**Problem​ ​Statement**

Consider a DataFrame df where there is an integer column 'X':

df = pd.DataFrame({'X': [7, 2, 0, 3, 4, 2, 5, 0, 3, 4]})

For each value, count the difference back to the previous zero (or the start of the Series,

whichever is closer).

These values should therefore be [1, 2, 0, 1, 2, 3, 4, 0, 1, 2]. Make this a new column 'Y'.

**Code**

df = pd.DataFrame({'X': [7, 2, 0, 3, 4, 2, 5, 0, 3, 4]})

df = df.assign(Y=df.loc[df.X==0])

nul = df['Y'].isnull()

df.assign(Y=nul.groupby((nul.diff() == 1).cumsum()).cumsum())

**Screenshot**

