In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import plotly.express as px
```

In [2]:
```
df=pd.read_csv('unemployment.csv')
df
```

Out[2]:

	Region	Date	Frequency	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	Region.1	longitude	latitude
0	Andhra Pradesh	31-01-2020	M	5.48	16635535	41.02	South	15.9129	79.740
1	Andhra Pradesh	29-02-2020	M	5.83	16545652	40.90	South	15.9129	79.740
2	Andhra Pradesh	31-03-2020	M	5.79	15881197	39.18	South	15.9129	79.740
3	Andhra Pradesh	30-04-2020	M	20.51	11336911	33.10	South	15.9129	79.740
4	Andhra Pradesh	31-05-2020	M	17.43	12988845	36.46	South	15.9129	79.740
...	...	...	...	...	...	...	...	...	...
262	West Bengal	30-06-2020	M	7.29	30726310	40.39	East	22.9868	87.855
263	West Bengal	31-07-2020	M	6.83	35372506	46.17	East	22.9868	87.855
264	West Bengal	31-08-2020	M	14.87	33298644	47.48	East	22.9868	87.855
265	West Bengal	30-09-2020	M	9.35	35707239	47.73	East	22.9868	87.855
266	West Bengal	31-10-2020	M	9.98	33962549	45.63	East	22.9868	87.855

267 rows × 9 columns

In [3]:
```
df.head()
```

Out[3]:

	Region	Date	Frequency	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	Region.1	longitude	latitude
0	Andhra Pradesh	31-01-2020	M	5.48	16635535	41.02	South	15.9129	79.74
1	Andhra Pradesh	29-02-2020	M	5.83	16545652	40.90	South	15.9129	79.74
2	Andhra Pradesh	31-03-2020	M	5.79	15881197	39.18	South	15.9129	79.74
3	Andhra Pradesh	30-04-2020	M	20.51	11336911	33.10	South	15.9129	79.74
4	Andhra Pradesh	31-05-2020	M	17.43	12988845	36.46	South	15.9129	79.74

In [4]:
```
df.tail()
```

Out[4]:

	Region	Date	Frequency	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	Region.1	longitude	latitude
262	West Bengal	30-06-2020	M	7.29	30726310	40.39	East	22.9868	87.855
263	West Bengal	31-07-2020	M	6.83	35372506	46.17	East	22.9868	87.855
264	West Bengal	31-08-2020	M	14.87	33298644	47.48	East	22.9868	87.855
265	West Bengal	30-09-2020	M	9.35	35707239	47.73	East	22.9868	87.855
266	West Bengal	31-10-2020	M	9.98	33962549	45.63	East	22.9868	87.855

In [5]:
```
df.shape
```

Out[5]:
```
(267, 9)
```

In [6]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 267 entries, 0 to 266
Data columns (total 9 columns):
 #   Column                                   Non-Null Count  Dtype
---  ------                                   --------------  -----
 0   Region                                   267 non-null    object
 1   Date                                     267 non-null    object
 2    Frequency                               267 non-null    object
 3    Estimated Unemployment Rate (%)         267 non-null    float64
 4    Estimated Employed                      267 non-null    int64
 5    Estimated Labour Participation Rate (%) 267 non-null    float64
 6   Region.1                                 267 non-null    object
 7   longitude                                267 non-null    float64
 8   latitude                                 267 non-null    float64
dtypes: float64(4), int64(1), object(4)
memory usage: 18.9+ KB
```

In [7]:
```
df.describe()
```

Out[7]:

	Estimated Unemployment Rate (%)	Estimated Employed	Estimated Labour Participation Rate (%)	longitude	latitude
count	267.000000	2.670000e+02	267.000000	267.000000	267.000000
mean	12.236929	1.396211e+07	41.681573	22.826048	80.532425
std	10.803283	1.336632e+07	7.845419	6.270731	5.831738
min	0.500000	1.175420e+05	16.770000	10.850500	71.192400
25%	4.845000	2.838930e+06	37.265000	18.112400	76.085600
50%	9.650000	9.732417e+06	40.390000	23.610200	79.019300
75%	16.755000	2.187869e+07	44.055000	27.278400	85.279900
max	75.850000	5.943376e+07	69.690000	33.778200	92.937600

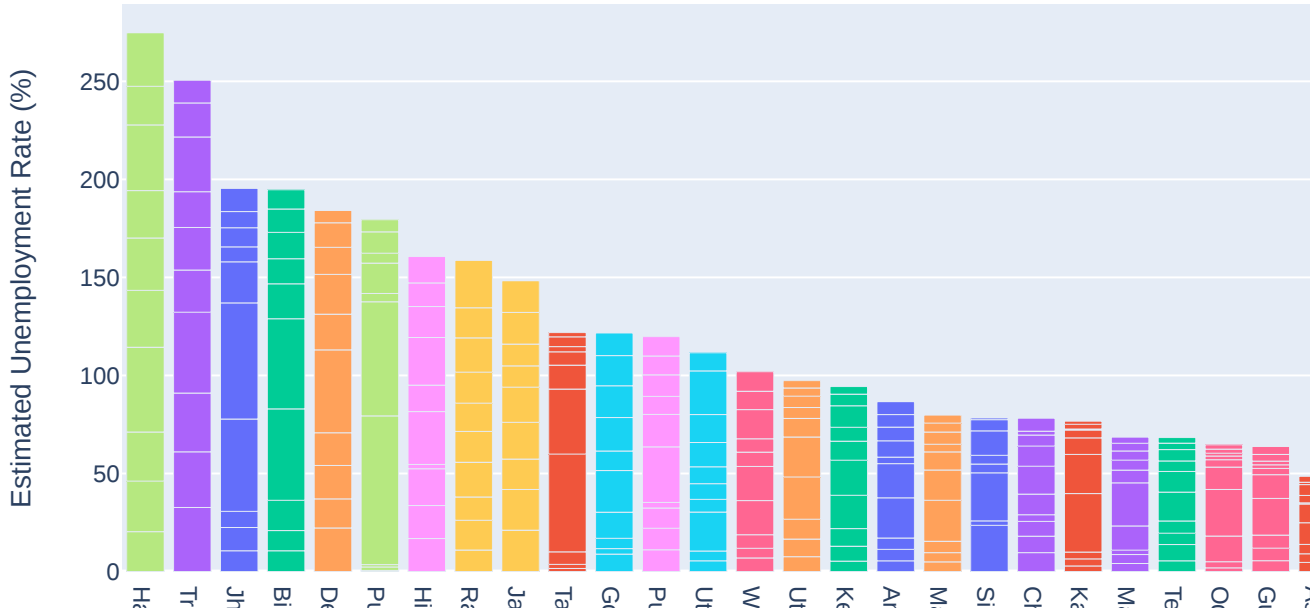
In [8]:
```
x= df['Region']
x
```

Out[8]:
```
0      Andhra Pradesh
1      Andhra Pradesh
2      Andhra Pradesh
3      Andhra Pradesh
4      Andhra Pradesh
           ...
262       West Bengal
263       West Bengal
264       West Bengal
265       West Bengal
266       West Bengal
Name: Region, Length: 267, dtype: object
```

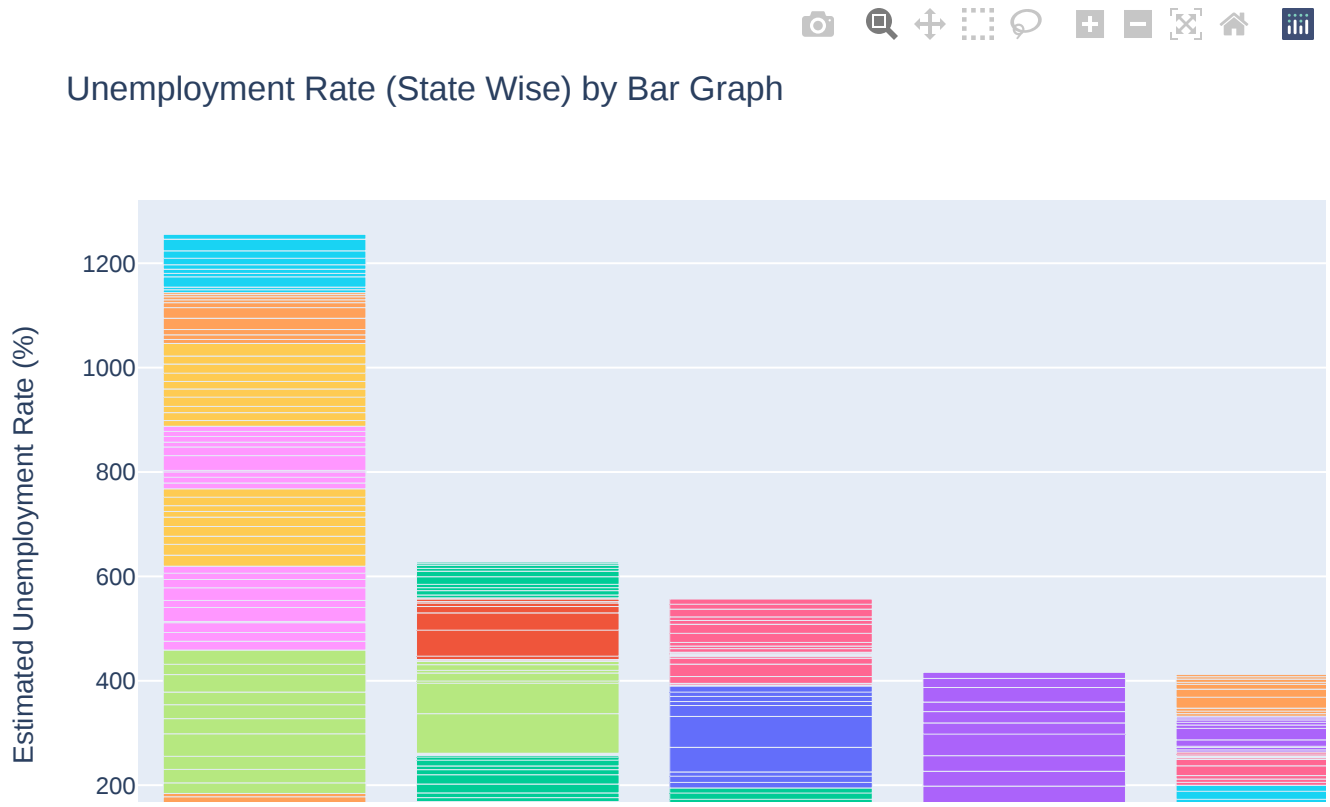
In [9]:
```
y=df[' Estimated Unemployment Rate (%)']
y
```

Out[9]:
```
0       5.48
1       5.83
2       5.79
3      20.51
4      17.43
       ...
262     7.29
263     6.83
264    14.87
265     9.35
266     9.98
Name:  Estimated Unemployment Rate (%), Length: 267, dtype: float64
```

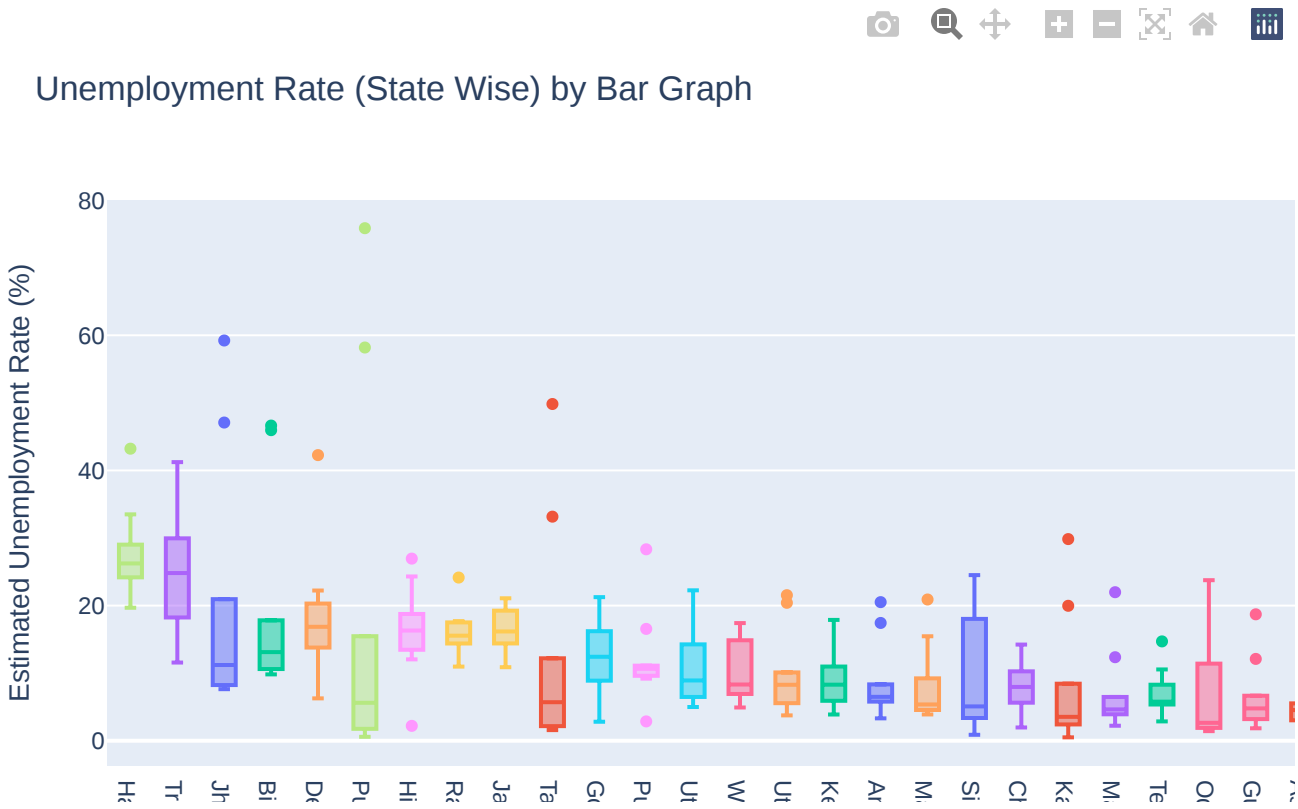
In [10]:
```
fg=px.bar(df,x='Region',y=' Estimated Unemployment Rate (%)',color='Region',
          title='Unemployment Rate (State Wise) by Bar Graph',template='plotly')
fg.update_layout(xaxis={'categoryorder':'total descending'})
fg.show()
```



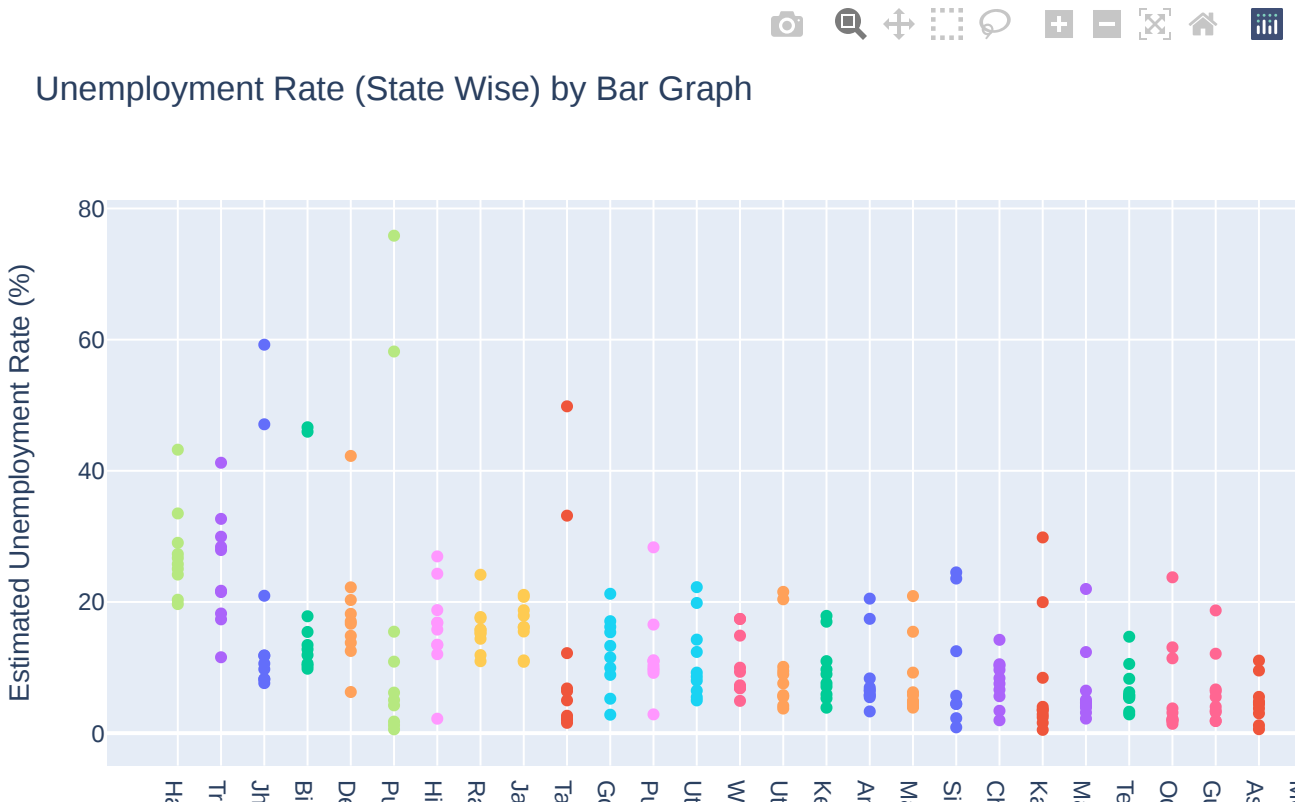
In [11]:
```
fg=px.bar(df,x='Region.1',y=' Estimated Unemployment Rate (%)',color='Region',      #bar
          title='Unemployment Rate (State Wise) by Bar Graph',template='plotly')
fg.update_layout(xaxis={'categoryorder':'total descending'})
fg.show()
```



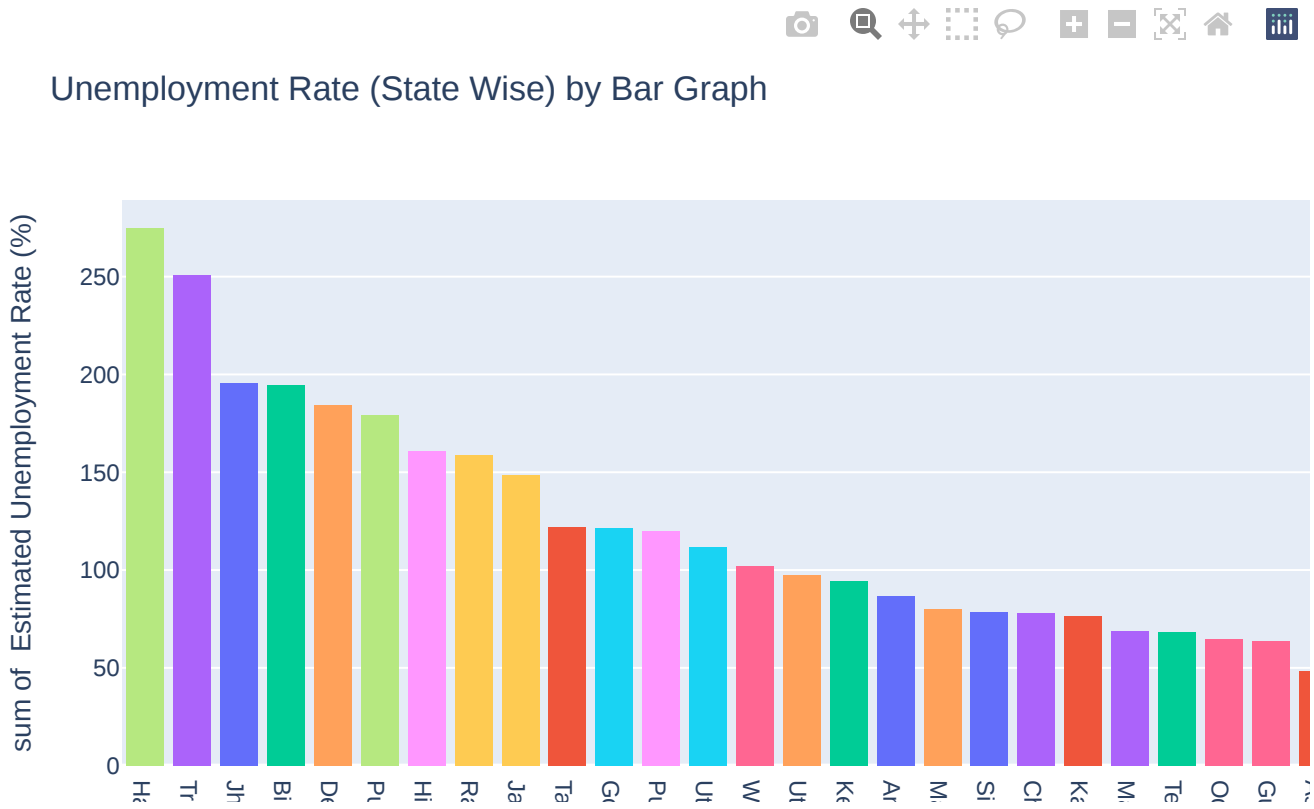
In [12]:
```
fg=px.box(df,x='Region',y=' Estimated Unemployment Rate (%)',color='Region',    #box plo
          title='Unemployment Rate (State Wise) by Bar Graph',template='plotly')
fg.update_layout(xaxis={'categoryorder':'total descending'})
fg.show()
```



In [14]:
```
fg=px.scatter(df,x='Region',y=' Estimated Unemployment Rate (%)',color='Region',      #sc
              title='Unemployment Rate (State Wise) by Bar Graph',template='plotly')
fg.update_layout(xaxis={'categoryorder':'total descending'})
fg.show()
```



In [15]:
```
fg=px.histogram(df,x='Region',y=' Estimated Unemployment Rate (%)',color='Region',     #h
          title='Unemployment Rate (State Wise) by Bar Graph',template='plotly')
fg.update_layout(xaxis={'categoryorder':'total descending'})
fg.show()
```



In [ ]: