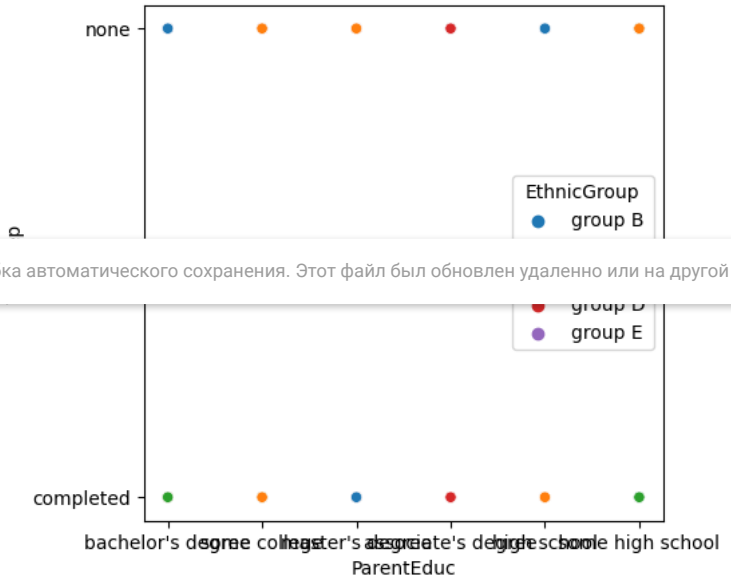
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
import seaborn as sns


df=pd.read_csv("Original_data_with_more_rows.csv")
df
```

	Unnamed: 0	Gender	EthnicGroup	ParentEduc	LunchType	TestPrep	MathScore
0	0	female	group B	bachelor's degree	standard	none	72
1	1	female	group C	some college	standard	completed	69
2	2	female	group B	master's degree	standard	none	90
3	3	male	group A	associate's degree	free/reduced	none	47
4	4	male	group C	some college	standard	none	76
...	...	...	...	...	...	...	...
30636	995	male	group C	some high school	standard	none	56
30637	996	male	group E	associate's	free/reduced	none	74

```
plt.figure(figsize=(5,5))
sns.scatterplot(data=df,x='ParentEduc',y='TestPrep',hue='EthnicGroup')
plt.show()
```




```
x=np.arange(1,10)
x
```

```
array([1, 2, 3, 4, 5, 6, 7, 8, 9])
```

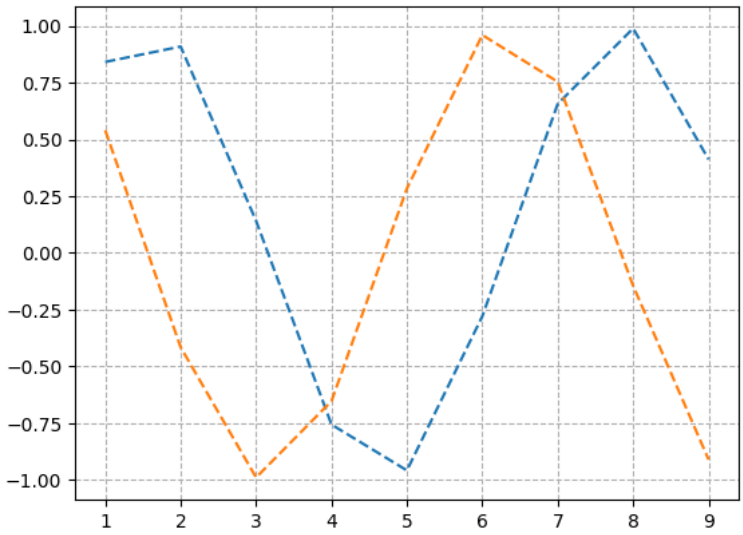
```
sin=np.sin(x)
sin
```

```
array([ 0.84147098,  0.90929743,  0.14112001, -0.7568025 , -0.95892427,
       -0.2794155 ,  0.6569866 ,  0.98935825,  0.41211849])
```

```
cos=np.cos(x)
cos
```

```
array([ 0.54030231, -0.41614684, -0.9899925 , -0.65364362,  0.28366219,
        0.96017029,  0.75390225, -0.14550003, -0.91113026])
```

```
plt.plot(x,sin,x,cos,linestyle='--')
plt.grid(linestyle='--')
```




```
plt.subplot(1,2,1)
plt.plot(x,sin)
plt.subplot(1,2,2)
plt.plot(x,cos)
```

```
[<matplotlib.lines.Line2D at 0x7efc3a20d270>]
```