47	4
#####	55	4
#####	63	5
#####	70	6
#####	74	6
#####	87	6
#####	88	7
#####	95	9
#####	108	10
#####	128	11
#####	146	12
#####	175	14
#####	186	16
#####	262	17
#####	378	19
#####	468	22
#####	516	24
#####	572	26
#####	650	28
#####	766	33
#####	929	36
#####	1,099	41
#####	1,376	53
#####	1,743	63
#####	1,939	71
#####	2,178	90
#####	2,407	103
#####	2,624	112
#####	2,815	127
#####	3,071	133
#####	3,301	151
#####	3,548	162
#####	3,774	181
#####	4,082	197
#####	4,395	214
#####	4,721	236
#####	5,054	262
#####	5,428	290

#####	5,804	319
#####	6,245	368
#####	6,625	396
#####	7,012	425
#####	7,402	449
#####	7,796	472
#####	8,194	493
#####	8,541	513
#####	8,903	537
#####	9,267	566
#####	9,591	586
#####	9,931	606
#####	10,988	625
#####	11,379	659
#####	11,745	694
#####	12,140	719
#####	12,537	749
#####	12,905	773
#####	13,268	802
#####	13,664	829
#####	14,056	858
#####	14,460	888
#####	14,821	915
#####	15,195	938
#####	15,562	960
#####	15,933	980
#####	16,343	1,007
#####	16,779	1,038
#####	17,200	1,063
#####	17,615	1,092
#####	18,100	1,122
#####	18,584	1,155
#####	19,094	1,190
#####	19,592	1,219
#####	20,070	1,249
#####	20,545	1,280
#####	21,014	1,313
#####	21,521	1,347
#####	22,032	1,385
#####	22,527	1,415
#####	23,038	1,449
#####	23,590	1,478
#####	24,104	1,506
#####	24,628	1,534
#####	25,148	1,561
#####	25,658	1,592
#####	26,198	1,619

#####	26,737	1,639
#####	27,317	1,664
#####	27,880	1,685
#####	28,429	1,711
#####	29,001	1,739
#####	29,578	1,754
#####	30,158	1,772
#####	30,773	1,789
#####	31,397	1,809
#####	32,023	1,828
#####	32,558	1,847
#####	33,318	1,869
#####	33,923	1,888
#####	34,686	1,906
#####	35,398	1,927
#####	36,123	1,945
#####	36,858	1,962
#####	37,636	1,979
#####	38,419	1,995
#####	39,280	2,010
#####	40,155	2,024
#####	41,026	2,034
#####	41,906	2,046
#####	42,808	2,057
#####	43,723	2,071
#####	44,648	2,081
#####	45,567	2,091
#####	46,516	2,108
#####	47,476	2,127
#####	48,441	2,147
#####	49,439	2,167
#####	50,465	2,201
#####	51,485	2,229
#####	52,563	2,257
#####	53,631	2,283
#####	54,712	2,305
#####	55,822	2,326
#####	56,874	2,348
#####	57,982	2,372
#####	59,126	2,396
#####	60,285	2,418
#####	61,438	2,441
#####	62,574	2,465
#####	63,575	2,487
#####	64,684	2,509
#####	65,704	2,534
#####	66,777	2,557

#####	67,811	2,584
#####	68,885	2,606
#####	69,986	2,629
#####	71,064	2,654
#####	72,120	2,674
#####	73,163	2,695
#####	74,318	2,713
#####	75,408	2,731
#####	76,480	2,746
#####	77,559	2,765
#####	78,680	2,785
#####	79,710	2,800
#####	80,802	2,820
#####	81,942	2,837
#####	83,107	2,853
#####	84,311	2,867
#####	85,523	2,881
#####	86,624	2,895
#####	87,691	2,908
#####	88,805	2,928
#####	89,994	2,945
#####	91,179	2,962
#####	92,452	2,976
#####	93,734	2,989
#####	95,009	3,006
#####	96,300	3,020
#####	97,629	3,034
#####	98,888	3,046
#####	1,00,213	3,062
#####	1,01,533	3,076
#####	1,02,844	3,091
#####	1,04,179	3,105
#####	1,05,509	3,120
#####	1,06,804	3,133
#####	1,08,133	3,149
#####	1,09,465	3,164
#####	1,10,809	3,180
#####	1,12,174	3,195
#####	1,13,500	3,210
#####	1,14,834	3,227
#####	1,16,183	3,244
#####	1,17,547	3,256
#####	1,18,926	3,270
#####	1,20,336	3,286
#####	1,21,768	3,302
#####	1,23,175	3,319
#####	1,24,605	3,336

#####	1,26,007	3,352
#####	1,27,379	3,367
#####	1,28,787	3,381
#####	1,30,229	3,393
#####	1,31,646	3,406
#####	1,33,057	3,416
#####	1,34,461	3,428
#####	1,35,842	3,439
#####	1,37,232	3,450
#####	1,38,583	3,460
#####	1,39,893	3,475
#####	1,41,236	3,487
#####	1,42,538	3,496
#####	1,43,865	3,509
#####	1,45,200	3,519
#####	1,46,511	3,528
#####	1,47,789	3,538
#####	1,49,032	3,547
#####	1,50,253	3,557
#####	1,51,434	3,566
#####	1,52,603	3,574
#####	1,53,761	3,584
#####	1,54,936	3,595
#####	1,56,121	3,606
#####	1,57,312	3,617
#####	1,58,473	3,626
#####	1,59,564	3,635
#####	1,60,560	3,643
#####	1,61,686	3,651
#####	1,62,823	3,660
#####	1,63,959	3,667
#####	1,65,071	3,673
#####	1,66,092	3,679
#####	1,67,011	3,686
#####	1,67,919	3,690
#####	1,68,911	3,695
#####	1,69,891	3,701
#####	1,70,878	3,705
#####	1,71,847	3,711
#####	1,72,782	3,716
#####	1,73,642	3,721
#####	1,74,517	3,725
#####	1,75,471	3,731
#####	1,76,446	3,737
#####	1,77,436	3,744
#####	1,78,471	3,748
#####	1,79,517	3,753

#####	1,80,537	3,760
#####	1,81,508	3,765
#####	1,82,557	3,770
#####	1,83,682	3,776
#####	1,84,802	3,782
#####	1,85,954	3,788
#####	1,87,078	3,794
#####	1,88,148	3,800
#####	1,89,074	3,805
#####	1,90,199	3,812
#####	1,91,480	3,820
#####	1,92,820	3,827
#####	1,94,240	3,834
#####	1,95,755	3,843
#####	1,97,250	3,856
#####	1,98,737	3,873
#####	2,00,247	3,889
#####	2,01,787	3,903
#####	2,03,347	3,919
#####	2,04,954	3,935
#####	2,06,552	3,950
#####	2,08,116	3,966
#####	2,09,618	3,986
#####	2,11,095	4,001
#####	2,12,607	4,015
#####	2,14,147	4,028
#####	2,15,657	4,046
#####	2,17,171	4,061
#####	2,18,626	4,078
#####	2,20,006	4,092
#####	2,21,331	4,107
#####	2,22,649	4,120
#####	2,23,919	4,132
#####	2,25,142	4,145
#####	2,26,346	4,157
#####	2,27,521	4,168
#####	2,28,641	4,179
#####	2,29,751	4,190
#####	2,30,911	4,200
#####	2,32,026	4,208
#####	2,33,101	4,217
#####	2,34,127	4,224
#####	2,35,137	4,231
#####	2,36,097	4,238
#####	2,37,085	4,245
#####	2,38,043	4,251
#####	2,39,033	4,259

#####	2,39,943	4,265
#####	2,40,833	4,272
#####	2,41,683	4,279
#####	2,42,493	4,285
#####	2,43,297	4,292
#####	2,44,096	4,299
#####	2,44,876	4,303
#####	2,45,610	4,306
#####	2,46,351	4,311
#####	2,47,066	4,315
#####	2,47,764	4,318
#####	2,48,419	4,322
#####	2,49,084	4,326
#####	2,49,751	4,329
#####	2,50,436	4,332
#####	2,51,111	4,337
#####	2,51,782	4,341
#####	2,52,397	4,344
#####	2,52,999	4,347
#####	2,53,582	4,351
#####	2,54,152	4,354
#####	2,54,687	4,357
#####	2,55,192	4,360
#####	2,55,710	4,362
#####	2,56,205	4,364
#####	2,56,690	4,366
#####	2,57,180	4,368
#####	2,57,651	4,369
#####	2,58,102	4,371
#####	2,58,525	4,372
#####	2,58,935	4,373
#####	2,59,325	4,376
#####	2,59,705	4,378
#####	2,60,058	4,379
#####	2,60,404	4,381
#####	2,60,739	4,382
#####	2,61,062	4,384
#####	2,61,378	4,384
#####	2,61,676	4,385
#####	2,61,961	4,386
#####	2,62,244	4,388
#####	2,62,519	4,389
#####	2,62,786	4,390
#####	2,63,038	4,391
#####	2,63,282	4,392
#####	2,63,514	4,393
#####	2,63,748	4,394

#####	2,64,003	4,394
#####	2,64,288	4,396
#####	2,64,556	4,397
#####	2,64,835	4,397
#####	2,65,082	4,398
#####	2,65,331	4,398
#####	2,65,594	4,399
#####	2,65,872	4,400
#####	2,66,135	4,400
#####	2,66,401	4,401
#####	2,66,659	4,401
#####	2,66,942	4,402
#####	2,67,257	4,403
#####	2,67,605	4,403
#####	2,67,985	4,404
#####	2,68,409	4,405
#####	2,68,869	4,405
#####	2,69,320	4,406
#####	2,69,727	4,407
#####	2,70,154	4,408
#####	2,70,608	4,408
#####	2,71,083	4,409
#####	2,71,563	4,409
#####	2,72,078	4,410
#####	2,72,649	4,411
#####	2,73,224	4,412
#####	2,73,779	4,413
#####	2,74,360	4,415
#####	2,75,035	4,415
#####	2,75,745	4,415
#####	2,76,460	4,417
#####	2,77,235	4,419
#####	2,78,045	4,421
#####	2,78,935	4,422
#####	2,79,889	4,424
#####	2,81,011	4,427
#####	2,82,287	4,430
#####	2,83,702	4,434
#####	2,85,267	4,440
#####	2,86,847	4,447
#####	2,88,487	4,451
#####	2,90,217	4,455
#####	2,92,007	4,463
#####	2,93,968	4,470
#####	2,96,158	4,476
#####	2,98,434	4,481
#####	3,00,704	4,489

#####	3,02,956	4,497
#####	3,05,176	4,507
#####	3,07,536	4,516
#####	3,09,946	4,525
#####	3,12,586	4,536
#####	3,15,401	4,549
#####	3,18,276	4,563
#####	3,21,436	4,578
#####	3,24,716	4,595
#####	3,28,291	4,617
#####	3,32,312	4,652
#####	3,36,853	4,694
#####	3,41,864	4,743
#####	3,47,333	4,797
#####	3,53,354	4,852
#####	3,60,044	4,919
#####	3,67,454	4,992
#####	3,75,606	5,073
#####	3,84,526	5,167
#####	3,94,067	5,264
#####	4,04,407	5,374
#####	4,15,810	5,491
#####	4,28,016	5,612
#####	4,40,569	5,737
#####	4,53,674	5,874
#####	4,67,478	6,016
#####	4,81,575	6,168
#####	4,95,871	6,325
#####	5,10,211	6,483
#####	5,24,563	6,653
#####	5,38,683	6,827
#####	5,53,010	7,007
#####	5,67,615	7,180
#####	5,81,462	7,352
#####	5,94,440	7,505
#####	6,07,260	7,645
#####	6,20,310	7,776
#####	6,33,265	7,909
#####	6,45,810	8,032
#####	6,57,874	8,151
#####	6,69,766	8,270
#####	6,80,850	8,391
#####	6,92,442	8,508

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Ahmedabad	207138	54722	149288	3128	4060936	62604
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Botad	2000	399	1561	40	156441	981
Chhota Udaipur	2829	630	2169	30	147640	980
Dahod	8281	1618	6631	32	367466	14712
Dang	740	129	597	14	50661	901
Devbhoomi	2783	1065	1663	55	134804	34
Gandhinagar	17911	3074	14666	171	522261	13085
Gir Somnath	5998	1861	4094	43	206204	806
Jamnagar	29630	5809	23465	356	537645	28294
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Kheda	7931	1126	6771	34	368012	8042
Mahisagar	6355	2094	4213	48	211111	978
Mehsana	21053	5590	15345	118	387464	1436
Morbi	6025	929	5012	84	270689	838
Narmada	4935	1128	3798	9	150504	933
Navsari	5489	1386	4087	16	243185	8563
Panchmahal	8810	2026	6735	49	279212	4409
Patan	9990	1534	8355	101	232034	1437
Porbandar	1815	310	1494	11	151446	1310
Rajkot	49656	4226	44825	605	1430825	37384
Sabarkantha	6887	1735	5028	124	277321	3137
Surat	129818	12661	115424	1733	4090780	31145
Surendranagar	7257	1168	5962	127	304868	16872
Tapi	3926	1346	2565	15	151998	724
Vadodara	61156	10318	50198	640	1202040	10039
Valsad	4503	1320	3145	38	278500	14025