```
data visualization
```

plt.style.use('fivethirtyeight')

Out[52]: Text(0.5, 1.0, 'num orders Distribution')

```
plt.figure(figsize=(12,7))
sns.distplot(trainfinal.num orders, bins = 25)
plt.xlabel("num orders")
plt.ylabel("Number of Buyers")
plt.title("num orders Distribution")
/usr/local/lib/python3.7/dist-packages/seaborn/distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either 'displot' (a figure-level function with similar flexibility) or 'histplot' (an axes-level function fo
r histograms).
 warnings.warn(msg, FutureWarning)
```



```
In [53]:
            trainfinal2 = trainfinal.drop(['id'], axis=1)
            correlation = trainfinal2.corr(method='pearson')
            columns = correlation.nlargest(8, 'num_orders').index
            columns
Out[53]: Index(['num_orders', 'homepage_featured', 'emailer_for_promotion', 'op_area',
                   'city_code', 'region_code', 'week', 'base_price'],
                  dtype='object')
In [54]:
            correlation_map = np.corrcoef(trainfinal2[columns].values.T)
            sns.set(font_scale=1.0)
            heatmap = sns.heatmap(correlation_map, cbar=True, annot=True, square=True, fmt='.2f', yticklabels=columns.values, xticklabels=columns.values)
            plt.show()
                                                                           - 1.0
                    num orders 1.00 0.29 0.28 0.18 0.04 0.03-0.02-0.22
                                                                           - 0.8
                                0.29 1.00 0.39 0.04 0.01 0.00-0.010.06
             homepage featured
                                0.28 0.39 1.00-0.02-0.01-0.01-0.000.17
           emailer for promotion
                                                                           - 0.6
                        op_area 0.18 0.04-0.02 1.00 0.13 0.02 0.00 0.02
                                                                           -0.4
                       city code 0.04 0.01-0.01 0.13 1.00 0.04 0.00-0.00
                                                                           -0.2
                                0.03 0.00 -0.01 0.02 0.04 1.00 0.00 -0.00
                    region_code
                                -0.02-0.01-0.00 0.00 0.00 0.00 1.00 0.03
                                                                            - 0.0
                      base price -0.22 0.06 0.17 0.02 -0.00-0.00 0.03 1.00
                                                                            -0.2
                                                op_area
                                                     city_code
                                                         region_code
                                       homepage_featured
                                           emailer_for_promotion
```