```
from sklearn import preprocessing
import numpy as np
x_array=np.array([2,3,5,6,7,4,8,7,6])
normalized_arr=preprocessing.normalize([x_array])
print(normalized_arr)
```

```
[[0.11785113 0.1767767  0.29462783 0.35355339 0.41247896 0.23570226
  0.47140452 0.41247896 0.35355339]]
```

```
from google.colab import files
uploaded=files.upload()
```

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```
Saving housing.csv to housing.csv
```

```
from sklearn import preprocessing
import pandas as pd
housing=pd.read_csv("/content/sample_data/california_housing_train.csv")
scaler =preprocessing.MinMaxScaler()
names=housing.columns
d=scaler.fit_transform(housing)
scaler_df=pd.DataFrame(d,columns=names)
scaler_df.head()
```

	longitude	latitude	housing_median_age	total_rooms	total_bedrooms	population	households	median_income	median_house_val
0	1.000000	0.175345	0.274510	0.147885	0.198945	0.028364	0.077454	0.068530	0.1070
1	0.984064	0.197662	0.352941	0.201608	0.294848	0.031559	0.075974	0.091040	0.1342
2	0.975100	0.122210	0.313725	0.018927	0.026847	0.009249	0.019076	0.079378	0.1457
3	0.974104	0.116897	0.254902	0.039515	0.052142	0.014350	0.037000	0.185639	0.1204
4	0.974104	0.109458	0.372549	0.038276	0.050435	0.017405	0.042921	0.098281	0.1041

```
scaler_df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 17000 entries, 0 to 16999
Data columns (total 9 columns):
 #   Column              Non-Null Count  Dtype  
---  ------              --------------  -----  
 0   longitude           17000 non-null  float64
 1   latitude            17000 non-null  float64
 2   housing_median_age  17000 non-null  float64
 3   total_rooms         17000 non-null  float64
 4   total_bedrooms      17000 non-null  float64
 5   population          17000 non-null  float64
 6   households          17000 non-null  float64
 7   median_income       17000 non-null  float64
 8   median_house_value  17000 non-null  float64
dtypes: float64(9)
memory usage: 1.2 MB
```

```
scaler_df.isnull().sum()
```

```
longitude             0
latitude              0
housing_median_age    0
total_rooms           0
total_bedrooms        0
population            0
households            0
median_income         0
median_house_value    0
dtype: int64
```

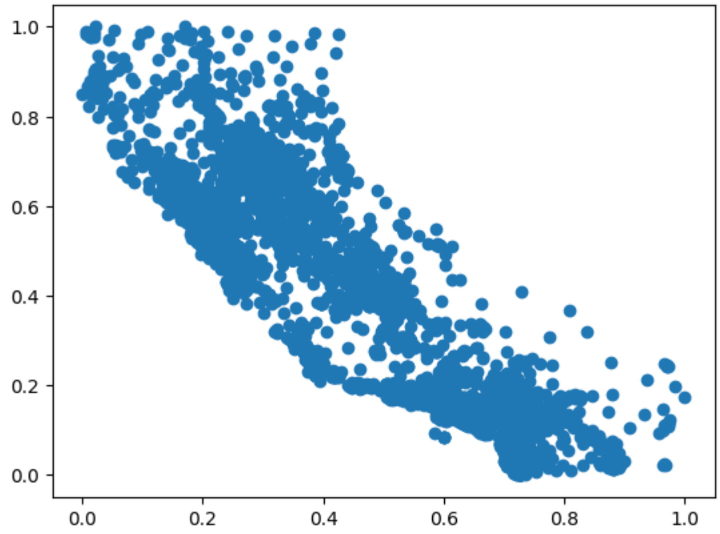
```
scaler_df.describe()
```

	longitude	latitude	housing_median_age	total_rooms	total_bedrooms	population	households	median_income	me
count	17000.000000	17000.000000	17000.000000	17000.000000	17000.000000	17000.000000	17000.000000	17000.000000	
mean	0.476882	0.327867	0.540968	0.069637	0.083552	0.039984	0.082260	0.233354	
std	0.199718	0.227135	0.246803	0.057465	0.065410	0.032172	0.063233	0.131595	

```
import matplotlib.pyplot as plt
x=([scaler_df.longitude])
y=([scaler_df.latitude])

plt.scatter(x,y)
plt.plot()
```

```
    []
```



```
from google.colab import files
uploaded=files.upload()
```

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```
Saving mark (1).csv to mark (1).csv
```

```
from google.colab import files
uploaded=files.upload()
```

Choose Files No file chosen Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

```
Saving student (1).csv to student (1).csv
```

```
student=pd.read_csv("/content/student (1).csv")
mark=pd.read_csv("/content/mark (1).csv")
```

```
merged=pd.merge(mark,student,on="Student_id")
merged.head()
```

	Student_id	Mark	City	Age	Gender	Grade	Employed
0	1	95	Chennai	19	Male	1st Class	yes
1	2	70	Delhi	20	Female	2nd Class	no
2	3	98	Mumbai	18	Male	1st Class	no
3	4	75	Pune	21	Female	2nd Class	no
4	5	89	Kochi	19	Male	1st Class	no

```
merged.isnull().sum()
```

```
    Student_id    0
    Mark          0
    City          0
    Age           0
    Gender        0
    Grade         0
    Employed      0
    dtype: int64
```

```
merged.describe()
```

	Student_id	Mark	Age
count	232.000000	232.000000	232.000000
mean	116.500000	71.400862	19.896552
std	67.116814	17.116069	1.030944
min	1.000000	40.000000	18.000000
25%	58.750000	55.000000	19.000000
50%	116.500000	75.000000	20.000000
75%	174.250000	85.250000	21.000000
max	232.000000	100.000000	22.000000