```
In [1]:
           # Date: - 12/07/2021
           # Assignment 3
           # Name: - Adsul Gokul Babasaheb
           #Email:- gokuladsul474@gmail.com
In [29]:
           import numpy as np
           import pandas as pd
           import seaborn as sns
           import matplotlib.pyplot as plt
           from numpy.random import randn
           %matplotlib inline
In [30]:
           fmri = sns.load_dataset('fmri')
           fmri.head(10)
             subject timepoint event region
Out[30]:
                                               signal
                                    parietal -0.017552
                s13
                           18
                                stim
                 s5
                           14
                                stim
                                    parietal
                                            -0.080883
          2
                s12
                           18
                                            -0.081033
                                    parietal
                                stim
          3
                                           -0.046134
                s11
                           18
                                stim
                                     parietal
          4
                s10
                           18
                                stim
                                    parietal
                                            -0.037970
          5
                 s9
                           18
                                           -0.103513
                                    parietal
                                stim
```

```
sns.relplot(x = 'timepoint', y = 'signal', data=fmri, hue='region', style='event')
plt.title('Relation between timepoint and signal')
```

Out[31]: Text(0.5, 1.0, 'Relation between timepoint and signal')

-0.064408

-0.060526

-0.007029

parietal -0.040557

6

8

s8

s7

s6

s5

18

18

18

18

stim

stim

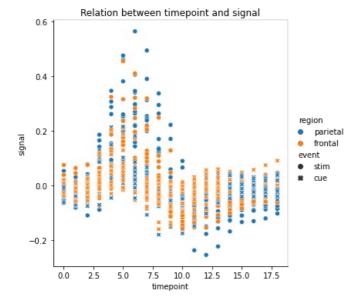
stim

stim

parietal

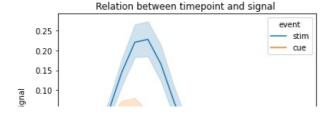
parietal

parietal



```
sns.lineplot(x = 'timepoint', y = 'signal',data=fmri, hue = 'event')
plt.title('Relation between timepoint and signal ')
```

Out[32]: Text(0.5, 1.0, 'Relation between timepoint and signal ')



```
0.05

-0.05

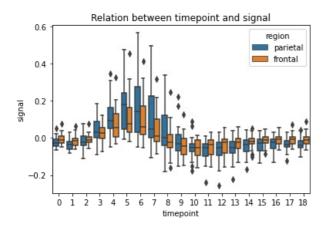
-0.10

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5

timepoint
```

```
In [33]:
    sns.boxplot(data = fmri, x = 'timepoint', y = 'signal', hue = 'region')
    plt.title('Relation between timepoint and signal')
```

Out[33]: Text(0.5, 1.0, 'Relation between timepoint and signal')



In []:

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