

1.IMPORTING LIBRARIES

In [1]:

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

2.Importing dataset

In [2]:

```
data=pd.read_csv(r"C:\Users\user\Downloads\bs.csv")
data
```

Out[2]:

	id	diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	cor
0	842302	M	17.99	10.38	122.80	1001.0	0.11840	
1	842517	M	20.57	17.77	132.90	1326.0	0.08474	
2	84300903	M	19.69	21.25	130.00	1203.0	0.10960	
3	84348301	M	11.42	20.38	77.58	386.1	0.14250	
4	84358402	M	20.29	14.34	135.10	1297.0	0.10030	
...
564	926424	M	21.56	22.39	142.00	1479.0	0.11100	
565	926682	M	20.13	28.25	131.20	1261.0	0.09780	
566	926954	M	16.60	28.08	108.30	858.1	0.08455	
567	927241	M	20.60	29.33	140.10	1265.0	0.11780	
568	92751	B	7.76	24.54	47.92	181.0	0.05263	

569 rows × 32 columns

3.head

In [3]:

```
data.head(8)
```

Out[3]:

	id	diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	cor
0	842302	M	17.99	10.38	122.80	1001.0	0.11840	
1	842517	M	20.57	17.77	132.90	1326.0	0.08474	
2	84300903	M	19.69	21.25	130.00	1203.0	0.10960	
3	84348301	M	11.42	20.38	77.58	386.1	0.14250	

	id	diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	com
4	84358402	M	20.29	14.34	135.10	1297.0	0.10030	
5	843786	M	12.45	15.70	82.57	477.1	0.12780	
6	844359	M	18.25	19.98	119.60	1040.0	0.09463	
7	84458202	M	13.71	20.83	90.20	577.9	0.11890	

8 rows × 32 columns

4.tail

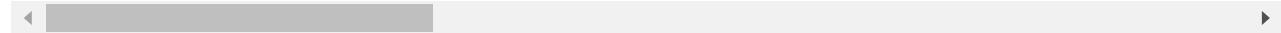
In [4]:

```
data.tail(7)
```

Out[4]:

	id	diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	com
562	925622	M	15.22	30.62	103.40	716.9	0.10480	
563	926125	M	20.92	25.09	143.00	1347.0	0.10990	
564	926424	M	21.56	22.39	142.00	1479.0	0.11100	
565	926682	M	20.13	28.25	131.20	1261.0	0.09780	
566	926954	M	16.60	28.08	108.30	858.1	0.08455	
567	927241	M	20.60	29.33	140.10	1265.0	0.11780	
568	92751	B	7.76	24.54	47.92	181.0	0.05263	

7 rows × 32 columns



5.describe()

In [5]:

```
data.describe()
```

Out[5]:

	id	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	com
count	5.690000e+02	569.000000	569.000000	569.000000	569.000000	569.000000	
mean	3.037183e+07	14.127292	19.289649	91.969033	654.889104	0.096360	
std	1.250206e+08	3.524049	4.301036	24.298981	351.914129	0.014064	
min	8.670000e+03	6.981000	9.710000	43.790000	143.500000	0.052630	
25%	8.692180e+05	11.700000	16.170000	75.170000	420.300000	0.086370	
50%	9.060240e+05	13.370000	18.840000	86.240000	551.100000	0.095870	

	id	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	compactness_mean
75%	8.813129e+06	15.780000	21.800000	104.100000	782.700000	0.105300	
max	9.113205e+08	28.110000	39.280000	188.500000	2501.000000	0.163400	

8 rows × 31 columns

6.shape()

In [6]:

```
np.shape(data)
```

Out[6]: (569, 32)

7.size()

In [7]:

```
np.size(data)
```

Out[7]: 18208

8.isna()

In [8]:

```
data.isna()
```

Out[8]:

	id	diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	compactness_mean
0	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False
...
564	False	False	False	False	False	False	False	False
565	False	False	False	False	False	False	False	False
566	False	False	False	False	False	False	False	False
567	False	False	False	False	False	False	False	False
568	False	False	False	False	False	False	False	False

569 rows × 32 columns

9.dropna

In [9]:

```
data.dropna()
```

Out[9]:

	id	diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	...
0	842302	M	17.99	10.38	122.80	1001.0	0.11840	
1	842517	M	20.57	17.77	132.90	1326.0	0.08474	
2	84300903	M	19.69	21.25	130.00	1203.0	0.10960	
3	84348301	M	11.42	20.38	77.58	386.1	0.14250	
4	84358402	M	20.29	14.34	135.10	1297.0	0.10030	
...
564	926424	M	21.56	22.39	142.00	1479.0	0.11100	
565	926682	M	20.13	28.25	131.20	1261.0	0.09780	
566	926954	M	16.60	28.08	108.30	858.1	0.08455	
567	927241	M	20.60	29.33	140.10	1265.0	0.11780	
568	92751	B	7.76	24.54	47.92	181.0	0.05263	

569 rows × 32 columns

10.selecting specific column

In [10]:

```
da=data[["id","diagnosis"]]
da
```

Out[10]:

	id	diagnosis
0	842302	M
1	842517	M
2	84300903	M
3	84348301	M
4	84358402	M
...
564	926424	M
565	926682	M

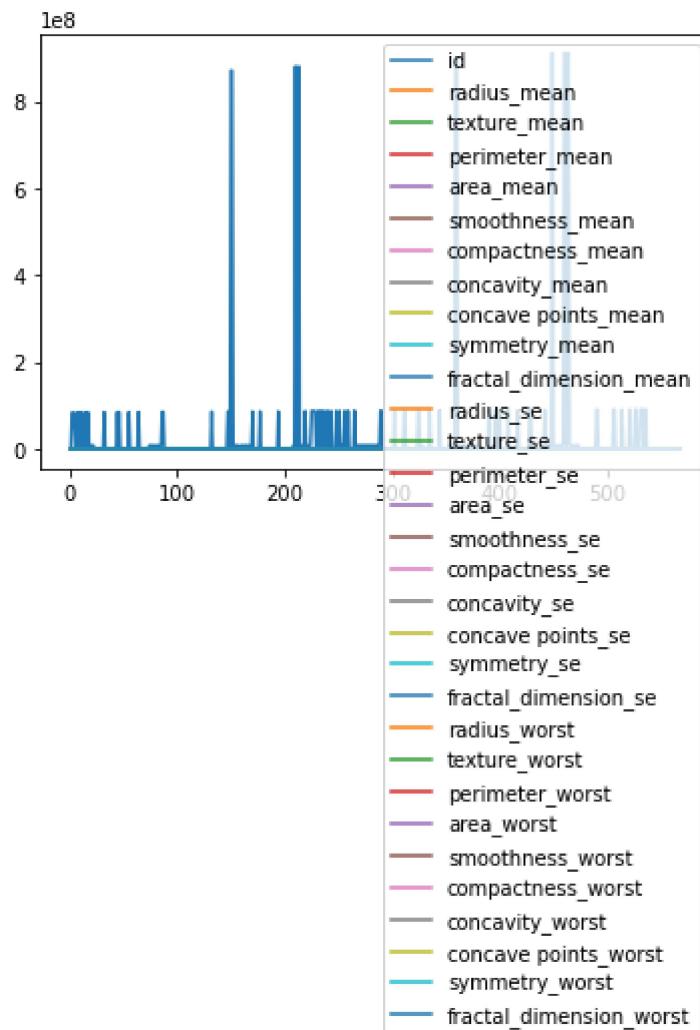
	id	diagnosis
566	926954	M
567	927241	M
568	92751	B

569 rows × 2 columns

11.line plot

In [11]: `data.plot.line()`

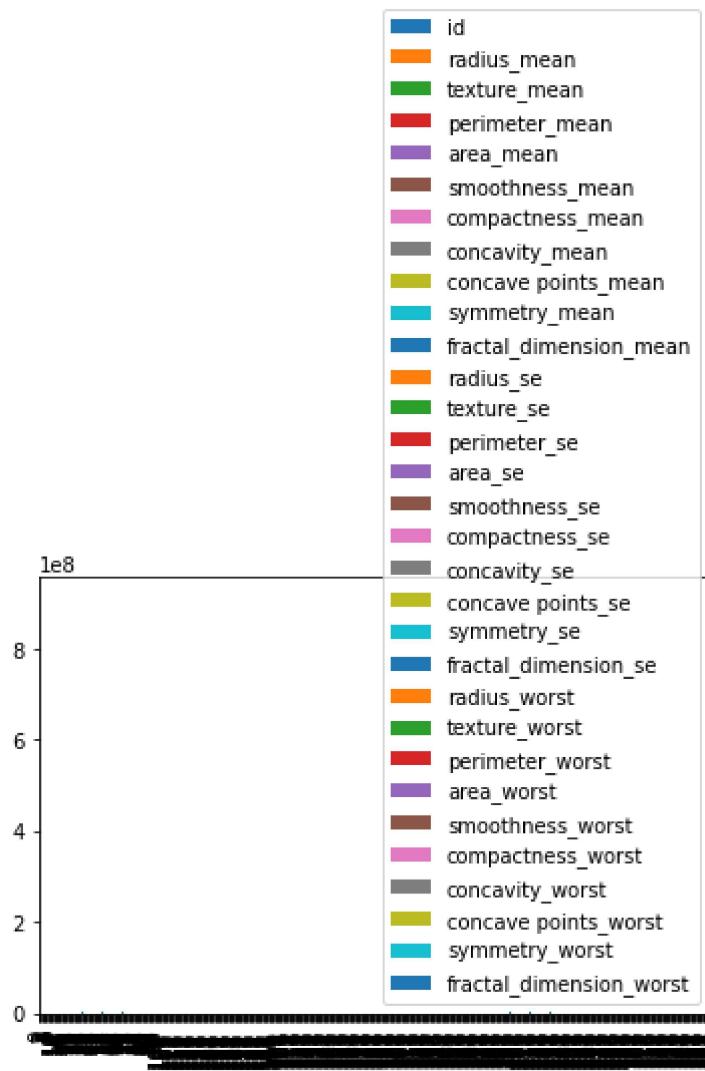
Out[11]: <AxesSubplot:>



12.bar plot

In [12]: `data.plot.bar()`

Out[12]: <AxesSubplot:>

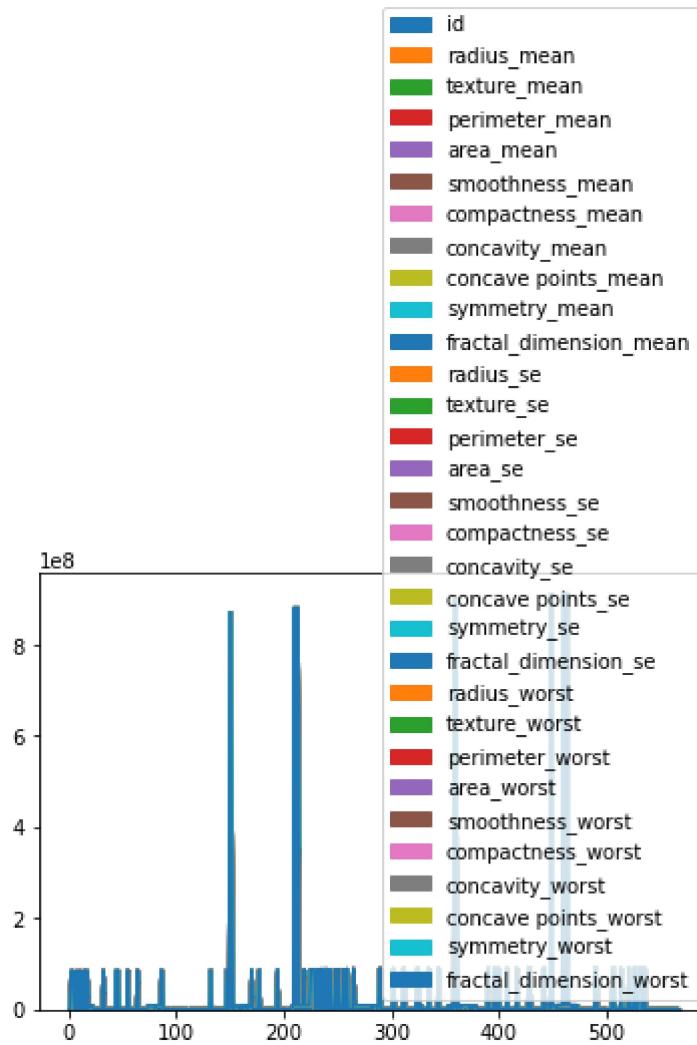


13.area plot

In [13]:

```
data.plot.area()
```

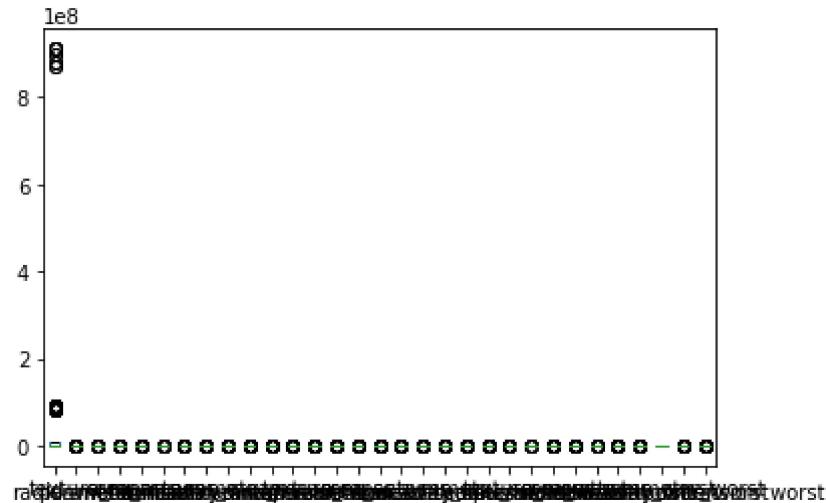
Out[13]: <AxesSubplot:>



14.box plot

```
In [14]: data.plot.box()
```

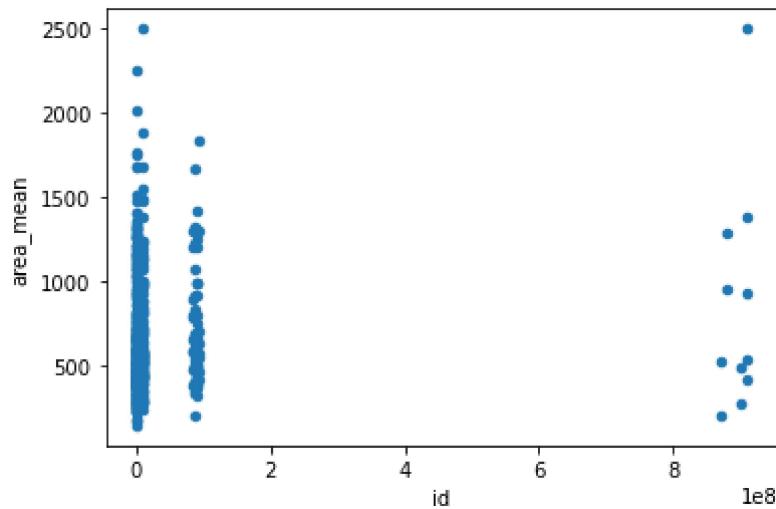
```
Out[14]: <AxesSubplot:>
```



15.scatter plot

```
In [15]: data.plot.scatter("id", "area_mean")
```

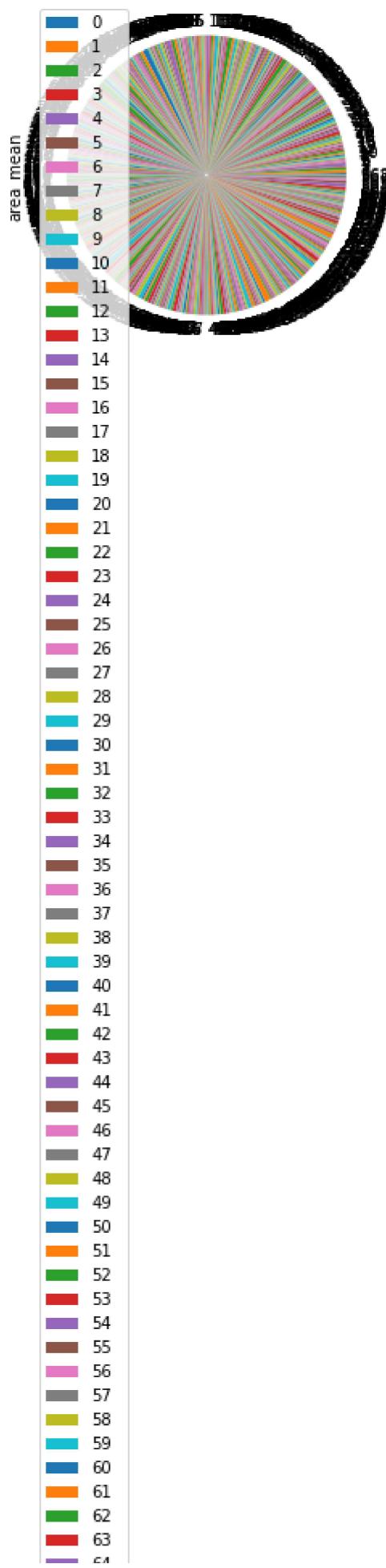
```
Out[15]: <AxesSubplot:xlabel='id', ylabel='area_mean'>
```



16.pie plot

```
In [16]: data.plot.pie(y="area_mean")
```

```
Out[16]: <AxesSubplot:ylabel='area_mean'>
```

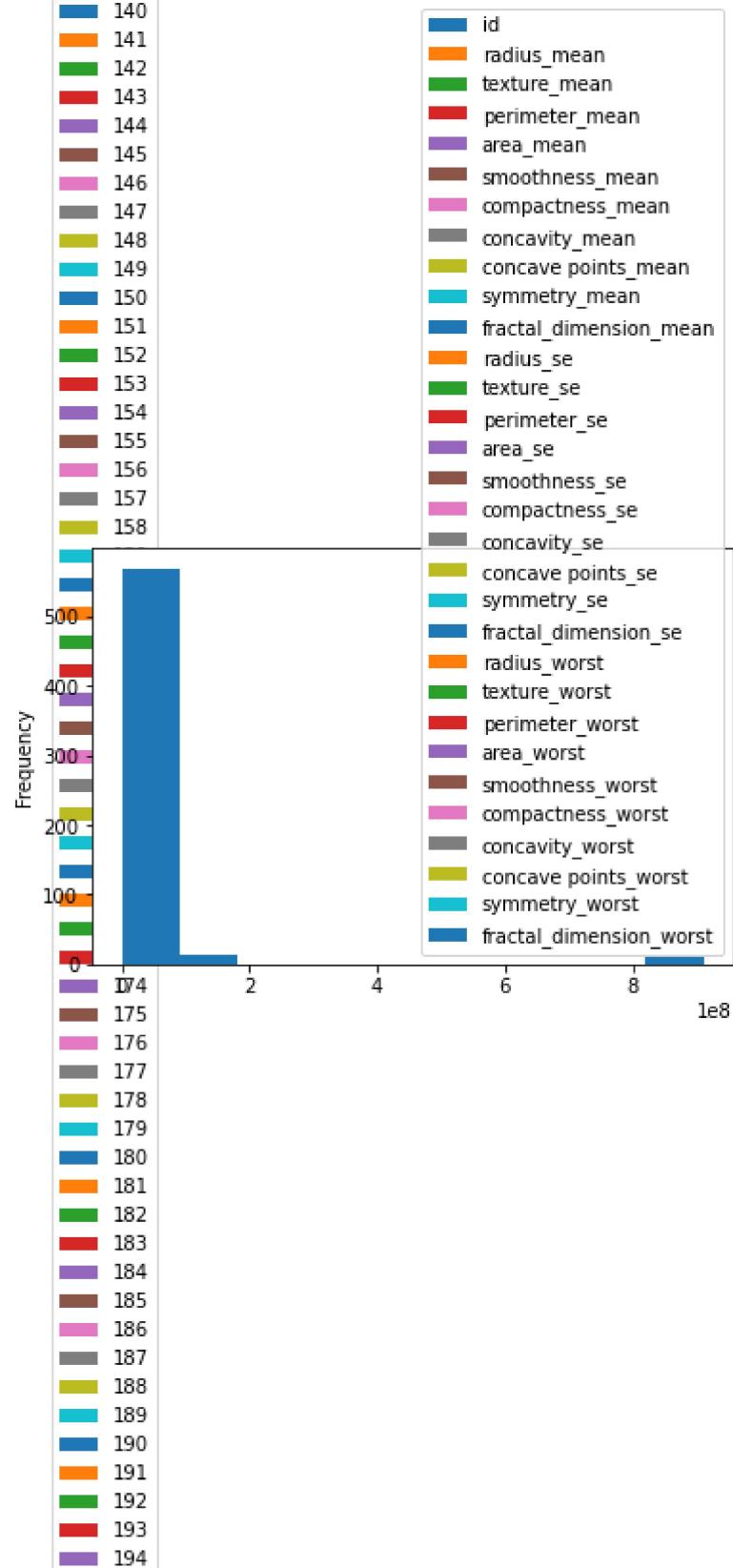


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17.histogram

```
In [17]: data.plot.hist()
```

```
Out[17]: <AxesSubplot:ylabel='Frequency'>
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